



Carmel Mountain Hearing

by Dave Hogan, S.D. Bio-Diversity Project

September 18th, 10:00 a.m., at the San Diego City Council Chambers the next round of the battle to save the endangered species of Carmel Mountain will take place. Pardee Construction continues to push the City's Agriculture Review officer, Kevin Sullivan, for an exemption from the Resource Environmental Protection Ordinance (REPO) so that they may proceed with the grading of Carmel Mountain and "grow some tomatoes." As usual it's the standard developer lies. Pardee simply wants to grade the five endangered habitats and the twenty-plus sensitive species found on this unique mesa into oblivion. That way, when development time rolls around, there won't be anything to stop the cancerous sprawl of North City West.

In early 1991, the California Department of Fish and Games' Land Acquisition Committee voted Carmel Mountain the number-one priority for acquisition in California. This place is that special.

It is extremely important that Friends of Peñasquitos Canyon, Del Mar Mesa and Carmel Mountain attend this hearing and demand that this project not be exempted from REPO.

Other things you can do to save Carmel Mountain:

1. Write to Kevin Sullivan, Planning Director, City of San Diego, 202 "C" St, San Diego, 92101; and repeat the above information. This letter is even more important if you can't make the hearing.

2. Call or write each City Councilmember and mention the above information. If the Agriculture Officer approves the exemption, it then goes to the council for final approval.

3. Join us for a hike on Carmel Mountain on Sunday, September 15, at 9:00 a.m. to learn about this incredible place first-hand. See p. 10 for directions.

Gnatcatcher Protection Update

by David Hogan, S.D. Biodiversity Project

Everyone in the room was on the edge of their seats as they waited for the California Department of Fish and Game Commissioners to make their decision regarding the fate of the California gnatcatcher. The Commissioners, all conservative rod and gun club appointees, scratched their heads, cleared their throats, and stared at the ceiling as they tried to come up with an excuse to delay their decision on this controversial issue. A motion was finally made to recess the meeting for a month to "review new information", and all three darted quickly out of the room.

Not that their decision was a surprise. The Fish and

➡ p. 3 for more

Outings Schedule

See Page 10 for a convenient "hangup" format.

Thanks Conservation Volunteers

Tamarisk and artichoke projects: thanks to Lou Slosar, Alan Pepper, Trinity Gabriele, Mike Kelly, Kate Johnson and Cindy Burrascano for helping out with our tamarisk and artichoke projects in August.

Endangered Thornmint survey: thanks to Paul Micheletti, Don Albright, Trinity Gabriele, Mike Kelly and Les Braund. This group investigated the extent and health of several colonies of the endangered San Diego Thornmint in the waterfall area.

Newsletter help came from Trinity Gabriele, Susan Zepf, Chris Whitten, and Mike Kelly.

Tools Needed

Friends need tools in reasonably good condition for volunteer conservation projects such as trail maintenance and revegetation efforts. Among the things needed are loppers, tree and pruning saws, hula hoes, shovels, pickaxes, pickmatics, pry bars, gas-powered weed whippers and augers. We will pick up. Call Alan at 586-7123.

Bulldozers Wreak Havoc

by Mike Kelly, president

Citizens who have been visiting the Preserve in the past two weeks are in an uproar — and with good reason. Anywhere you walk in the Preserve now you'll see devastation wrought by a bulldozer. The worst damage is on the north side of the creek, west of the waterfalls.

Water Utilities Dept. at work

Who did the damage? A developer run amuck? No. The culprit is the City of San Diego's own Water Utilities Dept. (W.U.D.) As part of their maintenance program they wanted to put a mobile television camera down the manholes to check the integrity of their sewer line. This involves cutting down vegetation overgrowing the covers. The Friends and Park officials have no problem with minor brush clearance — no sensitive plants were involved.

However, as you walk along the south or north side access roads you can't help but notice bulldozed swaths cut up to each manhole cover in the Preserve. This was unnecessary. The access holes are in places that were leveled in the past. It's easy to bring a vehicle, where necessary, right

➡ p. 9 for more

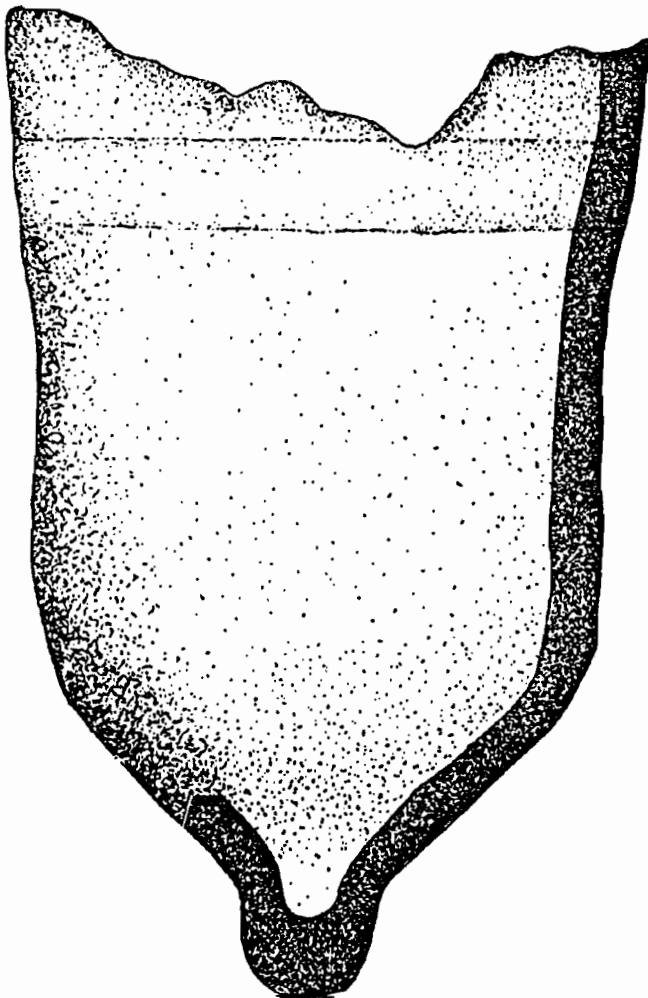
Historic Status of Johnson-Taylor Ranch Changes

[July 18 the County of San Diego Parks and Recreation Department held a news conference at the Johnson-Taylor Ranch House in Peñasquitos Canyon Preserve to announce dramatic new findings about the age and history of the ranch house. The findings also led to a change in the name of the ranch to "Rancho Santa Maria de los Peñasquitos. Read on for details — editor.]

Local history includes information that the oldest adobe ranch house in San Diego County was built in 1824 by Captain Francisco María Rufz, Commandant of the Presidio of San Diego. However, the location of the structure previously designated has been a subject of debate.

Recent studies, both historical and archaeological, confirm without a doubt that Captain Francisco María Rufz built his adobe, the Rancho Santa María de los Peñasquitos Ranch House, at the site of the Johnson-Taylor Adobe, Los Peñasquitos Canyon Preserve.

In 1823, Rufz owned only the land where the Johnson-Taylor Adobe Ranch House now stands. Historical documentation states that Rufz built a house on the land he obtained in 1823 to fulfill the conditions of the land grant. This building was expanded in the 1860's by George Alonzo Johnson.



Ceramic vessel from Room A, Johnson-Taylor (Santa Maria de los Peñasquitos) Adobe.

Therefore, the portion of the Johnson-Taylor Adobe Ranch House built by Rufz in 1824 is the oldest standing structure in San Diego County.

As a result of this information, the historic registration of the site shall be changed to reflect its new status, and additional Federal registration as a National Historic Landmark will be obtained.

The information also confirms that another adobe now in ruins, located at the west end of Peñasquitos Canyon and originally believed to be the first ranch house built by Captain Rufz, was actually constructed after 1834, more than ten years later.

The following are summaries from the historian and archaeologist who conducted the research, substantiated by local surveyor and avocational historian, Leland Bibb, along with Alexandra Luberski, historian with the California State Parks Department.

Historical Summary — Mary Ward

Captain Francisco María Rufz, grantee of Rancho Santa María de los Peñasquitos, built his residence in 1824 within the footprint of the Johnson-Taylor Ranch House. Three original walls of Rufz' 1824 house remain intact and are incorporated into the north wing of San Diego County's Johnson-Taylor adobe.

The 1823 Peñasquitos grant of one square league straddled the center of Peñasquitos Canyon; however, Rufz soon determined his ranch included land which was not fit for cultivation or pasturage. So, in 1834, Rufz petitioned for an additional one league extension adjacent to Rancho Peñasquitos on the west.

The augmentation was called El Cuervo. It is on this site the adobe ruins of a post-1834 structure can be seen.

The County acquired the deed to Los Peñasquitos on June 28, 1974, and, since that date, staff and consultants have conducted research into the history and archaeology of the property. A 10-year search through public records and archives disclosed enough information to qualify the Johnson-Taylor adobe for designation on the National Register for its local significance only. Now its stature will change and Rancho Santa María de los Peñasquitos will clearly meet every criteria for Federal Register certification on its importance to our nation's history.

Santa María de los Peñasquitos Ranch House is notably one of California's earliest dwellings constructed on San Diego County's first land grant, not related to mission, presidio, nor pueblo construction. Captain Francisco María Rufz, veteran Commandant of San Diego Presidio, received Rancho Peñasquitos as a reward for his faithful service to his country, in spite of protests of the Mission padres which claimed the land as their own.

Rancho owners conducted 200 years of stock raising in the site. This was the first stopping place for Brigadier General Stephen Watts Kearny and the half-starved rem-

Penasquitos Preserve Is Gene Pool for North Coastal Area

by Mike Kelly

Contrary to popular impression, unlike Balboa or Mission Bay Parks, Peñasquitos Canyon Preserve is not primarily a recreational park. It is a resource-based park whose primary goal is to preserve the natural and cultural resources of the park. Recreation is a secondary goal of the preserve and is meant to be relatively passive, i.e. non-vehicular and of low impact to the preserve. Why is this?

An unusual number of habitats

What makes Peñasquitos Canyon unique in comparison to other parks is the great variety of habitats within its borders. Some fifteen distinct habitats have been identified by biologists in the Preserve. Each has its own community of fauna (animals) and flora (plants). Add to this year-round water, relatively rare in San Diego, and you have the makings of *one of San Diego's most important gene pools*. Peñasquitos Canyon is recognized as a gene pool for much of the north-coastal area because of its ability to support a wide variety of wildlife.

Historically, the canyon has provided wildlife migration routes between the coast and the foothills of the nearby mountains. Easy migration north and south, from San Clemente Canyon on the south to Rancho Santa Fe and the San Dieguito River on the north, has also contributed to this ecological function of providing a gene pool for species reproduction and diversity.

Relatively undisturbed habitats

Despite cattle grazing and agriculture in several parts, the canyon is considered relatively undisturbed when compared to other areas of the city. The hundreds of different plant types, including plants called "relics" or "paleoendemics" (old plant types on the evolutionary scale), are evidence that disturbances have been mild compared to other areas. The number of endangered or sensitive species of plants, birds, insects, reptiles and mammals is impressive for an area of this size.

Even now, just three summers after the removal of the

cattle from the Preserve, we can see the riparian (creek) area of the west end changing. Non-native grasses are giving way to young live oaks and sycamores. For about two hundred years, these and other young native plants were food for the voracious appetites of the cattle.

The impact of development

Development throughout the north-coastal area has caused two problems. Most importantly, habitat has simply disappeared in great quantity. Secondly, remaining habitat has become isolated. For example, highways and development have already effectively cut migration routes south of Peñasquitos and Lopez Canyons. The deer kill on the western end of Mira Mesa Boulevard is testimony to the importance of Peñasquitos and Lopez Canyons to the deer herd in Carroll Canyon. Developments and the street itself are becoming an effective barrier to migration south. Many species will disappear from an isolated and small ecosystem.

Park Village and other Peñasquitos Developments to the east have stopped migration north from the eastern third of the Preserve. Sorrento Hills projects, currently under development, will close off migration north at the western end. We anticipate only a relatively narrow wildlife corridor will be left for migration north five years from now.

The race is on to secure rights to the little land suitable for wildlife migration between Carmel Valley and Peñasquitos to keep links open to Black Mountain and San Dieguito open-space systems. If I were putting odds on the race, I would say the chances of securing a good quality wildlife corridor animals can effectively use are perhaps 1 in 4.

On the eastern end we have a good opportunity to keep a wildlife corridor open (see *Updates* on p. 9). Even if we are successful, it will be perilously narrow at points. All of these developmental pressures have also pushed remaining area wildlife into Peñasquitos Canyon. It's still the gene pool for the region and will remain so — if we protect the Preserve and keep open its connections outward.

(Gnatcatcher cont'd)

Game Commissioners have long been known for their disdain of species threatened with extinction. As investigated by the *L. A. Times*, all of the Commissioners own stock in the companies that may lose money if the gnatcatcher listing goes through. Much to the dismay of the audience, none of the Commissioners would step down when presented the conflict of interest laws by the commission lawyer at the beginning of the hearing.

So the question remains. Will the California gnatcatcher be designated a Candidate for Endangered status (California Endangered Species Act) on September 1st? Legally, the Commissioners must decide, when designating a species a Candidate, whether the listing "may be warranted" as is certainly the case with the gnatcatcher. The Fish and Game Commission's own staff recommend Candidacy for

this bird. But will the Commissioners listen?

September stands to be a hot month. Sept. 21 is the date when the U. S. Fish and Wildlife Service must decide whether to list the gnatcatcher as a species "proposed" for listing, or to find that listing is not "warranted". After that decision, public hearings will be held (if "proposed") and a final listing decision must be made by September 21, 1992. Emergency Endangered protection could be granted at any time, if **public pressure is strong!** What you can do:

Write William E. Martin, Regional Director
U. S. Fish and Wildlife Service
911 N.E. 11th Ave, Portland, OR 97232-4181
Demand that the California gnatcatcher be granted
Emergency Endangered status immediately.

The Birds of Penasquitos Canyon Black-Headed Grosbeak

by Claude G. Edwards

Among the most colorful and beautiful birds that we find in Penasquitos Canyon is the Black-Headed Grosbeak (*Pheucticus melanocephalus*). It's a common and conspicuous inhabitant of any wooded habitat in our region, from April to August or September, and among those species which nest here as well.

They belong to a large and varied family of birds which include its eastern cousin the Rose-breasted Grosbeak, the familiar red Cardinal and its desert cousin, the Pyrrhuloxia, the colorful buntings of the genus *Passerina*, the towhees, and the American sparrows and juncos. This family is called *Emberizidae*.

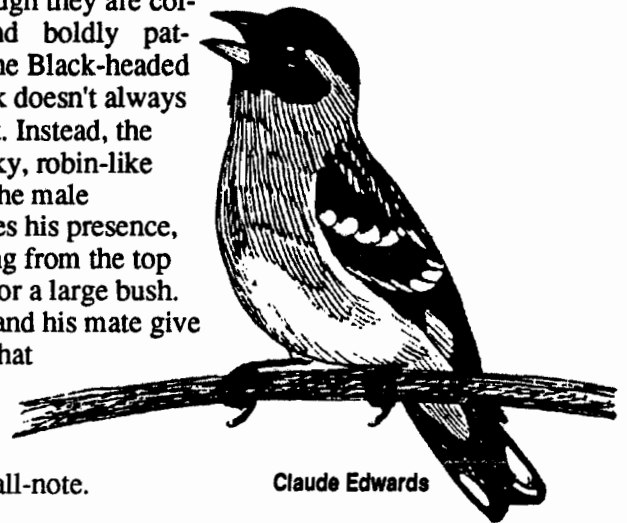
The male Black-headed Grosbeak is a striking bird dressed in black and orangy-brown and white. Its head, back, wings and tail are patterned with patches and spots of white. These are especially well-seen when they fly. The breast, neck collar, sides and rump are bright tan or orangy-brown. Its belly is often bright yellow, fading to white on its belly and undertail.

Its mate, the female, is basically similar, overall lacking the extensive deep-black of the male's plumage. Her head is marked with bold dark-brown and white patches and stripes. Like the male, she has a very large, thick, triangle-shaped bill.

During the summertime, they feed on a variety of foods

such as insects, grass, other plant seeds, fruits of plants like Toyon and Elderberry and even backyard garden fruits. They also enjoy coming into bird feeders which have sunflower seeds! I have even seen a male feed from a growing sunflower plant with its flower head ripe with seeds. These are the foods they offer to their young as they hatch and mature during the breeding season. The young birds resemble the females until the males mature.

Although they are colorful and boldly patterned, the Black-headed Grosbeak doesn't always stand out. Instead, the loud, jerky, robin-like song of the male announces his presence, often sung from the top of a tree or a large bush. Both he and his mate give a somewhat squeaky "quip" or "quee" call-note.



Birding in Peñasquitos Canyon Bird Counters; Common Yellowthroats

by Barbara Zepf

Bird counters

I can't believe that it's been a year ago this month that I started writing this birding column for the Peñasquitos Canyon Newsletter. The year has flown by! It's been a lot of fun. I've learned a lot in the process, and I hope you have, too. I'd like to continue my discussion from last month on the west end of the canyon. Although the west end of the canyon sees fewer casual birders than the east end, it has been more scientifically studied, thanks largely to the efforts of one man — Dave King. Dave is an expert birder and one of the nicest men you will ever meet. Since 1984, Dave and his cohorts have systematically studied the area from Peñasquitos Lagoon at the ocean to points inland — including the west end of Peñasquitos Canyon to the waterfall area, López Canyon, Carroll Canyon and most points in between. They have gathered background information on the status and distribution of birds in this area.

The Peñasquitos Bird Count group meets on the first Sunday of every month from 7:30 a.m. until noon at the Park and Ride at Carmel Valley Road and I-5. They split

up into 5 different groups and disperse from there. Each of the 5 subgroups is always led by an experienced birder and this is a great opportunity to learn about birds, in general, and about the birds of Peñasquitos Canyon, in particular. They always welcome beginners. After the count is over, everyone meets at Dave's house for a potluck lunch and compilation of their data. As of now, their data has not been analyzed on a computer since their bird counts will continue for several more years. Hopefully, at the end of this time, a definitive paper will be written on this information.

San Elijo Lagoon

Before 1984, Dave worked on the San Elijo Lagoon Bird Count from 1973-1983. At the end of this stint, he wrote a paper which was published in *Western Birds*, a magazine published by the Western Field Ornithologists, describing the status and distribution of birds for that particular lagoon. As you can see, Dave is a very dedicated birder. If you want to learn more about the birds in

(Birds cont'd)

Peñasquitos Canyon, Dave is the man to contact. His telephone number is 259-8649 (or just show up at the Park and Ride). This bird count offers a pleasant, social way to find out more about birds.

Developmental impacts

Dave describes birds as very mobile animals. The natural fluctuation in the numbers of birds from count to count is quite large. To analyze the change over time in the mean number of birds requires more data. The group has seen roughly 225 species of birds since they started the count. People like Dave and his group help to provide an overall picture of the various impacts made by man in the canyon.

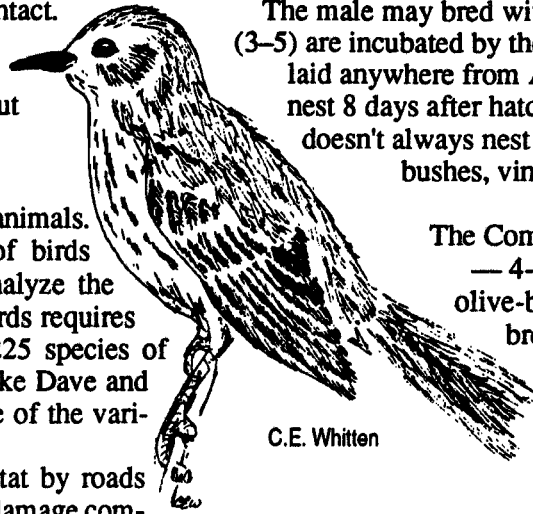
Besides the obvious eradication of habitat by roads such as Calle Cristobal, Dave sees the most damage coming from homes built adjacent to these roads. I always think about damage from runoff from lawns, etc. but (until Dave mentioned it) I had not thought about another significant problem with building homes around canyons — pets.

Pets

Dogs and cats from these houses use the canyon for their daily excursions. Birds, not used to this predation, suffer the loss. Also, as chaparral is cleared, birds like quail, thrashers and roadrunners start to decline in numbers. Lots of study is needed to learn how to protect the habitats. So give Dave a call if you can help. You will meet some very nice people and have a lot of fun in the process.

Common Yellowthroat

Now, on with our discussion of our bird for this month from the west end of the canyon — the Common Yellowthroat. While this bird occurs throughout the canyon all year long, it is most noticeable at either extreme end. This bird (a member of the warbler family) loves marshy places. The Common Yellowthroat's nest is a mass of grasses, sedges, weed stems and dead leaves, often attached to reeds or cattails, on or near the ground. The nest is lined with fine grasses or bark fibers or hairs.



The male may breed with more than one female. The eggs (3-5) are incubated by the female for 12 days. They can be laid anywhere from April to July. The young leave the nest 8 days after hatching. The Common Yellowthroat doesn't always nest in the reeds. It will nest wherever bushes, vines, tangles, etc. provide sufficient cover.

The Common Yellowthroat is a small bird — 4-1/2 to 5-3/4 inches long. It's plain olive-brown above. The chin, throat and breast are bright yellow. The undertail coverts are a softer yellow.

The belly is white, with tan sides. The male sports a black Lone Ranger-type facial mask (retained year-round) which extends from the bill and forehead over the eyes, across the cheeks, to the sides of the neck. This mask is bordered above and behind by a white-gray band. The female is similar, but lacks the mask. Her face is dark olive with a pale yellow eye ring. Immatures are duller and browner overall. The young male's mask is much less distinct than the adult's, with no white border. He has a white eye ring.

While the Common Yellowthroat is one of the most abundant warblers, he is a skulker, more often heard than seen. However, it is easy to lure it into view by making a squeaking noise or "pishing" (difficult to describe in words — somewhat similar to the "psst" that you use to attract someone's attention, only repeated 4 or 5 times). The bird often utters scolding notes filled with chirps and chatters. After uttering their call, a sharp "tckck", they usually dart about, wrenlike, and disappear into cover. Their song is very distinctive — "witchity, witchity, witchity, witchity" or "witch-a-wee-o, witch-a-wee-o". In addition to their well-known song, territorial males also perform light songs, flying upward a few feet while uttering a jumbled series of notes.

The next time you're near a bunch of reeds and hear fussing from within, keep your eye out for this diminutive beauty. — Good birding!

(Patrol cont'd)

bicyclists with gashed heads and broken collarbones. Others had had verbal set-tos with irate visitors who didn't like hearing that they were breaking this rule or that. Thus far, I haven't heard of any encounters with rattlesnakes, which are a fact of life in Peñasquitos Canyon. Migrant camps have been located and documented. Graffiti has been noted and much of it already cleaned off or camouflaged. We've all done some trash pickup. Essentially, we volunteers take responsibility for our Preserve and are learning more about it, and ourselves, each time we go on patrol.

Much has gone into the preparation of the Los Peñasquitos Canyon Preserve Volunteer Patrol. Training of the bicyclists, equestrians and hikers who are the volun-

teers was intensive and thorough, touching on virtually all aspects of what a volunteer must be responsible for. We learned about the Preserve's flora and fauna from the Friends of Los Peñasquitos Canyon Preserve. The San Diego County Archaeological Society briefed us on the canyon's cultural and historical importance. Although we don't have citation powers and don't carry weapons, we went through training sessions with the San Diego Police Department. We learned a lot about how to effectively liaison with other agencies and how to confront park users who are breaking the rules. All of us were required to be com-

On Patrol in Peñasquitos Canyon Preserve

by Kate E. Johnson, member
Los Peñasquitos Canyon Preserve Volunteer Patrol (LPCP)

"Ranger 3, Peñasquitos 1."

"This is Ranger 3, go ahead."

"Our present location is about 1/2 mile east of the falls. We just directed a group of six young male bicyclists back to the main trail. They were unaware of present trail rules. It's pretty quiet this morning, except for motorcycle sounds coming from the northwest. We'll let you know if we actually see the cycles."

"Thanks Peñasquitos 1. I'm almost at your location and will try to make contact with motorcyclists. Ranger 3 out."

The time is 10:30 on a cloudy Saturday morning at Los Peñasquitos Canyon Preserve, and this is a typical radio communication between the Volunteer Patrol and City Ranger Bill Lawrence or County Ranger Reneene Mowry.

This particular Sunday afternoon in early July, my partner, Ken Lawrence (no relation to Ranger Bill), carried the radio and I filled in the field report sheet on how many and what types of visitors we encountered — bicyclists, hikers and equestrians. Ken and I were on foot. So far, the worst offenses we had met were dogs off leash and bicyclists off the main trail. After seeing a fire truck in the Preserve at the start of our patrol, I mentioned to Ken how terrible it would be if there were ever a fire in the canyon. I had no way of knowing that I'd see that truck again in a few hours.

Beer and a gun

With just one hour of patrol left, we were nearing the falls when Ken pointed to a group of four teenage boys several hundred yards in front of us. I knew what a case of beer looked like, but I sure didn't know what a BB gun looked like. My partner did, and radioed Ranger Lawrence that the boys were headed toward the falls carrying both, and could he contact them. Luckily, Bill was within minutes of us in his truck and was able to make contact with the boys at the falls, confiscating one BB gun. The police were called and arrived within a few minutes, as the young man whose gun was confiscated needed to go through a lengthy procedure to get his gun back.

Somewhat later, Bill contacted the remaining three boys down by the water while they were in the process of enjoying their beer. No ID? Hmmm. You've got to dump the beer, guys. No, you can't just take it out of the Preserve. Grumbling and sputtering, they stomped away, leaving the rest of the beer-dumping to us.

Fire!

Not long afterward the three of us were heading back up the hill toward the truck when Bill shouted and pointed at a growing brush fire that was headed right for his truck. I've never been so scared in my life. We had to run alongside the fire to get to the truck, and I could feel the fire's intense heat on my side. But my mind let me concentrate only on getting to that truck and my legs went into overdrive. I flew up the hill, threw myself into the truck, and

we wheeled back onto the main trail. Bill called Station 38 and requested fire trucks. He also called the police again.

Bill saw the beer guys walking away from the fire right ahead of us, and questioned them. They denied knowing anything and kept going, so Ken got out and followed them. We then drove back to the fire site and by then it had just about burned itself out although there was still plenty of smoke. I was to stay until the fire trucks arrived, which they did within 10 to 12 minutes, and Bill went back up the trail to get Ken, who had actually convinced the suspected arsonists to stop "fleeing." The police had gotten there in no time and escorted the teenagers to the ranch where they were questioned.

My field report that day was rather smudged and rumpled, and I stopped counting visitors after I wrote "arson fire" at 4:30. Scenarios were one thing; real life can be quite another. I was afraid for my life, having to run so close to a brush fire. But I learned later that it wasn't a particularly deadly fire by its very nature. I believe this is something we Patrol members need to know more about, working in a tinderbox canyon.

This incident, however, could give the wrong impression of both what the patrol does and the character of the average park user. Most park visitors are responsible and concerned about the park. While I waited at the fire site, for example, a group of bicyclists came by and offered to help and stay there with me. Much of what the patrol does is educational in nature, explaining the "why" that lays behind the rules that exist to protect the Preserve. We often are asked to identify plants or explain features in the Preserve.

Providing fast first aid

Providing fast help is another function of the Patrol. Mary and Steve Randall, equestrian volunteers, were on their very first patrol when they had to render first aid to a seriously injured bicyclist. On their way back to the adobe ranch house where the patrol is headquartered, they saw a young man, a teenager, who was not wearing a helmet and had flipped over his bike. He was bleeding profusely from the head. They administered first aid while another volunteer at the ranch called 911. The Fire Department, Paramedics and Police all responded. Given his head and possibly other injuries, the bicyclist was put on a body board and in a neck brace and taken to a hospital. The Policewoman on the spot thanked patrol members for being volunteers and stressed the importance of getting help to such an injured person fast.

All of the volunteers have by now encountered something while on patrol that has proven to be a challenge. That wasn't my last involvement with "toy" guns in the canyon; I now know what an air rifle looks like. Other volunteers have had to use their first aid knowledge, helping

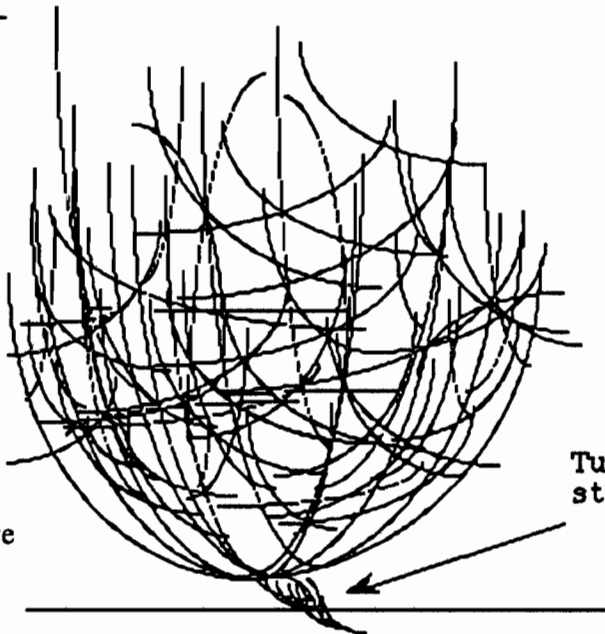
Tumbleweeds

by Pamela (PJ) Piburn
 Volunteer, County Parks & Recreation Department

From the arid dust of the western plains grows the spiny tumbleweed plant. Despite its romantic popularity brought about by its appearance in old western movies, this plant is basically a nuisance to man, animals and neighboring plants. It spreads quickly, and in some situations becomes quite large, up to four feet in diameter. Although some cattle and horses nibble on the plant in its younger stages, it holds little nutritional value and as it grows, its spiny leaves become unedible.

Tumbleweed has made itself at home here in America, but it originated in Russia and is referred to as *Russian*

Thistle. It was accidentally introduced in the Midwest in the late 1800s and probably reached California in the early 1900s. This plant thrives in areas of bare dirt where other plants have yet to be established. Those of



Tumbleweed stem

you that drive drive along the Black Mountain detour will see it growing all along the roadside from in between cracks in the side walks and massive quantities sprout from graded hillsides around construction sites.

I've seen a noticeable increase in the amount of tumbleweed present in the canyon in the last few years. I attribute this to intensified grading and construction surrounding Peñasquitos Canyon and the dry weather conditions which left native plants weakened. County rangers and volunteers are attempting to hold off the spread of tumbleweeds by removing them early in the season, before they begin to produce seeds. Once these plants reach maturity they break off from their stem and roll about, spreading tens of thousands of seeds.

The easiest method of removal is chopping the plants from the ground with a tool called a mcleod. This is like a large hoe and is sometimes used by firefighters to clear brush (see diagram). Gas-powered weed whips are also effective. Tumbleweeds can also be pulled up roots and all with a gloved hand. Be careful around large plants be-

cause the spiny leaves can scratch. Some individuals have also demonstrated an allergic response to touching even immature plants. Seedless plants can be ground up and used for mulch. Older plants could be burned under proper conditions.

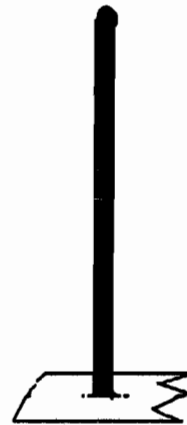
Roy Rogers and The Sons of The Pioneers sang songs with lyrics about "tumbling tumbleweeds," drifter's companions in the days of the old west. Today, as the tumbleweed crowds out native plant species and disrupts farmers crops, we might be inspired to write tunes like "Rolling Weeds Will Never Die."

Special thanks to Mike McCormick for supplying me with information on tumbleweeds.

For further reading:

Controlling Weeds, Ortho Books

Flora of Southern California, Phillip A. Munz



Mcleod tool

(Patrol cont'd)

plete a first aid/CPR course from the Red Cross.

We tested our new knowledge through role-playing. Rangers from several parks in the San Diego area assisted with the inventive scenarios. In the future the charter members of the LPCP will get to assist with role-playing during the orientation of the next group of volunteers. That's exciting because we now have actual field experience and can impart wisdom and advice to novice Patrol members.

Teamwork and inter-agency cooperation are what make the volunteer Patrol a success. Excellent cooperation between different groups, agencies and departments was paramount in the inception and development of the LPCP Patrol. And teamwork is fundamental to Patrol integrity, efficacy and strength. Partners back each other up; they learn that effective communication can not only save time but can perhaps save lives.

Penasquitos Canyon Indians: Language and World View

by Will Bowen

The noted anthropologist, Edward Sapir, once remarked that "the real world is unconsciously built up on the language habits of the group". What Sapir meant by this was that the language a people speak influences, or conditioned, their view of the world. Language patterns both thinking and perception. In the individual, language functions as a cognitive structure which filters and makes sense of all that the senses apprehend. When we learn to speak a new language we may see the world a bit differently because the grid that governs our perception has changed. Like a child delighting in his first words, our impressions may come together in some new and interesting ways.

The last Indians of Penasquitos Canyon spoke a language they called "Ipay Aa". They were highly sensitive to their environment — to the plants and animals — and to the intricacies of the natural order of the Canyon. If we begin to learn their language and allow our minds to see Penasquitos Canyon through their "eyes", we may increase our own sensitivity to it.

(Note: " ' " pronounced with a catch in the throat, like what separates "Oh — Oh!")

Plants

white sage – pellytaay
 jimsonweed – tolvaach
 willow – halasii
 cattail – 'epilly
 elderberry – kupall
 sutt

Animals

deer – 'ekwak
 coyote – hattepa
 skunk – kallyewi
 bat – milyaapan
 mtn. lion – nyemetaay

Reptiles

frog – hantak
 lizard – haakwal
 horned toad – hasuyan
 Red Rattler – "ewiikwa'hwat
 Diamondback Rattler –
 "ewiikunyilly

Birds

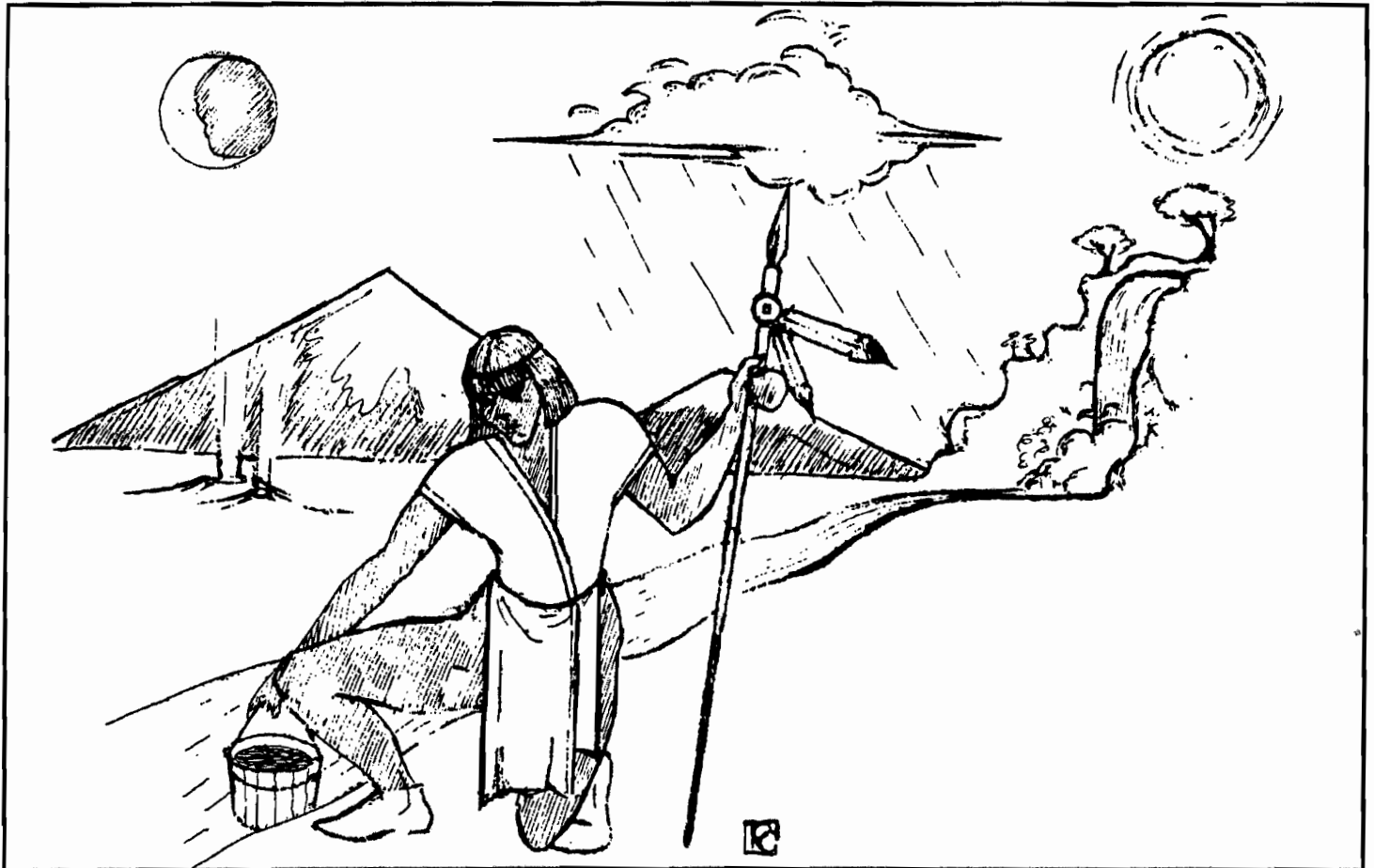
raven – 'ehaaq
 ground owl – kurrkurr
 woodpecker – hatepull
 turtle dove – kilyaahwi
 hummingbird – halypuu-

Insects

centipede – hirkaahiirk
 cricket – hulykehulyk
 stink bug – mes-hanan
 black ant – mechhallaahall
 black widow – hellytutt

Time

today – pily kupily
 morning – maaykally
 noon – 'emekay
 night – kuhunn
 midnight – hemach
 nyaatuy



sky – 'emaa
 cliff – 'emat
 mountain – matetay

cloud – 'elewi
 man – 'iikwich
 star – kwen mesaap

sun – 'enya
 water – 'ehaa
 moon – ta'urp

waterfall – 'ehaasall
 spring – 'ehaa kuchuullup

(Bulldozing damage cont'd)

up to the covers. It's obvious that the new swaths were cut for the convenience of the crews, but were not necessary for the work to be accomplished. The Water Utility crew showed their their lack of respect — for a park dedicated to protecting our natural resources — in other ways. In many cases berms of rock and soil have been left piled to the side of cuts.

Heaviest damage near waterfall

Northwest of the waterfall you'll find a new, half-finished access road meant to be a shortcut. The operator was trying to bulldoze a shortcut to cut a couple hundred yards off the circuitous nature of the existing road. If he had closely examined the amount of fill necessary to fill the gully he was trying to cross, he wouldn't have started. As it is, he cut hundreds, if not thousands of cubic yards out of a nearby hill, and pushed them into the gully before he realized it needed real engineering and stopped. In the process, however, he managed to push some of the fill into Peñasquitos Creek, damaging the riparian area.

You'll find another new half-finished access road on the east side of López Creek as it flows under the new Sorrento Valley Boulevard bridge.

The damage goes beyond the ugly scars left every few hundred feet on both sides of Peñasquitos Creek. Each of these half-finished roads caused damage to wetlands or the creek. Each was half-finished because it was not planned ahead of time. In each case it was obvious the operator had a "bright" idea and acted on it. But the operator couldn't be bothered to climb down off his "cat" and walk a few score yards ahead to even see if what he planned to doze was realistic. Under the bridge for example, he was cutting a shortcut from one side of the nose of López Ridge around the base to the other side. He was stopped, however, by a big stand of sycamore trees. If he had walked around the curve he would have seen the impossibility of his idea and not started his new road. The result was he damaged an adjacent marsh area, one that only recently was the subject of mitigation to repair damages caused by the bridge construction.

Compounding his stupidities he decided to drive up and over the nose of the ridge after he found the sycamores blocking his path. His new route took him through one of the most archaeologically sensitive sites in the area, an old village site of the Kumeyyay Indians. This is a well-documented site on maps available to his department. The Friends, the Open Space Division of City Parks and Recreation Dept., the County Parks and Recreation Dept. and others have made protests to various departments and agencies.

Friends file official complaint

The Friends filed a formal complaint to the State Dept. of Fish and Game. They came out for an inspection tour with myself, the City Ranger and two City biologists. Based on the damage done to Peñasquitos Creek and the lack of permits necessary for their work, the State agency decided to intervene. The agency's Game Warden who came on the tour issue a cease and desist order to W.U.D. to stop any further bulldozing without permits. In addition,

she offered W.U.D. a choice of paying a stiff fine or agreeing to a mitigation plan to repair the damage done. Water utilities agreed to develop a mitigation plan.

In addition, the Friends brought the issue before the Citizens Advisory Committee to the Peñasquitos Canyon Task Force. Besides asking for a condemnation of the damage done, we asked for the CAC's support for the mitigation and to require that W.U.D. be required to obtain a "right of entry" permit before they can come into the canyon for anything other than emergency work in the future. Many friendly amendments were made and accepted from the advisory group to strengthen the motion and it passed unanimously. The Peñasquitos Canyon Task Force, composed of City Councilmembers Tom Behr and Abbe Wolfshimer and County Supervisor Susan Golding met the following week and voted to support the CAC's action.

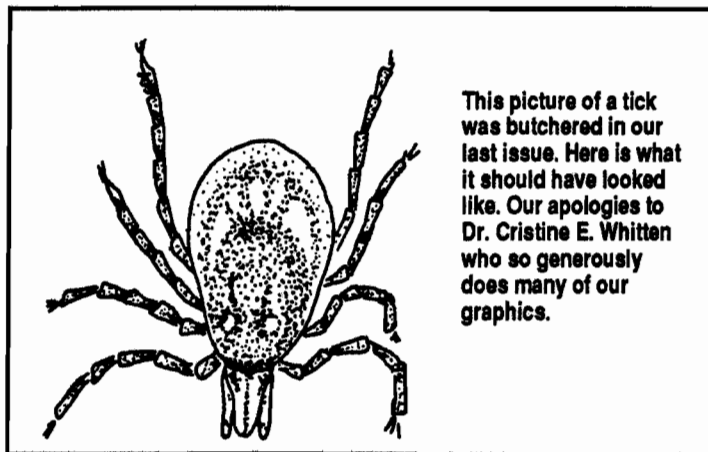
All of this could have been avoided by simple consultation. This department should have done what developers with projects adjacent to the Preserve or SDG&E with its own utility easements do. They should have come to the Parks departments and to the Citizens Advisory Committee for a review of their project. The rangers or volunteers such as ourselves would have been happy to discuss environmentally sensitive methods to achieve their goals. Of course, it would have cost less and there wouldn't have been any work for a bulldozer operator. Any number of us are willing to go on-site to point out sensitive areas.

If you haven't seen the damage yet, visit the area northwest of the falls. When you do you'll want to write your City Councilmember to support him or her in preventing this from happening again. Drop a letter to City Manager Jack McGrory asking that the mitigation plan finally developed by the W.U.D. (which answers to him) repair all the damage done to the Preserve and not just the streambed violations covered by State Fish and Game.

Write to:

City Manager Jack McGrory, Councilmembers Tom Behr and Abbe Wolfshimer, all at:
101 "C" St., San Diego 92101.

County Supervisor Susan Golding at:
County Administration Center
1600 Pacific Highway, San Diego 92101



This picture of a tick was butchered in our last issue. Here is what it should have looked like. Our apologies to Dr. Cristine E. Whitten who so generously does many of our graphics.

Friends July and August Outings Schedule

Sensory Awareness Walk Debuts in September

In September we debut a new walk with Will Bowen, a member of the Friends Board of Directors. We'll delight in and savor the senses of seeing, hearing, touching, tasting, smelling, and movement as we explore Peñasquitos Canyon. This hike is for those who have an appetite for nature, experiment, and self-discovery. Outings are free. Wear sturdy shoes; bring water for longer hikes. Rain cancels. For more details or to organize group hikes, call 484-3219 for recorded information.

SEPTEMBER

FITNESS WALK

Sat., Sept. 7, 8 a.m. 10-K (6 miles roundtrip, 3 hours) brisk walk to waterfall and back. Bring water. Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Led by Trinity Gabriele.

RANCHO SANTA MARIA DE LOS PENASQUITOS ADOBE RANCH TOUR

Sat., Sept. 7, 11 a.m. and noon (45 min. each), S.D. County Archaeological Society. Mercy Exit off I-15 west to Black Mtn. Rd. Right on Black Mtn. Rd, make first U-turn, right into Canyonside Park, drive past ballfields to Preserve/Ranch sign and new parking lot. See historic adobe, settler and Indian artifacts.

BIRD WALK

Sun., Sept. 8, 8 a.m. Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Bring Bird book and binoculars. Led by Brian Swanson.

GNATCATCHER HABITAT/CARMEL MTN. WALK

Sun., Sept. 15, 9 a.m. (3-4 hours). From I-5 north or south, take Carmel Valley Road east to Shaw Valley Road and turn right (south). Drive several hundred yards to the two big sycamore trees to the side of the dirt road. Bring water. Learn about the coastal sage scrub habitat, the endangered gnatcatcher bird the developers hate, and the many other endangered species threatened by development on Carmel Mountain.

MEDICINAL PLANT WALK

Sun., Sept. 15, 5:30 p.m. (2 hours). Meet in the new Parking-Staging area at Sorrento Valley Boulevard entrance to Peñasquitos Preserve. Learn about plants our Indian and settler ancestors used for medicinal purposes. Led by Will Bowen.

NATURE WALK

Sat., Sept. 21, 8 a.m. (2 hours). Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Look for wildflowers, learn about plants the Indians and settlers used while living in the canyon. Led by Les Braund.

RANCHO SANTA MARIA DE LOS PENASQUITOS ADOBE RANCH TOUR

Sat., Sept. 21, 11 a.m. and noon (45 min. each), S.D. County Archaeological Society. Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park, drive past ballfields to Preserve/Ranch sign and new parking lot. See historic adobe, settler and Indian artifacts.

FRIENDS MONTHLY MEETING

Thurs., Sept. 26, 7 p.m. At the Johnson-Taylor Ranch for our business meeting. Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right

into Canyonside Park, drive past ballfields to Preserve/Ranch sign and new parking lot.

DUSK WALK

Fri., Sept. 27, 5:30 p.m. (2 hrs). Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain, make first U-turn, right into Canyonside Park, drive past ballfields to Preserve/Ranch sign and new parking lot. Often see animals. Bring flashlight and insect repellent. Led by Mike Kelly.

GEOLOGY OF SAN DIEGO WALK

Sun., Sept. 29, 9 a.m. (3 hours) Wear hiking shoes since there is one very steep hill involved. Bring water. Meet on Calle Cristobal in Mira Mesa where the power lines cross. Learn about area geology and visit the waterfall. Led by geologist Don Albright.

SENSORY AWARENESS MEDITATION WALK

Sun., Sept. 29, 5:30 - 7:30 p.m. To quiet the mind and come to our senses is the purpose of this twilight meditation walk. We'll delight in and savor the senses of seeing, hearing, touching, tasting, smelling, and movement as we explore Peñasquitos Canyon. This hike is for those who have an appetite for nature, experiment, and self-discovery. Led by Will Bowen. Limited to 10 people. RSVP to 452-7091.

OCTOBER

FITNESS WALK

Sat., Oct. 5, 8 a.m. 10-K (6 miles roundtrip, 3 hours) brisk walk to waterfall and back. Bring water. Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Led by Dr. Jaya Perryman.

RANCHO SANTA MARIA DE LOS PENASQUITOS ADOBE RANCH TOUR

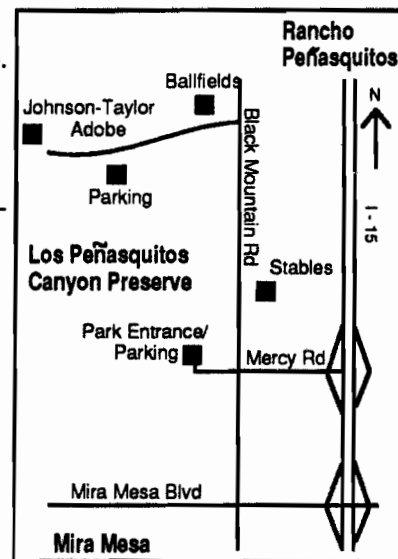
Sat., Oct. 5, 11 a.m. and noon (45 min. each), S.D. County Archaeological Society. Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park, drive past ballfields to Preserve/Ranch sign and new parking lot. See historic adobe, settler and Indian artifacts.

MYSTERY TREE WALK

Sat. Oct. 12, 9 a.m. (2 hrs). Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Investigate the legend of the buried Mission treasure and the Spanish-Indian sign map on trees in the Preserve. Learn about the plants the Indians used, see an Indian grinding rock. Led by Mike Kelly.

NATURE WALK

Sat., Oct. 19, 8 a.m. (2 hours). Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Look for wildflowers, learn about



(Ranch cont'd)

nant of his Army of the West, marching from defeat in the Battle of San Pasqual in 1846.

From 1850-1854, the U.S. Army ran supply trains through Peñasquitos Canyon to provision Fort Yuma, a garrison on the Southern Emigrant Trail, until Captain George Alonzo Johnson contracted with the government to supply Fort Yuma from the mouth of the Colorado River.

The significance of Rancho Peñasquitos' prehistory and history can be found in the areas of agriculture, architecture, commerce, conservation, ethnic heritage, exploration/settlement, military and transportation.

Archaeological Summary — Susan M. Hector, Ph.D.

Archaeological studies were begun at the Johnson-Taylor Adobe in 1983 by RECON, under the direction of Dr. Susan Hector. Excavations continued at the ranch through the 1980's, resulting in the collection of data that support the contention that the early building found under the Johnson-Taylor Adobe was built by Captain Francisco María Rufz.

At the beginning of the archaeological excavation, historical information was consulted to provide a context for the interpretation of the finds. Historical documentation discovered by Mary Ward, County Historian, indicated that structure already existed at the site prior to 1862, when George Alonzo Johnson built a home at the ranch.

The archaeological excavations were conducted during the restoration of the northern wing of the adobe, referred to as Wing A. Removal of plaster from the north wall of Wing A revealed a seam in the adobe wall; excavations in the floor next to the seam resulted in the discovery of a cobble foundation. This foundation was from a former exterior wall. Excavations continued on both sides of the cobble foundation.

The area west of the foundation was the interior of a small building. The area east of the foundation was a ramada kitchen, as determined from the artifacts collected from this area. The ramada kitchen was a brush structure enclosed with low adobe walls. The kitchen held a lavandera, or wash basin, and a ceramic vessel commonly called an Olive Jar. This vessel is unique to the state of California, and was probably made in the Old World during the 18th century. It may have served as a storage container in the kitchen.

Other artifacts dating to the early 1800's were found during the excavations, including Majolica ceramics, glass beads, glassware, and historic Native American pottery. Further excavations in the area around the ranch provided evidence that Native Americans lived nearby during the early 1800's and worked for the ranch. This evidence included historic Native American pottery, glass beads, and projectile points made from chipped ceramic vessels and glass.

The verification of this structure as dating to the period between 1820 and 1830 is supported by the detailed archaeological data which is on file at the San Diego County Department of Parks and Recreation.

Latest on Canyon Issues

by Mike Kelly

Camino Ruíz

The Camino Rufz bridge across Peñasquitos Canyon Preserve received another nail in the coffin when it was dropped from the 20-year Capital Financing needs budget. The next step will be the Planning Commission workshop hearing coming up in September on the Mira Mesa Community Plan. After this hearing the Plan should go to the City Council in December. The new Councilman, Tom Behr, has joined with Councilwoman Abbe Wolfsheimer and Supervisor Golding in opposing this road extension.

Wildlife corridors to the north

As the 12,000 acres of the Northern Area Future Urbanizing Area (Urban Reserve) comes closer and closer to development, it is urgent to identify and acquire wildlife corridors from Peñasquitos Canyon to the north. To that end, an informal coalition has been organized by Peñasquitos community leader Mike Conrad to survey this area to identify the best possible corridors and open-space areas.

Already Mike has made presentations using aerials of the region to the Friends, the Peñasquitos Community Council and the Citizens Advisory Committee for the preserve. In addition, he organized a survey team for a field trip that included biologists from San Diego State University, the Friends, the State's Fish and Game Department, the San Diego Bio-Diversity Project and Dave Kreitzer and Jay Powell of San Diegans for Managed Growth. A fruitful day of biological surveys led to the identification of the necessary and best, biologically speaking, wildlife corridors in the north. The Friends Board of Directors organized a follow-up survey of the same areas with our board member Alan Pepper, Ph.D. to confirm the findings.

This survey comes none too soon as a series of projects are coming to the Planning Dept. now to develop these areas. These include the Signal Landmark, Parkview, Sorrento Hills, Bougainvillea, Potomac and other projects.

The Mercy property; expanding east progresses

A representative of the Sisters of Mercy, owners of two parcels of land east and west of where the I-15 bridge crosses Peñasquitos Canyon Preserve, presented a plan to the Mira Mesa Community Planning Group. They asked the group for approval of language for the Community Plan that would allow them to transfer some of their planning density from the eastern parcel to their western parcel. In return, they would donate some 60-65 of their 74 acres of the eastern parcel to the Peñasquitos Canyon Preserve. This is the parcel the Friends identified as crucial to the development of wildlife corridors and the Torrey Pines to Anza Borrego trail system. As is the custom of the planning group, the plan will be revisited and voted on at the next meeting of the planning group. Approval means that this land could be acquired through the development process without the expenditure of Park Bonds funds.



Friends of Los Peñasquitos Canyon Preserve, Inc.

P.O. Box 26523, San Diego, CA 92196
619-484-3219 566-6489

NONPROFIT ORG.
U.S. POSTAGE
PAID
POWAY, CA
PERMIT NO. 286

**Address Correction Requested
Return Postage Guaranteed**

RENEWAL DATE 9-92
SUSAN ZEPF
8374 CAPRICORN WAY #21
SAN DIEGO, CA 92126

Special Notice to First-Time Readers

If you signed our mailing list on a recent walk or other activity, but aren't yet a member, this newsletter is a free sample. To keep it coming with its outings schedules, educational articles, and information on how to defend Peñasquitos Canyon Preserve, join the Friends of Los Peñasquitos Canyon Preserve, Inc. by filling out the coupon below.

(Outings cont'd)

plants the Indians and settlers used while living in the canyon.
Led by Les Braund.

**RANCHO SANTA MARIA DE LOS PENASQUITOS
ADOBE RANCH TOUR**

Sat., Oct. 19, 11 a.m. and noon (45 min. each), S.D. County Archaeological Society. Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park, drive past ballfields to Preserve/Ranch sign and new parking lot. See historic adobe, settler and Indian artifacts.

MEDICINAL PLANT WALK

Sun., Oct. 20, 5:00 p.m. (2 hours). Meet in the new Parking-Staging area at Sorrento Valley Boulevard entrance to Peñasquitos Preserve. Learn about plants our Indian and settler ancestors used for medicinal purposes. Led by Will Bowen.

FRIENDS MONTHLY MEETING

Thurs., Oct. 24, 7 p.m. At the Johnson-Taylor Ranch for our business meeting. Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park, drive past ballfields to Preserve/Ranch sign and new parking lot.

LOPEZ CANYON WALK

Sat., Oct. 26, 9 a.m. (3 hours). Meet in the new Parking-Staging area at Sorrento Valley Boulevard entrance to Peñasquitos Preserve. Enjoy this canyon as the sycamores change to their fall colors and learn about the Lopez family who homesteaded the canyon for a hundred years. Four to six miles round trip. Led by Mike Kelly.

Membership Application

Membership category? Circle below:

- Senior (62) or Student \$7.00 Individual \$10
- Family \$15 Sponsor \$25 Patron \$100
- Corporate \$250 Life \$1000
- Contribution \$ _____

I/We are interested in the following:

- Volunteer to help the committee
- Hikes
- Indian Culture
- Educational Workshops
- School, Family, Youth Programs
- Environment (Plants, birds, mammals, geology)

9/91

Other: _____

Name(s) _____

Address _____

City State Zip _____

Home Phone _____

Please make checks payable to:

Friends of Los Peñasquitos Canyon Preserve, Inc.
P.O. Box 26523, San Diego, CA 92196

Thank you for your support! Your donation is tax deductible.
Call 484-3219 or 566-6489 for more information.



Home Gardens Needed Plant Projects Growing in a New Direction

by Alan Pepper, Ph.D.

You may have read about, or already volunteered for, Friends projects aimed at removing some of the particularly noxious exotic plant species from the canyon. This fall, we will also need your help in starting native plant propagation and revegetation efforts. The goals of these projects will be to help in the restoration of natural habitats and in the preservation of the genetic diversity present in the plants of the preserve (see "The Importance of Plant Genetic Diversity" in this issue.).

We will identify and collect a limited number of seeds, and other plant materials, from the vicinity of the canyon. The plants propagated from these seeds will be available for revegetation and habitat restoration projects. Volunteers will be needed for collection and to help in propagation by having small "nurseries" in their backyards or on their decks. We will try, as much as possible, to obtain plant materials from areas that are scheduled for imminent development (pulling endangered plants out from in front of a bulldozer's blade can be a very rewarding, if sometimes

➡ p. 11 for more

Outings Schedule

See Page 10 for a convenient "hangup" format.

Thanks Conservation Volunteers

Tamarisk project: Many volunteers put in several strenuous sessions of removing Tamarisk from the Preserve in September. They included Linda Hunter, Alan Pepper, Karen Sundstrom, Linda and Sue Way, Susan Zepf, Trinity Gabriele, Mike Kelly, Les Braund, Will Bowen, Dave Robinsa and Cindy Burrascano.

Newsletter help came from Linda and Sue Way and Mike Kelly.

Tools Still Needed

We need tools in reasonably good condition for volunteer conservation projects such as trail maintenance and revegetation efforts. Among the things needed are loppers, tree and pruning saws, hula hoes, shovels, pickaxes, pickmatics, pry bars, gas-powered weed whippers and augers. We will pick up. Call Alan at 586-7123.

Success at Carmel Mountain Hearing

by Dave Hogan, S.D. Bio-Diversity Project

A small victory was won September 18th in the San Diego City Council Chambers when the decision on the agricultural permit for Pardee Construction for Carmel Mountain was effectively tabled. The Planning Department basically told Pardee that they couldn't have a hearing on their request without Pardee submitting a full environmental review of the proposed agriculture in this area.

From previous newsletters you'll remember that such permits were the device used in the past by unscrupulous developers to circumvent environmental regulations. Regulations were laxer for agricultural permits than for building developments. This led to developers making sweetheart, under-the-table deals with farming businesses to pretend to grow a crop on the developer's property. The plowing and subsequent crop growing would kill the native, often sensitive vegetation. Several years later the developer would apply for approval of a development and not have to do an environmental impact report because no native species were left!

This victory was a combination of better environmental protection laws passed in recent years and the pressure generated by the petitions circulated in the Carmel Valley area and the many people and organizations who protested this attempted subterfuge. Keep up the good work!

Dump site at "Hollywood & Vine?"

The proposed dump site off Shaw Valley Road near the "Hollywood & Vine" sign in the Carmel Mountain area is still being actively considered. If it were to be approved it would result in the destruction of one of the few remaining intact areas of coastal sage scrub habitat in the area. It would also do grave damage to the watershed in the area, affecting both Carmel Valley and Peñasquitos Canyon. Why wasn't the site proposed for one of the areas already destroyed and laying fallow, one of the many sites where tomatoes were "grown?" We'll let you know about public hearings and what you can do about this in future newsletters.

Toxic Plant Series

The Castor Bean Plant

by Tim Almquist, M.D.

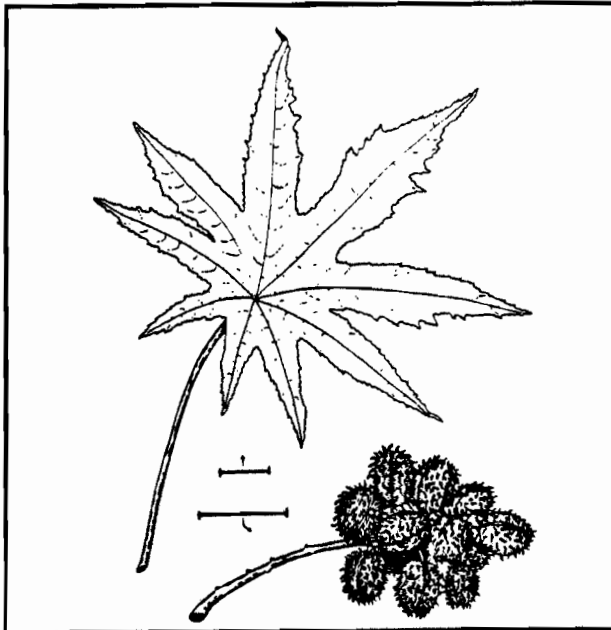
Peñasquitos Canyon Preserve provides us with a wealth of outdoor experience and numerous examples of native and naturalized plants. Many of us recognize the medicinal, herbal, and aesthetic qualities of many of the plant species. How many, however, know the plant species, which — if used improperly — are dangerous to our health?

Examples of toxic plants may be seen within the canyon, entering from either end, and also in related areas. For many of us, this literally includes our own backyard. Unfortunately, some common landscape plants, and even indoor ornamental plants have a great variation in individual toxicity, causing potentially severe reactions. Fortunately, toxins found in local plants are either so unpalatable that they aren't ingested in large quantities, or are relatively diminished in their concentration. While they many cause illness, they seldom cause serious lasting health problems.

Castor Bean — the "natural" rodenticide.

One of the most toxic plants, however, does grow in our canyon. This plant is commonly used as a "natural" rodenticide when planted at the perimeter of a field to kill rodents. It's readily available at commercial nurseries. This is the Castor Bean, known by its taxonomic name of *Ricinus communis*.

This plant is the source of the "dreaded" *Castor Oil*, long used as home therapy for anything that might ail you. This oil, however, came from processed extract of the



Castor Bean (*Ricinus communis*) has large leaves shaped like those of the maple tree, often 4 to 10 inches across. This fast growing plant produces an inconspicuous cluster of flowers but quite noticeable fruits. Each fruit contains three large shiny mottled brown seeds — unfortunately attractive to curious children. It is probably originally from Arica — *Native Shrubs of Southern California* by Peter H. Raven, Univ. of California Press

seeds or "bean". The same beans contain a substance known as Ricin, which contains an organic compound classified as a "glycoprotein." When ingested, the substance interferes with the normal growth and development of cells which it contacts. In this case, the intestinal tract is injured and the cells lining this area die, limiting the body's ability to absorb food products, eliminate waste and retain water. Typically, a very severe syndrome of nausea, vomiting and diarrhea develop, which is potentially dangerous if not treated with vigorous fluid replacement.

Treating Castor Bean poisoning

If it's known someone has ingested the beans, it may be treated with the very common agent, Activated Charcoal. The charcoal works to directly absorb the toxin on its surface, and the charcoal is eliminated through normal bowel activity. Syrup of Ipecac, a commonly used agent to initiate vomiting is discouraged in this setting, as the onset of spontaneous vomiting will likely be as efficient as the Ipecac, and is a very useful sign regarding the development of toxicity in the suspected overdose.

Management of this type of overdose is typically very uneventful, provided adequate fluids are used to replace those lost. No deaths have been reported in the English medical literature during the past 25 years.

Specimens of the Castor Bean plant may be seen alongside the northbound lane of the Black Mountain Road bridge crossing Peñasquitos Creek at Horseman's park. This is one of the exotic plants the Friends of Los Peñasquitos Canyon Preserve are eradicating from the Preserve.

[Dr. Almquist is an Emergency Physician at a well-known local hospital.]

Gnatcatcher Proposed for Federal Listing

Sept. 21, 1991, the U.S. Fish & Wildlife Service decided to take the first step towards listing the California gnatcatcher as a federally listed endangered species. Officials did this by formally "proposing" the listing. At the same time they opened a six month public comment period. The normal comment period is only three months. Six months is the same time they allowed for the Spotted owl comment period. Once the public comment period is closed, the Service has until Sept. 21, 1992 to decide whether or not the species should be added to the Federal List of Endangered Species. This proposed listing will make it difficult for developers to destroy gnatcatcher habitat without a full environmental review process. The California Fish and Game Commission, of course, denied endangered species listing for the gnatcatcher in California this same month. A legal challenge on this ruling is expected.

Canyon Colors

by Pamela (PJ) Piburn
Volunteer, County Parks & Recreation Department

Summer draws to a close and I begin to notice the subtle changes in the surrounding landscape. Especially noticeable are the buckwheat flowers, whose whiteness reflected the sun's rays all summer, now turned a deep reddish brown amidst dry yellow grass. Coastal sage, long since dormant from the summer's heat, accompanies the buckwheat, appearing as varying hues of brown in a sea of blanched grass.

Desert versus eastern colors

While many of San Diego's transplanted residents begin to pine for the brilliant colors of the eastern deciduous trees, Penasquitos Canyon Preserve begins its own seasonal show. Although not as brilliant as a Maple, the western Sycamore's leaves also change colors before falling gracefully to the ground. Varied shades of green, yellow and gold flutter in the breeze while brown burs (seed pods) hang in sets of three or more like early holiday ornaments. Chaparral plants refuse to be out done by this display, and add their own rich green coloration to the hillsides. Starting close within the plant, deep dark tones of green give way to brighter, whiter shades as these plants prepare to release millions of tiny fuzzy white seeds into the air.

Fall flowers

Another plant flowering at this time is the fennel. Not a native species, fennel is very prevalent in the canyon. The tall green stalks burst forth into tiny yellow flowers above our heads. The black and yellow bees add color to this display

while busily gathering this added bonus of pollen.

Amidst the browns and greens and yellows, poison oak adds a bright red warning to its otherwise shiny green leaves. Make note where the red appears — in a while there won't be leaves to mark the danger that still exists on the bare stems. Another plant presenting us with a festive red coloring is Toyon (California holly). On this evergreen plant, the tiny green berries appearing in place of white blossoms will turn red in time for the winter holidays.

Evergreens

Many of the plants within the preserve are evergreen. The majestic oak trees maintain their steadfast appearance of green, but add decoration in the form of small green acorns (soon to be brown) betwixt their leaves. The lemonade berry is also a shining green star in the woods. Stripped of most of its ornamental red berries by the wild inhabitants of the canyon, the lemonade berry remains ever green. Eucalyptus trees (not native), their branches bent under the weight of their heavy load of seed pods, are also evergreen.

Preserving nature's best

I hope you'll make a point of viewing this year's display. While you're there, please remember, there are some colors that don't belong: the glint of aluminum beer or soda cans, the shining white of bits of paper and the transparent reflections of plastic bags. Help preserve our natural colors. Take out what you bring in and remind others to do so also.

The History and Trails of López Canyon

by John Northrop, Ph.D.

Calle Cristobal opened to automotive traffic in August, and, along with it, the López Canyon parking-staging area at the west end of the Preserve. The new facility may be reached by driving east on Sorrento Valley Boulevard or west down López Ridge on Calle Cristobal in Mira Mesa. There is ample parking space for both cars and horse trailers. Gating is provided to the causeway across López Creek for those wishing to hike or ride in the Preserve. This makes the little-known López Canyon easily accessible for the first time since the floods of 1978 washed out the old road.

The López Family

López Canyon, the second canyon of the two canyon system that makes up Peñasquitos Canyon Preserve, was originally a land grant to Bonaficio López by Pio Pico, the last Mexican governor of California, circa 1824. The lower part of the canyon was operated as a cattle ranch by the López Family until 1956. Ruins of the old López Ranch house and outbuilding are still visible near the grove of pepper trees on the north side of López Creek about half a mile in from the new Parking/Staging area. The stone and

masonry water tank near the ruins has the names of Ramón and Henrietta (Enriqueta) López, the last of the López family, inscribed in its base along with the date, 1947.

Ramón and Henrietta, brother and sister, were still living there after WWII when Alan Rothero, an honorary lifetime member of the Friends, first visited the canyon in 1946. According to newspaper clippings at the time of Henrietta's death in 1956 at the age of 79 (Ramon had predeceased her) she was the great-great granddaughter of Ignacio López who built one of the first homes, Casa López, in Old Town. Ignacio López was the grandfather of Pio Pico, the last Mexican governor of California. The López cattle brand, an encircled scroll-L, was found on file in Escondido by the late Dr. Elberta Fleming and forms the Friends logo. Photographs of Henrietta and Ramon are on file in the Friends' archives, a gift from Alan Rothero, who imparted to me much of his knowledge of the López dynasty.

The Old López Road

The Old López Road runs from the top rim of López

➡ p. 4 for more

(López cont'd)

Canyon — where the northern end of Pacific Mesa Boulevard ends — all the way to the bottom of López Canyon. Top and bottom are both marked by signs. The road was built by Ramon López using a team and a hand-held scoop. He built it in one summer after a fight with the Peñasquitos Ranch over water rights.

According to Rothero, the water well at El Cuervo (the Rufz Adobe) had become increasingly saline and the Alvarados asked Ramon if they could pipe water in from his water tank. Lopez refused, saying he needed what little water there was for himself. The Peñasquitos ranchers then tried to starve him out by locking the gate separating the two properties along the old fence line (where it currently crosses the service road), thus preventing Ramón from taking his livestock to the Sorrento Railroad Station for marketing.

He then built his road up to the mesa top to where there were cattle holding pens beside the old dirt track near what is now called Mira Mesa Boulevard. Now you can follow the road up to the mesa top, turn right (west) along the riding/hiking trail to the Power lines, and follow that right-of-way back to the parking area.

The homestead trail

A must for the first time visitor is a trip up the canyon on the Homestead Trail, to the ruins of the old López Homestead. To get there, simply follow the service road upstream until you reach the López orchard where quince, pear and apricot trees still bear fruit. (The large pear tree was transplanted from Case López in Old Town.) When standing in the orchard, look left (north) across the creek to the water tank. The pepper trees east of it surround the foundations of the ranch house. Continue up the canyon several hundred yards until you see a sign on your right marking the "Old López Road." Turn left, cross López Creek where the old roadbed was and proceed to the pepper trees where the house stood. (The eucalyptus tree nearby marks the site of the red barn shown in one of Alan Rothero's paintings.) After inspecting the ruins, continue on to the water tank. Note the inscriptions in the concrete at the base (look out for barbed wire and snakes). Water was pumped to the tank from a shallow seep at the base of the hill (it's still there) near the base of the big sycamore trees, by the López's tractor fitted with a mobius belt around its power take-off wheel.

To return to the parking area via a different route, take the trail downhill from the tank westward to the service road. Note the century plants growing along the way; they are the only ones present in the Preserve and may have been planted there by a member of the Lopez family.

Wildlife corridor trail

The wildlife corridor under Calle Cristobal can be reached by going up López Canyon from the Parking area for about a mile and then turning off to the left to follow the "pipeline trail" (a wide, unvegetated swath of bare, rocky ground going directly up López Ridge) to the top. The view through the tunnel of eucalyptus trees on Del Mar Mesa is well worth the trip itself. The tunnel was built

by covering a quonset hut with dirt. After passing through the tunnel, turn left (west) and follow along the rim of Peñasquitos Canyon taking in the breathtaking views of the canyon with Peñasquitos Creek winding through it far below. Don't worry about scaring the deer because, as far as I know, none have used the tunnel since it was built four or five years ago. (It was constructed by the developer of López Ridge, Newland America, to meet one of the requirements for the permit to build Calle Cristobal.)

To return to the parking area, take the hang-glider trail that reaches the canyon floor about half a mile east of the Rufz Adobe. Upon reaching the bottom of that trail, take it out to the dirt access road and go left. Near the Rufz Adobe you can pickup a trail that follows the high wall of the new bridge around, across and underneath the new bridge to the new parking-lot.

The Power Lines Trail

To reach the Power Lines Trail from the new parking area, go up López Canyon about four miles to where the SDG&E power lines cross the canyon. On the way, note the old López wire fence that marks the east end of their land grant. The fence, which was made of lengths of 1" twisted wire rope, is now embedded in the tree trunks on both sides of the creek where it was wrapped around. Just upstream from this fence, pass under the newly constructed Camino Sante Fe bridge and continue for about another mile. The power lines are readily identifiable, so just keep going until you get there, turn left (north) and follow the SDG&E easement to the top of the ridge, cross Calle Cristobal and continue on to the edge of Peñasquitos Canyon where the trail leads down to the canyon floor. From there, it's about a four mile trip down Peñasquitos Canyon to the hang-glider site. Upon reaching that point, return to the parking area using the wall route described above.

Trail to the Rufz Adobe

To reach the Rufz Adobe from the new Parking-Staging area, go under the Calle Cristobal bridge and cross the creek to the west side, and follow the trail along the wall described above. This adobe structure has a protective covering it to protect what's left of its 3 foot thick walls. While there, note the cattle holding pens, loading platform and associated "squeeze gate." These were used by ranchers right up until 1989 when shortage of browse caused by the drought forced the herd's owner, Mr. Ray Whitwer, to take the cattle out, thus bringing an end to 200 years of ranching in Peñasquitos.

Please don't use the tracks made by illegal vehicles that go up the nose of López Ridge on the northeast side of the bridge. This is a sensitive habitat area.

For maps and more information on trails, see the author's book *Riding 'Round Peñasquitos, a trail guide to riding and hiking trails in Los Peñasquitos Canyon Preserve, San Diego, CA* (updated, 1991 edition), now available at most La Jolla Book stores or from the author (7015 Vista Del Mar Ave., La Jolla, CA 92037; 454-6570).

On Saturday, Oct. 26, at 9 a.m., the Friends will lead a walk in Lopez Canyon (see walk schedule, p. 10).

Introducing the Sensory Awareness Walk

by Will Bowen

Introduction

Our modern life has become increasingly fast paced and complex. Indeed, they're calling the 90s the "white knuckle" decade. Such a stressful and tension producing lifestyle often has the effect of causing us to fall out of touch with both our inner nature and the outer nature of the world around us. We see this manifest in the increased frequency of stress related medical and psychological disorders in individuals and in a growing encroachment on what few natural areas are still left intact. In our own backyard, we daily face the struggle to keep Penasquitos Preserve intact from the sly tramping of development on the canyon rim.

It seems appropriate to find some respite or relief from the pressures of our life. We need a time set aside for re-thinking, for reassessing priorities, a time to quiet the mind, a time for therapeutic play, a time when we can let go of our anxieties and find renewal, regeneration, and refreshment, perhaps through a deepening contact with nature. In this, we may find a freshness and newness, by which can better appreciate each moment of our life as precious and unique. The Friends wish to contribute in some small way to such personal and collective renewal by offering a series of nature hikes in which we may have the opportunity to contemplate the beauty of open spaces--of grass covered hillsides, trees, birds, plants, the great blue dome of the sky--and at the same time examine our own inner landscapes. One new hike developed to address this need is the Sensory Awareness Meditation Hike.

What is sensory awareness?

The purpose of the Sensory Awareness Meditation Hike is to encourage a coming back to our own original nature. Can we rediscover the natural or inherent abilities and potentialities of our biological organism? In sensory awareness we attempt to let go of our cultural and social conditioning to rediscover what might underlie it--our capacity to experience freshly for ourselves. So often we have been bombarded by the media and the other institutionalized social discourses of our consumer society and passively accepted how we ought to be, feel, think, or perceive. Nowhere has our own creativity, free thinking, naturalness, and spontaneity been encouraged. In sensory awareness we try to become more quiet so as to discover our natural processes, as they might be. Can we be more fully there for the sense data of the world, and come to our own conclusions, with the realization that we can experience fresh for ourselves? Can we listen to the responses in our own tissues? Can we overcome the hindrances to marveling at the world and to trusting our own abilities? Can we be fully present for the immediacy of everyday experience?

The experiential process of sensory awareness is quite simple and basic. We "experiment" with the smell of a flower, the taste of a berry, at looking at the sky, at touching a leaf. When our mind is quiet and we are not distracted we can be really present for what we do, taking it all in, all the

way down to our toes. Simple everyday experiences become more rich and profound, and in time may have a transformative influence on other areas of our life.

Sensory exercises also help us to reconnect with our own forgotten or barely remembered childhood. If you have ever watched children at play and observed the fascination, absorption, curiosity, and interest they display in what they do, in their approach to the world around them, you will understand what we have lost, and what we seek to rediscover. To paraphrase the French psychologist Jean Piaget, "if you wish to be more creative and spontaneous, then become like children before they were deformed by adult society."

A taste of a sensory awareness experiment

To give the reader a idea of what sensory awareness experiments are like I invite you to participate in the following brief "experiment" — Would you take a deep breath and let your troubles and preoccupations recede just a bit. And if you are sitting, would you take a minute to feel what it is that you are sitting on. Is it hard or soft, warm or cold?

And now please put your awareness in you feet. Are your feet alive for the touch of the floor or the earth? And can you feel the air on your skin; can you feel it passing between your finger tips ? And as you hold this newsletter can you feel its weight — that is, the pull of gravity upon it? What is this process by which you can go deeply into contemplating how it is you can understand, on a strictly feeling level, this concept of weight? Would you rub your thumb now along the paper to feel its texture. Could this be important to you. Does the paper have any odor? Is the ink still fragrant? And as you read these words can you really let them in, can you savor them, so that they effect your whole being and not just your mind or intellect, but that your stomach and your breathing and your feet are also involved in what is read."

That's just a little taste to give you the flavor of what we will sense as we walk in the natural world of Peñasquitos Preserve.

The hike: a treasure map

The hike will be limited to 10 people for more intimacy of experience. Each monthly hike will be different in content and in ground traversed. We will gambol(to leap about playfully, frolic, skip, prance, romp), gallivant(cruise, jaunt), gad(roam and ramble), and galump(to move about with the immaculately exuberant rambunctious play-energy of puppies, kittens, and children). He will pad and patter, saunter and stroll, as we seek out, sip, sample, and savor the following sensory experiences:

Tastes: fennel seeds, elder, atriplex, and lemonade berries.
Smells: sage, clover, coyote melon, artemesia, wild rose, yerba mansa. **SIGHT:** tan and brown grass covered hillsides, up through the leaves of sycamour, the sky, clouds, weathered fence posts.

Hearing: insects humming, birds singing.

Ranger Reneene Mowry

by Kate E. Johnson, member
Los Peñasquitos Canyon Preserve Volunteer Patrol (LPCP)

Our intrepid County Ranger, Reneene Mowry, wading through the requisite mounds of paperwork, reports, and research projects, learns of disturbing activity in the east end of the Canyon. Dropping everything, she rushes from her office in the ranch house and arrives at the Mystery Tree area to find a young man playing his drum set under the trees. *With* his VW parked conveniently nearby.

After dealing with this situation, she must face a fire started in the "treasure pit" by the Mystery Tree. This is a favorite party spot and the pit is used as a trash dump. Her one-woman bucket brigade eventually puts out the fire with water from the stream. All in a day's work.

Reneene has been County Ranger at Los Peñasquitos Canyon Preserve since 1989. She loves the Canyon. Anyone can feel this after talking with her for a few minutes. Her face lights up and she'll tell you happily of recent successes and interesting finds. The ranch house, east-end staging area, and a couple of west-end county-owned areas are un-

der her expert jurisdiction. Reneene is also responsible for supervising the County live-in volunteers at Los Peñasquitos Canyon Preserve.

As many of us do, Reneene contemplated a major career change. In 1982, unlike most of us, she acted on it. She became a live-in volunteer at William Heise Park in Julian after ending a civilian job as Chief of Services (family counseling) with the Navy. She credentials include a BA in Social Sciences and an MA in Counseling Psychology. After the Julian assignment, she was ad Dos Picos for one year and then at Aqua Caliente for three years. And now she is part of the exciting County/City joint effort at Los Peñasquitos Canyon Preserve. Her caring and enthusiasm helped create the Volunteer Patrol, and she continues to support and grow with each Patrol member, as they discover new experiences and challenges. Thanks, Reneene. We're glzd you're here.

Birding in Peñasquitos Canyon California Quail

by Barbara Zepf

The last quiet evening?

Quite by accident, my husband and I had a chance to drive up Calle Cristobal on the night it opened. It was one of those blistering hot days, and we had taken our dinner to Peñasquitos Lagoon at Torrey Pines Beach to cool off and watch some birds. As there were more people than birds at the beach, we decided to try our luck at the west end of the canyon after dinner. •

When we got there, we noticed that Calle Cristobal was indeed open. What an unexpectedly nice end to an evening. Very few cars were on the road, and we had a good chance to explore it from one end to the other. Because of the bike lanes all along the road, there were very few places to pull off to have a look at the surrounding area.

Our first stop was at the parking/staging area on the south side of Calle Cristobal leading into the west end of the canyon. What a pleasant interlude. We saw only one other couple who were leaving just as we pulled up. Song Sparrows were flitting about in the shadows under the bridge as they came to take their last drink at the creek before settling down for the night. Two deer were browsing on the hill right at the parking lot. It was so peaceful and still. We had the canyon all to ourselves.

The other stop we made that night was on the north side of the road, where a very small parking area leads you to a path up a hill for a nice view of Peñasquitos Canyon. Several other people had parked there and were enjoying the view.

An explosion of birds

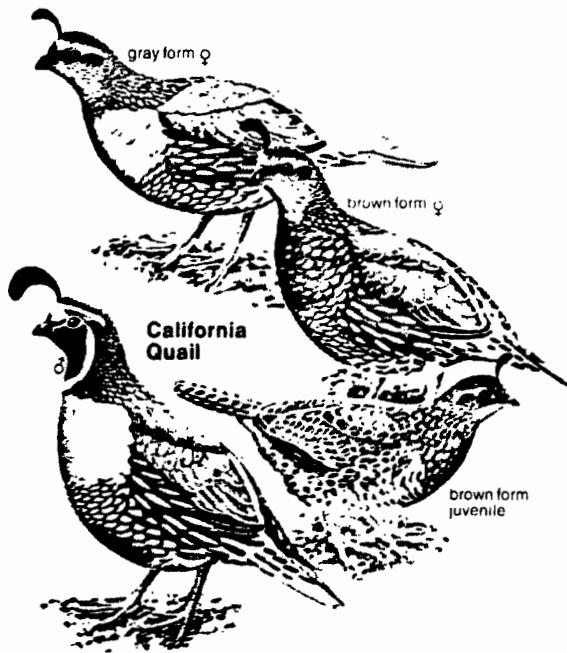
We walked along the dirt rim of the canyon for awhile, when, suddenly, there was an explosion at our feet — an explosion of birds — California Quail! A whole covey, surprised by our intrusion into their world, took off in every direction at once and then settled down nearby to resume their feeding. While California Quail don't seem to mind living around people, they are usually quite secretive in their habits. They mostly feed in dense thickets where they are hard to spot.

I had been birding at least six months before I saw my first California Quail, although I had heard them every time I went out. I was commenting to a friend who lives in Rancho Bernardo that they sure were hard to see. She said, "They're everywhere. I can't believe you haven't seen one yet!" She *guaranteed* me a look at one. She said they were on her roof every morning as she ate breakfast.

She invited me to a delicious breakfast morning of fruit and blueberry muffins the next morning. Sure enough, half-way through breakfast, we heard the definitive "chi-ca-go" call coming from her roof. I ran out into her backyard and had my first sighting of our California state bird — the California Quail — in all its glory, calling to the sunrise. What a pretty bird. It's very appropriate that it be our state bird.

Originally, they only existed from the very southern tip of Oregon down to the tip of Baja California, extending

(Quail cont'd)



just a short way into Nevada. They've since been introduced into British Columbia, Idaho, Utah, Catalina Island, Santa Cruz Island and Santa Rosa Island. The motivation for establishing new populations of this bird is that it is a game bird which can be legally hunted. In fact, the human hunter is their principal enemy. But they thrive in towns and cities where hunting isn't allowed. They can move into parks, cemeteries and residential districts — any place not completely abandoned to concrete and asphalt.

Talk about sociable . . .

California Quail are highly sociable birds. Except in breeding season, they forage, roost (in trees or bushes, not on the ground) and loaf together during most of the year. If the covey becomes scattered, the quail sound their loud assembly call "chi-ca-go" (accent on the second syllable) to get them back together. Don't ask me why the California Quail seem to call "Chicago." Maybe the phonetic description was first made by a transplanted midwesterner. Quail maintain a constant vigil against surprise attacks by predators. usually one male will post himself atop the highest vantage point in the feeding area to keep a lookout, while the rest of the covey feeds. Their alarm call of "pit-pit" is frequently heard. In case of extreme danger (such as an approaching hawk overhead), a "kurr" call is sounded.

Quail don't eat many insects, but they do consume enormous quantities of annual weed seeds. Their other major dietary item is leafy, herbaceous plant material. They have regular feeding habits. They feed for about two hours after sunrise and two hours before sunset. They'll come to the same feeding area day after day.

The California Quail tolerates a broad variety of climates from arid desert to cool, wet coasts. They love shrub cover and woodlands with patches of open ground with a

constant supply of water nearby. Pefasquitos Canyon suits them just fine.

Not finicky breeders

In California, quail can breed almost anytime from January to October. They're monogamous and lay 12–16 eggs in a slight hollow in the ground, lined with grasses or leaves. The nest is well hidden under a bush or in a thick clump of grass or beside a log or rock. The nest is incubated by the female, alone, about 22 days. When they hatch, the chicks are fed by both parents. They develop their wing feathers first and can fly short distances in ten days. At 14 days they fly well. Quail prefer to run rather than fly. They can run up to 12 mph and have been timed flying at 51 mph (but only for short distances). They can't swim, and some have drowned while drinking from a water source that was too deep.

After telling you all about our state bird, I almost forgot to tell you what it looks like. The California Quail is 9–11 inches long. It's a small, plump, chicken-like bird with a short black teardrop-shaped plume tilted forward from the top of a dark brown head. They're gray and brown above, with a blue-gray breast. The belly is finely scaled, and there are broad white streaks on the brown-gray flanks. The female has a brown, streaky head with a darker brown cheek. The male has a pale, buffy-colored forehead, a black throat and a chestnut patch on the belly. It has a white stripe over the eyes and across the forehead. There is also a necklace-like border or white around its black throat. They're real beauties!

As the chaparral begins to dry out at this time of year, you have a good chance of spotting quail as they come to the creek to drink. Try your luck in the early morning or early evening. The east end of the canyon, right before the road goes to the creek, is usually a good spot to see them.

What's for dinner?

Some years ago, I fixed quail for dinner. I didn't tell my husband what it was. After dinner, I asked him how he liked it, and he said it was pretty good. When I told him what it was, he got this funny look on his face. He said, "Somehow I don't think I could have eaten something that we go birding for, if I had known what it was ahead of time." Although it was ranch-raised quail, we never had it



Chaparral Pea

Bat Myths

by Brian Swanson

Bats. When many of us think of them we recall childhood fears, often thoughts of dark caves, vampires and rabies. However, a few of us perk up with interest at the mention of these small mammals. Most of the bat myths we grew up with are simply not true. They're intelligent and beneficial.

Bats are the world's most important predators of night flying insects. A bat can consume several thousand mosquitoes or other flying insects in a single evening — somewhat like a swallow functions during the daytime.

The bat is responsible for the pollination of certain tropical fruits which many of us would not enjoy were it not for their beneficial interaction.

These include bananas and avocados. They help keep the rain forests lush and green as the fruit eating bats scatter seeds over wide areas.



Blood? Vampires?

And, while there are indeed vampire bats, they represent a very small percentage of the bat species. Vampire bats are found in Mexico, where they generally obtain a few drops of blood from range cattle. They do this with a painless incision, usually while the animal is sleeping.

Bats are the only mammals that can fly. Bats are *crepuscular* — they fly at dusk and again at dawn. As mammals they have fur and nurse their young. The famous bat colony in Carlsbad Caverns, New Mexico, is primarily a nursery colony. Almost without exception the adults are female Mexican Free-tail bats who go there by the hundreds of thousands to raise their single young. The colony, which had recently numbered in the millions, leaves the cavern to feed in the valleys of the Rio Grande and Black Rivers. The use of pesticides in Mexico and Central America has contributed to their population decline.

When the bats are roosting in a large colony, more than 300 of them are found within a square foot of cave roof. The warmth of so many small bodies raises the temperature into the 90s, keeping the babies warm and healthy while the adults are away feeding.

Bats are more closely related to humans than to rats and mice. Their wings are made from skin, with their forearms forming a modified claw. Their bodies are generally small, and their bones are light, enabling them to fly. A special tendon allows them to safely hang upside down. Scientists have learned that bats are no more likely to carry rabies than any other wild animals.

There are more than 1000 species of bats in the world, with approximately 40 species found in the United States and Canada. Of these, approximately 24 have been observed in California. Bats range in size from two inches to two feet in wingspan. The San Diego Zoo has some large "flying foxes" which you might want to visit. The bats most likely to be encountered in Peñasquitos Canyon, the Big Brown Bat (*Eptesicus fuscus*) have about a 2–3 inch body. Other kinds of bats are expected to live in the Preserve, but haven't been positively identified to date.

Bats, of course, like to sleep in caves and mines. The little cliffs of Peñasquitos Canyon don't generally provide the degree of protection needed by bats. Several mines in the area might however. When the Kumeyaay Indians lived in Peñasquitos Canyon the *milyaapan* (bat) they found would have been in abandoned swallow nests or the hollows of large oaks and sycamores. Today they can also be found in the attics of the barn and other older structures. Although bats are our friends, just as no wild animal should be picked up, do not attempt to pick up a bat which might be found on the ground. An animal acting in an unusual manner is likely to be ill.

If you have been lucky enough to attend one of the twilight walks offered by the Friends, you may have seen one of these special creatures flying above an open field. I myself usually see one or two while out walking at dusk during the summer.

Bats can see quite well, but at night emit a variety of signals, similar to sonar. These come from their mouth, and are audible to us as clicks. The signals bounce off everything, letting the bat know where the insects, trees and even fellow bats are located. Then it maneuvers to either avoid or contact the object.

Bats have many enemies. When the young lose their grip on the cave roof, they fall to the ground. There, squirrels, raccoons and other opportunistic eaters make a quick meal of them. Ravens catch the young in flight. In some parts of the world ignorant men have destroyed entire sleeping colonies.

Bats also have their friends. Bat Conservation International (426-8987) is one of these groups that work on educating the public about the benefits of bats. Every creature and plant in the world, from the mesa mint to the bat deserves its place on the planet.

Happy trails to you.



Roadkills Mar Road Opening

by Mike Kelly

Events August 26 and 27 sadly reminded me of the importance of a point I made in a column several weeks ago. I wrote about the danger of Peñasquitos Canyon Preserve becoming isolated by development. I wrote about the negative effects of cutting off the Preserve from wildlife corridors to the south, east and north. I should have written, as well, about the dangers of development that cuts through the Preserve.

Monday, August 26, I received a call that got my day off to a depressing start. My caller reported a dead mule deer buck on the median of the new Sorrento Valley Boulevard bridge connecting the Boulevard with Calle Cristobal as it comes down off Lopez Ridge. Sometime the evening before or early that morning it had been hit and killed by a vehicle.

Tuesday, August 27 didn't get off to any better a start. One of our directors called to say his wife had just seen an adult bobcat dead near the intersection of Calle Cristobal and Camino Santa Fe, part of the same new road system. Despite the fact that she works with dead animals as part of her job at the San Diego Zoo, she was thoroughly shook up and found herself crying. She frequents the Preserve and appreciates how precarious the situation is for many of our animals.

New road divides vital ecosystem

Calle Cristobal runs along the top of Lopez Ridge in Mira Mesa. It's a four-lane arterial with high speed traffic and only one stop sign on the ridge. Already many commuters have discovered this short-cut to Sorrento Valley and are using it as a speedway. Most, I'm sure, are unaware that any wildlife live in the area that might try to cross the road. The Friends will ask the City's Engineering and Development Department to post Deer crossing signs. They won't stop most of the kills, but may spare an occasional animal and driver this accident. We'll also study whether additional fencing in the area would help. There is a viable corridor beneath the new Sorrento Valley Boulevard Bridge that animals are already using. Fencing in this case wouldn't deny them the vital connection between the two canyons. The problem is that the wild animal population is used to crossing through a broad area between López and Peñasquitos canyons, both part of the Preserve.

The Friends fought development on López Ridge because it was a vital part of the two canyon system. It was loaded with coastal sage scrub and chaparral habitat that supported large populations of mule deer, bird and other animals. Animals crossed it freely at a number of places, especially in dry months to reach the year round water in Penasquitos Canyon. Losing that fight, we've concentrated on animal crossings that would allow for the safe transit of deer and other animals.

Wildlife tunnel

A wildlife tunnel was constructed through the narrowest part of Lopez Ridge. This spot was not a traditional spot

for crossing (it was several hundreds to the east) and it's barren, graded earth with no cover for the animals. For this reason, we've seen no evidence of animals using it. Also, the developments scheduled for the ridge haven't gone in yet. Their fencing will tend to force animals to use the corridor in the future by denying them access to the rest of the ridge.

Since wildlife tunnels have a poor history, we expect to have to help in training the wild animal population to use the tunnels. The new owners of López Ridge have also committed to re-contouring and revegetating the area around the tunnel. This will help a great deal. Ironically, I find myself anxiously awaiting the building of these houses and fences. That should reduce the number of road kills along Calle Cristobal and stabilize the situation. Thankfully, City Planning is backing off from having an at-grade animal crossing at Camino Santa Fe and Calle Cristobal. For the past year I've been calling this the future "slaughter alley" if it goes through. No crossing at all is preferable to an at-grade crossing at a major intersection of highways like this one.

Although road kills are a fact of life in rural or urban areas, they have more of an impact here. With only one sighting of bobcat kittens this year I'm assuming we no longer have the two mated pairs we enjoyed in previous years. An earlier kill robbed us of an adult female on the east end of the Preserve. This and our latest loss at the west end probably means that we will be dependent on bobcats finding their way in from adjacent territories.

Development, road kills and the drought have also reduced the size of our resident mule deer herd. We're seeing fewer, especially fawns, this year. Losing a buck is especially distressing, not from a male chauvinist point of view, but because fewer males are born than females. These kills point up the absolute necessity of good quality wildlife corridors to keep our gene pool alive and diverse in the Preserve.



Friends October & November Outings Schedule

Fall is a Good Time for Color in Preserve

Although our fall color show is modest by eastern standards, it's still a time of dramatic color changes in Peñasquitos Canyon Preserve (see article by P.J. Piburn in this issue). Come with us on a walk to witness these changes.

Outings are free. Wear sturdy shoes; bring water for longer hikes. Rain cancels. For more details or to organize group hikes, call 484-3219 for recorded information.

OCTOBER

FITNESS WALK

Sat., Oct. 5, 8 a.m. 10-K (6 miles roundtrip, 3 hours) brisk walk to waterfall and back. Bring water. Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Led by Dr. Jaya Perryman.

RANCHO SANTA MARIA DE LOS PENASQUITOS ADOBE RANCH TOUR

Sat., Oct. 5, 11 a.m. and noon (45 min. each), S.D. County Archaeological Society. Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park, drive past ballfields to Preserve/Ranch sign and new parking lot. See historic adobe, settler and Indian artifacts.

MYSTERY TREE WALK

Sat. Oct. 12, 9 a.m. (2 hrs). Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Investigate the legend of the buried Mission treasure and the Spanish-Indian sign map on trees in the Preserve. Learn about the plants the Indians used, see an Indian grinding rock. Led by Mike Kelly.

NATURE WALK

Sat., Oct. 19, 8 a.m. (2 hours). Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Look for wildflowers, learn about plants the Indians and settlers used while living in the canyon. Led by Les Braund.

RANCHO SANTA MARIA DE LOS PENASQUITOS ADOBE RANCH TOUR

Sat., Oct. 19, 11 a.m. and noon (45 min. each), S.D. County Archaeological Society. Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park, drive past ballfields to Preserve/Ranch sign and new parking lot. See historic adobe, settler and Indian artifacts.

MEDICINAL PLANT WALK

Sun., Oct. 20, 5:00 p.m. (2 hours). Meet in the new Parking-Staging area at Sorrento Valley Boulevard entrance to Peñasquitos Preserve. Learn about plants our Indian and settler ancestors used for medicinal purposes. Led by Will Bowen.

FRIENDS MONTHLY MEETING

Thurs., Oct. 24, 7 p.m. At the Rancho Santa Maria de los Peñasquitos Adobe for our business meeting. Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park, drive past ballfields to Preserve/Ranch sign and new parking lot.

LOPEZ CANYON WALK

Sat., Oct. 26, 9 a.m. (3 hours). Meet in the new Parking-Staging

area at Sorrento Valley Boulevard entrance to Peñasquitos Preserve. Enjoy this canyon as the sycamores change to their fall colors and learn about the Lopez family who homesteaded the canyon for a hundred years. Four to six miles round trip. Led by Mike Kelly.

SENSORY AWARENESS MEDITATION WALK

Sun., Oct. 27, 4:30 p.m. To quiet the mind and come to our senses is the purpose of this twilight meditation walk. We'll delight in and savor the senses of seeing, hearing, touching, tasting, smelling, and movement as we explore Peñasquitos Canyon. This hike is for those who have an appetite for nature, experiment, and self-discovery. Led by Will Bowen. Limited to 10 people. RSVP to 452-7091.

NOVEMBER

FITNESS WALK

Sat., Nov. 2, 8 a.m. 10-K (6 miles roundtrip, 3 hours) brisk walk to waterfall and back. Bring water. Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Led by Trinity Gabriele.

RANCHO SANTA MARIA DE LOS PENASQUITOS ADOBE RANCH TOUR

Sat., Nov. 2, 11 a.m. and noon (45 min. each), S.D. County Archaeological Society. Mercy Exit off I-15 west to Black Mtn. Rd. Right on Black Mtn. Rd, make first U-turn, right into Canyonside Park, drive past ballfields to Preserve/Ranch sign and new parking lot. See historic adobe, settler and Indian artifacts.

MEDICINAL PLANT WALK

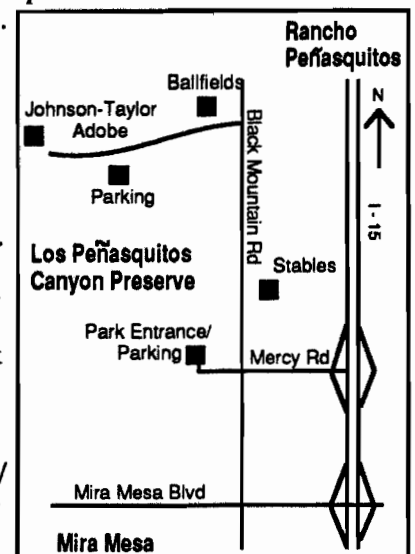
Sun., Nov. 3, 4 p.m. (2 hours). Meet in the new Parking-Staging area at Sorrento Valley Boulevard entrance to Peñasquitos Preserve. Learn about plants our Indian and settler ancestors used for medicinal purposes. Led by Will Bowen.

NATURE WALK

Sat., Nov. 9, 8 a.m. (2 hours). Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Look for wildflowers, learn about plants the Indians and settlers used while living in the canyon. Led by Les Braund.

RANCHO SANTA MARIA DE LOS PENASQUITOS ADOBE RANCH TOUR

Sat., Nov. 16, 11 a.m. and noon (45 min. each), S.D. County Archaeological Society. Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park, drive past ballfields to Preserve/Ranch sign and new parking lot. See historic adobe, settler and Indian artifacts.



(Garden project cont'd)

depressing, pursuit). Usually, commercial nurseries are contracted to provide plants for revegetation programs; This is the only practical solution for large-scale projects. Although there are a few commercial nurseries that are expert at growing native plants according to genetically and ecologically sound practices, most are not. Therefore, for small projects, having native plants propagated by volunteers has several advantages over their being purchased from most professional nurseries:

1. You can choose the genetic heritage of your plants. Most commercial nurseries are expert at producing nearly identical plants with a wonderful appearance. To achieve this, they often produce plants by vegetative cuttings from a single "superior" plant. These cuttings (actually called "clones") are genetically identical, and have therefore lost all genetic diversity. Even for nurseries which produce plants from seeds, the source of those seeds may not be considered important by the grower.
2. You may think you're not as good at growing plants as your nurseryman. To make nursery plants look wonderful, professionals use optimal fertilizers and watering, correct shading and pesticides. Some native plant species, when grown under such prime conditions, can't make it when they hit "the real world" and quickly die. In addition, some plants need to form symbiotic associations with soil microbes (not found in sterile potting soil) in order to thrive. The plants you will have grown with minimal care should transplant into the Preserve with less shock than nursery grown stock.
3. The greatest advantage is that *you* get to take part in the process. You learn about native plants, and about nature in general, on an entirely new level (I became fascinated with the phenomena of plant development!). And it's incredibly rewarding to experience the complete "cycle" of going out and identifying plants, growing them from seed, putting the seedling into some barren piece of ground, and then to returning in the future to see this plant as an integral part of the environment.

One of the first projects will be growing oak trees from acorns. Future projects will probably include cottonwoods and other species of trees and plants. This is a very easy "starter project" for people who want to get involved but have little or no experience with plants. The Friends will provide instructions and guidance for those who want to participate in this effort. If you want more information, call Alan Pepper at 586-7123 or Mike Kelly at 566-6489.

(Sensory awareness cont'd)

Touch: sycamore leaf underside, bark, smooth creek stones, earth, the marine flow breeze, creek water.

Kinesthetics: slow walking, spinning.

Synesthetics (sensory crossovers): feet taste the earth, hearing colors

Feeling the energy of special places: the Indian village, old

The Importance of Plant Genetic Diversity

by Alan Pepper, Ph.D.

The term genetic diversity is used by biologists to describe the diversity of genes within a species. Each population of a plant species, growing in a particular location, has a unique genetic make-up. This unique genetic constitution may include genes, or combinations of genes, which make the population well adapted to that locality or that confer resistance to a particular disease or environmental stress (such as drought).

Geneticists and ecologists refer to these genetically distinct populations within a species as ecotypes. For example, some coastal ecotypes of the Cottonwood tree (*Populus fremontii*) are thought to be genetically more resistant to fungal diseases than their inland counterparts (fungal diseases are more of a problem for coastal trees due to the greater rainfall, fog and atmospheric humidity along the coast). Well before a plant species becomes endangered, or even threatened, much of the genetic diversity that is present in a species may well be lost as habitat, and ecotypes, are destroyed.

According to a 1987 Biological Survey Report, prepared by Maggie Loy, County Biologist, the Los Peñasquitos Canyon preserve is a unique association at least fifteen distinct plant communities, ranging in character from Coastal Brackish Marsh to the Chamise Chaparral found on many of our mesa tops.

Of the more than 200 plant species found in the park, at least 16 are considered rare and endangered. In addition, there are 12 relic species (scientists call them paleoendemics) which were, in past millennia (probably before some major climatic change), widespread, and are now found only in isolated pockets, such as Los Peñasquitos Canyon.

There are 12 plant species for which the canyon forms the northern limit of its range, and one which is at the southern limit of its range. Six of the canyon's plant species normally grow only in the desert but have somehow adapted to coastal conditions. Finally, there is a population of rare oaks which are normally found in foothill areas further inland, above 1000 feet elevation. All of these observations, considered together, indicate that Los Peñasquitos Canyon is a unique bioregion containing distinct and unusual plant ecotypes, and that, in general, there is a great richness of genetic diversity present in the plants of the preserve.

López place, the natural sycamore and poison oak arch, dry creek bed

Hikes will be held once a month on Sundays evenings. Call Will Bowen 452-7091 for reservations.

Recommended readings:

Ackerman, Diane: *A natural history of the senses.*

Brooks, Charles: *Sensory awareness: the rediscovery of experiencing.*



Friends of Los Peñasquitos Canyon Preserve, Inc.

P.O. Box 26523, San Diego, CA 92196

619-484-3219 566-6489

NONPROFIT ORG.
U.S. POSTAGE
PAID
POWAY, CA
PERMIT NO. 286

**Address Correction Requested
Return Postage Guaranteed**

Special Notice to First-Time Readers

If you signed our mailing list on a recent walk or other activity, but aren't yet a member, this newsletter is a free sample. To keep it coming with its outings schedules, educational articles, and information on how to defend Peñasquitos Canyon Preserve, join the Friends of Los Peñasquitos Canyon Preserve, Inc. by filling out the coupon below.

(Outings cont'd)

BIRD WALK IN LOPEZ CANYON

Sun., Nov. 17, 8 a.m. Meet at the new parking-staging area at the west end of the Preserve. Take Sorrento Valley Boulevard east from I-805 or I-5 past the commercial buildings where you'll see the new parking area on the right. Alternatively, from Mira Mesa take the newly opened Calle Cristobal west and make a left into the new lot just after crossing the Sorrento Valley Lopez Ridge bridge. Bring Bird book and binoculars. Led by Brian Swanson.

SENSORY AWARENESS MEDITATION WALK

Sun., Nov. 17, 4 p.m. To quiet the mind and come to our senses is the purpose of this twilight meditation walk. We'll delight in and savor the senses of seeing, hearing, touching, tasting, smelling, and movement as we explore Peñasquitos Canyon. This hike is for those who have an appetite for nature, experiment, and self-discovery. Led by Will Bowen. Limited to 10 people. RSVP to 452-7091.

HALF-MARATHON WALKABOUT

Sun., Nov. 24, 9 a.m. Meet at Peñasquitos Creek Park in Rancho Peñasquitos for this 13-mile round-trip walk through the Preserve. Wear sun protection and bring plenty of water and a snack or lunch. You'll be stopping at the waterfall and other scenic spots. To reach the jumping-off point, take the Mercy Road exit off I-15 west to Black Mountain Road. Take a right (north) on Black Mountain Road. Take a left at the first light, Park Village Drive and proceed about 1-1/2 - 2 miles until you see the park. Led by Trinity Gabrielle.

Membership Application

Membership category? Circle below:

Senior (62) or Student \$7.00 Individual \$10

Family \$15 Sponsor \$25 Patron \$100

Corporate \$250 Life \$1000

Contribution \$ _____

I/We are interested in the following:

Volunteer to help the committee

Hikes

Indian Culture

Educational Workshops

School, Family, Youth Programs

Environment (Plants, birds, mammals, geology)

Other: _____

Name(s) _____

Address _____

City State Zip _____

Home Phone _____

Please make checks payable to:

Friends of Los Peñasquitos Canyon Preserve, Inc.

P.O. Box 26523, San Diego, CA 92196

Thank you for your support! Your donation is tax deductible.
Call 484-3219 or 566-6489 for more information.

10/91



Wildlife Corridors Advance

by Mike Kelly, president

Plans to avoid the isolation of Peñasquitos Canyon Preserve by establishing wildlife and trail corridors to other open-space park systems are receiving wide acceptance. Important support for these corridors has been won from City Planners, Park Department officials and others in the past two months. Already the corridor mapping we have been presenting along with Mike Conrad and Dave Hogan (October 1991 newsletter) is being used to influence the planning of future projects in the areas north of the Preserve.

Our members know that we have stressed the importance of maintaining the biodiversity of our Preserve by allowing for the migration of animals and plants through wildlife corridors connecting to other areas. Without these connections our system will quickly suffer the ill effects of genetic inbreeding. This will lead to a collapse of the larger mammal population and the overall health of the ecosystem. Here's what's happening with our corridor campaign.

East to Anza-Borrego — new opportunity

Two years ago the Friends proposed that the remaining Proposition 70 park bond acquisition funds earmarked for Peñasquitos Canyon Preserve be used to acquire the Sisters of Mercy Property. This parcel abuts the current eastern boundary of the Preserve at I-15. By acquiring this property it's possible to connect the Preserve to wildlife and trail systems in Poway and beyond.

This proposal won quick acceptance from the Citizens Advisory Committee to the Peñasquitos Canyon Task Force, the Task Force itself, and the City and the County Park Departments. The City's Planning Department also liked the proposal.

Recently, an opportunity arose to acquire most of this property as a donation. The owners of the property raised the idea of donating some 60-65 acres of the 74 acre parcel in exchange for help in rezoning another of their parcels of property in Mira Mesa. Teresa Wilkinson of the City Planning Department, Bob Dingeman of the Miramar Ranch North Community Planning Group and myself in the Mira Mesa Community Planning Group coordinated our efforts to this end. The result is that we have a commitment to donate this acreage to the Preserve when the Mira Mesa property is sold or developed — expected in the near future. The park bond money will then be available to purchase another parcel of land adjacent to the Preserve.

Once the Mercy parcel is acquired and future trails are built, it will be possible for both wildlife and people to travel from the beach at Torrey Pines to the desert at Anza-Borrego. Starting at the beach you travel through the Peñasquitos Lagoon area to Peñasquitos Canyon Preserve. From the Preserve you would pass along the Sabre Springs

Outings Schedule

See Page 10 for a convenient "hangup" format.

Holiday Break

As in past years, this issue of our newsletter is a combined, two-month issue so we can take a holiday break. Your next issue will be the January 1992 one.

Thanks Conservation Volunteers

Pampass Grass project: Thanks to Trinity Gabriel, Mike Kelly and Brian Swanson for removing the seed heads of dozens of clumps of pampass grass throughout the Preserve.

Live oak from acorn nursery project. The following people have volunteered to gather live oak acorns and grow them in backyard nurseries for later planting in the Preserve: Janet, Alice & Joan Potter, Renee Krebs, Paul Micheletti, Mike Kelly, Jelinda and Alan Pepper, Grace Lin, Vera Garrow, Mary Bingham, Mary Jones, Mary Weber, Ken Brucker, Candy Womack.

Newsletter help came from Susan Zepf, Trinity Gabriel and Mike Kelly.

If you want to help with any of our conservation projects, call Alan Pepper at 586-7123.

trail system to the Sycamore Canyon Trail in Poway. In Poway you will be able to go in either of two directions. To the north north-east you could travel on the Garden Road Trail to the Iron Mountain Trail and the San Dieguito River Park. Or, you could go east south-east along Beeler Canyon Trail into Sycamore Canyon Park, then through Moreno Valley to Oak Oasis Park, into the Lakeside Bureau of Land Management area. From there you would have a choice of trails through the Cleveland National Forest onto Aqua Caliente and Anza-Borrego! We'll try to have a map for you in a future issue.

The northern corridors

There are several wildlife corridors we hope to establish to the north. Our goals are to keep open corridors to Carmel Mountain and the Del Mar Mesa and through them, to Carmel Valley and the Peñasquitos Lagoon on the north and west, and Black Mountain Open-Space Park and the San Dieguito River Park to the north and east, respective-

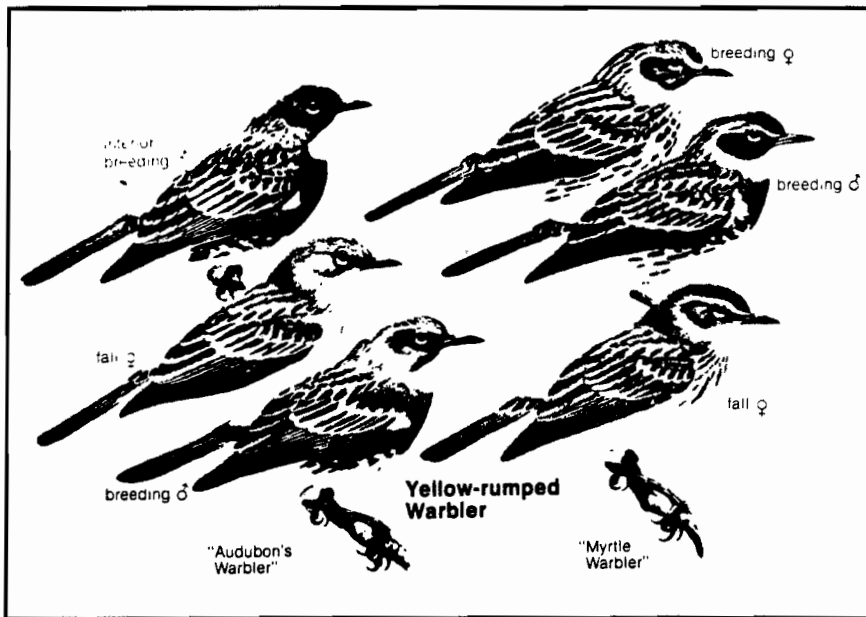
Birding in Peñasquitos Canyon Meet the "Butter Butt"

by Barbara Zepf

Happy Thanksgiving to all of you! There are many things to be thankful for in Peñasquitos Canyon — mainly the fact that it is there at all — a nice oasis between the sea of houses in Mira Mesa and Peñasquitos. Of course, the thing that I'm most thankful for are the birds therein. Every season brings a change in the distribution of the birds in the canyon. Some birds reside there all year long — like the Mourning Dove. Some come through only as migrants — like the Warbling Vireo. Some are there only in the spring and summer — like the Northern Oriole. Some are there only in the fall and winter — like the Yellow-rumped Warbler.

Yellow-rumped Warbler

The perfect bird to talk about in a November column would be the turkey. However, since we do not have turkeys in Peñasquitos Canyon, talking about the "Butterball" is out. We can talk about the "Butter Butt" — the Yellow-rumped Warbler. "Butter Butt" is the affectionate term used for this bird because of its bright yellow rump. They are most numerous in the canyon from late September through mid-April and they're always a sure sign that winter is on its way.



There are two subspecies of Yellow-rumped Warbler — the "Myrtle" Warbler found in the eastern half of the United States (which has a white throat) and the "Audubon's" Warbler found in the western half of the United States (which has a yellow throat). In the areas where they overlap, they interbreed, so they have been lumped into one species — the Yellow-rumped Warbler. Down in the canyon we get the "Audubon's" Warbler (although it is possi-

ble to get an occasional "Myrtle" Warbler).

Yellow-rumped Warblers are vivid and conspicuous birds. They are found throughout the canyon. They travel in small, loose flocks. The birds constantly chirp a "contact call" that keeps the flock together. The Yellow-rumped Warbler is a thin-billed, sparrow-sized bird measuring 5-5-1/2 inches long, with a wingspread of 8-3/4 to 9 inches. Females in all plumages, as well as the fall and winter males, are brownish-beige above and whitish below. They have two light wingbars, faintly streaked underparts and some yellow on the throat, the top of the head, both flanks and the rump. They have white spots on the inner webs of the tail and a broken white eye-ring.

Brilliant plumage at breeding time

Breeding birds (often seen in the early spring) are so striking that you might think you are seeing a different bird. The males take on a brilliant plumage. The upper parts are blue-grey, streaked with black. The five yellow spots on the bird (crown, throat, both flanks and rump) become brilliant and they have earned the bird another nickname — the "five-spot warbler." The wings have a broad white patch and the breast is black.

The Yellow-rumped Warbler's song is a slow, trilling warble, usually rising or falling at the end. You will most likely hear their song only in the spring when it is getting near breeding time. In the winter, its usual call is a sharp, metallic "tsip" or "chep" note.

Yellow-rumped Warblers eat ants, wasps, flies, gnats, aphids, beetles, caterpillars and spiders. They will also occasionally feed on berries and seeds.

They don't nest in southern California, but they don't necessarily go far away. They commonly nest in northern California, in the rest of the western states and all across Canada. Their nest is usually built on a horizontal limb or in the crotch of a tree, 3–50 feet above the ground. The nest is made of twigs, bark strips and rootlets and lined with feathers of other birds. They lay four gray or cream-colored eggs, which are spotted in various colors. The eggs are incubated for 12–13 days. Both parents feed the young.

They are very active birds — easy to find. They seem to feed even in the hottest part of the day and even in the pouring rain. So after you finish off that "Butterball" on Thanksgiving, you might want to go down to the canyon for a stroll to work off some of those extra calories, while enjoying the very active antics of the "Butter Butt."

Good Birding!

Origin of Exotic Boulders on the Floor of Peñasquitos Canyon

by John Northrop, Consulting Geophysicist

If you have wondered how the large (6 foot diameter) spheroidal boulders north of the falls ever got there, you're not the only one! Superstition has it that they were rolled to their resting place by the Indians, but one look at these huge monoliths, like the one shown in Figure 1, will quickly dispel that explanation. Some might think they are meteorites but there are no craters associated with any of the boulders. On the other hand, a study of the geological map shows that they occur directly down-slope from the outer edge of the Santiago Peak Volcanic rocks that are exposed as inliers on the floor of the canyon both at and below the falls.

The Santiago Peak Volcanics were deposited on the ocean floor during the Jurassic time (about 120 million years ago) when that part of what is now California consisted of an Island Arc/Deep Sea Trench sequence, much like the modern Japanese and Kurile Island Arcs. Marine fossils contained in both the Santiago Peak lava flows and sedimentary (black Shale) layers indicate that the lava was intruded periodically in the deep-sea trench, thereby both assimilating marine fossils and "baking" the sediment.

As is typical of island arcs, later stages of volcanism include extrusive and/or explosive eruptions. Pyroclastic flows* accompanying the late-stage volcanic activity probably formed the boulders, which are made up of large six to eight inch angular fragments cemented together with tuff (consolidated volcanic ash). Thus, the boulders we see today may simply be huge, fossilized "mudballs" that accreted while rolling down the sloping walls of the Jurassic volcano in the manner of giant snowballs that assimilate stones, grass and pebbles while being rolled around.

After being buried by subsequent deposits, the boulders were exhumed by down-cutting of Peñasquitos Canyon when the present configuration of the California Coast took place about a million years ago. When exposed, the boulders "weathered out" because they were more resistant than the surrounding rock and simply rolled down-hill to their present resting place on the canyon floor.

*Pyroclastic flows are partially fluidized mixtures of particles and gases that flow down the sides of volcanic cones during explosive eruptions. They attain speeds of up to 150 m/sec (270 mph) and involve temperatures in excess of 600°C (315°F).

For further information see "Geology of Peñasquitos Canyon," by John Northrop, Windsor Associates, P.O. Box 90282, San Diego, CA (92109) or from the author at 7015 Vista del Mar, La Jolla, CA 92037 (454-6570).

References

Fife, D.L., J.A. Minch, and P.J. Crampton, "Late Jurassic Age of the Santiago Peak Volcanics, California", Geol. Soc. Am. Bull., v. 78, pp. 299-304 (1967).

Kennedy, M.P. and G.L. Peterson, "Geology of the San Diego Metropolitan Area, California", Bull. 200, California Division of Mines and Geology, 1416 9th St., Sacramento, CA 95814, (1975).

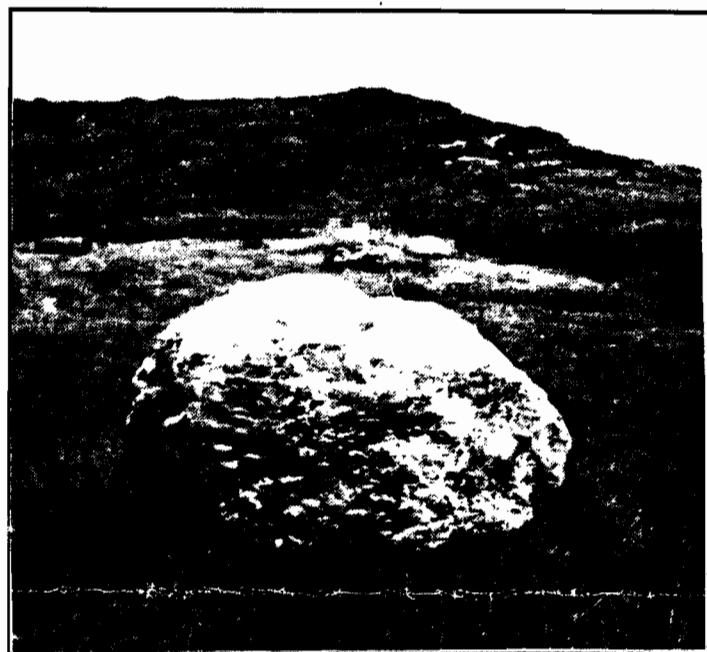


Figure 1. Photograph of some exotic boulders of the Santiago Peak Formation. Photograph taken looking east toward the field north of the falls.

(Vista Alegre cont'd)

establish the corridor envisioned in earlier planning. The future of the resource-based park that is Peñasquitos Canyon Preserve depends on viable wildlife corridors connecting the Preserve to other open-space systems in the area. Without these, the Canyon Preserve is not big enough to maintain the genetic diversity that will ensure the survival of a number of animal species, especially the large mammals. Potential wildlife corridors to connect to other habitat areas are now very few, given the extensive development that has taken place surrounding the Preserve. Our organization is part of a coalition that has extensively mapped the biology of the areas north of the Canyon and will be happy to make a presentation of our findings concerning potential wildlife corridors out of Peñasquitos Canyon Preserve.

3. Gnatcatchers

Although the draft EIR talks about the potential of California gnatcatchers to be on the subject property, we and other observers have actually seen at least one pair of gnatcatchers on this property. We are quite familiar with the property through a number of field trips to the CalTrans vernal pools with several biologists over the past three years. As these birds are now listed as a candidate species by the Federal Government under the endangered species act, it would be inappropriate to allow development of the sage scrub habitat they use. If there is any dispute over the existence of the gnatcatchers on this subject property we recommend consulting an outside bird expert such as Mr. Phil

➡ p. 4 for more

Not All Bees Are Social

by Mike Kelly

She lays sleeping, perhaps a foot beneath the ground, in a little chamber dug by her mother. It's been a long sleep, perhaps three or four years in all. She emerged from her egg three years ago and found some tasty pollen next to her broken egg shell. After eating the pollen she pupated and then went dormant.

While Cinderella needed but a kiss from her prince charming, our underground "princess" needs the right combination of both warmth and moisture to awaken her from her deep slumber. At one year after birth her genes refuse to trigger the wakeup call. It's warm enough for her survival, but it hasn't been wet enough.

Thousands of years of evolution in Southern California have shaped her genes for survival in a desert climate. Droughts are normal. Her genes wait them out. Nature has selected her genes to wait for the right degree of moisture in the soil. If not, she might emerge from her underground chamber and not find the flowers she needs for survival. It hasn't been wet enough for the flowers either.

It's now 1991. It's been another dry year up to now. Suddenly, the clouds build up overhead and open up, drenching the parched soil with inches of water. Some call it a "March Miracle." It's enough. Our little princess receives the wake up call. She digs her way out of her underground room, crawls up the tunnel shaft towards the daylight and fresh air.

She emerges from the hole, stands on the surface of the soil. She's a bit unsteady. This is all new to her. She lifts the things attached to her side, fluffs them in the wind. She experiments a bit with them and then launches herself into the air. Her wings carry her aloft, above the tunnel her mother dug years before. She rises above the chaparral bushes surrounding her, above the mound of earth holding her nest.

She's hovering over a mimia mound surrounded by vernal pools. The water is almost gone now, just a few puddles left. Urgent impulses drive her flight. Time is short. She must find food, for herself and her unborn young. She tests the air. She flies through the chaparral, hovers around the vernal pools.

Many flowers are blooming. The white ones hold no interest for her. The purple ones trigger no response. Nor do the red ones. She flies on, searching. Something catches her eye. Yellow flowers. She changes course. As she nears them, however, she knows something's not right. The yellow isn't rich enough, the odor is wrong.

She flies on. Another burst of yellow catches her attention. As she nears the new flower the color and the odor trigger her genes. She hovers over the 6 inch flower head and settles upon the dense disk of florets at the center of the ring of petals the color of bright spun gold. She gathers pollen.

When she has a full load of pollen she flies to a nearby chaparral covered mound. Like countless generations before her she digs her tunnel, as much as a foot beneath the

ground. She digs a chamber in one side of the tunnel. She forms her pollen into a ball the shape and size of a small pea. She lays an egg on it. She leaves on another pollen gathering trip to the nearby vernal pool.

She'll commute between her new nest and the vernal pool in the following days. She may dig as many as two dozen egg chambers off her main tunnel. Into each she'll deposit just one pollen pea and one egg. She'll enclose each in a case of wax. Her babies will hatch in a few days. She'll never know them, for they will lay dormant as she did, and she will die well before the next spring. In fact, her brief life cycle will come to an end when the flowers she depends on wither away under the approaching summer sun.

Although evolution has produced some wonderful genes that carry her species of bee through droughts, it has also made her dependent on the pollen of just one subspecies of plant. She is of the genus of bees called *Andrena*. Unlike her well-known and social cousins, hers is a solitary species. There are no hives for *Andrena*. Her species is destined to live alone. She will only gather pollen from this one plant species, goldfields (*Lasthenia spp.*).

Her relationship with the goldfields is one of co-dependency. The flower is largely dependent on a few species of *Andrena* to pollinate them and allow their reproduction. No act of will can break this co-dependency, only nature and the process of coevolution can do that. Their fates are inextricably intertwined, not only with each other, but with that of the vernal pools. For this species of goldfields is one of several that live only in and near vernal pools. Other species of vernal pool plants, including the spectacular blue *Downingia*, are also pollinated by "host-specific" bees.

The future of our declining number of vernal pools is also the future of these flowers, bees and uncounted other plants and animals that call vernal pools home. This winter and spring join us in our explorations to see these and other wonders of our area vernal pools.

For more information on vernal pool species see *Pacific Discovery*, Spring 1990.

(Vista Alegre cont'd)

Unitt of the Natural History Museum to make an onsite inspection of sufficient duration to render a firm judgement on their presence one way or the other.

4. Transplanting of coast barrel cactus

The proposal to transplant this endangered species does not constitute adequate mitigation for the disturbance of this species. Previous experience with transplanting, notwithstanding the expert attempts by volunteers of the California Native Plant Society, have resulted in a high mortality rate. One such experience occurred on this company's property on Lopez ridge. The transplanting of coast barrel cactus in and around the site of the so-called wildlife tunnel was a failure as even a casual inspection of

➡ p. 11 for more

The Birds of Penasquitos Canyon

Phainopepla

by Claude G. Edwards

This is one bird which has maintained a special fascination for me, since I saw my first one in the desert in the early 1970's. They are ordinary in so many ways, just another bird in the field, doing what birds do. Those first sightings impressed me, as I was aware of several odd and interesting facts about the species that other "ordinary" birds can't match.

The Phainopepla (*Phainopepla nitens*) has no other common name. This causes a lot of beginning and non-birders to get tongue-tied when they try to say it! It is an attractive species and dimorphic in plumage (males and females look different). The male is a striking all-over shiny black, except for in flight when the large white wing-patches appear. He has a perky pointed crest similar to its cousin, the Cedar Waxwing. He even has red eyes. The female is all-over gray with slightly paler-gray wing-patches, seen best in flight. Her eyes are brown.

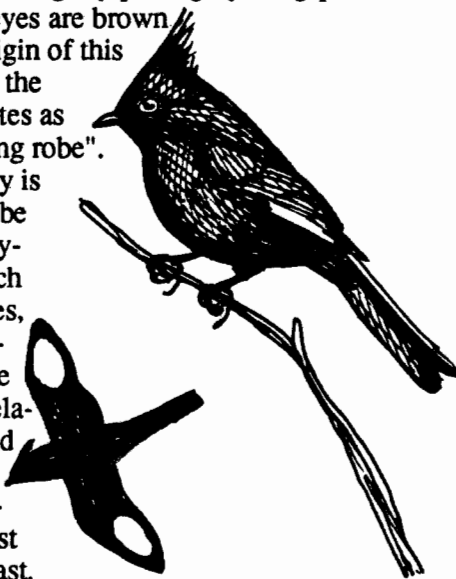
I once researched the origin of this species' scientific name; the meaning roughly translates as "he who wears the shining robe".

The name of its family is Silky-Flycatcher, not to be confused with Tyrant Flycatchers — a group which includes familiar Phoebes, Kingbirds and the Empidonax group. Besides the waxwings, its nearest relatives occur in Central and South America. Oddly, other relatives are in far-flung places like the West Indies and the Middle East.

Phainopeplas do in fact flycatch, often in showy aerial flights. They also have a penchant for mistletoe berries, which is why they are found around thick mesquite clumps in the desert. In Penasquitos Canyon, some of the large oaks and other trees have clumps of mistletoe in their branches and it is a fair bet that you will find these birds in the vicinity. They regularly flick their tails.

They have a pleasant call, a soft and mellow whistled "boop," which is easy to learn and imitate. Both sexes give this call. During the spring breeding season, the male has a more elaborate song which resembles a quiet thrasher's song. Their song is easily overlooked and not known to many observers.

One of the odd facts about the Phainopeplas is that they are known to nest earlier in the spring in the desert before it gets too hot. Then, they apparently migrate northward and to the coast to nest later in the spring. It is not known if they nest in both places in the same season. They are known to nest in Penasquitos Canyon.

**Friends Comment on Vista Alegre Project**

Vista Alegre is a 56.5 acre project for 87 single-family homes located in Rancho Peñasquitos. It is located north of the current Park Village housing developments. It is bordered on the east by an important finger canyon that stretches north from Peñasquitos Canyon. The future path of the northern leg of Camino Rufz lies on the west slope of this finger canyon. The development is bordered on the north by the CalTrans Vernal Pool Preserve, expected to be adjacent to part of the Preserve in the future.

This proximity led the Friends Board of Directors to analyze the Draft Environmental Impact Report, only to find it severely deficient. Subsequently, Mike Kelly of the Friends and Dave Hogan of the San Diego Biodiversity Project revisited the project with members of the San Diego Planning Dept. staff to confirm our criticisms of the draft document. Below is the letter of criticism the Friends sent.

RE: DEP No. 87-0927, Vista Alegre

1. Vernal Pools

The draft EIR for this project underestimates the number of vernal pools on the subject property, relegating them, for the most part, to being on an SDG&E easement and being in "disturbed condition." The actual number of pools appears to be about 22 and many of them are in good condition, holding water after the rains and supporting a number of plant and animal species associated with typical vernal pools, including endangered species such as the Mesa mint as noted in the report. RECON's inspection of the project site probably missed many of the pools since they are located in and well-screened from casual inspection by heavy chaparral. Penetrating the chaparral, however, will reveal their existence. With an estimated 95-97% of all vernal pools in San Diego already destroyed, these remaining pools should be preserved and added to the adjacent CalTrans Vernal Pool Preserve.

2. Wildlife Corridor

We are in agreement that the planned Wildlife Corridor through this area has already been nullified by previous construction. However, the EIR ignores the actual presence of an existing wildlife corridor that is being heavily used by mule deer, bobcat, coyote and other animals to migrate between Peñasquitos Canyon Preserve and the CalTrans Vernal Pool Preserve and adjacent areas, through the main North-South drainage in the area. This wildlife corridor should be protected, especially in light of the failure to es-

➔ p. 3 for more

Phainopeplas

"He who wears the shining robe" is a name that's grand for such a bird as me, unique throughout the land.

I am dapper in my inky black, my mate is somber gray, but when we fly, we catch your eyes, with patches on our wings!

Coyote Is Keystone Species

by Mike Kelly

The coyote (*Canis latrans*) is a much maligned creature that is only now getting belated recognition for the important role it plays in our environment. As recently as 4 years ago, coyotes were still being trapped and killed in Peñasquitos Canyon Preserve. They were killed for the same reason they have been mercifully hunted throughout the west — suspected stock predation.

Just a year after the alleged cow kill in the Preserve, the cattle were removed from the Preserve. This was long overdue because of the severe impact they had on the natural environment in our two-canyon system. In the future, however, some people may still call for the trapping and killing of coyotes after a pet dog or cat is killed by them. Why should we be protecting, not killing off the coyote?



Dead coyotes, killed as part of 'predator control' program financed by federal funds.

Keystone species

Many would argue, myself included, that we should be accepting the right of other species to co-exist with us, rather than exterminating them by indifference (habitat loss) or by design (trapping). Another reason to consider is that the coyote turns out to be a 'keystone' species within various ecosystems.

A keystone species plays such a vital role in the ecosystem that without it the system often falls apart. Large predators such as our coyotes actually play an indispensable role in maintaining the diversity of species in our canyons. People sometimes think this is illogical. After all, don't they eat lots of smaller creatures, birds, reptiles and mammals?

It's when you study what animals the coyote's prey are themselves killing that their vital role emerges. Coyotes reduce the numbers of other, smaller mesopredators. These predators, if their numbers go unchecked, can exterminate entire species of other animals, especially birds.

When coyotes are removed from an ecosystem, the first species to suffer are ground birds. If coyotes were to be

eliminated from Peñasquitos Canyon Preserve, we would lose our California quail population within a year or two. This would happen due to the predation of mesopredators such as skunks, squirrels, rats, weasels, raccoons and other opportunistic eaters that would eat the eggs and young of the quail. The introduced red fox and the native grey fox would do this as well as eating the adults birds in greater numbers. So too, would house cats visiting from nearby homes. Coyotes keep the numbers of all of these smaller predators in check; the result is an ecosystem in balance.

As intelligent as the dolphin?

The coyote is unique in comparison to other wild animals in the U.S. While the range and population of other wild animals is decreasing, some to extinction, that of the coyote is increasing. Although its numbers dropped during the decades of government sponsored animal terrorism (predator control), it is making an astounding comeback.

Some animal scientists rank the coyote with the dolphin in intelligence because of the flexibility it has shown against human intervention. As wolves were exterminated in the lower 48 states the coyote moved into the ecological niche they left empty. In the face of a similar extermination campaign they changed their social organization and habits.

The coyote is a member of the same family of creatures as the fox, wolf and domestic dog, the family *Candidae*. Where they once are thought to have lived and hunted in groups like the wolf, they now usually live alone or in smaller groups of two or three. Wolves were much easier to destroy than the coyote because they weren't as flexible in the face of the onslaught. They didn't learn to disperse the way the coyote did. Although the wolf's intelligence is touted, especially in its ability to conduct an organized hunt, it may be less than that of its more successful coyote cousin.

What they eat

Coyotes eat a variety of food. They eat fresh meat such as squirrels or rabbits, old meat from other animal's kills, fruits, berries, vegetables and even insects. Young coyote pups have been known to survive — without having learned hunting skills — by eating insects. When the tomatoe fields were still being cultivated in the area between Rancho Peñasquitos and Carmel Valley coyotes were known to raid them, gorging themselves on the fruit!

In examining coyote scat I've found the remains of dates from the palm trees (*Washingtonia filifera* and Blue Palm) native to our own and the Baja deserts. In urban areas, studies have shown that up to 72% of their diet is rodents and rabbits (the rabbit population tends to explode in urban areas with their lush grass lawns and bountiful vegetable gardens).

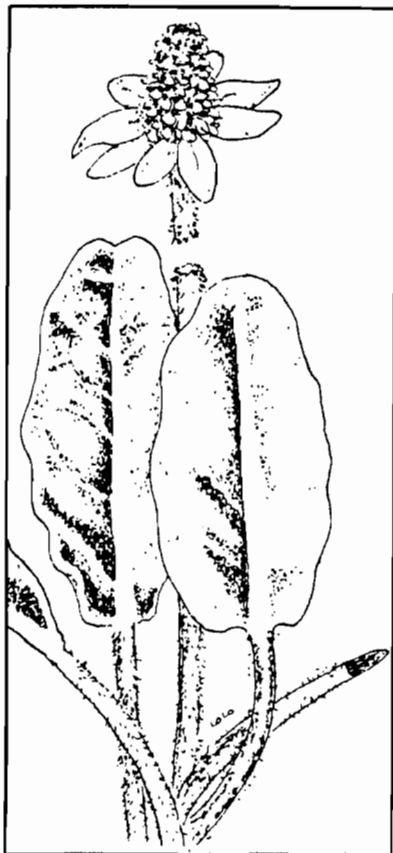
Effects of the drought

Peñasquitos Canyon Preserve's coyote population is currently lower than its historical norm. The killing of 6 or

Freshwater Marsh Plants Uses

by Dr. Elberta Fleming

[Nov. 17 is the second anniversary of the death of one of our founding members, Dr. Elberta Fleming. Educating all of us, but young especially, was always the focus of this whirlwind of energy we knew as 'Bert'.]



Yerba Mansa — A perennial herb found in wet, subalkaline soils; used by So. California Indians and early Spanish settlers as a cure for a variety of ailments. The strong aromatic and peppery roots were used in a decoction or tea as a cure for pleurisy. The roots were peeled, cut up, squeezed and boiled. Also used as an infusion for stomach ulcers, chest congestion, colds, indigestion and asthma. Bark of the plant was gathered in the fall and made into an infusion to treat cuts and open sores. A tea was made from dried leaves, or the leaves were heated as a wilted poultice to reduce swelling. bath prepared using fresh leaves was used for muscular pains.

Tule, Bulrush — A number of species of bulrushes may be found in the freshwater marsh or along a stream. The white tuberous roots of the bulrushes were ground into a sweet-tasting flour. Seeds were gathered and eaten raw or ground into mush. Cakes were made of bulrush pollen. The stalks were used for bedding, mats, weaving materials, thatch for native huts and for balsas or tule boats that the Indians used in lakes or along the ocean coastline for fishing. Because waterfowl nested in areas thick with bulrushes, the tall plants became indicators of the presence of game.

Cat-Tail — Cat-tails grow in wet places, along streams and in marshes. Indians used the plant for food, medicine and construction material. From June through July, the roots were gathered to be ground into meal. The pollen, rich in nutrients, was used to make cakes or mush. The roots were used medicinally to heal bleeding wounds and to heal the umbilical cord of a newborn baby. The down of the cat-tail was the first edition of a "Pamper" diaper for babies. It was also used as material for mats, bedding, construction of ceremonial bundles and building materials.

To identify marsh plants, remember:

Rushes are round, sedges have edges.

Nature Reading for Children

by Pamela (PJ) Piburn

My Nature Library by Ruth Thomson (Reader's Digest Association Limited, 1982) is a well written set of five nature books. It was delightful to read.

In *A Feast of Flowers*, beautifully and accurately illustrated by Gill Tomblin, Ms. Thomson introduces children to the world of flowers. The flowers come to life as Ruth describes how they "brighten" the meadows and "carpet" the hedges. A honey bee named Busybee serves as the children's guide. They get a glimpse of life in the hive and introductions to specific flowers.

In *The Tale of Tommy Nobody*, delicately illustrated by Charlotte Voake, a baby song thrush searches for his identity. Along the way Ms. Thomson gives children the opportunity to meet a variety of feathered friends. Having spent some time birding, I really appreciated Ruth's inclusion of bird behaviors, such as cocking the tail like a wren, or special markings like robin's red breast as a way to help children begin to identify birds.

The Tale of Fergus Frog, dramatically illustrated by Martin Ursell, shows life in a pond through the eyes of two competitive frogs, Fergus and Bessie. Beginning with the metamorphosis from tad poles to frogs, Ms. Thomson takes the children on an underwater journey into a pond. The frogs escape from predators like beetles, fish, snakes, and herons. They eat worms, snails, grubs and flies. Ruth even includes a math lesson in this book as children count how many insects were eaten in one day. The manner in which the two frogs reminisce to each other and thereby tell the story is fresh and appealing.

Ms. Thomson's knowledge of the meadow's inhabitants really shines in *The Hedgerow Circus*. She depicts the sensitive smell of a shrew by having them play a game of hide and seek. She has grasshoppers in a contest for the longest leap and a harvest mouse using his tail to help him leap from one grass stalk to another. Through Ruth's charming use of verbs children can see the animals movements. Beetles "skitter and scuttle" and hedgehogs "sniff and snuff".

The last book in this set, *Worms Wiggle, Bugs Jiggle*, simply illustrated by Iris Schweitzer, is a delightful anthology of rhymes and verse. My son enjoyed listening to a few of these each day as he was waking up. There are poems about everything from snails and caterpillars to cherry trees and pussy-willows.

Ruth Thomson's *Nature Library* is an excellent set of nature books for children. Their compact size and colorful covers encourage young readers to pick them up. The print is large enough for beginning readers and the illustrations attractive enough to keep the attention of younger children being read to. I recommend this book set to any one with children aged 3 to 8 years old.

(Coyote cont'd)

7 adults four years ago after the stock predation incident is one reason. Several coyote pups were observed starving after this killing. Most importantly, however, has been the effects of our drought.

Droughts cause famines in the animal population if they last long enough due to a cascade effect through the plant and animal kingdom. During droughts, the number of plants sprouting drops. The growth rate of living plants slows down. Their death rate increases. The fruit and flower production of a wide variety of plants drops off.

During our five-year drought I noticed that the lemon-aidberry bushes, for example, failed to produce as many fruits and as big fruits as this year after our 'March miracle.' This year's bountiful scrub oak acorn crop stands in sharp contrast to the miserly crops of past years. We could go on and on through the plant population.

The result of this dropping off of production during drought years is that the insect and animal populations decline. Hard as it may seem to accept, the insect population really does drop off during a drought. Ants too need water. And when their numbers drop, so too do the numbers of great horned lizards that wait outside ant hills to eat them. Reduced foliage causes the rabbit, squirrel, mouse and rat populations to drop. The cascade effect works its way up the food chain. In response to a reduced food supply, mammals such as the coyote produce fewer young in their litters or none at all. This is why we have seen fewer coyote pups or bobcat kittens in the last three years than previously. Their average litter size decline. When food is plentiful, mule deer will have more twins.

After the March 1991 rains we saw an explosion of insect life. In Borrego Springs and elsewhere we saw clouds of butterflies so thick it made driving difficult and unpleasant. Have you noticed the number of spiders this summer? Their increase and the increase in flowers and seeds led to many more rabbit and squirrel babies being born. I saw many more of both around the ranch house and in other areas than in other years. This increase in the food supply came too late in the year to affect the birth rate of the larger mammals who were already well into their gestation periods. 1992, however, should see an increase in their population based on a summer and fall of fat eating. If you think you saw fewer deer up on the canyon rims raiding our irrigated areas this summer, you're probably right. My guess is that the food supply remained plentiful throughout the canyon and made it unnecessary for them to forage in high risk areas nearer us and our pets.

The howl

If you live near a sizeable canyon in San Diego you can't help but be familiar with the coyote's howl. Having a coyote den on the slope below my house, I've been treated to a wide range of coyote vocalizations. These range from the high-pitched yipping of the pups imitating their elders to the intense, frenzy-like barking as adults close on their kill, to the "singing" howl as far flung individuals locate each other. A less frequently heard call is that of the "lone-

ly" coyote. On several occasions over the years I've observed a lone coyote sitting in an open area in full daylight emitting a very plaintive call. The "wailing" went on for more than an hour more than once. Each time friends and I dubbed it the "lonely" coyote. In any case it was unusual behavior.

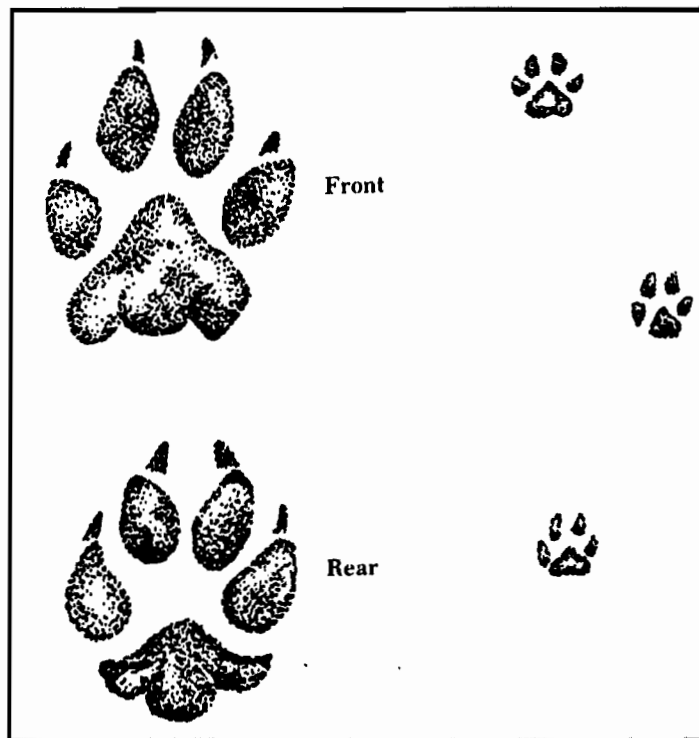
Canyon living

My strongly held opinion is that when we buy or rent a house on a large canyon in San Diego, we do so knowing we have wild animals in our backyard. It's part of what makes living on the edge of a park or preserve interesting and exciting. This implies a responsibility towards our pets.

With dogs it's clear — by law they must be chained or fenced in. They shouldn't run around loose. A big dog on the loose is a danger to people and to cats and wild animals. Animals as big as deer are harassed and sometimes killed by large dogs. Smaller dogs on the loose may themselves become food for coyotes.

The situation with cats, however, is less clear for people. Many let their cats outside without restriction. This causes two problems. One is that cats are ferocious predators. They take a heavy toll in lizards, frogs, birds, mice and the like. They also fall prey to coyotes. In isolated canyons you also get a build up of cats gone wild, feral cats. They will severely impact the local bird and reptile population. Knowledgeable and concerned cat owners put bells on their cat to reduce the number of kills their pet brings home.

I would hope that canyon lovers would accept the occasional loss of a pet in exchange for the privilege of living next to the wild.

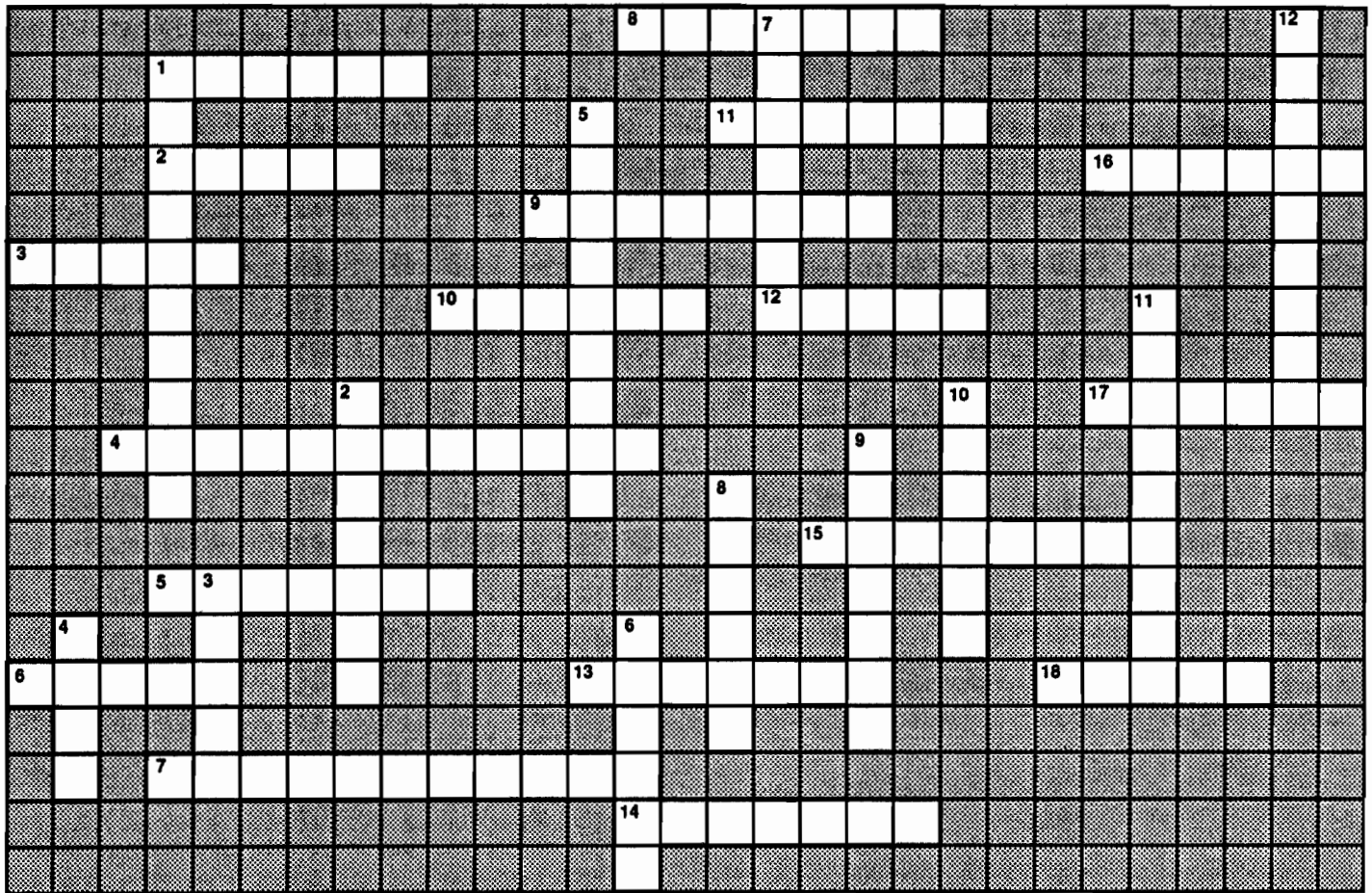


Coyote prints, not to scale.

Crossword Puzzle

Birds' Plumage Patterns and Features

by Claude G. Edwards



Across

1. Inca Doves have this pattern.
2. This grebe has yellow cheek feathers.
3. How a chimney sweep looks after work.
4. On shorebirds, a term meaning 'partial webbing.'
5. The distinctive Titmouse of the southwest.
6. Birds are feathered, mammals are . . .
7. A small, dark-eyed owl which migrates.
8. Related to "crissum," or undertail feathers.
9. The largest woodpecker across the country.
10. Shrikes and Yellowthroats are marked this way.
11. A grebe, an owl, and a lark have this in common.
12. The quality of a baby bird's feathers.
13. Means pinkish-colored.
14. San Diego is the only US breeding site of this tern.
15. A rare, migrant sandpiper usually found on sod farms.
16. A large Thrush which resembles a Robin.
17. The tail-pattern of a Red-shouldered Hawk.
18. A duller, non-breeding plumage.

Down

1. The face-pattern on a Solitary Vireo.
2. The largest species of Godwit, only one in our area.
3. The term for the family of Queen Elizabeth of England.
4. This term means 'without hair,' our national bird.
5. The smaller Screech-Owl of the southwest.
6. The common oriole which hangs around palm trees.
7. The endangered owl of thick oak-conifer woodland.
8. The former name for the desert flicker.
9. Cardinals, Waxwings, and Titmice are this way.
10. Another term for #9, the eastern Titmouse.
11. A word for the flycatcher without any 'whiskers.'
12. The fancy word for 'breeding plumage.'

Answers in January 1992 issue. Can you wait? Or will you need all that time to fill in the squares?

Friends November & December Outings Schedule

Fall is a Good Time for Color in Preserve

Although our fall color show is modest by eastern standards, it's still a time of dramatic color changes in Peñasquitos Canyon Preserve. Come with us on a walk to witness these changes.

Outings are free. Wear sturdy shoes; bring water for longer hikes. Rain cancels. For more details or to organize group hikes, call 484-3219 for recorded information.

NOVEMBER

MEDICINAL PLANT WALK

Sun., Nov. 3, 4 p.m. (2 hours). Meet in new Parking-Staging area at Sorrento Valley Blvd entrance to Peñasquitos Preserve. Learn about plants our Indian and settler ancestors used for medicinal purposes. Led by Will Bowen.

NATURE WALK

Sat., Nov. 9, 8 a.m. (2 hours). Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Look for wildflowers, learn about plants the Indians and settlers used while living in the canyon. Led by Les Braund.

RANCHO SANTA MARIA DE LOS PENASQUITOS ADOBE
Sat., Nov. 16, 11 a.m. and noon. See Nov. 2 for details.

BIRD WALK IN LOPEZ CANYON

Sun., Nov. 17, 8 a.m. Meet at the new parking-staging area at the west end of the Preserve. Take Sorrento Valley Boulevard east from I-805 or I-5 past the commercial buildings where you'll see the new parking area on the right. Alternatively, from Mira Mesa take the newly opened Calle Cristobal west and make a left into the new lot just after crossing the Sorrento Valley Lopez Ridge bridge. Bring bird book and binoculars. Led by Brian Swanson.

SENSORY AWARENESS MEDITATION WALK

Sun., Nov. 17, 4 p.m. To quiet the mind and come to our senses is the purpose of this twilight meditation walk. We'll delight in and savor the senses of seeing, hearing, touching, tasting, smelling, and movement as we explore Peñasquitos Canyon. Hike is for those who have an appetite for nature, experiment, and self-discovery. Led by Will Bowen. Limited, RSVP to 452-7091.

HALF-MARATHON WALKABOUT

Sun., Nov. 24, 9 a.m. Meet at Peñasquitos Creek Park in Rancho Peñasquitos for 13-mile round-trip walk through Preserve. Bring sun protection, water and a snack or lunch. Stopping at waterfall and other scenic spots. Take Mercy Road exit off I-15 west to Black Mountain Rd. Right on Black Mountain Road. Take a left at the first light, Park Village Drive and proceed about 1-1/2 - 2 miles until you see the park. Led by Trinity Gabrielle.

FRIENDS MONTHLY MEETING

Tues., Nov. 26, 7 p.m. At the Rancho Santa Maria de los Peñasquitos Adobe for our business meeting. Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park, drive past ballfields to Preserve sign and new parking lot.

DECEMBER

CHRISTMAS PLANT WALK

Sat., Dec. 7, 8 a.m. (2 hours). Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Look for Xmas plants, learn about plants the Indians and settlers used while living in the canyon. Led by Les Braund.

FITNESS WALK

Sat., Dec. 7, 8 a.m. 10-K (6 miles roundtrip, 3 hours) brisk walk to waterfall and back. Bring water. Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Led by Dr. Jaya Pereyman.

RANCHO SANTA MARIA DE LOS PENASQUITOS ADOBE RANCH TOUR

Sat., Dec. 7, 11 a.m. and noon (45 min. each), S.D. County Archaeological Society. Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park past ballfields to Preservesign and new parking lot. See historic adobe, settler and Indian artifacts.

BIRD WALK IN CANYONSIDE

Sun., Dec. 8, 8 a.m. Meet at the Canyonside entrance to the Preserve. Take Mercy exit off I-15 to Black Mountain Road. Right on Black Mountain Road, up the hill, take first legal U-turn back down hill. Right into Canyonside Park, past ballfields to dirt parking. Bring bird book and binoculars. Led by Brian Swanson.

MEDICINAL PLANT WALK

Sun., Dec. 8, 3:00 p.m. (2 hours). Meet in the new Parking-Staging area at Sorrento Valley Boulevard entrance to Peñasquitos Preserve. Learn about plants our Indian and settler ancestors used for medicinal purposes. Led by Will Bowen.

GEOLOGY OF SAN DIEGO WALK

Sun., Dec. 15, 9 a.m. (3 hours) Wear hiking shoes since there is one very steep hill involved. Bring water. Meet on Calle Cristobal in Mira Mesa at Caminito Propico where the power lines cross. Learn about area geology and visit the waterfall. Led by geologist Don Albright.

SENSORY AWARENESS MEDITATION WALK

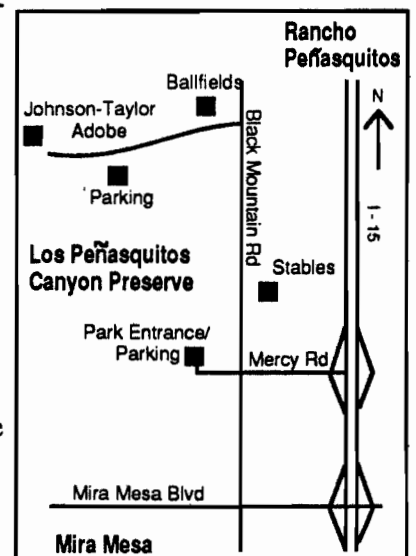
Sun., Dec. 15, 3:00 p.m. To quiet the mind and come to our senses is the purpose of this twilight meditation walk. Delight in and savor the senses of seeing, hearing, touching, tasting, smelling, and movement as we explore Peñasquitos Canyon. Hike is for those with appetite for nature, experiment, and self-discovery. Led by Will Bowen. Limited, RSVP to 452-7091.

MYSTERY TREE WALK

Sat., Dec. 21, 9 a.m. Meet at the parking-staging area off Black Mountain Road. Take Mercy Road exit off I-15 west to Black Mountain Road. Investigate the legend of the Mexican era sign map on trees in the Preserve that describe the location of the buried Mission treasure. Visit a Native American grinding site and learn about the plants they used to survive. Led by Mike Kelly.

RANCHO SANTA MARIA DE LOS PENASQUITOS ADOBE RANCH TOUR

Sat., Dec. 21, 11 a.m. and noon. See Dec. 7 for details.



(Corridors cont'd)

ly. To this end, the Friends have been working with Dave Hogan of the San Diego Biodiversity Project and Mike Conrad of Cromagen, Inc. to win acceptance of the biology mapping of this area that has been done.

More than wildlife corridors are involved here however. As we have written in past issues, both Carmel Mountain and much of the Del Mar Mesa deserve to be preserves on their own merits. Each has a unique collection of endangered species and habitats.

While Black Mountain Open-Space Park and the San Dieguito River Park are actually in the process of being acquired and built, Carmel Mountain and the Del Mar Mesa are concepts only. The funds do not currently exist to acquire these. The wildlife corridors we have mapped can probably be acquired as part of the development process in the planning areas involved: Neighborhoods 8a and 10 and the Future Urbanizing Area (Urban Reserve). The two new core preserves, however, are far from being assured.

Dave Hogan first identified the value of the Carmel Mountain and Del Mar Mesa areas as preserving most of the remaining undeveloped natural habitat in the North City area. He inspired the Friends to focus on these areas and we organized a number of field trips there led by Dave over the last two years. In recent months, Mike Conrad, a geneticist and former head of the Rancho Peñasquitos Planning Board, has devoted considerable time and money to this same effort. With his help, large scale maps were produced that map the wonderful biology of these areas. Numerous field trips have led to the identification of several wildlife corridors out of Peñasquitos Canyon north.

Armed with these maps, the three of us have been making presentations before the Long-Range Planning and the Environmental Quality Divisions of the City Planning Dept., the Clean Water Program, the County's Dept. of Public Works person in charge of their landfill siting program, Planning Groups, Landowners in these areas, the San Dieguito River Park staff, the Citizens Advisory Committee for Peñasquitos Canyon Preserve, the Friends, City

and County Park Dept. staff, SANDAG staff, State Dept. of Fish and Game staff, and leaders of other environmental groups.

We organized an important field trip that included representatives of many of these agencies to inspect the possible corridors and core preserves several weeks ago. Mike Conrad arranged to have Mike Soulet, one of the top habitat and wildlife corridor persons in the country, flown in to join our field trip. Soulet is a professor at the University of California at Santa Cruz and the author of a number of widely respected books and papers on wildlife habitat and corridors. His participation was an important reality check for the biological mapping that was done. He affirmed the validity of the corridors we mapped and provided an invaluable education on the planning and maintenance of such wildlife habitats.

The result is a broad consensus of the need for these corridors and the desirability of making Carmel Mountain and the Del Mar Mesa preserves. The mapping has already been accepted as an important part of the biology base mapping for the proposed Future Urbanizing Area (Urban Reserve) Framework Plan.

Small parcel acquisitions add to Preserve

The City Council took steps to acquire several more parcels of land to add to the Preserve in the past two months. The Council voted to spend monies accumulated in the Vernal Pool Preservation Fund to acquire the Miller and Fletcher parcels adjacent to the CalTrans Vernal Pool Preserve on the Del Mar Mesa. In addition, the Council voted to acquire two more parcels, totaling 25.6 acres, of primarily finger canyons adjacent to the Preserve.

Dedication of Preserve lands voted

In a long overdue action, the City Council voted to formally dedicate 36 parcels of previously acquired land, in the boundaries of the Preserve, about 1,000 acres, as park land. Although a formality, this action provides a higher level of protection for these park lands.

(Vista Alegre cont'd)

called wildlife tunnel was a failure as even a casual inspection of the site today will attest.

5. Loss of endangered, sensitive plant species

The projected loss of a number of sensitive species as listed in the report, whether in the vernal pools, chamise chaparral or diegan coastal sage scrub represents an irreplaceable loss. All of the plant communities and individual species, including the federally listed Mesa mint or Orcutt's brodiaea, are in sharp decline over all of our region. Ideally, these communities and species should be protected and linked to the adjoining vernal pool Preserve. If they are not protected, then offsite mitigation through the purchase of similar communities in the area should be required. Such communities do exist in the areas north of Peñasquitos Canyon Preserve, are threatened by future development and some would make good sense as part of wildlife corridors out of the Preserve.

6. Wildlife species

We have observed at least two wildlife species of concern on and adjacent to the subject property. These are the coast horned lizard and the Northern harrier. The latter has been observed on several occasions over many months, confirming the siting reported in the draft EIR. The number and spacing of observations would indicate the bird is actively inhabiting the area and not just passing through.

7. Protection of sensitive resources during grading and construction

The fencing and staking proposed to prevent damage to vernal pools and other sensitive resources during construction is inadequate in light of this company's previous record in other area projects. This same company damaged vernal pools in the City of San Diego and CalTrans Vernal Pool Preserves on Lopez Ridge in Mira Mesa during the grading of their property on this ridge.



Friends of Los Peñasquitos Canyon Preserve, Inc.

P.O. Box 26523, San Diego, CA 92196
619-484-3219 566-6489

NONPROFIT ORG.
U.S. POSTAGE
PAID
POWAY, CA
PERMIT NO. 286

**Address Correction Requested
Return Postage Guaranteed**

Special Notice to First-Time Readers

If you signed our mailing list on a recent walk or other activity, but aren't yet a member, this newsletter is a free sample. To keep it coming with its outings schedules, educational articles, and information on how to defend Peñasquitos Canyon Preserve, join the Friends of Los Peñasquitos Canyon Preserve, Inc. by filling out the coupon below.

(Vista Alegre cont'd)

down sections of the fence in order to gain access to a shortcut through the vernal pool sites. This shortcut was preferred by them due to the steep descent and ascent through a finger canyon that provided their legal access to their site. Our organization witnessed their trucks using the illegal access and damaging the vernal pools and photographed the damage to the protective fencing. We protested these violations to City Council and City Administration offices at the time. The damage to the fences was repaired, but not the damage to the pools. That damage still exists and may be inspected at any time. We still have photographs of the downed fencing on file.

In light of this company's disregard for protective measures in the past, we recommend that a \$100,000 Bond be required as a guarantee against such damage during construction on Vista Alegre. Precedent for such guarantee bonds exist in the Black Mountain Bridge construction project and the Monarach Estates development on Lopez Ridge.

Sincerely,

Michael D. Kelly, president
Friends of Los Peñasquitos Canyon Preserve

Membership Application

Membership category? Circle below:

Senior (62) or Student \$7.00 Individual \$10

Family \$15 Sponsor \$25 Patron \$100

Corporate \$250 Life \$1000

Contribution \$ _____

I/We are interested in the following:

- Volunteer to help the committee
- Hikes
- Indian Culture
- Educational Workshops
- School, Family, Youth Programs
- Environment (Plants, birds, mammals, geology)

12/91

Other: _____

Name(s) _____

Address _____

City State Zip _____

Home Phone _____

Please make checks payable to:

Friends of Los Peñasquitos Canyon Preserve, Inc.
P.O. Box 26523, San Diego, CA 92196

Thank you for your support! Your donation is tax deductible.
Call 484-3219 or 566-6489 for more information.



Friends Win 'Take Pride in California' Award

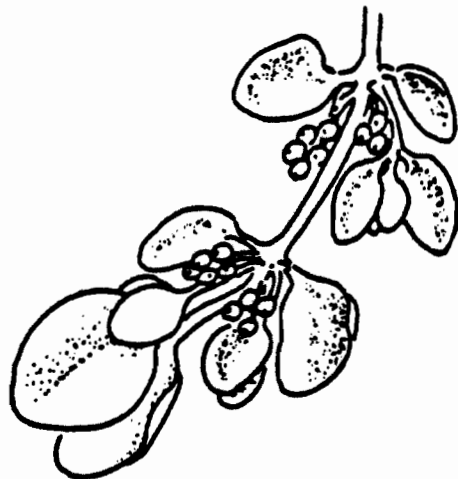
by Mike Kelly, president

The California Department of Parks and Recreation has informed the Friends of Los Peñasquitos Canyon Preserve that we have won a "Take Pride in California" award and that we have been nominated for a national "Take Pride in America" award.

The letter from the State said in part; "Congratulations on your well deserved recognition in the Take Pride in California awards program. Your volunteer efforts on behalf of our irreplaceable resources is deeply appreciated." And, "Future Californians will reap the benefits of your efforts."

The Friends were nominated by County Ranger Reene Mowry and City Ranger Bill Lawrence. The Rangers called attention in their detailed nomination papers to the hundreds of hours of volunteer time the Friends contribute to protecting Peñasquitos Canyon Preserve. They listed the many nature walks and the public attendance (over 1,000 per year) the Friends lead, the many volunteers who contribute time to cleanups, exotic removals and revegetation projects. They also called attention to the time and effort spent evaluating development proposals that might impact the canyon and the efforts to map and acquire wildlife corridors and otherwise expand the Preserve. The educational flyers, newsletter and newspaper columns we contributed to educating the public about issues concerning the Preserve were outlined as well.

We thank the Rangers for their nomination and for the excellent partnership we have all developed in preserving the canyon.



Mistletoe / C.E. Whitten

Outings Schedule

See Page 10 for a convenient "hangup" format.

Thanks Volunteers

Thanks to three members of Scout Troop 11 (University City), Jason King, John Courtney, and Ryan Preston, for their help in cleaning up the Mystery Tree area. Thanks also to Jason's mom, Judy, and brother, Jacob, for their help that day.

Newsletter help came from Susan Zepf, Trinity Gabriel and Mike Kelly.

If you want to help with any of our conservation projects, call Alan Pepper at 586-7123.

Remember the Alamo:

Introducing the Canyon's Vanishing Cottonwood Trees

by Alan Pepper, Ph.D.



A familiar sight to naturalists in this part of the country, the western cottonwood, *Populus fremontii*, is a large, open crowned tree with light grey furrowed bark and bright green triangular leaves (shaped much like the spade on playing cards). It is deciduous and therefore loses its leaves during the winter months. Like the closely

related poplar and the aspen, the leaves of the cottonwood flutter distinctively in even a gentle breeze.

In its natural state, the cottonwood is a common and integral part of southwest riparian (stream-side) ecology. In the Los Peñasquitos canyon, the climatic and geological environment is well suited for cottonwoods to be growing along-side sycamores and willows. Yet, I have come across fewer than a dozen healthy, mature specimens along the ten or so miles of riparian habitat in the preserve. Why are so few cottonwoods present in the canyon? Why are they important?

An Integral Part of an Endangered Habitat

The cottonwood is not itself an endangered species. It is however, a species of vital importance to a very endan-

Birding in Peñasquitos Canyon

Northern Harrier

by Barbara Zepf

Happy New Year to all of you! I wonder what the new year will bring for the canyon. Definitely, the mitigation work planned at the eucalyptus grove should take place in the spring, although I sincerely wish that it could have happened last fall as planned. Spring is the worst possible time that I can think of to plan any tree work. Too many birds are nesting then. Even if you can locate all the large bird nests and make some compensation for their safe removal, there are many smaller bird nests hidden in cavities and on the ground which are hard to spot. Also, all that activity at a crucial time of the year for some birds will be disruptive to their normal lifestyle, to say the least.

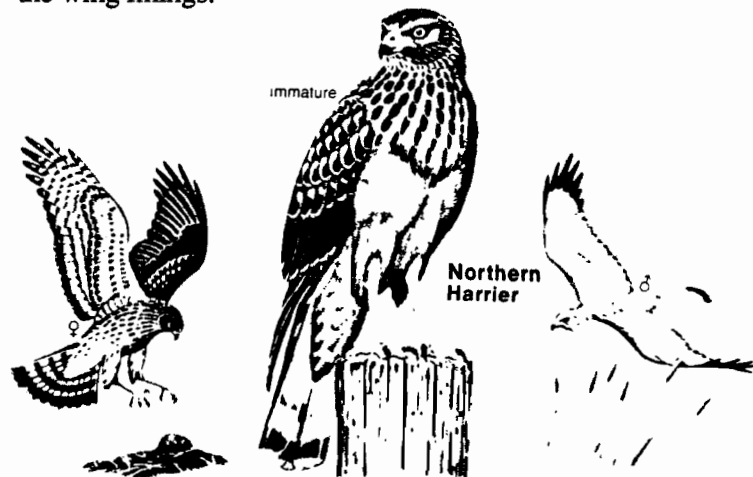
I often stop and wonder for whom does this canyon exist — man or beast? Hopefully, it is here for both. Nevertheless, the canyon is home for the deer, bobcats, raccoons, skunks, birds, insects, snakes, etc. while we just "drop in" for the day. Maybe at this time of making New Year's resolutions, we could make a few for the canyon. First, remember we are just visitors, not the sole owners of the place. Man and the rest of nature can sometimes co-exist with just a little effort. Secondly, don't remove anything from the canyon. The rocks, flowers, weeds, etc. are there for a purpose — something in the canyon uses them for a home, food, etc. Thirdly, don't degrade the stream bed. The cattle that used to roam the west end of the canyon did a super job of that until they were removed. The creek could return to some semblance of normalcy if given a chance. Riding your bike through the creek or walking through it disturbs the normal flow of the creek, breaks down its walls and disturbs the stream bed where the crayfish and other fish are trying to survive. Lastly, try to slow down in the canyon. If you ride a bike or horse, try jogging. If you jog, try walking once in a while. If you walk, try just sitting in one place for a moment. You would be amazed at what you will notice if you take time to "stop and smell the roses". By sitting still in one place, many birds and animals which you normally do not see will come quite close to you. We may all learn to appreciate a little more of what the canyon has to offer us, and the canyon will stay in much better shape for future generations to enjoy.

The canyon still looks like a good place to stop for a surprising number of migrant birds. I still continue to add to my Peñasquitos Canyon bird list. As of this writing a warbler (rare to these parts) has decided to call the canyon "home" for the winter — a Prairie Warbler — which can be found around the Ruiz adobe at the west end.

When I went down to search for this bird, I noticed at least 15 different species of birds while sitting in one spot waiting for the warbler to show up — it was just like a nature show! One pair of hawks really caught my eye as they cruised the grasslands looking for prey. Since we are just getting over the most "harried" times of the year, I thought

this would be an appropriate time to talk about these hawks — the Northern Harriers.

The Northern Harrier is a slim, long-tailed hawk with yellow legs. It is from 17-23 inches long with narrow wings. Its wingspread is from 38-48 inches. All ages and sexes have a distinctive white rump and an owl-like facial disk. The adult male is grayish above, mostly white below (with reddish spotting) and black wing tips. They also have black tips on the secondaries that form a dark bar on the trailing edge of the wings (as seen from below). The female is brown above, buffy-white below with heavy brown streaking on the breast and flanks and lighter brown streaking on spotting on the belly. Immatures resemble adult females but are washed with cinnamon below and on the wing linings.



The Northern Harrier used to be called the Marsh Hawk and some people still prefer that name. However, the Northern Harrier is an appropriate name for this bird because it does indeed raid or harry its prey. Harriers generally perch low. They usually fly low over the ground, tilting from side to side, using few wingbeats followed by a short glide, with wings held slightly up in a dihedral or "V". Then they drop quickly on their prey. Harriers are specialized mousers in tall vegetation. They fly slowly. Their owl-like disk-shaped face masks directs the squeak of field mice to their sensitive ears. They eat not only mice but also rats, frogs, snakes, lizards, crayfish, insects, small birds and carrion. Their very distinctive hunting style, along with their white rumps, make them easy to identify. The male's gray head and the females brown head give them a "hooded" look when viewed from below.

They range over the entire United States and Canada and north to Alaska. They are also found in Europe and Asia. In the United States, they breed in all the middle and

Old Stagecoach Crossing of Peñasquitos Creek Reopened

by John Northrup, Registered Geophysicist

[Editor's note. Recent historical and archaeological research has thrown into question the exact date of the building of the "hacienda" Dr. Northrup refers to in this article. The adobe ranch at the east end of the canyon, Rancho Santa Maria de los Peñasquitos (formerly known as the Johnson-Taylor Ranch) has now been confirmed as having been built in 1823 to satisfy the terms of the land grant to Captain Rufz. The western portion of the canyon, "El Cuervo," is now recognized as having been granted to the captain shortly after. Exactly when the "el cuervo" adobe was built isn't certain yet.]

Because most of the floor of Peñasquitos Canyon is a flood plain all the way from Horseman's Park to the Rufz adobe, crossing the creek in winter has always been a problem. In the early days of cattle ranching in the canyon, there was no great need for an all-weather road because the ranch headquarters was at the west end where the Rufz adobe now stands. Captain Rufz grazed cattle throughout the canyon and the cowboys, or vaqueros as they were called, simply rode or swam their horses across the creek wherever they had to go. At that time, Rancho de los Peñasquitos stretched from Sorrento Valley almost to Poway, following the valley formed by Los Peñasquitos Creek.

El Cuervo

Captain Rufz called the southwestern 2,000 acres of his ranch "El Cuervo" (the crow) and built his hacienda there on the south side of the creek in 1823. Upon his demise in 1839, the rancho was willed to his old friend and neighbor, Don Francisco Maria Alvarado. In 1860, Alvarado's daughter, Estafana, married Captain George A. Johnson and the Alvarados deeded the eastern half of the rancho to Captain Johnson. He then built the Johnson adobe on high ground at the east end of the Canyon on the north side of the creek. Travel between the two ranchos then required an all-weather road that crossed the creek.

The required crossing was made about one-half mile below the falls where the water flows over a series of volcan-

ic sills which form a hard bottom. This crossing, called to "Alvarado Crossing" on early maps of the area, is still in use and can be entered by taking the switchback of the main trail one-half mile below the falls. "Alvarado Crossing" is very narrow and the creek becomes a raging torrent there after heavy rains, making it impassable.

Stagecoach Crossing

When the stagecoach route to Poway started driving through Peñasquitos circa 1879, an all-weather crossing was established about a mile downstream from Alvarado's Crossing. This "Stagecoach Crossing" (as it has come to be called) was cut through the dense stand of willows that line the creek bed where it flows over the Santiago Peak Volcanics before bending sharply northward to enter the deep channel through the hard rock. The crossing actually lies in the creek bed for several hundred yards and, since there is hard bottom there, can be



Figure 1: Photograph taken from horseback of the western entrance to the Old Stagecoach Trail. Note the horses ears in the foreground.

used all year round. Today it is a favorite crossing for horseback riders as shown in Figure 1.

In winter, the trail has good footing as well as comparatively low velocity water flow and, in the summer, the overreaching willow boughs from a canopy above the trail providing shade. Over the years, several of the overhanging willow boughs bent down to such an extent that a horse and rider could not pass underneath. Indeed, a rider was recently "brushed off" his mount there so the branches had to be cut back. Now the Old Stagecoach Trail is rideable again. It is lined with green watercress — one of the few places in the canyon where this occurs — and is indeed one of the most beautiful but little known places within Los Peñasquitos Canyon Preserve.

For more information and trail maps, see "Riding 'Round Peñasquitos: A Guide to Riding & Hiking Trails in Los Peñasquitos Canyon Preserve, San Diego, California" available for \$5.00 from the author at 7015 Vista Del Mar, La Jolla CA 92037 (610) 454-6570.

Horse and Plow Return to Canyon in Conservation Project

by Pamela (PJ) Piburn

"Team. Walk." Robert Loftin's quiet, firm voice speaks to his two horses, Jasper and Javelin. In unison they step forward into their collars. The wooden evener lifts off the ground and the trace chains jingle as they become taut. The tip of the plow slides, then dips beneath the brown earth, cutting a furrow in the thick soil. The horses push on. Bob follows, his hands steady on the lines. his two assistants, Ed Sher and myself, keep the plow on course.

Our ancestors worked the land in this manner for many years. Later this winter you will be able to witness the return of horse power to the Rancho Santa Maria de Los Penasquitos (formerly the Johnson-Taylor Adobe Ranch House). A cooperative effort by the City, County and the Friends of Penasquitos will tentatively take place on February 8, 1992. This effort entails the transplanting of native bunch grasses to the meadow east of the barn at the Rancho. The public is invited to attend this demonstration.

A disappearing species

The native bunch grass, *stipa pulcra*, is being transplanted from an area elsewhere in the county that will soon be developed. This grass has all but disappeared from most of California, including Peñasquitos Canyon. It can be found in small patches on the slope above the trailer where my family and I live at the Black Mountain Road entrance to the canyon, near the ranch house, and above the waterfall. The ground will be prepared by Bob Loftin, his plow, and team of horses. Ed Sher, a member of the Friends, and I will be on hand to help with the plowing. This will be one of a series of projects to restore native habitat to the canyon preserve.

Bob Loftin

Robert Loftin lives in San Diego with his wife Sheila (a member of the Los Penasquitos Canyon Preserve Volunteer Patrol). They keep their horses at their home on the Del Mar Mesa. Sometimes they hook the horses to their buggy and drive through the canyon. I asked Bob how he got started working with horses. Blue eyes shining from beneath his black hat, he told me, "Sheila wanted a horse. So we bought this old mare and next thing we knew we had Jasper." Bob trained Jasper himself and later bought and trained Javelin to work with Jasper as a team. Watching Bob and his horses work together is a real pleasure.

Ed Sher

Ed Sher Ed Sher is a man of many talents. He and his wife, Cecelia, also live on the Del Mar Mesa. While living in West Virginia Ed taught himself not only how to drive and work with horses, but also how to make harnesses. When I first met Ed, he showed me his "office." The sweet aroma of leather filled the small trailer where he keeps his harness making tools. A beautiful black back-pad lay on the well organized work bench awaiting some final stitches. Ed has had lots of experience really "working" with horses. With his wavy hair and long curly beard it was easy for me to picture him deep in the woods of Northern California. "It was the hardest work I've ever done," he told me,

when asked about his experience logging with horses.

PJ

How do I fit in with these horsemen walking behind a plow? Well, you may have seen me crossing Black Mountain Road on Park Day, or out in the canyon with a wagon load of people being drawn by two Belgian draft horses. The horses belong to the Walls Cargo Company. I've been driving work horses here in the preserve for the past ten years. Last year I attended a clinic put on by the American Draft Horse and Mule Association and I'm a member of the Stanislaus County Draft Horse Association. Work horses are my life and livelihood. We're especially excited about the upcoming plowing demonstration. This is a major step in the restoration of the Rancho to a historical working ranch using 19th century techniques. It is also an excellent opportunity to learn history in the flesh. We'll be able to get a real glimpse into the past. The planting of native grasses at the Rancho coincides with the other revegetation projects planned for the canyon. It's a great feeling to be able to give something back to a place that has given so many of us joy over the years. We look forward to seeing you on February 8. Please contact the Friends for further information at 484-3219.



Sign map on mystery tree. Join our monthly walk to learn about these trees.

Fungi Play Indispensable Role In Preserve

by Mike Kelly

As I cut the mushroom into pieces over my salad I couldn't help thinking about the role they play in Penasquitos Canyon Preserve. You may have seen mushrooms growing in different parts of the canyon. But the role I'm thinking of is largely hidden from view and is absolutely vital to the health of the many plants and trees growing in the park.

The mushrooms we see above ground are but one of many groups of fungi. One group that is vital to plant health is the ectomycorrhizal fungi. These fungi attach themselves to the root tips of trees. They stimulate growth, protect the root and, most importantly, allow it to absorb nutrients and water from the soil. Biologists are still learning about this association between fungus (myco) and roots (rhizal):

Already, however, it's known that many of our tree species can not survive without them. If their roots aren't "infected" with these friendly fungi, they won't get the minerals and water they need and they'll die. What do the fungi get out of this? The trees use photosynthesis to produce sugars which are sent down the tree to the roots. The fungi feed on these sugars. What we see here is a classic symbiotic relationship.

Rotting wood is vital

These ectomycorrhizal fungi are found, for the most part, in rotting wood. Hence we can understand the prohibition in many state and national parks against the removal of wood from the forest floor. As this wood rots it provides a home for the fungi. It becomes a key component of the top organic layer of soil. You can find a striking contrast between natural forests and tree plantations. According to Chris Maser in *Wild Earth* (Fall 1991) "A healthy Douglas fir has 30-40 species of these fungi attached to its root system at all times. In Germany, the Norway Spruce -- which now grows on plantations where all the fallen wood is removed — has only 3-5 such species today.

Three-way symbiosis

The symbiotic relationship is actually more complex than simply fungus to tree root. Bacteria are also involved. Nitrogen-fixing bacteria can be found inside the fungus. The bacteria and the fungus must be together to survive. While the bacteria "fix" the nitrogen so the fungus can use and move it into the tree root, the fungus feeds the bacteria an extract that has yet to be successfully analyzed. The bacteria and fungus become a nitrogen factory, constantly feeding the mineral to the tree's roots.

Mammal transportation system

Small mammals assume the role of transporting the fungi and bacteria. They eat the fungi and drop viable spores and bacteria in their poop elsewhere during their travels. Gophers, a much maligned species, carry these same fungi and bacteria as they travel underground. They help make them available through a wider area. Gophers also help

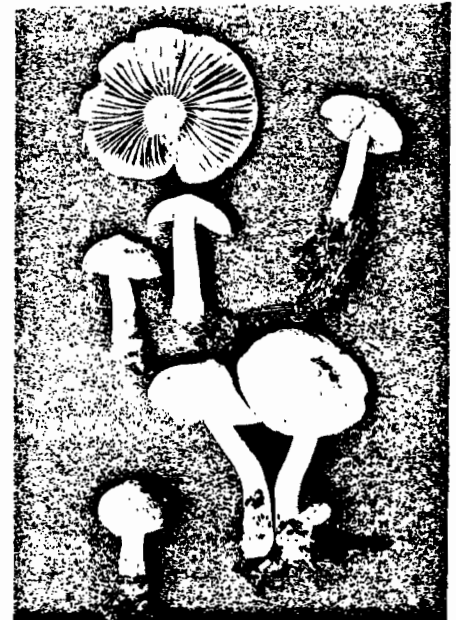
aerate and loosen up the soil with their burrowing activity. In areas where soils tend to be impermeable on the surface their holes serve to carry rain water deep into the soil and thus recharge the aquifer. Deer mice play a similar role with the fungi.

Both animals will be among the first to revisit a burned out or logged out area, areas where the fungi and bacteria have been destroyed. They reinoculate the cleared areas, permitting healthy growth to resume. Historically, however, both species have been considered pest species to be eradicated by trapping and poisoning. Their function in the overall ecosystem is only now beginning to be appreciated.

Have you ever wondered why construction sites and other disturbed areas are full of tumbleweed, desert artichoke and other exotic weed species? It's because the topsoil containing these fungi and bacteria has been removed. The weed species do well in the poor subsoil left behind because they don't require the fungus and bacteria for their growth.

Part of the Friends California live oaks from acorn project involves inoculating the soil where our acorns sprout. We will inoculate each container with a bit of soil taken from the leaf litter/humus beneath existing live oaks in the Preserve. This soil should contain mycorrhizal fungi and nitrogen-fixing bacteria to promote the healthy growth of our seedlings.

How important are these fungi? According to Maser, "No nation that I know of has maintained, on a sustainable basis, plantation managed trees beyond three rotations." By not renewing the soil through rotting organics, they have exhausted the soil and condemned their plantations to a slow death.



Inocybe griseo-lilacina 1/2 life-size

The mushroom is the fruit, the only reproductive part of the fungus organism. Its function is to form and distribute the spores.

(Cottonwoods cont'd)

gered habitat. The United Nations Environmental Program (UNEP) recently designated the Southwest Cottonwood Riparian Woodland as **one of the most endangered habitats in the world**. In the Southwest, the vast majority of vertebrate (mammal, fish, reptile, amphibian and bird) species depend, either directly or indirectly, upon riparian habitat. Yet, due to the combined pressures of livestock grazing, development and invasive exotic plant species, 90-95% of this critical habitat has been lost. By many criteria, this habitat is in much greater danger than the old-growth forests of the Pacific Northwest or the Brazilian rain forests, both of which have been *cause celi*bré in recent years.

The Ecology of the Cottonwood Tree

The Cottonwood likes to grow in locations where there is permanent ground water near its roots (to the plant ecologist, the cottonwood is a phreatophyte — which is Latin for “plant that loves the well”). In the Southwest, these locations occur near streams or lakes. Evergreen trees, such as the live oak or the bay tree, keep their leaves during the winter, so that they will be ready for rapid growth during the brief period in the late winter and early spring when water and temperature conditions are optimal. In contrast, the cottonwoods grow in locations that have a stable, year-round (or nearly so) water supply, and can therefore afford the luxury of losing their leaves each winter.

To birds and animals, the cottonwood makes excellent habitat; in fact, biologists have referred to them as “wild-life condominiums.” Cottonwoods are tall trees, and are therefore used by birds which nest in tall trees such as bald eagles and some hawks (the steep decline in populations of the Red-Shouldered Hawk has been attributed to the loss of Cottonwood-Riparian habitat). Cavity nesting birds such as woodpeckers, bluebirds and some owls also nest in the cottonwood. I've observed Great Blue Heron, Egret and Osprey nesting in cottonwood trees in various parts of California. Small mammals, reptiles and amphibians also use these trees for habitat, and the shade of the cottonwood tree provides essential shelter from the mid-day sun for some larger mammals. A great diversity of herbaceous (soft) plants grows in the shaded understory beneath, providing excellent year-round forage.

Even after death, the cottonwood provides benefits to the ecosystem. In a bare straight-running stream there is a limited variety of different habitats. However, a dead cottonwood, fallen into the stream, creates a “pool and riffle” environment with many new and distinct “micro-habitats.” This in turn leads to a greater number of plant and animal species living in the stream and a greater overall “biodiversity.”

The Cottonwood and Man

Many Southwest Native American cultures used the cottonwood as a locator of water. In the Southwest, where water means life, the cottonwood tree has, in some cultures, come to represent broader concepts such as life and rebirth. The Hopi, Pueblo and Zuni cultures used (and still use) the Cottonwood to make the Kachina dolls, which are symbols of spirits of nature and spirits of the dead. These



dolls are carved by men of the tribe, adorned with feathers, fur and paints, and given to the children to teach them about the tribe and its ways.

A tea was made by boiling the leaves of the cottonwood and poured over wounds and ulcers (modern medical science has shown that the leaves of trees from the genus *Populus* contain compounds with anti-inflammatory, anti-fever and pain killing properties). The tough inner bark was used for utensils and clothing. In some old photographs and illustrations of the Mohave Indians, the women are wearing what appear to be “grass skirts”; these were made of cottonwood bark. To our local Diegueno Indians, the cottonwood was known as halampuulaamp.

The Spanish called the cottonwood *el alamo*. The fortified church near the Presidio of San Antonio (now in Texas) was built in a grove of cottonwoods. The cottonwood also gave its name to the New Mexico towns of Los Alamos and Alamogordo (literally “fat cottonwood”), which have their own dark importance in twentieth century history.

The explorer John C. Fremont was the first Anglo to describe the western cottonwood, *Populus fremontii*, to the European and American botanical establishment. He came across these trees in 1844, near Pyramid Lake, in what is now the state of Nevada. They reminded him of the eastern cottonwood of his native state of Georgia and they were a welcome site after weeks of travel on the salt flats and deserts of the Great Basin.

To the American settlers, as with the Indians, the cottonwood was considered to be a reliable indicator of the presence of water. Pioneer towns were often established near them. Perhaps for this reason, many of the notorious “hanging trees” of the old west, a few of which are reputedly still standing, were cottonwoods. Although too soft for building, the flexible wood from *el alamo* was used to make ox yokes, barrel staves, crates and furniture.

The Spanish, Mexican and American settlers brought with them a livelihood that would drastically change, and is still changing, the ecology of the west. Thousands of cattle and sheep were raised in a dry land that would normally sustain only a far smaller number of herbivores, such as deer. Riparian areas, with their water and rich vegetation, were devastated. During the summer, foraging animals found the succulent young cottonwood saplings much more appealing than the (by that time of year)

(Cottonwoods cont'd)

straw-dry European annual grasses that had been introduced as fodder. In addition, young trees were often trampled by animals moving to and from the water. The fact that there are so few cottonwoods in Los Peñasquitos Canyon is probably due to the two centuries of cattle grazing in the canyon that ended just a few years ago.

Besides livestock, there have been other potent destroyers of the southwest riparian woodlands. Development, in the forms of gravel mining, flood control projects, reservoirs, roads, agriculture, housing, trailer parks and golf courses have all taken their toll. Near urban areas, recreation-related trampling by humans has caused much local damage. New trails are rapidly generated in the soft, moist

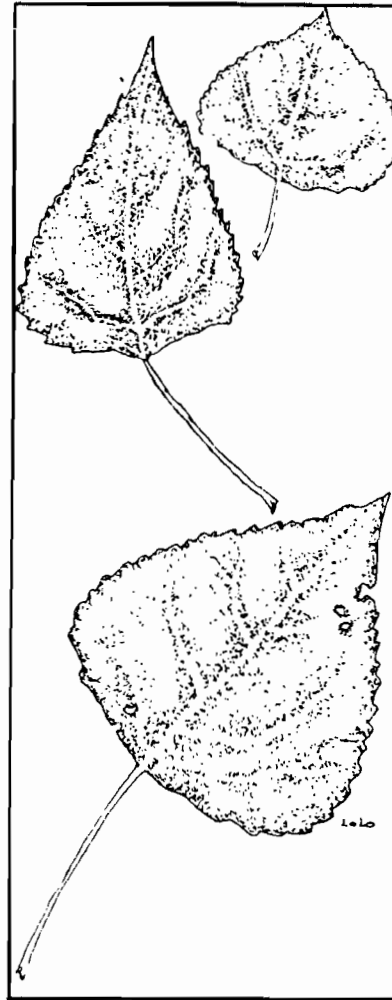


alluvial soils common to riparian areas.

Exotic plant species have also exacted much damage. In California, the eucalyptus, a native of Australia, has flourished in our fragile riparian habitats, displacing nearly all other plant forms in areas where it is growing. The plant toxins present in the leaves of the Eucalyptus are extremely effective at inhibiting the germination of cottonwood seeds.

Finally, there is the tamarisk, an incredibly invasive plant native to eastern Europe. The tamarisk grows as a bush or small tree, has tiny needle-like leaves and small pink flowers. During this century it has spread like a flash flood throughout most of the riparian areas of the Southwest, displacing the Cottonwood Riparian Woodlands. The tamarisk grows in almost impenetrable thickets, sometimes consisting of hundreds of plants, each plant with a deep, efficient tap root. In addition to simply crowding out other vegetation, the roots of the tamarisk will actually lower the water table below the roots of the cottonwood trees. The tamarisk has few, if any, of the ecological and wildlife habitat qualities of the cottonwoods, willows and other riparian plants that are being displaced.

Today, however, cottonwoods are regenerating in the canyon. This summer I observed three very young saplings growing near the creek. After an autumn rain, however, people trying to avoid a muddy section in the trail instantaneously created a new trail — one of the saplings was apparently destroyed in the process. It seems that humans may have replaced the cattle as a major impediment to the restoration of this important species to the canyon ecosystem. This winter, the Friends will give nature a hand by



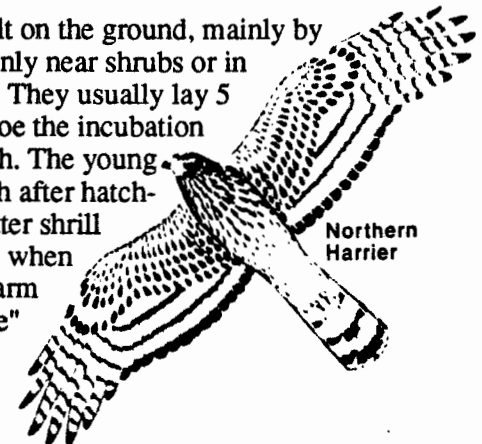
propagating cottonwood trees, and other riparian and chaparral plant species, from cuttings taken in the canyon. In collaboration with the Preserve Rangers, these plants will be used in habitat restoration projects.

During this last year, hard working volunteers from the Friends removed nearly all of the tamarisk plants from the preserve, with the exception of one large patch near the 805 freeway. We have plans to remove this patch, which is spreading seeds into the ecologically important Los Peñasquitos lagoon area, if sufficient volunteer help can be generated. If you can help out with either the plant propagation projects or the tamarisk removal, please call me at 586-7123.

(Northern Harrier cont'd)

northern tiers of states. They also breed in California, including San Diego. They are fairly common in wetlands and open fields. That's why they generally prefer the west end of the canyon.

Their nest is built on the ground, mainly by the female, commonly near shrubs or in tall weeds or reeds. They usually lay 5 eggs. The female does the incubation for about one month. The young fly about one month after hatching. Harriers can utter shrill screams, especially when giving their nest alarm call of "kee-kee-kee" or "kek-kek-kek", although I have never heard one utter a sound. In



this somewhat "slow" month after the harried holidays, why not take a slow walk — through the canyon and enjoy the slow-flying Northern Harrier. They'll put on a real show for you!
Good Birding!

Friends January/February Outings Schedule

Is It Spring Already? Well, almost . . .

This fall's successive Santa Ana weather patterns combined with just enough rain to fool many of the Preserve's plants into a premature flowering. On recent outings we've seen mustard in bloom and lemonadeberry bushes pushing out new fruit. As long as we don't have any severe freezes over the next 6-8 weeks these premature crops may survive. In any case, our wildflower watch is now in swing. From January on we'll see a growing crescendo of color in the Preserve. Join us!

Outings are free. Wear sturdy shoes; bring water for longer hikes. Rain cancels. For more details or to organize group hikes, call 484-3219 for recorded information.

JANUARY

Fitness Walk

Sat., Jan. 4, 8 a.m. Start out the new year with a 10-K (6 miles roundtrip, 3 hours) brisk walk to waterfall and back. Bring water. Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Led by Dr. Jaya Pereyman.

Rancho Santa Maria De Los Penasquitos Adobe Ranch Tour

Sat., Jan. 4, 11 a.m. and noon (45 min. each), S.D. County Archaeological Society. Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park past ballfields to Preservesign and new parking lot. See historic adobe, settler and Indian artifacts.

Medicinal Plant Walk

Sun., Jan. 5, 3:00 p.m. (2 hours). Meet in the new Parking-Staging area at Sorrento Valley Boulevard entrance to Peñasquitos Preserve. Learn about plants our Indian and settler ancestors used for medicinal purposes. Led by Will Bowen.

Nature Walk

Sat., Jan. 11, 8 a.m. (2 hours). Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Learn about plants the Indians and settlers used while living in the canyon. Led by Les Braund.

Bird Walk In Lopez Canyon

Sun., Jan. 12, 8 a.m. Meet at the Sorrento Valley Boulevard entrance to the Preserve in Sorrento Valley/Mira Mesa. Bring bird book and binoculars. Led by Brian Swanson.

Sensory Awareness Meditation Walk

Sun., Jan. 12, 3:00 p.m. To quiet the mind and come to our senses is the purpose of this twilight meditation walk. Delight in and savor the senses of seeing, hearing, touching, tasting, smelling, and movement as we explore Peñasquitos Canyon. Hike is for those with appetite for nature, experiment, and self-discovery. Led by Will Bowen. Limited, RSVP to 452-7091.

Mystery Tree Walk

Sat., Jan. 18, 9 a.m. Meet at the parking-staging area off Black Mountain Road. Take Mercy Road exit off I-15 west to Black Mountain Road. Investigate the legend of the Mexican era sign map on trees in the Preserve that describe the location of the buried Mission treasure. Visit a Native American grinding site and learn about the plants they used to survive. Led by Mike Kelly.

Rancho Santa Maria De Los Penasquitos Adobe Ranch Tour

Sat., Jan. 18, 11 a.m. and noon. See Jan. 4 for details.

Geology of San Diego Walk

Sun., Jan. 19, 9 a.m. (3 hours) Wear hiking shoes since there is one very steep hill involved. Bring water. Meet on Calle Cristo-

bal in Mira Mesa at Caminito Propico where the power lines cross. Learn about area geology and visit the waterfall. Led by geologist Don Albright.

Friends Monthly Business Meeting

Thurs., Jan. 23, 7 p.m. At Rancho San Maria de los Penasquitos in Rancho Penasquitos. Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park past ballfields to Preservesign and new parking lot.

Canyon Walkabout — Round Trip

Sun., Jan. 26, 9 a.m. (5-6 hours). Join Trinity Gabrielle in a 13 mile stroll through Penasquitos Canyon, an end-to-end round-trip! Must bring water, sun shade, lunch. Includes stop at waterfall. Easy pace. People who want to just walk from one way to the other end, about 6.5 miles, can arrange their own pickup at the far end. Meet at Penasquitos Creek Park in Rancho Penasquitos, off Park Village Drive. Take Mercy Exit off I-15 west to Black Mtn. Rd. Right on Black Mtn. Rd, up the hill to the first stop light, Here take a left on Park Village Drive and proceed 1-1/2 miles until you see the park on your left.

FEBRUARY

Fitness Walk

Sat., Feb. 1, 8 a.m. Start out the new year with a 10-K (6 miles roundtrip, 3 hours) brisk walk to waterfall and back. Bring water. Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Led by Dr. Jaya Pereyman.

Medicinal Plant Walk

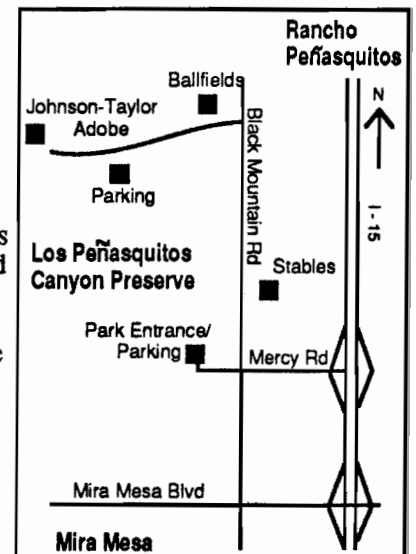
Sun., Feb 2, 3 p.m. (2 hours). Meet in the new Parking-Staging area at Sorrento Valley Boulevard entrance to Peñasquitos Preserve. Learn about plants our Indian and settler ancestors used for medicinal purposes. Led by Will Bowen.

Rancho Santa Maria De Los Penasquitos Adobe Ranch Tour

Sat., Feb. 1, 11 a.m. and noon (45 min. each), S.D. County Archaeological Society. Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park past ballfields to Preservesign and new parking lot. See historic adobe, settler and Indian artifacts.

Native Grass Nursery Planting

Sat., Feb. 8, 10 a.m. Join us for a demonstration of field cultivation with horse drawn plows, cultivators and discs as we prepare the meadow in front of the ranch house for a native grass nursery. Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park past ballfields to Preservesign and new parking lot. See historic adobe, settler and Indian artifacts.



The Birds of Peñasquitos Canyon Bushtit

by Claude G. Edwards

"Safety in numbers" is an old and true saying. Having the benefit of more than one pair of eyes and hands to protect yourself and to get things accomplished is something we all have experienced, and should keep in mind.

This saying also applies to many creatures in natural areas like Peñasquitos Canyon. With the exception of the springtime breeding season, Bushtits (*Psaltriparus minimus*) benefit from foraging in large numbers; their version of the 'buddy system.'

bated in rather cushy surroundings. Their large family forms the nucleus of the next season's roaming flock.

Bushtits are year-round residents in our area, being found in just about any kind of brushy and wooded habitat. Their flocks move about with jerky, fluttering wingbeats, always in motion. They then seem to mill around haphazardly in the vegetation, picking at unseen insect food and keeping up a pleasant chatter.



Bushtits

Most of the year Bushtits are seen in large flocks of 25-50 birds moving loosely through vegetation, constantly in vocal contact. They make a variety of dry chips and chirps, rather like the sound of Rice Crispies! They keep up a conversational quality as they forage at peace. When they become agitated or threatened, their calls intensify into a louder metallic trill, sounding like a bunch of little Christmas jingle bells! This is their communal alarm sound, which causes them all to pay extra attention to their surroundings for potential danger.

They are among our smallest birds, barely 3-1/2 inches long, half of that being their tail. They are insectivorous, gleaning small insects from the foliage of the bushes and trees that they travel through.

Their plumage is somber and inconspicuous, being drab browns and grays, somewhat paler below. The males have dark eyes, and females have pale irises, if you can get close enough to see them. Fear not, they are normally very responsive to 'pishing,' or kissing sounds that people use to attract birds.

During their breeding season they pair off and go about the business of building a nest and raising young. The pair collects all sorts of soft plant fibers, hair, feathers, and spider webbing for their nest. The nest is a hanging sack 12 or more inches long, resembling an old sock, with its entrance hidden near the top. Six to ten eggs are laid, which are incu-

Bushtits

Our life is good considering
that we have to watch for everything
that passes by that may be bad,
'cause if we didn't, we may be "had"!

Our size is small and colors drab
and our voices aren't so fine,
but in our midst we have each other,
so we don't pay no mind!

Answers to last month's crossword

- | | | |
|----------------|--------------|--------------|
| Across | 11 horned | 2 marbled |
| 1 scaled | 12 downy | 3 royal |
| 2 eared | 13 roseate | 4 bald |
| 3 sooty | 14 elegant | 5 whiskered |
| 4 semipalmated | 15 pectoral | 6 hooded |
| 5 bridled | 16 varied | 7 spotted |
| 6 hairy | 17 barred | 8 gilded |
| 7 flammulated | 18 basic | 9 crested |
| 8 crissal | | 10 tufted |
| 9 pileated | Down | 11 beardless |
| 10 masked | 1 spectacles | 12 alternate |



Friends of Los Peñasquitos Canyon Preserve, Inc.
 P.O. Box 26523, San Diego, CA 92196
 619-484-3219

NONPROFIT ORG.
 U.S. POSTAGE
 PAID
 POWAY, CA
 PERMIT NO. 286

**Address Correction Requested
 Return Postage Guaranteed**

(Outings cont'd)

BIRD WALK AT EAST END

Sun., Feb. 9, 8 a.m. Meet at the Parking-Staging area off Black Mountain Road opposited Mercy Road. Bring bird book and binoculars. Led by Brian Swanson.

Sensory Walk

Sun., Feb. 16, 3 p.m. To quiet the mind and come to our senses is the purpose of this twilight meditation walk. Delight in and savor the senses of seeing, hearing, touching, tasting, smelling, and movement as we explore Peñasquitos Canyon. Hike is for those with appetite for nature, experiment, and self-discovery. Led by Will Bowen. Limited, RSVP to 452-7091.

Del Mar Mesa Vernal Pool Walk

Sat., Feb. 22, 9 a.m. Meet at Peñasquitos Creek Park in Rancho Penasquitos. From I-15 take the Mercy Road Exit west to Black Mountain Road. Go right on Black Mountain Road and up the hill. Take a left at the first light, at Park Village Drive. Follow Park Village Drive to its intersection with Camino Ruiz. The park is on the left. From here we will hike a major finger canyon up to the Del Mar Mesa Vernal Pools. This will be the first of a series of monthly visits through the spring to watch the succession of life in the pools. We'll also overlook Deer Canyon, one of the few pristine canyons remaining in San Diego.

Nature Walk

Sat., Feb. 29, 8 a.m. (2 hours). Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Learn about plants the Indians and settlers used while living in the canyon. Led by Les Braund.

Special Notice to First-Time Readers

If you signed our mailing list on a recent walk or other activity, but aren't yet a member, this newsletter is a free sample. To keep it coming with its outings schedules, educational articles, and information on how to defend Peñasquitos Canyon Preserve, join the Friends of Los Peñasquitos Canyon Preserve, Inc. by filling out the coupon below.

Membership Application

Membership category? Circle below:

- Senior (62) or Student \$7.00 Individual \$10
- Family \$15 Sponsor \$25 Patron \$100
- Corporate \$250 Life \$1000
- Contribution \$ _____

I/We are interested in the following:

- Volunteer to help the committee
- Hikes
- Indian Culture
- Educational Workshops
- School, Family, Youth Programs
- Environment (Plants, birds, mammals, geology)

1/92

Other: _____

Name(s) _____

Address _____

City State Zip _____

Home Phone _____

Please make checks payable to:

Friends of Los Peñasquitos Canyon Preserve, Inc.
 P.O. Box 26523, San Diego, CA 92196

Thank you for your support! Your donation is tax deductible.
 Call 484-3219 or 566-6489 for more information.



Canyon News

Friends of Los Peñasquitos Canyon Preserve, Inc.

February 1992
Volume 6 No. 5

Update On Canyon Issues

by Mike Kelly, president

Jackson Drive victory bodes well for Camino Ruíz

Thanks to the efforts of Peter Anderson and the other activists of Citizens Against the Jackson Drive Extension, the extension of Jackson Drive through Mission Trails Park seems to be dead. The San Diego City Council voted in January to divert the funding earmarked for Jackson Drive to other city road projects. Even Councilwoman Judy McCarty, the chief sponsor of the Jackson Drive extension, has conceded that "I think they killed it today."

The council decision, however, reflected a broader reality beyond the council chambers. The fact is that the road extension project faced successful challenges in the courts and had already been rejected by key federal agencies be-

➔ p. 6 for more

Outings Schedule

See Page 8 for a convenient "hangup" format.

This Month's Volunteers

See the article below for the names of volunteers helping in our native grass project.

Newsletter help came from Susan Zepf, Trinity Gabriel and Mike Kelly.

If you want to help with any of our conservation projects, call Alan Pepper at 586-7123.

Join Us Feb. 8

Native Grass Rescue

Saturday, Feb. 8, join us at Rancho Santa Maria de los Peñasquitos where we will be planting native bunch grass, *stipa pulchra*, in a test plot. At 11 a.m. volunteers Bob Loftin, Ed Sher and P.J. Piburn will be using a team of horses and antique equipment to plow and prepare the earth for the grass. This demonstration is in keeping with the 18th century character of the restored ranch house.

Feb. 1, 17 volunteers helped us rescue our native bunch grass from the path of the future expansion of the Sycamore Canyon landfill in Santee. Saving the bunch grass was not a requirement of any mitigation on the project. Rather, it was the idea of Tim Cass, a Department of Public Works biologist working on the project. He contacted Susan Hector, the County's Project Manager for Peñasquitos Canyon Preserve, about saving the grass. She in turn asked the Friends if we would be interested in establishing a test plot of the grass in the canyon. We gave an enthusiastic two thumbs up to the idea.

Volunteers who wielded pick and shovel to dig up the grass Feb. 1 involved members of the Friends, the California Native Plant Society, the San Diego County Archaeological Society, County Parks, Caltrans, Recon and the Department of Public Works. They included: Grace Lin, Alan Pepper, Les Braund, Don Albright, Trinity Gabrielle, Mike Kelly, Susan Zepf, Cindy Burrascano, Bobbie Stephenson, Harry Price, Ranger Reneene Mowry, Susan Hector, Marty Rosen, Jim Eighmey, Dirk Smith, Tim Cass and Jon Avery.



Yerba mansa, an important medicinal plant found in the Preserve, is featured for different reasons in Will Bowen's article on "Nosing Around the Preserve," page 2.

Developing Your Sense of Smell Nosing Around the Preserve

by Will Bowen

The sense of smell has told me of a coming storm before there were any signs of it visible. I notice first a throb of expectancy, a slight quiver, a concentration in my nostrils. As the storm draws near my nostrils dilate, the better to receive the flood of earth odors which seem to multiply and extend... until I feel the splash of rain against my cheek."

— Helen Keller

A bloodhound can smell a person's scent in a room left hours before, and then track a trail of molecules that have seeped through the soles of the shoes, even if the suspect has walked over uneven ground or the night is stormy. Salmon smell the distant waters of their birth and follow the smell upstream in their homeward migration. Male butterflies tune in on the scent of a female miles away. Pigs smell truffles under six inches of soil.

A human being does not have this kind of olfactory capability. We just can't smell with the same intensity as most other animals. Males of the species are even less sensitive to smell than females. It may be an issue of sheer numbers: while a human being has 5 million olfactory cells, the sheepdog has 220 million!

Train yourself in the canyon

Despite the limitations on our senses, smelling is a delight and can be improved through practice. Since individuals who have lost one or more senses, like Helen Keller, are able to develop a heightened acuity in other senses, then the normal person, with training, can improve his or her smelling ability and enjoy it all the more.

Peñasquitos Canyon Preserve is an excellent place to practice improving our senses, especially that of smell. Heightened olfactory sensing can both improve our experience of the canyon and because of the close interplay of smell and memory, make it a more memorable and uplifting place. Even if you can not be in the canyon proper, just thinking about such a pleasant place induces more relaxing brain wave patterns. You may even get "nose-talgia" for the canyon. First, however, there are some obstacles to overcome.

Cultural prohibitions challenge us

In addition to facing the limitations of our genetic birthright, and an inherent capability that has been dulled

over time through lack of full use, we must also face cultural prohibitions against smelling. With certain exceptions, such as in the case of flowers, incense, and perfume, it just isn't polite to smell things as intently as we may look at or listen to them.

Even the word "smell" carries negative connotations. We're often taught to ignore smells or pretend they do not exist. Such prohibitions against using our "hooter" can be traced to early religious ideas regarding the dualism of body and mind. Medieval Christianity, for example, saw the senses as the devil's playground. As St. Augustine said,

"This evil, which is of the devil, creeps in by all the sensual approaches; he places himself in figures, he adapts himself to colors, he attaches himself to sounds... he abides in smells, he impregnates with flavors and fills with certain exhalations all the channels of the understanding."

Despite St. Augustine's warnings, smells are an important part of our daily life. Every person has an odor as individual as a fingerprint. Certain smells are associated with and produced by psychophysiological states — there's the odor of love, containing stimulating pheromones, and the odor of illness — nosologically aware nurses will tell you that patients in different wards suffering from the same ailments smell similar. This may explain why traditional Chinese doctors were able to use the smell of the patient as part of their diagnosis.

Odors also serve to set off psychological states. Roy Bedichek stated this succinctly and powerfully when he said,

"The body odor of his prey excites the predator so that his mouth waters and every fiber of his being become taunt and every sense alerted."

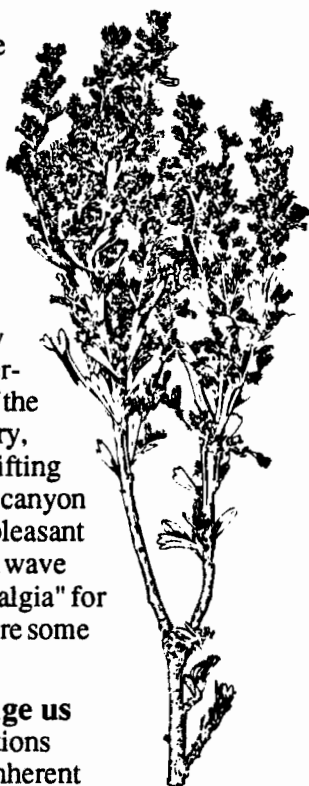
Cleopatra and aromatherapy

Our ancestors were aware of the influence of smell. As far back as the Greeks and Romans people were practicing aromatherapy — anointing their body with different fragrances, filling their great halls with the odor of peppermint and rose. Cleopatra greeted Mark Anthony on a cedar wood bark with perfumed sails. The floors of medieval castles were strewn with rushes, lavender, and thyme. Nonwestern civilizations such as India used incense for mood inducement and Native Americans burned sage to purify the air.

Modern day scientific research has shown the validity



Black sage



Sagebrush

➡ p. 3 for more

of such folk ideas about the power of odor. Researchers at Yales's Psychophysiology Center claim that the smell of spiced apples can reduce blood pressure in people under stress, and even avert a panic attack, while lavender can wake up the metabolism and make an individual more alert. Real estate agents have found that spraying the smell of spiced apples in a home for sale will increase its desirability in the prospective's mind. Tests at the University of Cincinnati have shown that certain fragrances in a room can increase typing speed and work efficiency. Research at International Flavors and Fragrances discovered that women who sniffed musk developed shorter menstrual cycles, ovulated more, and found it easier to conceive.

Smell enhances and triggers memory

Another startling fact is that the sense of smell is the one sense most intimately interwoven with memory. We have all had the experience of an odor bringing back a distant memory, but educators have determined that children can memorize word lists easier when smells given are given in association with the new words.

In the process of smelling an odor, molecules float into the nasal cavity behind the bridge of the nose where they are absorbed by the mucosa containing receptor cells. These cells bear microscopic hairs called *cilia* which stick out and wave in the air like anemones on a coral reef. Five million of these cells fire impulses to the brains olfactory center bulb or smell center. **The neurons in these cells are replaced every thirty days**, unlike those in the eyes or ears. It takes 8 molecules of a substance to trigger an impulse in a nerve ending, but forty nerve endings must be aroused before we smell something.

The basic categories of smell include minty (peppermint), floral (roses), ethereal (pears), musky (musk), resinous (camphor), foul (rotten eggs, acrid (vinegar); with many combinations possible.

Tips on smelling in Peñasquitos Canyon

One thing to keep in mind, however, is that odors in the canyon, especially of plants, vary seasonally and may thus not smell with the same intensity at all times. You generally will not find much on fragrances in *Munns* or other floras, since it is hard to measure them or formulate an agreed upon description. Yet odors are a good way for the lay person to identify and remember plants, and they may help trigger facts about the properties of a plant.

This author suggests that there are two main ways to smell your way around in the canyon. First is the overview smell in which you sniff around the air in different directions periodically, like a hound, as you hike, in order to hone in on different sensorial possibilities. Second, there is in depth smelling which involves taking a small bit of plant leaf or stem, crushing and rolling it between the fingers, closing the eyes and then inhaling deeply. It's important to hold in the fragrance.

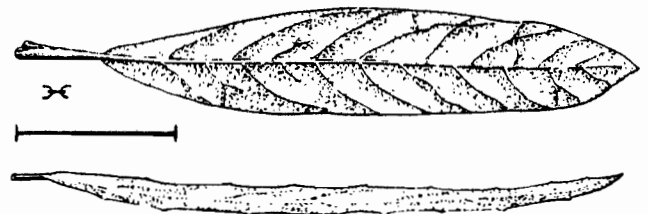
As you are holding in the smell and holding your breath, pay attention to what happens inside your mind. You may see different colors! Memories and associations may appear. Also be aware of your bodily state — do you feel

slightly relaxed or stimulated? It is important to stay with your sensations a while. Let them work on you. You need not worry about inhaling something that does not agree with you. If you do, you'll sneeze. Since your sneeze will be traveling at 85 percent of the speed of sound, according to researchers at the University of Rochester, any disagreeable substances will most likely be blown clean out of your body.

Assuming you've decided to test out this nostrum for the nostrils, and are determined to walk into, say, López Canyon, in order to sniff about — probably the first odor you may be greeted with is willow.

A cross between candy canes and burning plastic?

Willow is a slender bark tree that grows along stream beds. We have three types in the canyon. The willow has a moist earthy smell, slightly sweet, somewhat ethereal and something like clay, especially when the air is cool or damp, as in the evening or after a rain. It's the most characteristic smell in the canyon, though at times the fennel is quite pungent and permeates the air with its sweetness. The



Arroyo willow (top), Sandbar willow (bottom)

willow smell, though quite remarkable, cannot, however, be smelled from an individual leaf, which leaves the source of its fragrance somewhat a mystery. An interesting and educational, though sometimes difficult, game to play, is to find descriptors for the smells of the canyon, much like a connoisseur does for fine wines. When I took some time to further explore the odor of willow I decided that it was a cross between candy canes and burning plastic, though that does not really do it justice.

Interestingly, Dr. Edward Bach, an English physician who turned to the study of the medicinal value of flowers and plants, said that the flower of the willow was good for those who have become embittered or have suffered adversity or misfortune and found their situation difficult to accept. I think the smell of willow may have a similar psychological affect. Bach also used oak flowers to fortify the brave who faced an uphill struggle and bush monkey flower for those secretly braving unspoken fears. Rock rose (or a close relative), which is found up on Del Mar Mesa, was what termed he termed his "rescue remedy." It was to be used in cases where there appeared to be no hope.

Like opening a giant vanilla bottle

In a riparian environment, in association with willow, or perhaps in the nearby wetlands, such as on the north side of Calle Cristobal, just before it enters Sorrento Valley,

Birding in Peñasquitos Canyon Western Bluebirds

by Barbara Zepf

One of the best times to be in the canyon is immediately after a storm. Most birds tend to hide during windy or rainy weather. As soon as the sun comes out, so do the birds. After three solid days of rain this January, I was suffering from "birding withdrawal." I decided to go down to the canyon to see what I could see, even if I had to stay in my car the entire time. Approaching the canyon, I was treated to a spectacular sight.. At least 1,000 Ring-billed Gulls wheeled above me. Their brilliant white plumage was a striking sight against the inky-black clouds. One good way to tell when bad weather is heading our way is to observe the gulls. They always fly inland ahead of the storm.

I spent about an hour parked on the road to the ranch house right where the white fence begins. This road is an excellent place to bird in rainy weather. You can stay on the asphalt road and keep free of the ankle-deep mud in the canyon proper; a favor to the canyon, as you avoid ruining the trails. As rain pelted down, I headed for my car to wait it out. The birds all headed toward their own sheltering spots.

A tiny oasis

Just east of the white fence, there is a small low, weedy depression in the dirt field which collects water during the rainy season. If you park your car opposite this spot (just past where the chain closes the road to the creek) you will have yourself a front-row seat to a good bird show. Your car will act as a "blind" and the birds seem oblivious to your presence. This tiny oasis attracts an inordinate numbers of birds. As the water tends to remain in this depression for many days after the rains stop, the show will continue for quite some time. Frogs, rabbits and birds are drawn to this tiny place. I've even seen a Lesser Night-hawk swoop low over this spot on several occasions at dusk. On this particular day, I saw some of the most beautiful birds in the canyon — Western Bluebirds.

The Valentine bird

It's nice that Valentine's Day comes during the these usually bleak winter months. It puts us in a warm loving mood and lifts us out of our doldrums. Many valentines are adorned with this month's bird — the symbol of hope — the "bluebird of happiness." Bluebirds are unique to North America and are found nowhere else in the world. There are three species of bluebirds — the Eastern Bluebird, the Mountain Bluebird and the Western Bluebird.

We don't get the Eastern Bluebird in the canyon. We occasionally get the Mountain Bluebird (once every few years or so). However, we get the Western Bluebird every winter. I often wonder that if someone erected nesting boxes in the canyon, we might attract them all year-round. That would be a real treat! Most bluebirds return to their breeding grounds in March or April, so you should have a chance of spotting these beauties for another six weeks or so.

In the winter, bluebirds form flocks which contain several families that roam and feed together. The Western

Bluebird is the least migratory of the bluebirds, with very little north-south migration. Instead, they tend to fly short distances to areas where they find abundant winter food. This is often an altitudinal migration to the milder weather associated with an lower elevation. The fields in the west end of the canyon around the adobe house attract these birds. The east end of the canyon is a reliable place to spot them also. You can usually find them in the playground near the slides and swings of Canyonside Park, in the large dirt field at the end of the ballfield and in the parking lot on the left before you reach the ranch house.

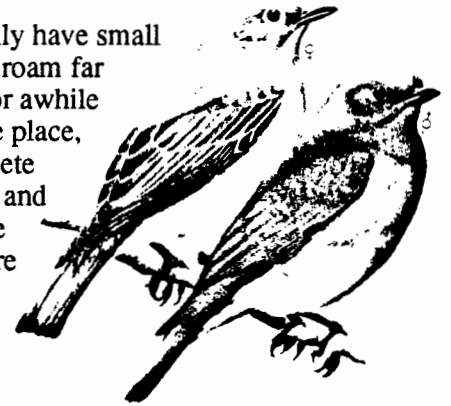
Easy to observe

Small birds usually have small territories and don't roam far away. If you wait for awhile in one fairly reliable place, the birds will complete their feeding circuit and come to you. Just be patient. Bluebirds are loved for their tameness. They are not particularly disturbed by human presence and they allow you to approach close enough to watch their behavior and to enjoy their beauty at close range.

It is interesting to watch them feed. They often dart into the air from high perches to catch insects in flight. From low perches they just flutter to the ground to eat. I've even seen them hover like a kite or kestrel above the grassy fields where they are feeding. They eat large insects, mostly grasshoppers, caterpillars and beetles. They also eat ants, spiders earthworms, snails and sow bugs. In the winter, they also feed on berries, such as the mistletoe, the elderberry and the pepper tree berries in the canyon.

The Western Bluebird is a striking bird — probably one of the most brilliantly-colored birds seen in Penasquitos Canyon. The adult males have deep blue, almost purplish hood, wings and tail with chestnut on the breast and flanks. Their belly is grayish. Adult females have the same color of blue on the wings and tail; otherwise they have duller brownish upperparts, a grayish throat and pale chestnut on the breast and flanks. Their belly is grayish. They have a distinctive white eye ring. Juveniles are heavily spotted on the breast and have blue in the wings and tail with no chestnut markings anywhere.

Western Bluebirds are a bit larger than a sparrow — about seven inches long. They appear hunched or round-shouldered when perched. They are long-winged with rather short tails which are usually held down when perched. They give a soft call that sounds like "phew" and a harsh



Water Utilities Creek Crossing Revegetated

by John Northrop, Ph.D.

As all visitors to the Preserve have undoubtedly noticed, the manhole covers that are so prominent (painted orange and green and numbered in ascending order from west to east) appear on the south side of Peñasquitos Creek at both the East and the West entrances to the Preserve but apparently disappear in the central portion. Actually, there are about 80 manholes spaced roughly 150 yards apart serving the six-mile long sewer line that crosses the creek in two places — one above the falls and one below.

The sewer pipe goes on the north side of the creek be-

tween the two crossings and can be readily identified by the two "walkways" along the north side of the creek below the falls. The crossing above the falls has become so overgrown that it is not used as a "crossing" anymore. However, the lower crossing has been used for years, especially by bikers crossing the creek to ride illegally on the north side.

In July, the City of San Diego Water Utilities Department used a bulldozer to construct a service road across Peñasquitos Creek at the lower crossing and then drove their vehicles right through the water! Naturally, the bikers followed in ever increasing numbers and a veritable network of illegal bicycle trails leading to the sewer line crossing now scar the banks of the stream.

Thanks largely to the efforts of Mike Kelly, the Water Utilities Department was made to remove their illegal "ford" and revegetate the area with seedling sycamore and willow trees. The area now sports "Please Keep Out" signs (see Figure) plus sawhorse barriers and a red ribbon on the north side. Sad to say, bikers ride right through the revegetated zone and leave deep tire tracks there. Let's hope that the creek will become so swollen by the winter rains that bikers won't desecrate the area. Let's give the trees a chance to grow!



Photo of the western sewer line crossing after December, 1991 winter rains. Sign reads "Revegetated area. Please do not use".

Oops! Has Your Membership Expired?

Take a moment to examine the address label on this newsletter. Check to see if your expiration date has come and gone. If so, please take the time now to send in a renewal check for your membership dues. This will enable you to keep receiving our newsletter, recognized as one of the best environmental newsletters of any organization in San Diego. That way you'll keep learning about the progress of the Camino Ruíz issue and what you can do about it; about family walks; about the plants and animals that inhabit the Preserve, and the many conservation projects open to you and your family or friends.

Animal Survey Needs You!

With your help we'll be able to collect invaluable data on the types, numbers and movement of our animal population. Please detach the insert attached to this newsletter, copy it and use it! This information is important to us and other groups in planning future wildlife corridors. People planning such corridors elsewhere are asking for this data to help them in their planning. With the development constricting animal movement on many sides, we already have several functioning "corridors." Help us to identify which animals are using them.

If you have any questions about filling out the forms, feel free to call Mike Kelly at 566-6489 or Alan Pepper at 586-7123. Please make as many copies of the form as you need. Start counting!

(Update cont'd)

cause of the sloppiness of the environmental review process it had gone through.

Once Route 52 is finished through to Santee, pressure should decrease from some of the area residents who sought a shorter commute with Jackson Drive. This is one of the most important victories for the environment in San Diego history — helping to maintain the integrity of Mission Trails Regional Park.

This decision on Jackson Drive makes stopping Camino Rufz from crossing Peñasquitos Canyon more attainable. The fate of Camino Rufz will be decided as the Community Master Plans for both Rancho Peñasquitos and Mira Mesa have their final hearings before their respective planning groups, the Planning Commission and, finally, the full City Council this spring and summer. Opposition to extending the road across the canyon is still strong and we still count Councilwoman Wolfsheimer and Councilman Tom Behr in opposition. Be sure to attend these planning group meetings when they occur. Call us if you don't know when.

Vista Alegre setback for Newland

Newland America has been directed by the City Planning Department to resubmit their Vista Alegre project with a more accurate Environmental Impact Review (EIR) document.

In our November/December 1991 newsletter we reported on shortcomings in the EIR for Vista Alegre. The project is adjacent to the Park Village projects in Rancho Peñasquitos, as well as the Caltrans Vernal Pool Preserve. The document undercounted the number of vernal pools on the property and their quality. They also ignored the presence of an important wildlife corridor that starts at the east side of Peñasquitos Creek Park and runs north to the Caltrans Vernal Pool Preserve.

The San Diego Bio-Diversity Project, the Friends, and other organizations and individuals wrote written objections to the accuracy of the report. The Friends and the Bio-Diversity Project conducted field trips to survey the parcel, including one with City Planning staff.

Our goal when the new, "improved" EIR is submitted to the Planning Department, will be to save the vernal pools and the wildlife corridor, as well as to minimize possible impacts during any building process to the adjoining Caltrans Vernal Pool Preserve.

Water Utilities Department repairing damage

On your walks or rides through the Preserve you may have noticed attempts to repair the damage done by the Water Utilities Department (WUD). Due to the official complaints made by the Friends to the State Department of Fish and Game, the WUD was ordered to mitigate the damage by revegetation and other measures. We received broad support from the Citizens Advisory Committee for the canyon, City and County Parks Departments and Councilman Tom Behr and Councilwoman Abbe Wolfsheimer.

We will attempt to monitor their compliance and success with the mitigation program. Unfortunately, some of

the repair work is already being destroyed by bicyclists in some areas (see Dr. Northrop's article this issue, p. 5).

The fact that any mitigation at all was ordered is a big step forward. The thoughtless destruction caused by the WUD bulldozer is only too typical of the attitude non-parks departments have toward area parks. Jim Peugh of the Friends of Famosa Slough called recently to tell us of similar damage wrought in the Slough by SDG&E. It's high time that we let the bureaucrats in these agencies know we want our parks to be parks and not places for unplanned or casual maintenance.

User damage to the Preserve

Flagrant violation of the rules governing use of Peñasquitos Canyon Preserve has led to a decision to get tough with violators. It's long overdue.

When we speak of damage to the Preserve we also have to include damage done by the different user groups in the park. In the past we've recounted damage done by off-road vehicles illegally in the park, poachers, people firing guns, bicyclists off the main road, dogs off leash, trash left by hikers and others, and equestrian and bike damage in the riparian (creek) area, to mention a portion.

To combat these problems, a citizens volunteer patrol has been working with the City and County Rangers in the park to try to educate the public in the rules governing the park. However, a significant percentage of users, especially mountain bike riders, but also pedestrians with dogs off leash, continue to ignore the rules. The result, especially from the bikers has been severe erosions and destruction of vegetation in a number of areas.

The City and County Parks Departments have decided to begin issuing tickets with associated fines, to violators. After an educational "blitz" of several weeks in February, they will begin to ticket offenders. Once the word gets out that fines are being imposed, we should see a marked improvement in compliance. The only alternative would be to ban some groups from the Preserve, something we all have been trying to avoid doing.

Wildlife corridors win acceptance

Our work with Mike Conrad of Cromagen, Inc. and Dave Hogan of the Bio-Diversity Project to establish wildlife corridors connecting our various open-space parks is bearing fruit. Our corridor mapping has been accepted in concept for planning in Neighborhoods 8a and 10 (Carmel Valley Planning Area) and in the Future Urbanizing Area (FUA, Urban Reserve). The proposed "Environmental Tier" map and the "Working Paper No. 1" for the FUA incorporate our corridor mapping and suggested open-space preserves.

This conceptual acceptance by the City Planners is only a first, albeit important, step towards achieving these linkages vital to the health of our open-space systems. The land must still be acquired, in these times of budgetary crisis, from the private landowners in the FUA. Various ways of doing this are being explored.

(Smell cont'd)

you're likely to come upon other interest-plant smells. Wild white clover, growing to 6-7 feet, can be smelled from 30 yards away, if the wind is right. The clover scent, which is sweet, almondy, and delightful, comes from coumarin, which is very similar in smell to the ingredient which gives vanilla its characteristic odor. Standing in a stand of wild white clover in bloom is like opening a giant vanilla bottle.

Nearby you may also come upon wild celery which smells just like the real celery in the supermarket. Sometimes poison hemlock is mistaken for wild celery with grievous consequences. They both look somewhat similar. Hence, a quick sniff before taking a bite may be a good insurance measure.

This wetland area is the home of my favorite smell — yerba mansa. Yerba mansa smells sweet, very deep, earthy, a bit tangy, a lot like orris root, which people often put in their closets and dresser drawers. You may find that stem of this plant is most fragrant.

If you walk the wetlands over toward the main road going up Peñasquitos Canyon you may also come upon a little nosegay of yellow and white flowers called Mayweed, which is our version of the herb chamomile. It smells like and has the basic properties of the chamomile you could buy at the store. I personally like the chamomile found in Italian delis, such as Filipi's on India Street, where the huge cheeses hanging from the ceiling oozing oil just knocks you out.

Backtracking under the Calle Cristobal bridge, and up towards López Canyon proper, you can find a few plants called encilia; there's more on the lower south hillside just east of the animal tunnel. The ones out in the desert exude little beads of golden resinous sap which was used by the early Spanish priests as incense. The ones in the canyon do not appear to have the sap bead, but the leaves, when crushed, do smell like frankincense, which is what they burn in the censor which the priest swings from side to side as he walks up the aisle.

Tell people the name after . . .

Crossing through the doorway of willow at the dry López stream bed and heading down the trail toward the old López orchard, you'll inevitably come upon ragweed. Its best to tell people the name . . . after they take a whiff to avoid any suggestion-based reactions. The ragweed has a very nice medium strength smell and you can see why it was used on the hair by Indians. The smell is pungent and resinous somewhat like black sage and coastal sagebrush, though not as strong.

Nearby on the trail you can find the very potent smells



White clover

of the coastal sagebrush and *Artemisia palmeri* (San Diego wormwood). Both exude very strong aromatic essential oils. Both are very stimulating and seem to cause a rise in blood pressure when you inhale their fragrance long enough. They're very intoxicating and very nice to carry with you with you as you hike. Of the two, I prefer the *palmeri* because the smell is more well defined, cleaner, and a bit sweeter. Its on the level of an expensive perfume in my mind. If you do get tired on your hike a deep sniff will pep you right up in no time.

Indians rubbed it on their skin

If you are ever up near the waterfall on the north side of the Peñasquitos stream, just east of the second cattle bridge, you can find both black and white sage. Both are very potent and similar in smell to the two *artemisia* species mentioned. Of the two sages, the white sage seems to burn a little cleaner in the head as you take a whiff. It seems to be a bit more refined and cleansing. Indians used to rub it on their skin before hunting to camouflage body odor and they would also burn it ceremonially. If you have a headache you can roll up a leaf of the white sage and put it in your nose. Another pungent resinous odor in the same family of smells, though on the mild side, is found at the east end of Peñasquitos Canyon near the ranch house. The plant is mugwort, whose leaves are green above and gray below.

Back on the López trail, you may notice the tall fennel plant which has a very sweet relaxing smell. People always ask me if it's licorice. It's not, but it smells like licorice. It's soothing and calming like ice cream for desert. One fun thing to do is to have a leaf of *Artemisia palmeri* in one hand and a bit of fennel in the other. If you go back and forth between them, smelling first one then the other, you can feel the cycling of stimulation and relaxation that each scent conveys.

Smell the roses

When the wild rose in bloom — there is one on the upper trail out to the old López place on the right side of the trail going east overlooking the stream — your in for a treat. The pink flowers are very fragrant and worth braving the slope to get to them. Near the west end of the Peñasquitos trail, out near the old crossing at the 2 mile post, another large rose bush can be found. If you are there at dusk you may see many rabbits peeping in and out under its protective thorny cover.

As you head up the López trail toward the old water tower you will come upon elderberry, whose yellow blossoms offer a mild but fragrant floral smell. If you soak those flowers in water overnight the resulting liquid is very good skin tonic and is sold commercially for that purpose. Usually there is also some horehound around which has a medicinal bracing odor. Sometimes when it is very hot and the wild oats have turned yellow in color, they will smell quite nice — sort of stiff and dry and barnish. Out near the López cactus patch you'll find pearly everlasting — the white flowers of which smell just like butterscotch.

As far as unpleasant odors, besides the sewer line

Friends January/February Outings Schedule

The Flowers Have Started . . .

Our wildflower watch is now in full swing. From February on we'll see a rapidly increasing number of flowering plants, especially with another timely rainfall or two.

Outings are free. Wear sturdy shoes; bring water for longer hikes. Rain cancels. For more details or to organize group hikes, call 484-3219 for recorded information.

FEBRUARY

Native Grass Nursery Planting

Sat., Feb. 8, 11 a.m. Join us for a demonstration of field cultivation with horse drawn plows, cultivators and discs as we prepare the meadow in front of the ranch house for a native grass nursery and actually plant the grass. Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park past ballfields to Preservesign and new parking lot. See historic adobe, settler and Indian artifacts.

Bird Walk at East End

Sun., Feb. 9, 8 a.m. Meet at the Parking-Staging area off Black Mountain Road opposite Mercy Road. Opportunity to see **Great Horned Owls** nesting on the east end this year. Good walk for beginners as well as experienced birders. Bring bird book and binoculars. Led by Brian Swanson.

Rancho Santa Maria De Los Penasquitos Adobe Ranch Tour

Sat., Feb. 15, 11 a.m. and noon (45 min. each), S.D. County Archaeological Society. Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park past ballfields to Preservesign and new parking lot. See historic adobe, settler and Indian artifacts.

Sensory Awareness Walk

Sun., Feb. 16, 3 p.m. To quiet the mind and come to our senses is the purpose of this twilight meditation walk. Delight in and savor the senses of seeing, hearing, touching, tasting, smelling, and movement as we explore Peñasquitos Canyon. Hike is for those with appetite for nature, experiment, and self-discovery. Led by Will Bowen.

Del Mar Mesa Vernal Pool Walk

Sat., Feb. 22, 9 a.m. Meet at Peñasquitos Creek Park in Rancho Penasquitos. From I-15 take the Mercy Road Exit west to Black Mountain Road. Go right on Black Mountain Road and up the hill. Take a left at the first light, at Park Village Drive. Follow Park Village Drive to its intersection with Camino Ruiz. The park is on the left. From here we will hike a major finger canyon up to the Del Mar Mesa Vernal Pools. We'll also visit the site of the Black Mountain fire of three years ago. This will be the first of a series of monthly visits through the spring to watch the succession of life in the pools. We'll also overlook Deer Canyon, one of the few relatively pristine canyons remaining in San Diego. Since the fire three years ago the wildflower show in this area has been spectacular. Led by Mike Kelly.

Nature Walk

Sat., Feb. 29, 8 a.m. (2 hours). Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Learn about plants the Indians and settlers used while living in the canyon. Numerous wildflowers should be blooming. Led by Les Braund.

MARCH

Geology Walk

Sun., March 1, 9 a.m. (3 hours). Meet in Mira Mesa on Lopez Ridge. From I-15 or I-805 take Mira Mesa Boulevard to Camino Santa Fe. Go north on Camino Santa Fe to the intersection with Calle Cristobal. Right on Calle Cristobal to Caminito Propico. Bring water and wear hiking boots since a steep hill is involved. Learn about area geology and visit the Preserve's waterfall. Led by geologist Don Albright.

Fitness Walk

Sat., March 7, 8 a.m. Start out the new year with a 10-K (6 miles roundtrip, 3 hours) brisk walk to waterfall and back. Bring water. Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Good opportunity to see wildflowers. Led by Dr. Jaya Pereyman.

Rancho Santa Maria De Los Penasquitos Adobe Ranch Tour

Sat., March 7, 11 a.m. and noon (45 min. each), S.D. County Archaeological Society. Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park past ballfields to Preservesign and new parking lot. See historic adobe, settler and Indian artifacts.

Bird Walk at West End

Sun., March 8, 8 a.m. Meet at the Parking-Staging area off Sorrento Valley Boulevard at the West End of the Preserve. From I-5 or I-805 take Sorrento Valley Boulevard east to the park entrance on the right. From I-15 take Mira Mesa Boulevard west to Camino Ruiz. Right on Camino Ruiz until it swings west when it becomes Calle Cristobal. Take this road west to the bottom of the steep hill. (It becomes Sorrento Valley Boulevard after it crosses Camino Santa Fe.) The new parking-staging area is on the left. Bring bird book and binoculars. Led by Brian Swanson.

Medicinal Plant Walk

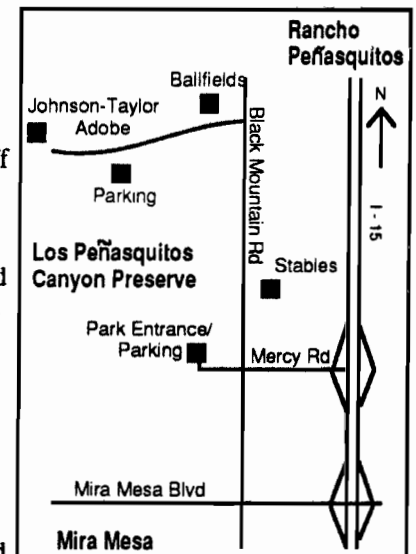
Sun., March 8, 4 p.m. (2 hours). Meet in the new Parking-Staging area at Sorrento Valley Boulevard entrance to Peñasquitos Preserve. Learn about plants our Indian and settler ancestors (and people today) used for medicinal purposes. Led by Will Bowen.

Nature Walk

Sat., March 14, 8 a.m. (2 hours). Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Learn about plants the Indians and settlers used while living in the canyon. Numerous wildflowers should be blooming. Led by Les Braund.

Rancho Santa Maria De Los Penasquitos Adobe Ranch Tour

Sat., March 14, 11 a.m. and noon (45 min. each), S.D. County Archaeological Society. See March 7 for details.



(Bluebirds cont'd)

"chuck". They prefer open woodlands and pasturelands. They nest in holes in trees or posts and are one of the birds which will accept man-made nesting boxes. Females are attracted by the vivid blue of the male and by the availability of nesting holes. The male's red breast is a signal of aggression towards other males.

Breakup time

In March, the flocks break up into pairs. Their pale blue eggs are laid in April or May, commonly four to six eggs. The male brings bits of material to the nest during courtship but the female generally does all of the final nest building. Nests are made of fine grasses, weed stalks, pine needles and occasionally fine rootlets. The birds construct a nest cup in the center, which is sometimes lined with hair or feathers. The eggs are laid, one per day. The female does all the incubation after all the eggs are laid. The male brings her food and guards the territory. After twelve to fifteen days the eggs hatch. The female will then brood the hatchlings for the first few days until they can regulate their own body temperatures. The hatchlings will stay in the nest for about 20 days.

After the young leave the nest, they're called fledglings. They're still dependent on parents for food and a certain amount of protection. The family will stay close together through the rest of the season and sometimes even through fall and winter. Occasionally young from previous broods will help feed young birds from the next brood. Western Bluebirds may renest after their first brood is hatched and a pair may raise up to three broods in a single season.

Once you've seen a bluebird, it's love at first sight. Its rich blue color, soft musical notes and gentle ways have endeared it to Americans and Canadians alike who deplore its decline. When European Starlings pushed westward, they took over nesting holes and devoured the berries on which the bluebirds depended for cold-weather survival. Bluebird lovers are now putting up countless nest boxes to help this beleaguered bird. The Western Bluebird is the perfect gift from the canyon to you in this month of love. Happy Valentine's Day to all of you!



(Smell cont'd)

through the canyon, some people are adverse to coyote melon, which is also known as stinking gourd, though I personally like it. They say if you like the odor of a plant, especially if it is medicinal, it's probably good for you. However, if you find the smell distasteful you should not take it. One smell that even I do not like, though I will smell it, is bladder pod (rattle weed). Its foul! It will definitely cause you to rumple your nose. If you have ever smelt rue, what the Spanish called *rueda*, it's similar to that. The fabulously beautiful harlequin beetle, which likes to hang out on the bladder pod does not seem to mind the smell however. It probably likes it.

Rounding out our olfactory excursion I would like to mention eucalyptus. What a boon. The eucalyptus leaf is the source of the essential oil eucalyptol. It's in Listerine and was used by the Australian aborigines as a skin anti-septic. Smelling it will open up the sinuses. It's always a good idea to jog around eucalyptus trees because the oil floating in the air is good for the lungs. Monarch butterflies like eucalyptus, though they also like slender milkweed because the flower of the milkweed is feminine and perfumey, and because it contains a poison they use to ward off butterfly eating birds.

Another of my favorite smelling plants is the purple flowered woolly yerba santa. I can not remember seeing much of it in the canyon proper, but it is found in adjoining canyons and mesa tops, such as the fire road from East Gate Mall to Sorrento Valley. The smell of the crushed leaf is an interesting cross of the pungent sage and the medicinal horehound.

If you make it up to Del Mar Mesa, I recommend sniffing out *adolphia*. It can also be seen on the Mystery Tree hike. The tiny yellowish flowers are quite interesting and somewhat similar in smell to the pearly everlasting flower, but it's a completely different plant. Also up on the Mesa Top you can find wild lilac. The purple blossoms offer a pleasing light lilac odor.

Don't miss the mint

Of course, the Del Mar Mesa is famous for the Mesa Mint. It's a tiny plant, with red purple flowers when in bloom, but it fills the air around it with a minty flavor. If you kneel down to get close to it or touch it with your finger it will positively knock your socks off. **Nota bene:** Do not miss it in the spring!

I have tried to mention the many remarkable odors that make up the canyon's olfactory atmosphere. If I have missed something somewhere along the line please let me know and I will sniff it out! I hope that you will appreciate and enjoy your sense of smell all the more after reading this article. So, please don't "keep your nose to the grindstone" but take it off and nose around the Preserve a bit.

Join one of the Friends walks that focus on plants, especially the Sensory, Medicinal, Vernal Pool, Nature and Mystery Tree walks. See our hike schedule for details.

Left: Mexican Elderberry



Friends of Los Peñasquitos Canyon Preserve, Inc.
 P.O. Box 26523, San Diego, CA 92196
 619-484-3219

NONPROFIT ORG.
 U.S. POSTAGE
 PAID
 POWAY, CA
 PERMIT NO. 286

**Address Correction Requested
 Return Postage Guaranteed**

(Outings cont'd)

Sensory Awareness Walk

Sun., March 15, 4 p.m. To quiet the mind and come to our senses is the purpose of this twilight meditation walk. Delight in and savor the senses of seeing, hearing, touching, tasting, smelling, and movement as we explore Peñasquitos Canyon. Hike is for those with appetite for nature, experiment, and self-discovery. Led by Will Bowen.

Del Mar Mesa Vernal Pool Walk

Sat., March 21, 9 a.m. Meet at Peñasquitos Creek Park in Rancho Peñasquitos. From I-15 take the Mercy Road Exit west to Black Mountain Road. Right on Black Mountain Road and up hill. Left at first light, at Park Village Drive. Follow Park Village Drive to intersection with Camino Ruiz. Park is on left. We'll hike a finger canyon to the Del Mar Mesa Vernal Pools. We'll also visit the site of the Black Mountain fire of 3 years ago. This is the second of a series of monthly visits through the spring to watch the succession of life in the pools. We'll also overlook Deer Canyon, one of the few pristine canyons remaining in San Diego. Since the fire the wildflower show in this area has been spectacular. Led by Mike Kelly.

Canyon Walkabout

Sun., March 22, 9 a.m. Join Trinity Gabrielle for a 12-13 mile moderately paced round-trip through Peñasquitos Canyon Preserve. Must bring water, sun shade, snack or lunch. Includes stops at the waterfall. Meet at Peñasquitos Creek Park in Rancho Peñasquitos. Take the Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain, up the hill to the first stop light. Take a left on Park Village Drive and proceed 1-1/2 miles until you see the community park on the left. Wildflower show too.

Mystery Tree and Wildflower Walk

Sat., March 28, 9 a.m. Meet at parking-staging area off Black Mountain Road. Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Investigate legend of Mexican era sign map on trees in Preserve that describe where the Mission treasure was buried. Visit Native America grinding site and learn about the plants they used. Good area for a wildflower show.

Special Notice to First-Time Readers

If you signed our mailing list on a recent walk or other activity, but aren't yet a member, this newsletter is a free sample. To keep it coming with its outings schedules, educational articles, and information on how to defend Peñasquitos Canyon Preserve, join the Friends of Los Peñasquitos Canyon Preserve, Inc. by filling out the coupon below.

Membership Application

Membership category? Circle below:

- Senior (62) or Student \$7.00 Individual \$10
- Family \$15 Sponsor \$25 Patron \$100
- Corporate \$250 Life \$1000
- Contribution \$ _____

I/We are interested in the following:

- Volunteer to help the committee
- Hikes
- Indian Culture
- Educational Workshops
- School, Family, Youth Programs
- Environment (Plants, birds, mammals, geology)

1/92

Other: _____

Name(s) _____

Address _____

City State Zip _____

Home Phone _____

Please make checks payable to:

Friends of Los Peñasquitos Canyon Preserve, Inc.
 P.O. Box 26523, San Diego, CA 92196

Thank you for your support! Your donation is tax deductible.
 Call 484-3219 or 566-6489 for more information.

Friends of Peñasquitos Canyon Preserve

Animal Observation Survey

For animals observed in Peñasquitos Canyon Preserve and adjacent areas

Date of observation _____ Time _____

Circle one: It was dawn full daylight dusk full nighttime hour (if known) _____

Animal(s) seen _____ # seen _____

Where seen _____

Moving/crossing in what direction? _____

Behavior at the time (eating, laying down, running like crazy) _____

Sex _____ Size _____ Age (baby, young, adult) _____

Coloring (spots on fawn; other details) _____

Other comments _____

Name of observer _____ Phone _____

Street _____ City _____ Zip _____

Instructions:

Take your best guess on size, age, sex. Indicate if you're certain (and why) or guessing.

Do include dead animals, especially where you found them.

Include **animals**: mammals, reptiles, amphibians, birds, insects (when you know them), bats,

Please return to by folding where indicated and putting correct postage on reverse side.

Need help? Call Alan Pepper at 586-7123 or Mike Kelly at 566-6489.

Place
Stamp
Here

Friends of Peñasquitos Canyon Preserve
Post Office Box 26523
San Diego CA 92196

----- PLEASE FOLD HERE -----



Canyon News

Friends of Los Peñasquitos Canyon Preserve, Inc.

March/April 1992
Volume 6 No. 6-7

May 9th, 7 p.m. at the Ranch Rescuing Wild Animals: Project Wildlife in Action

by Mike Kelly, president

Wild animals and a new slide show promise to make our May 9th annual meeting an event to remember. Project Wildlife will bring several of the wild animals in their care and give a presentation on their efforts to rescue, rehabilitate and return animals to the wild. Our evening's program:

7:00 p.m. Social. Free refreshments, exhibits.

7:30 p.m. Brief election of officers for next year.

7:45 p.m. Brief update on conservation projects.

8 p.m. Project Wildlife presentation: "Rescuing Wild Animals: Project Wildlife in Action."

Hear Donna Barron and Nancy Conney from Project Wildlife discuss the impact on wildlife of human activity and development. They'll explain how their group rescues injured or displaced animals, their care, rehabilitation and release back into the wild. Learn how you can become part of their program and to care for injured and sick wild animals, from birds to mountain lions!

➔ p.8 for more

Development Increases Flood Damage in Preserve

by John Northrop, Registered Geophysicist

In 1978, a Coastal Commission report on Peñasquitos Canyon warned that "flood flows are expected to increase with urbanization" and that Peñasquitos Creek channel "can be expected to enlarge in order to carry the flows." Flooding in Peñasquitos Canyon from recent rains has borne out this prophesy all too well. Rangers Bill Lawrence and Reneene Mowry had to close the Preserve after the rains of last year's "miracle March." This year's February rains also forced a closure of the Preserve.

What has happened is that when developers bulldoze vegetation off the canyon's sloping sides, rainwater doesn't get absorbed as it would in a natural setting. Rather, it rushes downhill after heavy rains — carrying sediment along with it. The dislodged sediments, mostly silts,

➔ p.9 for more

Outings Schedule

See Page 10 for a convenient "hangup" format.

Efforts to Save Peñasquitos Canyon Continue

by David Hogan

Coordinator, San Diego Biodiversity Project

Many San Diego residents are aware of the wild beauty of Los Peñasquitos Canyon Preserve.

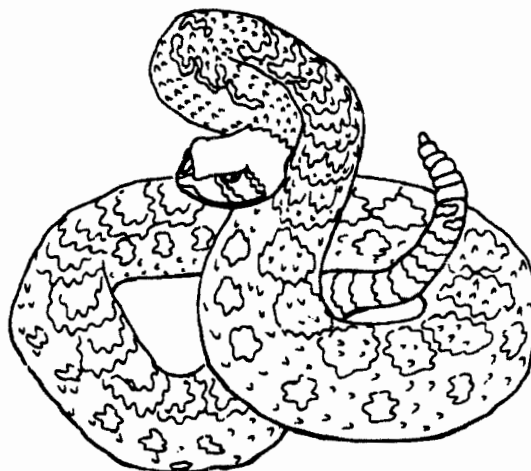
Over the years, this City/County preserve has come under increasing pressure, including the loss of critical habitat to the development of López Ridge and the presence of hundreds of humans catching the sunshine on weekends.

As a result of these pressures, many canyon critters are forced into side ravines on the north slope of Peñasquitos Canyon. And that's why this area must be protected.

Comprised of nearly 3,000 acres of rolling grassy and chaparral-clad mesa top, Carmel Mountain and Del Mar Mesa are critical to the continued existence of a viable ecosystem for the Peñasquitos area.

Numerous sensitive habitats are found here: vernal pools with springtime purple carpets of endangered San Diego mesa mint; coastal sage scrub and its famous inhabitant, the nervous California gnatcatcher.

➔ p. 11 for more



Rattlesnake season — see page 6

What's Jumpin' in the Preserve? The Singing Frogs of Peñasquitos Canyon

by Will Bowen

If you've been in the canyon at dusk lately, and near water, you might have noticed loud choruses of singing frogs. If it seemed that the sound was louder than usual, you were right. This is frog singing season. Beginning around December or January and continuing to April or May the frogs of Peñasquitos canyon are singing. Why do they sing? Not for fame or money . . . but for love.

Actually you're not hearing the serenade of frogs, but tree toads, although the Pacific Tree Toad (*Hyla regilla*) is seldom found in trees. Usually they frequent ponds, streams, or large puddles, like the ones now in the canyon, brought by the recent rains.

Given the volume of the singing, you might expect a rather large amphibian. I did. How easily we're deceived. The tree toad is actually the smallest of the frogs on the Pacific Coast. It only grows to 1-1/2 to 2 inches in length, unlike the introduced African frog which also lives in the canyon and truly deserves the name — monster frog (I warn all my hike participants about them!). Last spring, I carried one African frog off the main road and it took two hands to hold. It was as big as a football and extremely strong. One kick and it would be shiner city!

No, the Pacific Tree Toad is tinsy and it takes an eagle eye to spot. You would think you could find one easily given the sound they make (loud!). When you stop and listen . . . many seem to be around. Then you close in on the sound, tip toeing very carefully in your Sherlock Holmes autographed sneakers. Only it becomes very quiet. You look and look and look and can't find any tree toads.

I got lucky the other evening and was able to observe one close up. I was near "El Cuervo" (Ruiz-Alvarado Adobe) just about dusk. At that point in time I wasn't aware of the size factor involved. I thought to myself, "these frogs must be large to sing so loud." I turned on my miner's head lamp and crept on all fours along a mud puddle. My lamp shined like a giant spot light crisscrossing the puddle as if I was a German sentry in the "Guns of Navarone." Finally, I noticed a tiny frog commando barely 2 inches long. It was sitting in shallow water at a depth where its throat sac and head were out of the water. The legs and toes were spread out and it was looking straight up at me. The egg-white throat sac was swollen up to about 1/3 its total size.

"Hey big guy! Are you the one making all this racket!", I called out. "Kreck ek" quote the tree toad

The tree toad sings by expanding its bubble like throat sac. He makes the sound — "kreck ek" (otherwise known as "Rib et"), which is about a second in length and rising in pitch, by shunting air from its lungs to its throat sac. The trapped air is used repeatedly and forced over the vocal chords with the sac serving as a resonator.

The oldest voice on earth

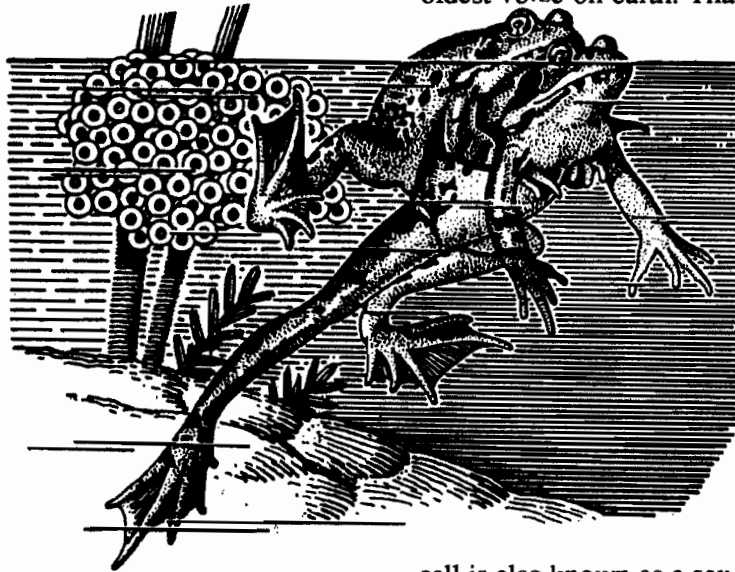
To dispel any tittering notions along the lines of "what's all the hubbub about a tree toad's croak," let me state at the outset that what we are hearing here is none other than the oldest voice on earth. That's right! The very first voice on earth was a frog's. Two hundred million years ago the first frog let out a sonorous croak . . . which was heard by another frog (yes, frogs do have ears and can hear — it was proven conclusively in 1905 by Dr. Yerks). It was a cool one hundred and ninety seven million years later that an Australopithecines (the first of the hominids) uttered its first "Ugh!"

The tree toad is capable of about five calls. The most important is the mating call — "Kreck ek." The mating

call is also known as a sex trill or a male sex trill or simply "expressions of delight at meeting." The sex trill is intimately connected with breeding activities. It's by way of the sex trill that the male frog attracts the female to his lair.

The tree toad also makes a rain call to celebrate the rains (but a loud plane overhead will do). The rain call is distinguished by being somewhat less spirited and less frequent than the mating call. There is also the territorial warning chirp which is emitted when another male enters the prescribed zone around another male, it goes something like "kr-r-reck" and is a bit lower in pitch. There's a warning call which is emitted if in the heat of splash and excitement at the mating pond a passionate male accidentally grabs another male instead of a female. Finally, there is a scream of duress, which is quite bloodcurdling, when a tree toad is caught by a predator — it's the only call made with the mouth open.

Each of the different species in the family frog has its own particular vocalizations. The female of a certain species selects a mate on the basis of these species specific vocalizations. Scientists think this specificity helps prevent interbreeding. Thus, if you are to hear 5-6 low guttural sounds then a mating call, lasting about 3 seconds in duration, instead of the one second "kreck ek" you are most



(Frogs cont'd)



likely hearing the tree toad's larger cousin, the Red legged frog (*Rana aurora*), which biologist Maggie Loy suspects is also in the canyon.

Breeding Activities

The antics of the tree toad at breeding season all begin when large numbers of vociferous males congregate at transient rain puddles and streams. The suitable rainy weather of spring triggers breeding behavior and brings the tree toad out of seclusion. Males smell their way to breeding sites keying in on the odor of a certain species of algae. One male starts singing and then other males begin to gather around. Research with loudspeakers broadcasting frog calls has shown that the males will form a semi circle around the lead singer with a set distance between themselves. Later, through some sort of delayed response, females begin to show up.

Near dusk the tree toad is most active. When singing the male (females don't sing — or make any sound for that matter except perhaps the scream of duress) may float with his limbs outstretched and his globular pouch extended beyond his chin. Unlike males, females don't enter the water until they're ready to lay eggs. In late afternoon or early evening they slip into the water singly or in small groups. The superior number of males make mating almost immediate. The male grips the female tightly while she discharges her eggs — up to 500–750 in a 24-hour period. Once the female has deposited her eggs she goes back into seclusion while males may continue to hang around and sing.

A siting

On the last Medicinal Plant hike near dusk we were lucky enough to see a little grayish female under the cotton wood trees at the west end of the canyon. She had very beautiful eye liner like the endangered Bali mynah bird found at the San Diego Zoo. We knew it was a female because she did not have the throat sac. She checked us out, observed that we did not go "kreck ek" quite right, and hopped off, diving under some submerged grasses.

Tree toad miscellany

The tree toad feeds on leaf hoppers, flies, ants, beetles, and spiders. It has the ability to change colors. Research has shown that the tree toad can change from black to bright green in 10 minutes, I've seen them both green and gray. They are perfect camouflagers.

Incidentally, the tree toad and other frogs have strong sense of location. In addition to their use of sense they can find their way around through noticing the position of the stars. Hence, they're celestial navigators! They're also



Mrs. Pete Wilson Rewarded Outstanding Environmental Volunteers

As we reported previously, the Friends of Los Peñasquitos Canyon preserve was one of the civic associations chosen to receive an award for our efforts in the education of the public and conservation of the integrity of the Peñasquitos reserve and its plants and animals. The awards ceremony took place January 27 in Sacramento.

Outstanding volunteer efforts by individuals and groups in preserving California's natural resources were rewarded by Mrs. Pete Wilson in a Capitol ceremony on this date. Mrs. Wilson is the official spokesperson for the **Take Pride in California** awards program. She spoke to the assembled volunteers when Take Pride in California held its second annual awards ceremony in the Senate Committee Room, #4203 at 1:30 p.m. on Monday, January 27, 1992.

Representatives from the award recipients from throughout the state attended the ceremony. These winners were selected by a panel of judges from a field of 85 nominees. The award recipients are now eligible to receive national recognition in the Take Pride in America awards program.

Other dignitaries attending included Resources Secretary Douglas P. Wheeler and Department of Parks and Recreation Director Donald W. Murphy. Take Pride in California is administered by the California Department of Parks and Recreation and is made possible through a partnership with the Department and the American Express Philanthropic Program.

Californians honored in previous years have included private citizens, Boy Scout and Explorer troops, garden clubs, private companies, a newspaper, historical societies, non-profit organizations, conservation districts and city and county park and recreation departments.

The projects receiving recognition in the past have covered a diverse range of measures to preserve natural and cultural resources. Some of the projects included maintaining a 6,000-site record archaeological data base, long-term recycling programs, trail construction, reforestation projects, clean-up campaigns, anti-vandalism and graffiti removal projects and dune and desert environment conservation activities.

the quintessential conservationists. After they shed their skin they eat it. Now that's recycling!

An invitation

If you would like to learn more about frogs and tree toads including auditory examples of their many, varied, and quite musical calls try *Sounds Of North American Frogs; The Biological Significance Of Voice In Frogs* by Charles M. Bogart published by Folkways Records FX6166.

The Birds of Penasquitos Canyon

Prairie Warbler

by Claude G. Edwards

Southern California is well-known for the many eager and experienced birders which rummage far and wide within the region throughout the year, stumbling over a myriad of unusual and interesting birds along the way. Most of these discoveries are enjoyed by the individual or small group of observers who first encountered them. Once in a while, an unusual bird stays for several days, or even for several weeks, to be seen and enjoyed by many people. Such is the case with one of the more colorful of the regular rarities in our region — a Prairie Warbler!

While conducting a bird survey on Sunday, November 3, 1991, as part of the monthly Penasquitos Canyon area bird count, I found the warbler in the willows along Penasquitos Creek near the Ruiz-Alvarado Adobe ruin. Along with me for the count were Alice DeBolt and Joan Nimick, who enjoyed the pleasure of serving as 'witnesses' to the other rarities which we turned up that morning.

We were working our way east along the creek identifying and counting the birds which we found. We stopped for a few moments alongside the large, drooping Peruvian Peppertree which stands between the ruin and the creek. First, we found what I figured out was the eastern form, or race, of the Solitary Vireo (*Vireo s. solitarius*), sometimes called the 'Blue-headed' Vireo. It was striking in the brightness and distinctness of the colors of its plumage — a very pretty bird!

As we tried to get a good look at the Vireo, the ladies noticed a much yellower bird moving hidden in the leafy cano-

py of the willows. After craning our necks, searching diligently with our glasses and 'pishing' a lot, the little mystery bird came into view. "A Prairie Warbler!" I exclaimed. The ladies were most impressed and excited at our find.

We knew that we had to write up details of both birds' plumages in order to properly document our discovery. We sat down and feverishly put words to paper to describe the colors and features that these birds had. They moved together into the peppertree over our heads and eventually to the trees a little east of the adobe.

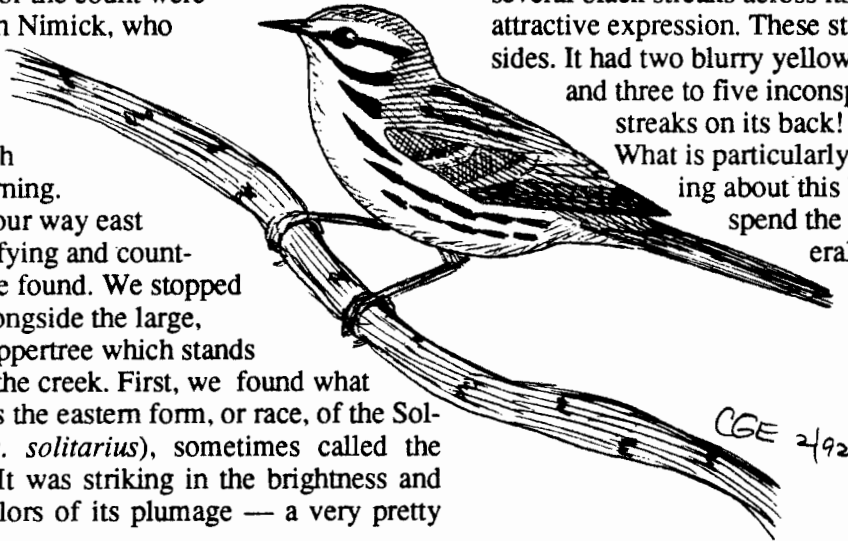
The Prairie Warbler (*Dendroica discolor*) was smaller than the Vireo and similar in size and shape to our normal winter visitor, the Yellow-rumped Warbler (*D. coronata*). It was bright olive-green above, mostly yellow below, with several black streaks across its face forming a unique and attractive expression. These streaks extended down its sides. It had two blurry yellowish wingbars on each wing and three to five inconspicuous but diagnostic rufous streaks on its back!

What is particularly interesting and even surprising about this bird is that it has remained to spend the next few months in the gen-

eral vicinity, long after the other rarities which were seen that day had departed. This fact has resulted in quite a few

motivated being able to relocate and enjoy this bird for themselves. As of this writing, February 11, 1992, the bird is still in the area.

The other rarities seen that day included Northern Waterthrush, Eastern Phoebe and Blue Grosbeak



Animal Survey off to Good Start

Keep sending those animal surveys in. To date we've received quite surveys on deer, owls, coyotes, rabbits, frogs, rattlesnakes and coast horned lizard. We're already sharing these with people planning wildlife habitat and corridors in other areas. Repeat sightings are important to report, it can tell us a lot about the animals' habits. If you see the same animal frequently, you can note this on a single form, rather than many individual ones.

If you have any questions about filling out the forms, feel free to call Mike Kelly at 566-6489 or Alan Pepper at 586-7123. Please make as many copies of the form as you need. Start counting!

Check Your Label

Take a moment to examine the address label on this newsletter. Check to see if your expiration date has come and gone. If so, please take the time now to send in a renewal check for your membership dues. This will enable you to keep receiving our newsletter, recognized as one of the best environmental newsletters of any organization in San Diego. That way you'll keep learning about the progress of the Camino Ruiz issue and what you can do about it; about family walks; about the plants and animals that inhabit the Preserve, and the many conservation projects open to you and your family or friends.

Beware the Hitchhiking Tick

by Christine E. Whitten, M.D.,

[Editor's note: *The March 1991 "March miracle" and this year's above-average rainfall have produced a bumper crop of insects, including ticks. Mike Kelly, the Friends' president, picked off no less than a dozen ticks during a two-hour hike in a brushy area recently. Watch out!*]

The increasing number of cases of Lyme disease being reported in San Diego County highlight the importance of taking precautions against picking up ticks while you're out walking. Starting in the spring and lasting through summer the local tick population is on the lookout for an easy meal.

There are three different types of ticks. However, hard ticks from the family Ixodidae are most likely to parasitize humans and potentially spread disease. The adult hard tick has eight legs and a hard plate on its upper surface. There are four stages in the life cycle of the tick: the egg, larvae, lymph, and adult. The full life cycle takes 2 years in some species and all stages require blood meals. The tick feeds by embedding its head in the skin of the host, usually a deer or other large animal. This process is painless and the tick may remain attached for days until totally engorged with blood.

Ticks of all stages tend to attach themselves to tall grasses and low bushes along animal trails, allowing themselves to hitch a ride as the animal brushes against the plant. Once full, they drop off and await the next meal.

Fortunately, humans are infrequent hosts because ticks can transmit bacterial and rickettsial diseases such as Lyme Disease, Rocky Mountain Spotted Fever, and Q fever among others. They can also cause loss to industries dependent upon domestic animals such as cattle and sheep by damaging the hides and decreasing the animals weight gain.

The typical tick bite causes little more harm than a slightly raised red mark. If part of the head or other foreign matter is left in the wound a persistent, firm itchy nodule called a granuloma can develop. If this persists it may have to be surgically removed to relieve the itching. Rarely, an allergic reaction causing hives and fever can develop.

Even rarer is the development of paralysis of an arm or a leg which slowly ascends the limb following a prolonged attachment of 5-7 days. Certain ticks secrete a nerve toxin in their saliva. This paralysis resolves after the tick is removed.

The most common tick-born disease in the U.S. is Lyme disease. The disease ef-

fects several body systems. First, at the site of the bite a red papule may develop. When present, this expands into a ring shaped red lesion with a clear center. The rash is called erythema chronicum migrans, or in english, a chronic red rash which moves. Secondary rings sometimes develop months later at sites distant from the original bite. The major risk of Lyme disease, however, is involvement of the internal organs with heart, joint, and nervous system. Typical symptoms are headache, malaise, and fatigue. Often there's arthritis-like joint pain and swelling.

Because of the non-specific nature of the symptoms and the fact that the victim may not know he or she was bitten by a tick, the disease can sometimes be hard to diagnose. However, once diagnosed it is simple to treat with either tetracycline, penicillin, or erythromycin providing prompt resolution of symptoms.

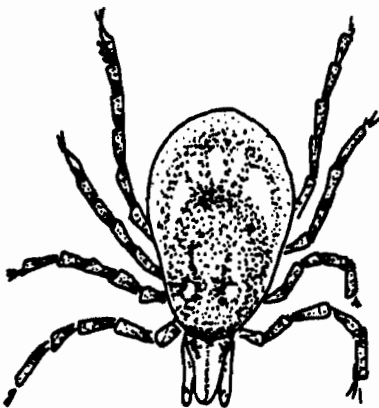
Your help is needed

If you or someone you know has been bitten by a tick recently, please give Mike Fry a call. Mike is one of our members and a well-known activist in San Diego. After a close call with Lyme disease he is collecting information on tick bites and possible complications from them. Call him at 566-3851.

If you find you have picked up an unwanted passenger, remove it with blunt tweezers, or with your fingers protected by a rubber glove, or paper towel. Grasp the tick as close to the skin as possible and pull straight back gently and steadily. You may need to lift the tick upward and pull parallel to the skin until it's freed. Don't twist or force the tick off as this can leave the head imbedded. Wash the bite thoroughly. Don't apply gasoline, alcohol, ether, nail polish or the hot end of a match. These methods don't work and can cause more damage than the tick did.

Prophylactic treatment with antibiotics after a tick bite is still controversial and currently not recommended. Unless the tick is attached longer than 24 hours the risk of disease transmission is minimal. One study has addressed this issue so far. In it, half of 56 tick-bitten patients received penicillin, half did not. One patient, 3%, developed Lyme disease in the untreated group. One patient (3%) developed penicillin reaction in the treated group. The jury is still out. However, if you develop a flu-like illness after hiking in a tick infested area make sure your doctor knows.

In the meantime, wear protective clothing when you hike, use insect repellents, shower after exposure, and check yourself and your fellow hikers for ticks. Routinely check your children and pets when they come in from playing in the brush. This is one time when picking up hitchhikers is definitely not recommended.



Tick, many times life size

Rattlesnake Season Upon Us

Mike Kelly

This year my first rattlesnake siting came in the Soledad Canyon area, north of Miramar Road. It was a red diamondback and it was sitting beside a rock next to the narrow trail I was on. When it warned me with that bone-chilling rattle I think I broke the world sideways broad jump record! Our hike leaders report rattler sightings in the canyon. A Peñasquitos neighbor called to say her dog was bitten by one at the La Tortola access to the Preserve.

I don't report this to alarm readers. Rather, the Friends want to avoid the unnecessary confrontations between people and rattlers that usually lead to the snake's death. A few simple precautions can help avoid encounters that are dangerous to both parties.

Rattlesnakes shouldn't prevent you from venturing outside to enjoy Peñasquitos or other canyons and parks in the city. Although they can be dangerous, your chances of encountering one, not to speak of being bitten, are slim. You and your children are in more danger getting into your car for a trip to the corner store. Given that slim chance, however, here are some sensible precautions to take.

Where to look

There's no substitute for looking where you step or reach. On the main road in Peñasquitos Preserve, it's easy to see when a rattler is in the road ahead. It's tougher if you go on one of the smaller trails. Some people use their walking sticks to regularly tap the trail they're walking or the rocks they're climbing. It's said to be an old Indian practice that warns the snakes and gives them the opportunity to get out of your way.

Rocky areas near water are a common place for rattlesnakes to hang out. Three such places in Peñasquitos Can-

yon are the slopes around Horseman's Park and the creek, the waterfall area, the gorge west of the waterfall, and around the Rancho Santa Maria de los Peñasquitos adobe ranch house in the Preserve's east end. Rattlers are seen more frequently in these areas than in other places. Don't reach into holes or crevices! And don't climb up rocks you haven't first scouted.

Freeze!

What can you do when you do encounter a rattlesnake! Agree with your group that when someone yells "Freeze!" you will all stop in your tracks and not push anyone into the snake ahead. Move well away from it. Stamp your feet in case it hasn't seen you. Usually, it will move off. Don't let anyone in your group approach it with a stick to poke at it, because the snake may strike back in self-defense. It can strike very fast! Give the snake a chance to move on and live. After all, we're visiting it in its home, not ours.

Rattlers don't always "rattle"

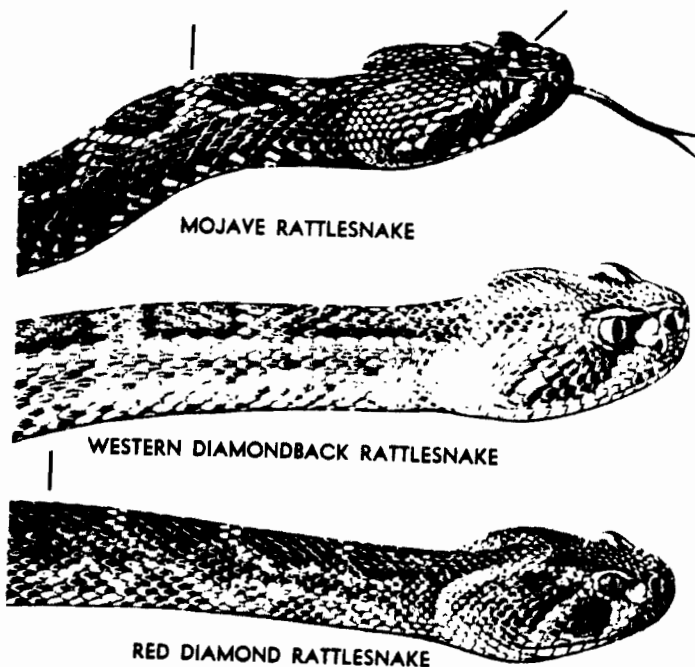
Don't make the mistake of believing a snake is harmless because it doesn't "rattle" at you. Sometimes they don't, especially the young. A Southern Pacific we encountered on a hike one day appeared to be quite young. It didn't "rattle," despite the fact that we were only three feet away.

Don't think that because it's a baby it's harmless. Quite the contrary. It has a full dose of venom, and like many juveniles, it can be impetuous. It hasn't the maturity and control of an adult snake to differentiate dangers to it in its environment. Often an adult warns you off with its "rattle" or even a "dry" bite, with no venom delivered.

Carry a snake-bite kit

A good precaution is to carry a snake-bit kit with you. The Extractor is a popular small kit that fits into a pocket. It's available in sporting goods stores. Study the instructions before your next hike. It uses a vacuum pump device to suck the poison out of a bite and is useful for bee and mosquito bites as well. Keep in mind, however, that when it's a snake bite you're treating, *it's not a substitute for getting the person medical help as quickly as possible.* It rarely gets all the poison out and with some people it doesn't take much poison to become seriously ill or die. About 1/3 of all bites are "dry" bites — no venom.

Having said all of this, do you know where you're most apt to encounter a rattler? In your back yard, if you're one of the tens of thousands of San Diegans who live near a canyon. In my cul-de-sac in the past five years, neighbors found two rattlesnakes in garages, two coming out from under the back deck, one on the front deck, and two in the street. Two summers past, I was about to step up on my deck in the back when I heard a "rattle." I looked down to see a Southern Pacific rattler two feet away. After I jumped, it headed away — under my deck. In the warm weather I try to remind myself to take a good look as I enter the garage and as I step on the decks or walk in the yard.



From: Robert C. Stebbins, *Western Reptiles and Amphibians*, Houghton-Mifflin, N.Y.

Volunteers Sought for Restoration In Preserve

By Mike Kelly

Volunteers are still being sought for Friends' restoration and conservation projects in Peñasquitos Canyon Preserve. Several different projects are planned or already underway. These include transplanting of native bunch grass, expanding the range of Coastal live oaks with seedling plantings, removal of invasive weed species, and monitoring populations of endangered plant and animals species. Anyone wanting to participate can call the Friends at 484-3219.

Anyone is welcome to join in

No particular skills or training are necessary, just a willingness to do some physical labor. There are various tasks to perform. With the native bunch grass, we need volunteers willing to do weeding about every two to three weeks.

Other weed removal volunteers include people who use sickles, scythes or loppers, depending on the species, or who help clear the cut brush from the site. Some people help on the bigger species with brush saws. Some carefully apply herbicide where necessary.

Planting projects typically require digging holes and then planting cuttings or pot-germinated plants such as our coast live oaks. Many volunteers are growing oaks, cottonwoods, sycamores and willows in their back yards or on their decks for the Preserve.

Spring '92: Tamarisk cutting and replacment

One immediate project is to finish our tamarisk removal

project. We will have several tamarisk work parties this spring. Projected dates include Sunday, May 3 and Saturday, May 16. Some people will cut the Tamarisk with loppers. Others will pull the cut brush out of the waterway, while yet others apply an herbicide to the cut stump. Once the tamarisk is removed, willow cuttings will be planted to start the restoration of the area.

Last year the Friends successfully removed Tamarisk from over 90% of the Preserve. The last stand of the Tamarisk is located at the west end of the Preserve near the I-805 bridge. Read on below to see why we're eliminating this plant from the Preserve.

Tamarisk is a problem weed plant in the Preserve

Actually, it's a problem throughout the southwestern deserts, including most of our parks in these areas. The State Department of Parks and Recreation has an ongoing project to remove it from the Anza-Borrego State Park. The Nature Conservancy, with the help of the Desert Protection Council, successfully removed it from the Coachella Valley Preserve in Palm Desert. I participated with the Council in removing tamarisk from Carrizo Canyon, also in the Palm Desert Area. If tamarisk is allowed to flourish in our canyon, or any other in San Diego for that matter, the result will be a tremendous loss of plant diversity and animal habitat. See the accompany article by William M. Neill for the natural history of tamarisk and its devastating impact on the American desert.

The Tamarisk Invasion of Desert Riparian Areas — Part 1 of 2

by William M. Neill, M.S., Geology

Educational Bulletin #83-4, Desert Protective Council, Inc.

Water is the most precious of life-sustaining resources in the desert. Consequently, the perennial springs and streams of the desert — where fresh water can be obtained during the hot summer months — are the most productive of wild-life habitats. A rich variety of animal species — bighorn sheep, birds, rare fish and amphibians — depend for their survival on the constant flow of water at these scattered oases and on the plant and insect life that flourishes there.

Human occupancy of the desert has centered around the perennial water sources since prehistoric times, but in recent decades this impact has intensified greatly, as some have been expropriated by mining or cattle-grazing operations, others have been diverted to support agriculture, residential settlement, or transportation, and still others have been trampled by feral burros descended from those abandoned by prospectors. To this list of assaults must be added another threat to desert ecology, less obvious but equally



Young tamarisk seedlings in a flood channel

(Tamarisk cont'd)

damaging: It is the uncontrolled invasion of a foreign plant, *Tamaris sp.* called deciduous tamarisk or saltcedar, which was imported from the Mediterranean region a century ago. Tamarisk is a virulent pest in desert riparian areas because it aggressively displaces native trees and shrubs, it withdraws and transpires water from the ground at a high rate, and it is a poor source of food and shelter for desert wildlife.

Early history

Tamarisk seeds were first brought to North America in the 1800s from southern Europe or the eastern Mediterranean region. Originally it was planted by immigrants to the southwest desert as an ornamental shrub or shade tree, or to create windbreaks, or to stabilize eroding stream banks. Soon, however, tamarisk escaped cultivation and dispersed widely along river courses owing to wind transport of its pollen-size seeds. Along the upper Gila River in Arizona, wild tamarisk growth was first noticeable after a flood in 1916; then, with rapid proliferation, the plant became common in the 1920s, abundant in the 1930s, and the dominant riparian tree species, replacing willow and cottonwood, in the 1940s. The same rapidity of infestation was observed in central Utah and the Rio Grande and Pecos River valleys of New Mexico and Texas. By 1961, according to the only comprehensive inventory yet published, tamarisk occupied an estimated 1400 square miles of flood-plain in the western United States.

As early as 1950, the tamarisk invasion had come to the attention of water-supply and flood-control authorities, primarily in Arizona and New Mexico, who were concerned about the wasteful loss of groundwater through transpiration and the constriction of flood channels by dense tamarisk growth in the river valleys.

Attributes

Compared with the native trees and shrubs of desert riparian areas, tamarisk is impressively robust and competitive, yet has markedly inferior value as wildlife habitat. Consider these aspects of its botanical personality:

A single large tamarisk tree produces a half million seeds a year, which disperse widely by wind and germinate wherever the soil remains moist for several weeks. Seedlings mature rapidly and produce small, pink flowers often by the end of the first year. Under optimum conditions, a desert riparian area containing only a few tamarisk trees can be converted to an impenetrable thicket in less than a decade.

Tamarisk grows so rapidly, up to one foot per month, and so densely that native trees are crowded and shaded from direct sunlight and cannot thrive.

Tamarisk is reputed to have the highest transpiration rate of all deep-rooted trees that tap the water table. Moreover, tamarisk is more resistant to drought, once seedlings are established, than most native riparian trees, so that at time of water stress the native trees die but tamarisk survives and thereafter consumes a greater fraction of the available ground-water supply.

(Project Wildlife cont'd)

Our meeting will be held at Rancho Santa Maria de los Peñasquitos (formerly the Johnson-Taylor Ranch House). The program is free of course. See the map on page 10 for directions.

Project Wildlife operates under state and federal permits and serves all of San Diego County without charge. They provide assistance to all wild land and sea birds as well as wild land mammals. Although they can't treat most reptiles, marine mammals, pets, or other domestic animals, they do make referrals to appropriate animal-care agencies.

Specially trained volunteers living throughout San Diego County care for the animals directly from their homes. Other skilled volunteers at their small care facility receive and treat many species of wild animals daily. All experienced animal-care volunteers consult veterinarians when needed, provide emergency first aid, rehabilitative physical therapy, and proper rearing techniques for wild orphans by providing specialized diets and customized housing.

Rehabilitated animals are successfully released into carefully selected, local native habitats that are safe, suitable, and allow the best chances of survival for each release.

Each year San Diego's Project Wildlife gives a second chance to nearly 6,000 wild creatures. They are funded entirely by memberships and donations which are always needed for food, equipment and supplies, medical attention, bird aviaries, and mammal runs. All monies received are used to pay for direct animal care and other related services.

To make a tax-deductible donation or for information about joining, call 619-225-WILD or 619-692-WILD.

[Taken from a Project Wildlife brochure.]

Tamarisk can tolerate excessive salinity in water and in soil by its ability to exude salt crystals from openings in its scale-like leaves. The salt falls or is washed to the ground, where it kills emerging grasses and seedlings of other tree species. As a result, where it is well established in dense thickets, tamarisk is likely to be the only form of plant life. As noted by Van Hylckama (1980), "One rarely finds an intruder in a saltcedar thicket."

Tamarisk is not killed by fire, cutting at ground level, or application of herbicide to the foliage, for unless the root system is killed, the root crown will resprout vigorously. Effective tamarisk removal requires (1) mechanical uprooting or (2) cutting at ground level and applying to the stump a systemic herbicide that is carried to the roots by vascular transport.

The seed of tamarisk is too small to be eaten rodents or birds, and its thin, scaly leaf is unpalatable to native browsing animals and to leaf-eating insects. By contrast, the native mesquite tree produces large, nutritious seeds, rich in protein, that are a mainstay of rodents; mesquite and willow provide high-quality forage for desert bighorn sheep; and willow and cottonwood harbor a greater abundance of insect life than does tamarisk, so are more beneficial to many bird species.

(Next issue: Control Efforts in California)

sands and gravels, get into the "bed load" of the stream and literally choke it up. This forces floodwaters to seek alternate paths, called distributary channels, to form. This process is evident at both the east and west ends of the Preserve as will be discussed below.

Flooding at the east end

Evidence of development-induced flooding at the east end of the Preserve is readily apparent in two prime areas. The first area is downslope from the Park View Estates on the north side of creek about one mile west of the ranch house. There, sediment washed down slope from the bulldozed — and unprotected — north wall of the canyon has flowed over the roadway and into Peñasquitos Creek, adding to its sediment load. The second area is between the main trail and creek bed downstream from about Eichar's grave to the SDG&E crossing. There, distributary channels have formed all along this entire 2-mile stretch of riparian woodland which is, lamentably, now much frequented by bikers, as well as in the service road itself. Additionally, the north side of the creek in this stretch, which was dug out by Captain Johnson to drain the land for farming, is a deep trench that's straight rather than meandering. The sides of this trench are now being washed out, contributing even more sediments to the bed load.

Flooding at the west end of Peñasquitos Canyon

At the west end evidence of development-induced flooding and erosion are all too painfully evident in two major localities. The first is in López Canyon near the parking/staging area. Here the storm drains from both the McKellar Industrial Park and Pacific Corporate Center debauch on the canyon floor. This causes floodwaters to not only erode the main trail but also overtop the causeway adjacent to the parking area, washing it away in the process. In addition, several large mud flows and landslides have formed on the rim of the canyon's south wall where drainage from McKellar park flows over their retaining wall and into López Canyon.

The second site is in Peñasquitos Creek, where sediment saturated floodwaters have overtopped the levees on both sides of the channel. This channel was dug out by the Ruiz/Alvarado ranchers a century ago to drain the fields for farming. This overtopping forms two shallow lakes or ponds, one on the north side of the creek and one on the south. Water flows into the south-side "pond" right down the middle of the service road, making it impassable for emergency vehicles — one reason the Park was closed. Evidently, the sediment-laden stream is trying to re-occupy its original channel which swung in a series of "meanders" from one side of the canyon to the other, i.e., from the sycamore trees at the base of López Ridge near the mouth of López Creek, to the foot of the north wall of the canyon across the creek from the Ruiz (el Cuervo) Adobe.

Recommendations

The following steps are recommended to reduce the flood damage in Los Peñasquitos Canyon Preserve.

1. We must require developers to revegetate all bulldozed slopes within the Peñasquitos Creek drainage basin immediately. Leaving vast areas denuded of vegetation during the wet season is a disaster. Developers failing to do so should be fined.

2. Both the Pacific Corporate Center and McKellar Industrial Park should be required to construct brow ditches along the south rim of López Canyon to prevent runoff from their parking areas flowing down the canyon walls.

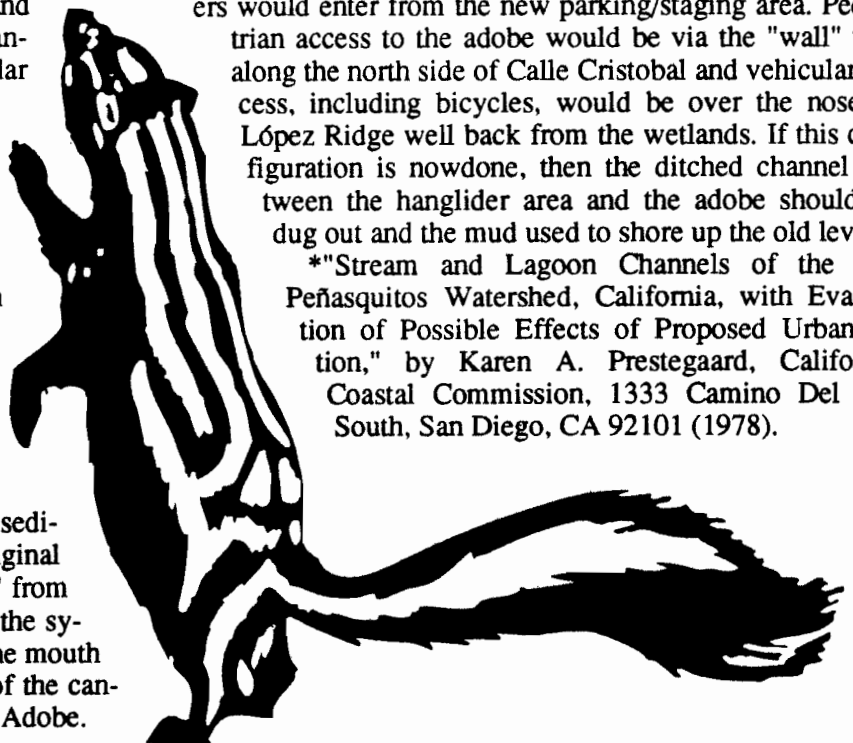
3. The small (8-inch) culverts beneath the causeway connecting the west-end parking/staging area with the Preserve should be dug up and replaced by larger (at least 36-inch) diameter pipes.

4. More catchment basins or sediment traps should be built in López Canyon and other tributaries to Peñasquitos Canyon. Several old earth dams, like the one that once stood just west of the ranch house near where Camino Ruiz is now, have been removed by developers.

5. Creek channel clearing is necessary. Over the years, Peñasquitos Creek has become clogged with dead trees, brush, debris, old leaves and logs, plastic bags, beer cans and, near the adobe at the west end, water iris. The entire channel should be cleaned out periodically, particularly where it is trenched west of the ranch house at the east end.

6. Serious consideration should be given to allowing Peñasquitos Creek to re-occupy its old stream bed meanders through the wetlands at the west end of the Preserve. Such a change would not only enlarge the area of wetlands but also keep people out of them. This would happen since the old west entrance would be closed off and all Park users would enter from the new parking/staging area. Pedestrian access to the adobe would be via the "wall" trail along the north side of Calle Cristobal and vehicular access, including bicycles, would be over the nose of López Ridge well back from the wetlands. If this configuration is now done, then the ditched channel between the hanglider area and the adobe should be dug out and the mud used to shore up the old levees.

*"Stream and Lagoon Channels of the Los Peñasquitos Watershed, California, with Evaluation of Possible Effects of Proposed Urbanization," by Karen A. Prestegaard, California Coastal Commission, 1333 Camino Del Rio South, San Diego, CA 92101 (1978).



Friends of Peñasquitos Canyon April/May Events Schedule

Project Wildlife To Highlight Annual Meeting, May 9

With above average rainfall we're getting a profusion of wild-flowers in many different areas of the Preserve. It doesn't matter what the walk is, you're bound to see flowers. Join us!

Outings are free. Wear sturdy shoes; bring water for longer hikes. Rain cancels. For more details or to organize group hikes, call 484-3219 for recorded information.

APRIL

Fitness Walk

Sat., April 4, 8 a.m. Join Dr. Jaya Pereyman on a 10-K (6 mile roundtrip, 2-1/2-3 hour) brisk walk to waterfall and back. Bring water. Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite.

Rancho Santa Maria de Los Peñasquitos Adobe Ranch Tour
Sat., April 4, 11 a.m. and noon (45 min. each), S.D. County Archaeological Society. Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park past ballfields to Preservesign and new parking lot. See historic adobe, settler and Indian artifacts.

Bird Walk at Canyonside Park

Sat., April 4, 4 p.m. Take Mercy Road exit off I-15 west to Black Mountain Road. Go right and up hill, make first legal U-turn, back down hill and right into Canyonside Park entrance. Go past ballfields to white fence, left into new parking-lot. Bring bird book and binoculars. Led by Brian Swanson.

Del Mar Mesa Vernal Pool Walk

Sun., April 5, 9 a.m. Meet at Peñasquitos Creek Park in Rancho Peñasquitos. From I-15 take the Mercy Road Exit west to Black Mountain Road. Go right on Black Mountain Road and up the hill. Left at first light, at Park Village Drive. Follow Park Village Drive to intersection with Camino Ruiz. Park is on left. Hike to Del Mar Mesa Vernal Pools and the site of the Black Mountain fire of 3 years ago. Great wildflowers. Led by Mike Kelly.

Medicinal Plant Walk

Sun., April 5, 4:30 p.m. (2 hours). Meet in the new Parking-Staging area at Sorrento Valley Boulevard entrance to Peñasquitos Preserve. Learn about plants our Indian and settler ancestors (and people today) used for medicinal purposes. Led by Will Bowen.

Nature Walk

Sat., April 11, 8 a.m. (2 hours). Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Learn about plants the Indians and settlers used while living in canyon. Numerous wildflowers should be blooming. Led by Les Braund.

Full Moon Walk

Fri., April 17, 7 p.m. (1-1/2 hours). Meet in parking lot by La Cantina bike shop on north side of Sorrento Valley Blvd. in Sorrento Valley, 1/2 mile east of intersection with Vista Sorrento. **Bring flashlight.** Learn about the lore and legends of the moon from an anthropologist. Meet Ishtar the Babylonian moon goddess; Chaawp the Digueno Indian Meteor Spirit. Look for deer and other nocturnal animals. Spot tree toads. Listen to coyotes howl. Watch out for hungry ghosts! Led by Will Bowen.

Rancho Santa Maria de Los Peñasquitos Adobe Ranch Tour
Sat., April 18, 11 a.m. and noon (45 min. each), See April 4 for details.

Friends Monthly Business Meeting

Thurs., April 23, 7 p.m. at Rancho Santa Maria de los Peñasquitos. At the business meeting we discuss issues facing the Preserve, Friends hike program and conservation volunteer projects. See Rancho tours for directions.

Geology Walk

Sun., April 26, 9 a.m. (3 hours). Meet in Mira Mesa on López Ridge. From I-15 or I-805 take Mira Mesa Boulevard to Camino Santa Fe. Go north on Camino Santa Fe to the intersection with Calle Cristobal. Right on Calle Cristobal to Caminito Propico. Bring water and wear hiking boots since a steep hill is involved. Learn about area geology and visit the Preserve's waterfall. Led by geologist Don Albright.

Sensory Awareness Walk

Sun., April 26, 5:00 p.m. To quiet the mind and come to our senses is the purpose of this twilight meditation walk. Delight in and savor the senses of seeing, hearing, touching, tasting, smelling, and movement as we explore Peñasquitos Canyon. Hike is for those with appetite for nature, experiment, and self-discovery. Meet in new parking-staging area at west end of Preserve off Sorrento Valley Blvd, 1/2 mile east of Sorrento Valley Industrial Park. Park entrance is on right, going east. Led by Will Bowen.

MAY

Fitness Walk

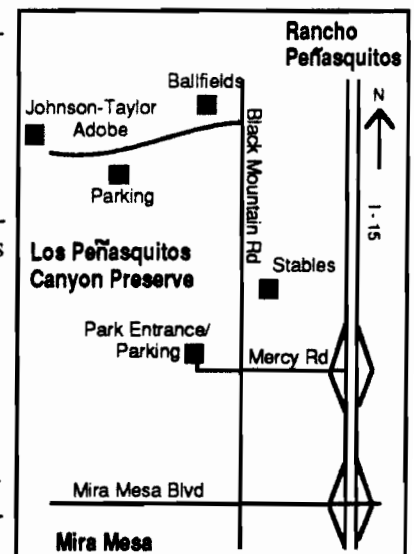
Sat., May 2, 8 a.m. Join Dr. Jaya Pereyman on a 10-K (6 mile roundtrip, 2-1/2-3 hours) brisk walk to waterfall and back. Bring water. Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Good opportunity to see flowers.

Rancho Santa Maria De Los Peñasquitos Adobe Ranch Tour

Sat., May 2, 11 a.m. and noon (45 min. each), S.D. County Archaeological Society. Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park past ballfields to Preservesign and new parking lot. See historic adobe, settler and Indian artifacts.

Canyon Walkabout

Sun., May 3, 9 a.m. 12-13 mile leisurely round trip in Peñasquitos Canyon Preserve, including stop at waterfall. Meet at Peñasquitos Creek Park in Rancho Peñasquitos. From I-15 take the Mercy Road Exit west to Black Mountain Road. Go right on Black Mountain Road and up the hill. Left at first light, at Park Village Drive. Follow Park Village Drive to intersection with Camino Ruiz. Park is on left. Bring water, snack, sun protection, hat. See wildflowers.



In My Heart

Above me, the sunset glows with glory. The sky is fiery with the pink glow on wispy clouds made strong with the passing time of day. I follow the sun . . . along the crest of the canyon. I am enthralled by the closeness of nature.

Below me, the canyon glows with the afterthought of the day's light. Shadows are gone. The trails are barely discernible. I imagine the eyes of nature upon me. Is it a curious coyote, a wary bobcat or a gentle mule deer?

This is a special place. It exists in the heart of a city that has grown exponentially. The place is Los Peñasquitos Canyon Preserve. It has been a special place in my life. I have made special friends. Friends who taught me. Friends who shared the special gift of time and companionship. I fell in love there once. Sadly, and perhaps true to the balance of things, I lost that love here.

The canyon has been home to people for many years. The Indians found the canyon to be a rich source of provisions. Spanish explorers discovered and settled here. Farmers raised cattle. City folk found a touch of nature close to home.

Today, the canyon is a place of recreation, a place for modern people to experience relief from the rush of city life. And, if they listen and see, they will learn about nature. The value of the stream, the plants, the animals and all that make up this special pocket of life. A person can learn about the beginning of time through the exploration of the geography. Climb on the rocks near the waterfall and you are walking over an era that created this part of the earth millions of years ago.

Look at the different soil types. Know that they represent the different conditions that existed at the time of their beginning. Was it a sea or a stream that created each layer?

What was that bird? The abundance and variety for the bird watcher is truly a gift. The cycle of life. . . a nest-building pair, their squawking hungry chicks, the chicks' first flight and the flight to freedom all happen regularly in the course of time.

Have you seen the crayfish? They hide in pools and in the stream. They are prey to the Great Blue Heron. Yes, even he calls this place home.

Have you had your wild salad today? Wild Miner's lettuce with Wild Celery, Wild Cucumber and a little Fenel (tastes like licorice!) could be a start. How about a little Pineapple weed on the side? Elderberry wine or Lemonade Berry could make wonderful refreshments. The diverse plant life is both interesting and beautiful. Of course, not all plants are considered edible, so if (I mean when) you explore, don't try anything without certainty of its identity. Be sure to watch out for the dastardly Poison Oak. It's everywhere! I like to think that it acts as a trail guide . . . it keeps you from wandering too far from the beaten path.

Many people would like to change this area. They would like to chop it up and make roads.

What a shame it would be to lose this little pocket of nature for a little inconvenience.

What a shame it is that we have lost so much of it already. What a shame it will be if we soon discover that it is already a lost cause. I pray that it is not. I also pray that people in a position to know, people in a position to decide, I pray that they will see sky above, the canyon below, and all that is in the heart. Most of all to see it . . . in the heart!!!

— Carla

(Peñasquitos Canyon cont'd)

There's also one of California's rarest habitats, the southern maritime chaparral, **which supports at least eight plant species** presently being considered for federal protection.

Carmel Mountain and Del Mar Mesa are critical to the continued existence of many small mammals, which in turn support a large population of coyotes with their haunting songs, as well as the ever stalking bobcat.

Still, the threats to this wild mesa top continue to grow. Community plans exist for much of the mesa top west of Del Mar Mesa and includes sandstone-capped Carmel Mountain.

All Carmel Mountain is within the boundaries of Neighborhood 8A, much of which is owned by Pardee Development. In late 1991, Pardee applied to the City Engineering Department for a permit to farm tomatoes in an effort to circumvent the environmental review process. Happily, this permit was denied until the process is completed.

Not even designation as part of the city's future urbanizing area safeguards this area from pressures to develop.

In the past year, the San Diego Biodiversity Project and the Friends of Peñasquitos Canyon combined efforts to create a Focus Planning Area to build a system of core preserves on Carmel Mountain and Del Mar Mesa as well as viable wildlife corridors connecting these areas to Peñasquitos Canyon, Peñasquitos Lagoon, Carmel Valley and the San Dieguito River Valley.

All of these areas must be connected to maintain a gene pool of native critters and to prevent localized extinctions.

We have reached tentative agreements with the developers of Neighborhood 10 concerning the placement and width of wildlife corridors through that area to Carmel Valley and Carmel Mountain.

Numerous local and state agencies have been approached for help towards purchasing Carmel Mountain, but our best hope appears to lie with federal protection of the many sensitive species found there.

On a positive note, 65 acres were added to Los Peñasquitos Canyon Preserve in the Del Mar Mesa area in the last couple of years, connecting the canyon to the CalTrans vernal pool mitigation properties. Future acquisitions are likely.

How you can help

- Join us for a hike in this incredible area. Call Friends of Los Peñasquitos Canyon at 484-3219.

- Offer your assistance! There is always work to be done ranging from plant/animal habitat surveys to phoning and politicking. Contact the San Diego Biodiversity Project at 765-1459 or P.O. Box 1944, Julian CA 92036. Dollars are also always welcome.



Friends of Los Peñasquitos Canyon Preserve, Inc.

P.O. Box 26523, San Diego, CA 92196
619-484-3219

NONPROFIT ORG.
U.S. POSTAGE
PAID
POWAY, CA
PERMIT NO. 286

**Address Correction Requested
Return Postage Guaranteed**

(Outings cont'd)

Del Mar Mesa Vernal Pool Walk

Sat., May 9, 9 a.m. Meet at Peñasquitos Creek Park in Rancho Peñasquitos. From I-15 take Mercy Road west to Black Mountain Road. Right on Black Mountain and up the hill. Left at first light, Park Village Drive. Follow this to intersection with Camino Ruiz. Park is on left. Hike to Del Mar Mesa Vernal Pools and the site of the Black Mountain fire of 3 years ago. Great wildflowers. Led by Mike Kelly.

Project Wildlife & Annual Meeting

Sat., May 9, 7 p.m. Rancho Santa Maria de los Peñasquitos. Take Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park past ballfields to Preservesign and new parking lot. Walk up to adobe ranch house. The program:

7 - 7:30 p.m. Social. Free refreshments, exhibits.

7:30 p.m. Brief election of officers for next year.

7:45 - 8 p.m. Brief update on Friends' conservation projects.

8 p.m. Project Wildlife presentation: "Rescueing Wild Animals: Project Wildlife in Action." Hear Donna Barron and Nancy Conney discuss the impact on wildlife of human activity and development, the rescue of injured or displaced animals, their care, rehabilitation and release back into the wild. They will bring several wild animals with them and show their new color slide show.

**Rancho Santa Maria De Los Penasquitos
Adobe Ranch Tour**

Sat., May 16, 11 a.m. and noon (45 min. each), See May 2 for details.

Full Moon Walk

Sat., May 16, 7 p.m. (1-1/2 hours). Meet in parking lot by La Cantina bike shop on north side of Sorrento Valley Boulevard in Sorrento Valley, 1/2 mile east of intersection with Vista Sorrento. **Bring flashlight.** Learn about the lore and legends of the moon from an anthropologist. Meet Ish-tar the Babylonian moon goddess; Chaawp the Digueno Indian Meteor Spirit. Look for deer and other nocturnal animals. Spot tree toads. Listen to coyotes howl. Watch out for hungry ghosts! Led by Will Bowen.

Oops!

This issue is late coming to our readers and has been turned into one of our occasional "doubles" due to several factors. Not the least in importance was the fact that the editor's computer, which this is produced on, went into the shop for over 2 weeks.

We apologize for the delay.

Membership Application

Membership category? Circle below:

Senior (62) or Student \$7.00 Individual \$10

Family \$15 Sponsor \$25 Patron \$100

Corporate \$250 Life \$1000

Contribution \$ _____

I/We are interested in the following:

Volunteer to help the committee

Hikes

Indian Culture

Educational Workshops

School, Family, Youth Programs

Environment (Plants, birds, mammals, geology)

Other: _____

Name(s) _____

Address _____

City State Zip _____

Home Phone _____

Please make checks payable to:

Friends of Los Peñasquitos Canyon Preserve, Inc.

P.O. Box 26523, San Diego, CA 92196

Thank you for your support! Your donation is tax deductible.
Call 484-3219 or 566-6489 for more information.

4/92

Been Wanting To Give Something Back?

If you're someone who enjoys Peñasquitos Canyon Preserve and our other open-space parks;
If you're concerned about development and other people pressures on these parks;
If you're someone who wants to see our native plants and wildlife survive into the next century (8 years away!)
so our children and grandchildren can see what San Diego looked like wild;
If you're thinking you should be giving something back; helping to protect our natural wonders;

It's time you volunteered.

Volunteer Training Program

The Friends have set up a new Volunteer In Park Service (VIPS) program. It's for people who want to get involved at some level with protecting or restoring our Preserve but want some background first. This program is for the person who wants an overview of the cultural and archaeological history of the area, the natural history of its plants and animals, the ecological systems at work within and between our many habitat zones, the damaging pressures on the park and the efforts needed to restore and protect it. The program is very straightforward. It's as simple as accompanying our interpretive hike leaders on their different hikes. You set your own pace. Those who finish the interpretive program will receive a certificate recognizing their enhanced knowledge of our Preserve. Program director: Alan Pepper, Ph.D. Call him for more details at 586-7123 or leave your name and phone number at 484-3219 or send in the form on the reverse.

Earth Day Booth Sunday — April 26

The Friends need help in staffing our exhibit table, passing out flyers and answering basic questions. No experience is needed. We'll always have at least two people working the booth at the same time. Send in the form on the reverse or call Les Braund at 566-3958 or leave your name and number at 484-3219.

Work Parties — April, May and June

Several species of invasive foreign weed plants such as tumbweed (Russian thistle), desert artichoke, tamarisk, pampass grass and eucalyptus are fast displacing our native plants and reducing our animal habitat. This is our second year of volunteer work parties to remove these pests. All that's needed is some time and labor. See the April/May newsletter for details on one of these species, tamarisk. Call Mike Kelly at 566-6489 or leave your name and number at 484-3219.

Wetlands Restoration Committee

Our Wetlands Restoration Committee is just starting up. They will be working to identify problem areas in our creek and marsh system, including runoff and siltation problems from area development. They will identify the historic aquatic species present in our creek and what it will take to bring them back to healthy population levels. They will develop a list of restoration projects, both of short and long duration. Send in the form on the reverse or call Don Albright at 271-9216.

Animal Surveys

Besides filling out our survey forms for individual wildlife observations, we also want to canvass certain areas such as the businesses fronting the Peñasquitos Creek flood channel through Sorrento Valley about wildlife using the channel and green belt past their offices. Call Mike Kelly at 566-6489 for how you can help.

Educational Kiosk Committee

This committee is already at work planning a concept and design for educational kiosks to be placed at the park entrances. They'll also be planning how to raise the private donations to build these. Call Brian Swanson at 695-2209 or leave your name and number at 484-3219 or fill out the form on the reverse.

Friends Board of Directors

The Friends Board of Directors isn't a committee of stuffed shirts with fancy titles. It's simply people who want to meet once a month to discuss issues facing the Preserve and what to do about them and who will participate in our activities. Anyone committed to preserving the Preserve's natural resources and using them for interpretive purposes is welcome. Call Mike Kelly at 566-6489 for details.

Conservation Projects

The Friends have a series of tree planting, native plant garden and other activities. Call Alan Pepper at 586-7123 or Mike Kelly at 566-6489 or fill in the form on the reverse.

Yes, I'd like to help. Call me about the project(s) I've checked off on the reverse.

Name _____ Phone _____

Street _____

City _____ Zip _____

Separate this form from the newsletter. Fold it so the Friends address is facing out. Place your stamp on the box provided and mail it.

Fold here

The Friends of Los Peñasquitos Canyon Preserve
P.O. Box 26523
San Diego CA 92196

Your First
Class Stamp
Here

THE FRIENDS OF LOS PEÑASQUITOS CANYON PRESERVE
POST OFFICE BOX 26523
SAN DIEGO CA 92196



Canyon News

Friends of Los Peñasquitos Canyon Preserve, Inc.

May/June 1992
Volume 6 No. 8-9

Friends Oppose New Sewer Line

By Mike Kelly, president

At its April Executive Board meeting, the Friends of Los Peñasquitos Canyon Preserve voted unanimously to oppose siting the new Peñasquitos Canyon Interceptor Sewer line in Peñasquitos Canyon Preserve. The action came one month after a presentation by Mr. Hans Torabi, the project manager for the Sewer line project, from the City of San Diego Water Utilities Department (WUD).

Two alternatives presented

The Water Utilities Department is presenting two alignments for the new sewer line. Alternative "A" would run from the current junction of sewer lines on the Mercy property just east of I-15 through the heart of the Preserve west until passing under the I-805 bridge, to the pump station in Sorrento Valley. This would be a gravity feed line requiring no additional pump station to get the untreated sewage through the canyon to its destination. The estimate for this alignment is \$28 million.

Alternative "B" would begin in the same place, on the Mercy property, but would follow an alignment west

➡ p.6 for more

Campaign To Protect Rare and Endangered Species

by Dave Hogan, coordinator
San Diego Biodiversity Project

The last several months have been busy for those of us working towards the total protection of San Diego's rare and endangered species and habitats. Here's an update.

Endangered species listings

In November 1991, the U.S. Fish and Wildlife Service (USFW) finally got around to "proposing" three vernal pool plants (California orcutt's grass, coyote thistle, and Otay Mesa mint) and one species of fairy shrimp (River-side fairy shrimp) for endangered species status. This "Proposal" on the part of USFW was likely prompted by two factors.

During 1991, the California Native Plant Society sued

➡ p.7 for more

Outings Schedule

See Page 8 for a convenient "hangup" format.

Thanks for Record Spring Volunteer Turnout

This spring we've had a great response to our appeals for volunteers. Recent projects include:

Oak Tree plantings

We had three sessions of planting California Coast Live Oak seedlings in April and May. Some 75 trees, grown by volunteers, were planted in specially prepared holes with watering tubes and animal cages. Braving the abnormally hot weather were: Trinity Gabrielle, Alan Pepper, Rene Krebs, Mike Kelly, Linda Way, Althea & Charlie Church, Paul Micheletti, Karen Archer, Robert Schmidt, Carla Scott, Mark and Steve Lipkin, Janet Potter, Louis, Cindy Burrascano, Brian Swanson, scouts and parents from Troop 616, Scripps Ranch: John, Jason, Donna, and Chun Lee, Mike Ball, David and Jim Carroll, David Schmidt, and Dan Barad.

Artichoke removal

This continuing weed removal project — Year 2 (of 3?) is a particularly physically demanding one. Special thanks to: Trinity Gabriel, Mike Kelly, Cindy Burrascano, Christine Ohanian, Bruce Martin, Chris Whitten, Carla Scott, Althea Church, Jeff Rundel, Les Braund. The participated in the more than 30 volunteer sessions!

Endangered San Diego Thorn Mint survey

The San Diego Thorn Mint is an endangered species, officially recognized as such by the State of California. Peñasquitos Canyon Preserve is one of the few sites where this plant can still be found. Other populations are threatened by nearby development, including those in San Marcos and Sabre Springs. A population in San Clemente canyon is in a precarious, isolated position near Route 52.

➡ p. 6 for more



Cricket — see page 3

Birding in Peñasquitos Canyon

Black-shouldered Kites

by Barbara Zepf

Birding has been variously described as a hobby, a science, an art, a sport, a game or a challenge. It is never boring, because each new day offers an opportunity to discover new birds or to watch familiar birds doing new things.

In February, my husband and I went down to the canyon to watch the planting of the native bunch grass near the adobe ranch — a nice 'earthy' affair. As the Archaeological Society gleaned the fields for unearthed artifacts, the birds discovered their own treasures — all those exposed bugs, grubs and egg cases! We went back to the bunch grass plot a few days later to see what birds were using the fields. Western Bluebirds, American Pipits, House Finches, Mourning Doves, Black Phoebes and Savannah Sparrows were literally having a field day. It was quite a show!

Next we headed for the other side of the creek to have a look at the Great Horned Owl. In spite of all the rains and high winds, she still sat tightly on her eggs. Now the eggs have hatched, and we have gone back many times to see the owlets. They're always such fun to watch.

Kite-flying time

Spring ushers in those 'Winnie-the-Pooh' blustery days. Good kite flying weather. Nature flies her own kite in Peñasquitos Canyon — the Black-shouldered Kite. Children's kites were so named because of their sudden twisting, diving, or rising in the wind like the flight of these birds.

Kites are medium-sized hawk-like birds. All are graceful on the wing, capable of swift flight and effortless soaring. They hover while hunting. They don't dive (stoop), as other hawks do; but, with wings fully stretched upward, slip downward feet first to seize their prey before swooping (kiting) upward. American kites are comparatively gentle, lacking the ferocity of some of the hawks and eagles when they are hungry. They have shorter legs and weaker feet and talons but are well adapted to skillfully catching their small and relatively weak prey.

The Black-shouldered Kite eats mainly field mice, also wood rats, pocket gophers, ground squirrels, shrews, small birds,

snakes, lizards, frogs, grasshoppers, etc. There seems to have been an explosion in the number of squirrels and lizards in the east end of the canyon this year. Maybe this explains my sighting of this kite in this end of the canyon, while we were watching the owlets.

Welcome returnees

About four or five years ago, at least three pairs of Black-shouldered Kites nested in the east end. But I haven't noticed any of them for the last few years. I was thrilled to see this one. I hope they might be returning to this end of the canyon. They are always visible in the middle of the canyon (look for them as you drive down Calle Cristobal) and at the west end of the canyon (particularly in López Canyon).

The Black-shouldered Kite is about 16 inches long. It's falcon-shaped with long, pointed wings and a square-tipped long white tail, with pale gray central feathers. The tail appears white from below. In fact, this kite used to be called the White-tailed Kite. It has a rounded head, small black bill and yellow legs. The adult has a white head and underparts, pale gray back, medium gray upperwings, with a large black patch on the fore edge of the upperwing, which is visible in perched birds (hence the name Black-shouldered Kite). Viewed from below, it shows an oval black patch at the carpal joint (wrist) of the underwing. Eyes are a brilliant red. From a distance, this bird appears wholly white. Immatures are similar to adults, but the breast and head are streaked and washed with cinnamon brown; the tail is pearl gray with a narrow dark band near the tip.

Open country living

When soaring and gliding the Black-shouldered Kite resembles a gull, with wings held downward. It often hovers with legs dangling. Kites like to live in open country around fresh water, with scattered clumps of trees used for roosting. Kites nest in oaks, cottonwoods or eucalyptus trees, usually in branches near the top of the tree. They nest from February to June and lay 4–5 eggs. The female does all the incubation for 30 days, while the male does all of the hunting for both of them. Pairs sometimes raise a second brood after the young leave the next 35–40 days after hatching.

The Black-shouldered Kite gives a rich, whistled "teew" call (sometimes sounds like a very loud Western Bluebird call). It is a resident of central and southern California and south Texas. It may wander north to Oregon and east to Florida. It is widespread in the American tropics and warmer regions of the Old World. Once reduced in numbers almost to the point of extinction in the United States, the Black-shouldered Kite has made a major comeback. They are actually expanding their range. I'm glad Peñasquitos Canyon is part of their territory. They are fascinating to watch! — Good Birding!



Musical Sounds in the Canyon

by Will Bowen

Amphibian chorus line fades

The Peñasquitos Canyon "Sounds of Nature" Concert Goers Association herein glumly announce that as of April 8, the Peñasquitos Tree Toad has just about ceased its nightly serenade (for the year). The birth of numerous pollywogs, tadpoles, and baby toads heralds the end of mating season, and thus, the waning of tree toad tremolos. Check the next vernal pools hike to see pinky finger nail sized tree toads and slightly larger spadefoot toads hiding in the mud cracks. Bring an ant to feed them.

Please note that there are still 2-3 rather perplexed bachelor wallflower males still "rib iting" down at the far West End by the "El Cuervo" adobe. About half way to the waterfall on the main trail there are more, but they don't start singing until 8-9 P.M. At this late date their singing may be just for fun. Careful listeners should be able to distinguish the calls of the tree toad, spadefoot, red legged frog, bullfrog, and African frog. Of course the tree toad is the one most commonly heard.

Insect balladeers

To sound a positive note, the Musical Insect Quartet is now offering evening concertos free of charge to all aficionado canyoneers. The Quartet's personal include grasshoppers, crickets, cicadas, and katydids. The best time for listening to their electrical humming wire sound is early evening into twilight.



Cicada

Best listening is usually had by quietly walking up to chest high green grasses waving in the breeze. A wide variety of insect calls can be heard, most of which are highly pleasing. Psychoacoustics researchers have noted a calming affect of immersion in an auditory atmosphere of cricket cheeps. Apparently lengthy exposure to such cheeps encourage brain wave patterns to dip from beta (14-21 pps) down to the more relaxing alpha level (7-14 pps).

The Peñasquitos Canyon insect impresarios produce their musical cadenzas by rubbing the roughest parts of their wings and legs together much like one would play a violin. Some possess stridulating organs on their forewings which are chiefly responsible for their soundings. Each species has a slightly different sound which may aid you in identification. Try to guess where they are singing from exactly, and sort out differences in calls. Listen for harmonics and overtones when two calls overlap. If you get too close, notice how the insect senses your presence and stops singing — part of an evolved survival mechanism.



Leafhopper

Courtship sounds

Sound producing in-

sects are able to hear by way of tympana which can be located on various parts of their body depending on the species. Produced sounds function as warnings, territory markers, and in courtship. As is the case for Tree Toads, male insects primarily sing to attract females, who must find it pleasing.

Sounds you might hear include buzzing, clacking, electrical humming, lispings, tsipping, chirping, cheeping, rasping, pulsing, trilling, clicks, buzzes and scratches. Lucky ones may hear the two part "katy-did" or the three part "katy didn't". Take this opportunity to enjoy your auditory sense in the canyon at this special time of year.



Grasshopper

Status of Camino Ruíz

by Mike Kelly

The campaign to stop the extension of Camino Ruíz from crossing Peñasquitos Canyon Preserve came a step closer to victory this May. Both the Mira Mesa Community Planning Group and the City Planning Department recommended against the extension.

As a member of the Executive Board of the Mira Mesa Planning Group I've been carefully following the progress of the draft update to our Community Plan. After months of public discussion the Planning Group Executive Board voted unanimously to affirm its position against the extension. The Planning Dept., in its report accompanying the Final Environmental Impact Report (EIR), took a firm position and also recommended against the extension. This latter decision is important since another department, Traffic, has been relentlessly pushing for the extension.

A number of individuals and groups submitted written comments to the draft EIR for the Community Plan that were against the road extension. These included the Friends, the County of San Diego Dept. of Parks and Recreation, Jeff and Pam Stevens, Peter A. Andersen, Ph.D. (Stop Jackson Drive), Opal Trueblood — Chair of the Torrey Pines Community Planning Group, and Garrett Beaumont, Esq. (who had an outstanding submittal).

Next the Community Plan Update goes before the City of San Diego Planning Commission and then on to the San Diego City Council. We expect the final vote on the Plan by the City Council to occur later this year.

In parallel, the Rancho Peñasquitos Community Plan is also coming forward with its update and also recommends against the extension.

Snakes and Tinder: Legacies of a Wet Winter

By John Northrop, Ph.D.

Tall grass resulting from last winter's rains has had both good and bad effects on the Preserve. On the good side, abundant plant and animal life are flourishing to a greater extent than in the preceding nine years of drought. The other side of the coin is that snakes abound in the long grass and there is a very real threat of fire once the vegetation browns off and turns into tinder. The problem with snakes is that they frequent the riparian corridor where rodents go for water (snakes don't need the water themselves).

The main trail also parallels the riparian corridor, so the chance of visitors encountering and being bitten by rattlesnakes is much greater than usual. The problem is escalated in areas where the current crop of black mustard flourishes because ripe mustard seeds drop to the ground where field mice eat them. Rattlers, in turn, feed on the mice so they frequent the mustard patches. Park users would be prudent to avoid areas where the mustard is blooming.

The chance of a brush fire in Penasquitos Canyon has been an ever present fear since the park was created circa 1972. It was compounded a couple of years ago when the cattle were taken out. Because of the drought there wasn't enough grass to support the herd. Before that, for over 200 years, stock grazing in Penasquitos had kept the grass down. But now that they're gone, instead of being a couple of inches tall, the vegetation grows to a height of two or three feet. Compounding the problem, it grows right up to the very edge of the trail. One match or lighted cigarette discarded there on a windy day could set off a conflagration the like of which hasn't been seen there since the arrival of the Europeans in the early 1700s.

Past fires in the Preserve

There have, of course, been brush fires in the Preserve



Horse-drawn mowing at Horseman's Park

since it was created. Most notable was the big one that burned all around the SDG&E power lines in Sorrento Hills north of the Ruiz adobe about 20 years ago. It was believed to have been started by motorcycles' exhaust as they had been seen in the area north of the creek at the time. A few years later, workers using a blow torch to construct the fence around the Ruiz Adobe accidentally started a grass fire. It burned over several acres of the west end of the Preserve on the south side of the creek. Another grass fire, started by hot air balloonists, burned several acres north of the falls about five years ago. The pilot took off in such a hurry that he left the blow torch (used to make hot air needed for takeoff) behind! Then, last year, several acres of Lopez Canyon were burned over from a fire believed to have been started by illegal campers. All of these fires were extinguished by fire fighters before they reached the main part of the Preserve or nearby homes. We may not be so lucky next time.

Ideas for reducing the danger

Over the years, several ideas have been put forward to mitigate the danger of a conflagration. One, espoused by SANDAG, was to dam Penasquitos Creek at the "narrows" below the falls and use the water stored there for fighting fires. Low-flying fire fighting planes towing water "scoops" are routinely used to douse brush fires. The dams were never built, however, partly because of lack of funding.

A couple of years ago, Bob Nelson, former City Open Space Director, advocated a number of steps to prevent brush fires in the Preserve once the cattle were taken out. They ranged from semi-annual mowing to limited stock grazing. Earlier experience at Horseman's Park has shown that the grass has to be cut twice, once in the spring and once in the fall, or it becomes too tough to cut and clogs up the mowers.

The mowing would be done either by horse-drawn mowing machines or by tractors fitted with mowing bars. Alternatively, teams of scythe-wielding workers could be employed to do the work. The plan would be expensive, but compared to a conflagration that could kill off all the wildlife in the Preserve in addition to possibly wiping out Mira Mesa and nearby developments, the cost of cutting hay in Penasquitos would be relatively small.

The grazing plan would be cheaper because herdsmen would be glad to graze their stock in the Preserve. In fact, they might even pay for the privilege. Indeed, there used to be a goat herdsman in the County who did just that. Here are some suggestions that should be considered for short term action. The most important thing right now is to cut a wide swath on both sides of the main trail, put fire breaks across the Preserve at the west end and put up "Fire Season" signs at the park entrances. The Ranger might even decide to close the park as the fire danger becomes acute later on in the summer.

The Tamarisk Invasion of Desert Riparian Areas — Part 2 of 2

by William M. Neill, M.S., Geology

Educational Bulletin #83-4, Desert Protective Council, Inc.

[Editor's note: We are running this two part series on tamarisk due to the plant's invasion of many of San Diego's riparian areas, from the Tijuana River estuary north to the San Diego River, Peñasquitos Creek, Carmel Valley, San Dieguito River Valley, San Elijo Lagoon, and other areas. The Friends of Los Peñasquitos Canyon Preserve have cleared tamarisk from about 90% of the Preserve and plan to finish the job the summer of 1992.]

Control efforts in California

On the California desert, tamarisk is well established along parts of the Colorado and Mojave Rivers and at places around and near the Salton Sea. At these localities, the growth is so dense and widespread and has so completely replaced native vegetation that efforts at control or eradication would be impossibly difficult and would follow, rather than prevent, the loss of natural habitat. Elsewhere, the problem is not so formidable. At many smaller, isolated water sources that are scattered about the desert, the infestation either is fairly recent or is restricted in size by limited water supply or inhospitable growing conditions. In these cases, control measures to preserve the indigenous riparian vegetation are both feasible and potentially effective. The list of desert water sources that warrant such attention includes Amargosa Canyon, Big Morongo Canyon, Corn Spring, Darwin Falls, Piute Creek, Saline Valley and possibly San Sebastian marsh.

One tamarisk removal project has already been complete, with dramatic success, at Eagle Borax Spring in Death Valley National Monument. Deciduous tamarisk probably was present at this large marsh, on the west side of the valley floor, in the 1940s or before, but due to grazing by horses it did not proliferate until the mid 1950s. It then spread and grew rapidly during the next decade, so that by the late 1960s, the surface water in the marsh had disappeared, the native grasses and reeds were being replaced by tamarisk, and mesquite trees adjacent to the marsh were slowly losing vigor owing to the competition for ground water. After burning the tamarisk cover in 1972 to restore the water level in the marsh, the Park Service began permanent removal by cutting with chain saws and applying systemic herbicide to the stumps. The program was continued intermittently by Park Service employees over the next 10 years and then completed in 1982 with volunteer assistance. With the tamarisk gone, the recovery of the marsh has been rapid and impressive: the surface water has returned, to be used by migratory birds; the grasses and reeds are flourishing; and the grove of mesquite trees is again healthy.

With the Death Valley achievement as a guide, Anza-Borrego Desert State Park and the U.S. Bureau of Land Management are separately initiating programs of tamarisk control at other important riparian areas of the California Desert. To a large extent, at least on Bureau of Land Man-



Tamarix ramosissima

agement (BLM) land, these efforts will require weekend volunteer labor to be successful. Friends of the desert who can participate will be rewarded with immediate, tangible results to show for their labor and the satisfaction of helping to avert the eventual loss of these fragile, most important natural resources.

[For good reading on tamarisk and its control see:

"Tamarisk Control in Southwestern United States," proceedings of Tamarisk Conference, Univ. of Arizona, Tucson, Arizona September 2 and 3, 1987; Special Report No. 9, Cooperative National Park Resources Studies Unit, U.S. Dept. of Interior National Park Service — Mike Kelly.]

Volunteers Needed for Tamarisk Removal

If you would like to help with tamarisk removal in Peñasquitos Canyon Preserve, give Mike Kelly a call at 566-6489.

If you would like to help the Desert Protection Council remove tamarisk from California desert areas on occasional weekends write:4900 Glenview, Anaheim CA 92807

(Sewer line cont'd)

along Mercy Road to Black Mountain Road, north along Black Mountain Road to Miramar Road, east along Miramar Road to the new Eastgate Mall facilities. This alternative would require a pump station somewhere in the Mercy or Sabre Springs area since the alignment would be uphill to Miramar Road, where it would then become a gravity flow. The estimated cost of Plan B is \$42 million.

Mitigation narrows the difference

The difference in cost between the two alternatives is not accurate, however, since Alternative "A" doesn't include accurate figures for the mitigation that would be required to compensate for the destruction to environmentally sensitive areas. Rough estimates are that the mitigation could easily run into the millions, narrowing the difference between the two alternatives.

Existing line tells what to expect

The Friends oppose the alignment through the Preserve because of the destruction it would cause and continuing negative impacts it would have. This would be the second sewer line in the canyon. The negative impacts a second line would have can be seen by studying the current one.

The new line would follow a different route than the first, resulting in the permanent loss of numerous trees and other vegetation. It would carve a permanent scar from one end of the Preserve to the other. Although they would plant over some of the damaged areas, experience has shown that the resulting vegetation is often exotic weeds that replace native species.

Additional roadway

Once the line is in WUD needs to inspect and maintain it. To do this they would build additional sections of access road running along the sewer line where it departed from existing access roads. Part of their maintenance is to periodically cut down the vegetation surrounding their manhole covers, leaving ugly scars every several hundred feet along the path of the line.

Wetlands would suffer

Peñasquitos Creek and Peñasquitos Lagoon, both already damaged by construction activity from surrounding developments, would be further damaged by the construction and resulting siltation from the new line.

Forget the aesthetics

A new sewer line would further destroy the aesthetic experience of park goers. Just walk the current line to see why. As you walk the current line as it parallels the main access road on the east end you can smell the raw sewage as you pass the manhole covers. This seems to vary with the time of day, temperature and flow rates in the system. Each of the covers is a visual intrusion into the park experience, since they jut up 2-3 feet and are painted in day glow oranges and greens. A second line would just compound this intrusion.

Stressing the critters

During construction of the project the animal population

of the Preserve would come under additional stress from the construction activity. Some would be dislocated, perhaps permanently, since the Preserve is increasingly isolated by development. The Friends also worry about the impact of future spills from an additional line on the creek and lagoon. WUD was quite slow in responding to several such spills in the Canyon in the past, allowing contamination of the creek and lagoon.

Cooperation?

Lastly, the Water Utilities Department has a terrible record of non-cooperation with park authorities while doing its maintenance. As reported in this paper only a year ago, their bulldozer caused great destruction in many parts of the park during routine maintenance. Under public protest and pressure from the State Department of Fish and Game they agreed to repair the damage and to secure a "right-of-entry" permit from the City Parks Department before entering the Park for routine maintenance. This past winter they failed to do so and once again caused damage with their heavy equipment.

(Volunteers cont'd)

This May our volunteers turned out to relocate the thorn mint populations previously recorded in our Preserve. Using a 1987 vegetation map we surveyed the area and found the thorn mint. Although there are several populations in the canyon, they are all located within a few hundred yards of each other. We measured the acreage they covered, photographed the areas and took a census. We also noted the soil types and other vegetation, both inside and around the thorn mint patches. The purpose of the survey is to establish baseline data for the flower. This will help as we work with the City Parks Dept. to develop a management plan to protect and perhaps expand the range of this rare plant.

This effort comes none to soon. Sadly, as we approached the main thorn mint population this Saturday morning, we found tire tracks from an off-road vehicle running through the patch. The vehicle, illegally driving in the Preserve, left the nearby dirt access road to "explore" the hill where the mint grows. A number of this endangered species were crushed, as were other rare species, including *Adolphia californica*. In addition, apparently prior to the mapping of this species, a utility access road for the Water Utilities Dept. of the City was put through the area and bisected the thorn mint's territory, undoubtedly wiping out a swath of them. Working the thorn mint project were: Althea & Charlie Church, Judy, Jacob, and Jason King, Mike Kelly, Cindy Burrascano, Linda Way, and Christine Ohanian.

April Earth Fair table staffing in Balboa Park

Several hundred peoples stopped by our table to pick up literature or to volunteer their time. Staffing were: Les Braund, Brian Swanson, Garrett Beaumont, Christine Ohanian, Susan and Rich Breisch, Mike Kelly, Jason King, Linda Way, and Jeff Rundel.

(Endangered species cont'd)

USFW for failure to list plants in California deserving immediate protection. Also, in 1990, the San Diego Biodiversity Project formally petitioned them to list these plants as well as ten others. Due to lack of negative comments from the building industry during the already closed 90-day comment period, it is likely these species will be listed by November of this year. This is great news for the Del Mar Mesa area which is thick with vernal pools containing coyote thistle.

Southwest willow flycatcher

Fewer than 300 pairs remain of the Southwest willow flycatcher in the states of New Mexico, Arizona, and California, making this bird even rarer than the Least Bell's Vireo or the California gnatcatcher. That's why the Biodiversity Legal Foundation, the Greater Gila Biodiversity Project, and the San Diego Biodiversity Project requested USFW to list this riparian dependent songbird in January of this year. Primary threats to this species include grazing of livestock, water diversion, and of course, the urbanization of Southern California. This bird is likely to stop over in Peñasquitos Canyon or surrounding areas in transit to its breeding colonies in Northern San Diego County and Central California.

**Fairy shrimp**

Occurring only in San Diego vernal pools and one pool complex in Northern Baja California, the San Diego fairy shrimp is definitely threatened with extinction. The S.D. Biodiversity Project will push for emergency protection for this tiny shrimp, seeing as many San Diego vernal pools are to be replaced with freeways, houses, and industrial parks within a year or two. The listing of this species will be good news for Del Mar Mesa and Carmel Mountain, as it is abundant on both of these imperiled mesas.

Endangered Species Act in danger

And finally, as you may have heard, President Bush announced during his State of the Union Address in late January that for a 90-day period, no new "rules" would be issued in the Federal Register that would impede economic growth. This includes endangered species designations. If not challenged, the President could easily extend this moratorium indefinitely. As you might know, the President has no legal authority to simply stop the implementation of a law passed by Congress at will. And this is on top of the fact that the Endangered Species Act specifies that economic interests or factors will not and cannot be considered in the listing of a species. President Bush, Interior Secretary Lujan, and USFW Director Turner are clearly violating the law (just slightly Orwellian . . .). So the Biodi-

versity Legal Foundation, Fund for Animals, In Defense of Endangered Species, the San Diego Biodiversity Project, and several other individuals are taking the bums to court. If we fail in this case (which is unlikely), you'd better leave the U.S. before martial law is imposed to "boost the economy."

What you can do

Write us today with a commitment of time for help or money towards our continued work. Dollars are badly need since our funding source dried up in January. Additional legal council is also needed. Please write us at:

P.O.Box 1944
Julian CA 92036

New Friends Officers

At its annual meeting May 9th the members present elected the following officers for the Friends of Los Peñasquitos Canyon Preserve for the coming year:

President — Mike Kelly
Vice President — Don Albright
Secretary — Les Braund
Treasurer — Mike McCormick

The meeting was well attended and included several presentations. Mary Ann McCarty, Field Representative to Assemblywoman Dede Alpert presented a Framed Certificate of a Resolution from the California Legislature Assembly recognizing the volunteer work of the Friends as expressed in the "Take Pride in California Award" the organization won from the California Dept. of Parks and Recreation. Mike Kelly accepted the award on behalf of the Friends.

Dr. Alan Pepper gave a brief, but exciting and informative slide presentation on the uniqueness of the canyon and our conservation efforts. We hope to print his presentation in this space in a future newsletter.

The highlight of the evening was the presentation by Project Wildlife of a new slide show and a number of their wild animals. To the delight of the audience Donna Barron and Nancy Conney displayed live a great horned owl, a barn owl, a red-tailed hawk, an opossum, an American kestrel, and a screech owl. The audience showed their interest with many questions and an animated discussion after the presentation.



Friends of Peñasquitos Canyon June/July Events Schedule

Dusk & Moonlight Walks for the Summer

Summertime means we shift many of our outings from the morning to the early evening to beat the summer heat. This means we also have the opportunity to see many birds and animals we would miss on morning outings, including mule deer, bobcat, owls and frogs. Bring flashlights and insect repellent for the evening activities.

Outings are free. Wear sturdy shoes; bring water for longer hikes. Rain cancels. For more details or to organize group hikes, call 484-3219 for recorded information.

JUNE

Volunteer Project — Call for details

Sat., June 6 & 13, 8 a.m. (3 hours). If you'd like to help out on a volunteer project call Mike Kelly at 566-6489. We'll either be removing weeds, either Tamarisk or Desert Artichokes from some area of the canyon. The only tools required are gloves. Plan to bring water and sun protection.

Fitness Walk

Sat., June 6, 8 a.m. Join Dr. Jaya Pereyman on a 10-K (6 mile roundtrip, 2-1/2-3 hours) brisk walk to waterfall and back. Bring water. Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Good opportunity to see flowers.

Rancho Santa Maria De Los Penasquitos Adobe Ranch Tour

Sat., June 6, 11 a.m. and noon (45 min. each), S.D. County Archaeological Society. Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park past ballfields to Preservesign and new parking lot. See historic adobe, settler and Indian artifacts.

Dusk Walk from Penasquitos Creek Park

Thurs., June 11, 7 p.m. Meet at Peñasquitos Creek Park in Rancho Penasquitos. From I-15 take the Mercy Road Exit west to Black Mountain Road. Go right on Black Mountain Road and up the hill. Take a left at the first light, at Park Village Drive. Follow Park Village Drive to its intersection with Camino Ruiz. The park is on the left. From here we will hike to the waterfall area and back. Good opportunity to see nocturnal birds and animals. Led by Mike Kelly.

Bird Walk in Lopez Canyon

Sat., June 13, 8 a.m. (1-1/2 hours). Meet in new Parking-Staging area off Sorrento Valley Blvd., 1/2 mile east of Sorrento Valley Industrial Park. Park entrance is on right, going east. From Mira Mesa take Calle Cristobal to Sorrento Valley Blvd., entrance will be on left. Bring bird book and binoculars. Led by Brian Swanson.

Full Moon Walk

Sun., June 14, 8 p.m. (1-1/2 hours). Meet in parking lot by La Cantina bike shop on north side of Sorrento Valley Boulevard in Sorrento Valley, 1/2 mile east of intersection with Vista Sorrento. **Bring flashlight.** Learn about the lore and legends of the moon from an anthropologist. Meet Ishtar the Babylonian moon goddess; Chaawp the Digueno Indian Meteor Spirit. Look for deer and other nocturnal animals. Spot tree toads. Listen to coyotes howl. Watch out for hungry ghosts! Led by Will Bowen.

Nature Walk

Sat., June 20, 8 a.m. (2 hours). Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Learn

about plants the Indians and settlers used while living in canyon. Numerous wildflowers should be blooming. Led by Les Braund.

Rancho Santa Maria De Los Penasquitos Adobe Ranch Tour

Sat., June 20, 11 a.m. and noon (45 min. each), S.D. County Archaeological Society. See June 6 for details.

Mystery Tree Walk

Sat., June 27, 9 a.m. Join Meet at the parking-staging area off Black Mountain Road. Take the Mercy Exit off I-15 west to Black Mountain Road. Parking for the Preserve is opposite this intersection. Investigate the legend of the Mexican era sign map on trees in the Preserve that describe where the Mission treasure was buried. Visit a Native America grinding site and learn about the plants they used to survive. Led by Mike Kelly or Mike McCormick.

Medicinal Plant Walk

Sat., June 27, 6:30 p.m. (2 hours). Meet in parking lot by La Cantina bike shop on north side of Sorrento Valley Boulevard in Sorrento Valley, 1/2 mile east of intersection with Vista Sorrento. Learn about plants our Indian and settler ancestors (and people today) used for medicinal purposes. Led by Will Bowen.

JULY

Rancho Santa Maria De Los Penasquitos Adobe Ranch Tour

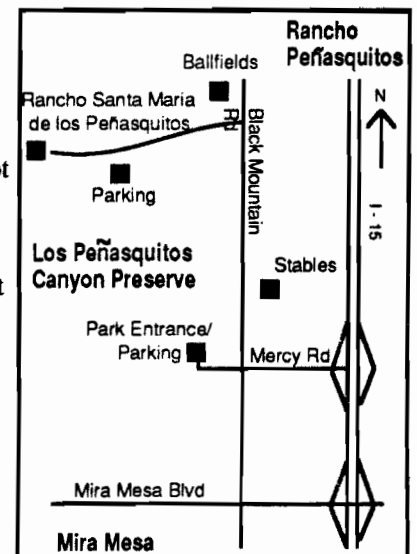
Sat., July 4, 11 a.m. and noon (45 min. each), S.D. County Archaeological Society. Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park past ballfields to Preservesign and new parking lot. See historic adobe, settler and Indian artifacts.

Full Moon Walk

Tues., July 14, 8 p.m. (1-1/2 hours). Meet in parking lot by La Cantina bike shop on north side of Sorrento Valley Blvd. in Sorrento Valley, 1/2 mile east of intersection with Vista Sorrento. **Bring flashlight.** Learn about the lore and legends of the moon from an anthropologist. Meet Ishtar the Babylonian moon goddess; Chaawp the Digueno Indian Meteor Spirit. Look for deer and other nocturnal animals. Spot tree toads. Listen to coyotes howl. Watch out for hungry ghosts! Led by Will Bowen.

Medicinal Plant Walk

Sat., July 18, 6:30 p.m. (2 hours). Meet in parking lot by La Cantina bike shop on north side of Sorrento Valley Boulevard in Sorrento Valley, 1/2 mile east of intersection with Vista Sorrento. Learn about plants our Indian and settler ancestors (and people today) used for medicinal purposes. Led by Will Bowen.



Night Hunter Stalks The Canyon

by Claude G. Edwards

Owls have been the focus of fascination of people since the days of ancient civilizations. Nowadays many people collect owls in glass, wood, plastic and ceramic, to decorate their homes, to add interest and whimsy, and sometimes for good luck. More recently, inflatable and solid plastic owls have come to serve as a form of scarecrow to distract unwanted pests from fruit trees and rooftops.

There are at least three species of owls which inhabit Peñasquitos Canyon. The Western Screech-Owl (*Otus kenicottii*) is the smallest of these species. They used to be considered the same species with the Eastern Screech-Owl (*O. asio*) until a few years ago. Research conducted on this group of owls revealed that they sing different songs, and that the different song types do not usually occur in the same areas!

The Western Screech-Owl has a song which can be described as a series of accelerating 'hoots', or like a bouncing ball going faster towards the end. They also have a "rapid-fire" hoot, which is fast and steady. These can be learned and imitated, and such imitations have been used to call the birds in at night.

The best way to hear and maybe even see one of these diminutive hunters of the night is to go on a walk along a trail through thick oak trees where they find hiding places during the day. They can be heard quite readily, but finding them is another matter. Take along with you some warm clothes, a flashlight, binoculars, and if you have them, tapes of their calls, in a tape player that works! If you do find them, play the tapes to get them to come closer, then flash your light at them, look at them for as long as they are in your sight. Be careful not to play them too much, since this kind of disturbance may cause them to disrupt their nesting activities.

These birds are present all year long, feeding on small

rodents and insects. Our birds are basically shades of gray, with two small ear-tufts, and bright yellow eyes. Their coloration may make them all but invisible in the darkened foliage of their haunts.

[Editor's note: Another way to see owls is by joining the Friends on our nature walks. The Nature and Bird Walks that visit the Black Mountain Road end of the canyon visit a Great-Horned Owl nesting area where the proud parents are often to be seen, in the daylight, sitting on branches near their nest. In May the Friends will rein-augurate their evening walks, beginning with a Full-Moon Walk. This and the dusk walks are good opportunities to hear and see owls.]



Mountain Lion Killed — End of an Era?

April 15 passersby and police discovered the decaying carcass of a mountain lion near Carmel Valley and Shaw Valley roads on the northern edge of the Del Mar Mesa. The County Medical Examiners Office estimated the lion had been dead one to two weeks, but couldn't establish a cause of death. It might have been a poaching incident, which occurs in both Peñasquitos Canyon and on the Del Mar Mesa, or a road kill, or starvation or a simple accident that left the lion incapacitated and unable to fend for itself.

We believe this is the lion that has been repeatedly observed in the Preserve over the years. We have had several reliable observations as well as the evidence left by its kills, scat and tracks. Four years ago the lion, a female, had two cubs. The lion probably covered a territory of 20–30 square miles. We think it travelled between Peñasquitos

Lagoon, the Preserve, and the Del Mar Mesa. In the past it could also cross south into Carroll Canyon, Soledad Canyon and Miramar. Roads and buildings now block the historic animal crossings south out of Lopez Canyons.

As development encircles our Preserve, leaving small wildlife corridors — we hope and struggle for — north and west out of the canyon, it becomes difficult for larger mammals to survive. This may be our last resident lion. We undoubtedly will be visited by migrating lions that occasionally wander into our area — this happens even in urban areas. But its doubtful we can offer enough prey food and habitat free from human presence to provide a stable home for a resident lion. In any case, contact with people or their pets would be all but inevitable, with the lion being the loser, as we have seen in nearby cities recently.



Friends of Los Peñasquitos Canyon Preserve, Inc.

P.O. Box 26523, San Diego, CA 92196
619-484-3219

NONPROFIT ORG.
U.S. POSTAGE
PAID
POWAY, CA
PERMIT NO. 286

**Address Correction Requested
Return Postage Guaranteed**

Sorry for the delay!

Illness struck and left our newsletter editor unable to bring the newsletter in on time. We apologize for the delay. Do cut out and save the Calendar since its planned far enough into the future so that a late newsletter shouldn't leave you in the dark about scheduled events.

If would greatly help our newsletter committee to have a person with access to a personal computer who could help type articles or even learn to lay out the newsletter.

If you can help out in this way with the newsletter, give Mike Kelly a call at 566-6489.

Check Your Label

Take a moment to examine the address label on this newsletter. Check to see if your expiration date has come and gone. If so, please take the time now to send in a renewal check for your membership dues. This will enable you to keep receiving our newsletter, recognized as one of the best environmental newsletters of any organization in San Diego. That way you'll keep learning about the progress of the Camino Rufz issue and what you can do about it; about family walks; about the plants and animals that inhabit the Preserve, and the many conservation projects open to you and your family or friends.

Membership Application

Membership category? Circle below:

Senior (62) or Student \$7.00 Individual \$10

Family \$15 Sponsor \$25 Patron \$100

Corporate \$250 Life \$1000

Contribution \$ _____

I/We are interested in the following:

Volunteer to help the committee

Hikes

Indian Culture

Educational Workshops

School, Family, Youth Programs

Environment (Plants, birds, mammals, geology)

Other: _____

Name(s) _____

Address _____

City State Zip _____

Home Phone _____

Please make checks payable to:

Friends of Los Peñasquitos Canyon Preserve, Inc.

P.O. Box 26523, San Diego, CA 92196

Thank you for your support! Your donation is tax deductible.

Call 484-3219 or 566-6489 for more information.

4/92



Canyon News

Friends of Los Peñasquitos Canyon Preserve, Inc.

August 1992
Volume 6 No. 10

July 9 Camino Ruíz Hearing

by Mike Kelly, president

The San Diego Planning Commission will hold its second, and probably final, hearing on the Mira Mesa Community Plan Update July 9 at 9 a.m. at 202 "C" St., 12th floor. The most important issued debated in the Environmental Impact Report on the Plan was the Camino Ruíz extension across Peñasquitos Canyon Preserve. Although the consultant hired to draft the EIR was in favor of the extension, the Planning Department supported the unanimous vote of the Mira Mesa Planning Group against the extension.

Camino Ruíz was also a subject of debate at the first Planning Commission hearing on the Plan. At this session there were several speakers in favor of the extension across this pristine section of the canyon. It's imperative that we show community support against the extension at this coming hearing. A Planning Commission recommendation in favor of the Community Plan in its current form is a vote to kill Camino Ruíz.

Since the July 9 date and time is tentative, call me to confirm details and let me know if you can testify. Call me at 566-6489.

Reader Support Needed for Forest Initiative

by Mike Kelly, president

Perhaps the single most pressing issue facing defenders of wilderness in S.D. County is the threatened development of the inholdings in the Cleveland National Forest. The Friends Board of Directors voted unanimously at its June board meeting to support a citizens initiative to stop this development.

➡ p.7 for more



The Ecology and Restoration of Oak Woodlands, see p. 2

Outings Schedule

See Page 8 for a convenient "hangup" format.

Volunteers End Spring with Big Effort

Next project Saturday, July 25. Tamarisk bash. Call Mike Kelly at 566-6489 for details.

With the advent of hot weather many volunteer teams rushed to finish some of the toughest conservation projects. Here's what was accomplished in June.

Wetlands Committee begins work

The Friends formed a wetlands committee headed by geologist Don Albright to study a series of drainage and wetlands issues in the Preserve. The committee has already met and conducted three field trips, with more planned. Participating in the committee's work, besides Don, are John Northrop, consulting geo-physicist, Tom Hopp, bio-chemist, Bruce Martin, Trinity Gabrielle, Marcus Spielberg, biologist, Susan George, geologist and marine biologist, Kristen Brown, UCSD biology student, Angela Amarillas, president of the La Jolla High School Sierra Club, Jeff Rundel and Mike Kelly. If you're interested in the work of this committee, give us a call at 566-6489.

Scouts plant more oak trees; high survival rate

Troop 616, Scripps Ranch scouts John and Jason Lee David Carroll, Todd Homel, Joe Chandler, Brent Bolton and parents Donna and Chun Lee, and Rod Bolton were joined by Friends members Mike Kelly, Trinity Gabrielle and Bruce Martin in the final oak planting of the season June 14.

To date, the more than 80 California live oaks planted have all survived. The work of planting is hard work since the holes we dig are deep and in tough, rocky soil — "soil" most area homeowners are familiar with! We have helped achieve this high survival rate by occasional waterings — important in the first season — using a pvc watering tube arrangement designed by Friends' Conservation Chair Dr. Alan Pepper. In addition, cages have reduced animal herbivory. These will be removed in about a year when herbivory shouldn't kill the young trees. Adding to the survival success is the use of *duff*. Duff is a fancy word for leaf litter collected from beneath mature California live oaks. The litter contains mycorrhizal fungi that help oak roots absorb nutrients from the soil. We'll continue planting our oaks in the fall.

Kiosk Committee delivers report

Thanks to Brian Swanson, Barbara Zepf and Claude Edwards

➡ p. 7 for more

Restoration of Southern Oak Woodland — Part 1

Sandra Cleisz, City of San Diego Planning Department, Resource Management Section

[Our readers know of the Friends interest in protecting and increasing the oak population of Peñasquitos Canyon Preserve. Many of you have helped us grow seedlings from acorns or have helped us plant them. This serialized, abridged article will give readers an overview of the ecology of oak woodlands and the problems faced in protecting and restoring them. For a complete copy of the original paper, including a survey of several oak mitigation sites not included in these excerpts and a bibliography of the literature cited, send a stamped, self-addressed envelope to the Friends at POB 26523, San Diego, CA 92196—Mike Kelly, editor]

Introduction

Oak woodlands are one of California's most symbolic features: the majestically-spreading canopies of these large trees against a backdrop of gently rolling green or golden hills forms a striking image in many people's minds of California's rural heritage. Yet as California increases in population, the oaks that inhabit our state continually decline in number. Although many public agencies now require preservation of at least some oak



40-50 ft.

California live oak

trees, and mitigation for loss of trees or woodlands, restoration of all that has been lost is impossible (if not simply impractical) with such a slow-growing and complex vegetation community. This article presents a broad overview of the ecology and restoration of coast live oak woodlands of coastal San Diego County, with much of the information about the ecology, regeneration, and restoration of oaks extrapolated from the large body of literature on oak species throughout California.

Background

Nine species of tree oaks and nine species of shrub oaks (not counting hybridized species) occur in California, covering approximately 20 to 30% of the state in a wide range of landscape types and climatic regions — from high desert and mountain slopes, to foothills, valleys and coastal environments (Pavlik, 1991). California oaks have evolved into three genetic lineages with relatively distinct characteristics (Tucker, 1980). The three subgenera are white oaks (subgenus *Lepidobalanus*), red (or black) oaks, (subgenus *Erythrobalanus*), and intermediate oaks (subgenus *Protobalanus*).

The tree oaks that occur in southern California below Los Angeles are primarily in the black oak lineage, and include *Quercus kelloggii* (Black Oak), *Q. agrifolia* (Coast Live Oak), and *Q. wislizenii* (Interior Live Oak), although two species of tree oaks of other lineages occur here as well: *Q. chrysolepis* (Canyon Oak) — an intermediate oak, and *Q. engelmannii* (Engelmann

Oak) — a white oak. Engelmann Oak is the only tree oak whose distribution is entirely limited to southern California. In coastal San Diego County, only two species of tree oaks occur: Coast Live Oak and Engelmann Oak. In addition, one or more species of shrub oaks occur, including Coastal Scrub Oak (*Q. dumosa*). It is interesting to note that coastal scrub oak has only recently been redefined as a species with a probable distribution restricted to the rapidly disappearing habitats of coastal southern California and northern Baja California, and may be the rarest of oaks (Pavlik, 1991).

Coast Live Oaks

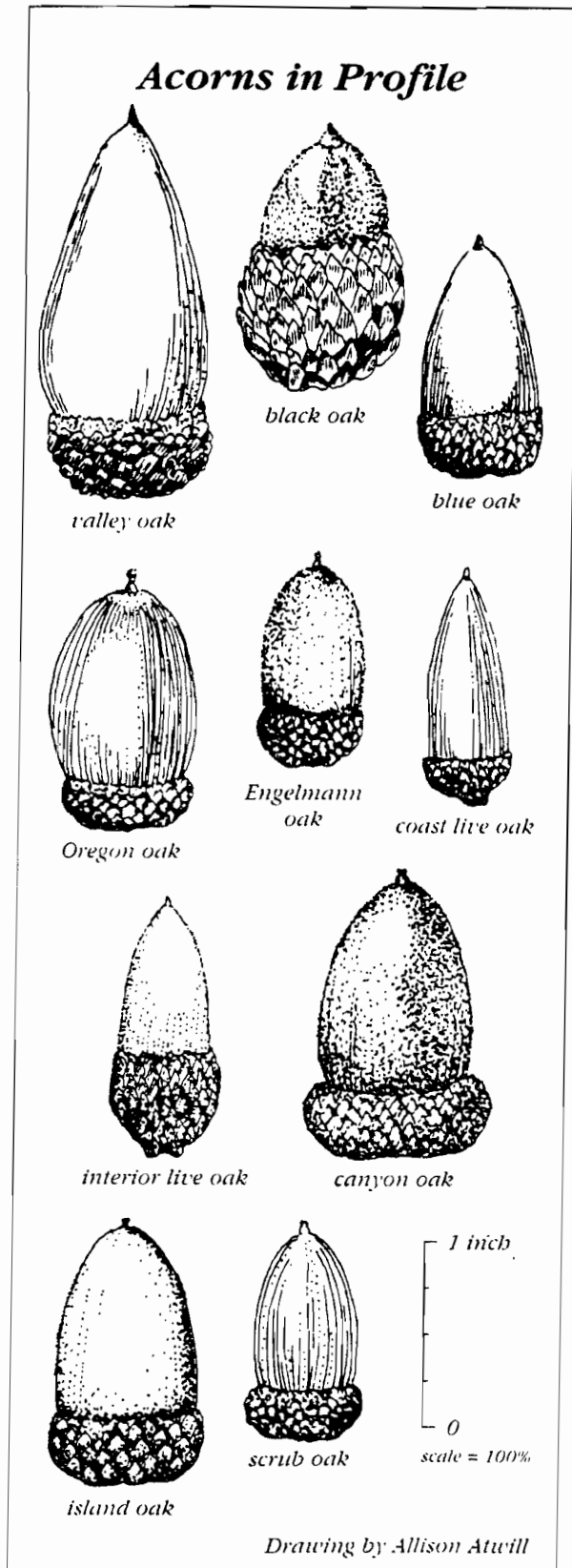
Coast Live Oak is a large, often gnarled and widely-spreading tree with a dense canopy that produces deep shade. Some of the largest specimens have been found growing to 25 meters high, 40 m. wide, and with a basal trunk diameter of 3.5 meters (Pavlik, 1991). Coast live oaks are known to have lifespans exceeding 250 years. They generally grow on well-drained soils of coastal plains and hillsides, as well as in rocky canyons and along streams and watercourses. Coast live oak is unique among tree oaks in that it can thrive along the coast, although it's not usually found along the immediate shoreline where it would receive direct exposure to salt spray and strong winds. *Q. agrifolia* is distributed from Mendocino County to northern Baja California from the coast to the edges of California's interior valleys (approximately 80-100 kilometers inland) and in elevation, to 1500m. in southern California (Pavlik, 1991).

The plant communities (according to Holland, 1986) of which it is a member in southern California include coast live oak woodland, Engelmann oak woodland and savanna, scrub oak woodland, southern mixed evergreen forest, and coast live oak riparian forest, most or all of which are also referred to as Southern Oak Woodland by Munz and Keck (1959). In San Diego's coastal region, the most common communities in which coast live oak is found are the coast live oak woodland, and the southern riparian forest (or woodland). Generally, coast live oaks are found in our coastal valleys and canyons, often alongside creeks, and in floodplain areas.

Oak woodlands declining

Although Tom Oberbauer, botanist and San Diego County Planner, has estimated that only 9% of oak woodland has been lost in San Diego County up to 1988, oaks may have once occurred in most of coastal San Diego County's major and minor canyons and valleys. Intensive land development for homes, commercial and industrial land uses, roads and freeways, utilities, and agricultural conversions (most recently, avocado farming), continues to destroy or severely degrade the oak communities here. It has been predicted that statewide, an additional 50,000 acres of coast live oak woodlands will be lost within the next 20 to 25 years (Pavlik, 1991)

In addition to the loss of oak woodlands from land development, agricultural conversion, rangeland clearing, and firewood cutting, scientists have found that many oak populations are not regenerating (not replacing themselves) (Griffin, 1971; Muick & Bartolome, 1987). The changes in the landscape induced by the arrival of Europeans in California, including the introduction of annual grasses and forbs, and livestock grazing, have caused multiple effects that prevent successful recruitment of oaks to



maturity (Rossi, 1980). Although regeneration has been found to be generally less of a problem with California's evergreen oaks than deciduous oaks (Muick & Bartolome, 1987; Muick, 1991), low regeneration rates were found for coast live oaks in Southern California (Muick & Bartolome, 1987).

Interest in oaks spans a considerable length of time but became prominent in the 1970's and 80's as researchers became more aware of the issues surrounding oak communities in California. Since 1979, the date of the first symposium on oaks, and 1986, when the State initiated the Integrated Hardwood Range Management Program, growing concern and interest among citizens, scientists, and public agencies has augmented the knowledge base about California oak woodlands ecology, conservation, and management. There is now a considerable and growing body of literature devoted to the study of oaks and oak woodland communities.

Importance of Oaks

The importance of oaks and oak woodland communities statewide and in southern California has been noted by anthropologists, wildlife scientists, biologists and range and resource managers, among others. In the past, Native Americans consumed acorns as a primary source of food and coast live oak sustained southern California's Indian population (Rossi, 1980). Subsequent to the Spaniards' arrival and that of other Europeans, oaks were used as fuel for cooking and production of charcoal, as lumber for building materials, as shade for people and livestock, and as boundary markers (Pavlik, 1991). Recently, oak continues to be used as fuel for heating and is beginning to be used in commercial lumber production (Hall, 1980). Oaks provide important sources of food and shade for livestock (Duncan & Clawson, 1980), while also providing outstanding recreational and aesthetic values as well as increased property values for home and landowners (Oakit, 1989). Scientific uses of oak woodland communities abound as the abundance of research demonstrates.

With regard to the natural importance of oaks and oak woodlands, oak woodlands are known to protect watersheds from erosion and often support an understory community that increases habitat diversity for wildlife (Pavlik, 1991). Oak communities are highly important to wildlife in providing food, resting places and shelter, nesting sites, and corridors for movement. The structure of oak woodlands, especially those with a complexity of over and understory canopies, supports a high diversity and abundance of wildlife interrelated by a complex food web. According to Pavlik, 1991), the following species depend on oak woodlands for part of their life cycles and survival:

- More than 80 species of amphibians and reptiles;
- 60 species of mammals including rodents, foxes, deer and lion;
- 5,000 species of insects ;

In addition,

- Over 100 species of birds use oak woodlands during the breeding season;
- more than 30 species of birds eat acorns;
- and at least 45 other bird species feed on the insects associated with oak woodland communities (Verner, 1980).

Several endangered species are known to be associated with oaks as well, including the least Bell's vireo.

Ecology of *Quercus agrifolia* and Southern Oak Woodlands

California oaks, including coast live oak, have all evolved in

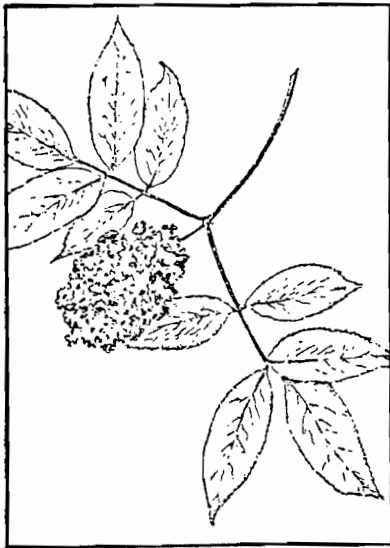
Historic Uses of Medicinal Plants Found in Penasquitos Canyon

Will Bowen

[Note to readers: Picking plants in Peñasquitos Canyon is illegal. The park exists to protect our plants and animals for future generations. Visit your local herbalist if you wish to try any of the plants mentioned here. This is safer too, since many of the plant uses listed here are historical uses, some of which may not be effective and may even be dangerous to your health—editor.]

Medicinal plants have a long and colorful history of usage in the many cultures of the American melting pot. Many of the plants that are today found in Penasquitos Canyon served these purposes in the past for historic San Diego communities. Though we are now graced with improved medicines and medical facilities, scientists continue to add to our pharmacopoeia, in part by isolating new drugs from native plants. Since many folk notions have some kind of a basis in scientific fact, it is important to consider that the medicinal plants in Penasquitos Canyon constitute medical, historic, educational, and cultural resources which ought to be studied and protected.

When the early local Indians were hurt or sick they could not call the paramedics at 911. They had to rely on medicinal plants and the orally transmitted medical traditions of their medicine people. The frontier Spanish and Anglo settlers who came to this area were not much better off when it came to medical care. According to history of medicine expert Henry G. Schwartz, nineteenth and early twentieth century western medicine was poor, with success in treatment mostly a matter of luck. The cure was often worse than the disease. Drugs often had no effect



Mexican elderberry

or worse — serious side effects. Surgery was primitive and feared by the average person. Flu epidemics, like those of 1918-19, took a grim toll in lives, while western doctors watched helplessly.

The majority of doctors of the period hadn't even attended medical school. Most had just studied medicine with an active doctor or read some medical books on their own. There were many charlatans preying on the unwary. Quack doctors often followed the miners and railroad workers, such as those that laid the tracks through Sorrento Gorge. Not until the modern wonder drugs became available in the 1930s did western medicine start improving.

Harris's *Early Medical History of California* gives an idea of what people in the 1800s in San Diego might have suffered from. According to hospital records of the day, most admissions in 1850 suffered from diarrhea, dysentery, rheumatism, fever, and gonorrhea. Other major problems included ranch injuries, gunshot wounds, venereal and infectious disease. Blood poisoning from barbed wire was common and probably was an issue in the Canyon.

Patent medicines

Many of the historic citizens of this time treated themselves with herbal remedies brewed at home. In some cases, herbs were

used in addition to western style drugs by physicians of the day. One of the most popular ways to take herbs was in the form of patent medicines, which are processed and packaged herbal blends. The word "patent" comes from England and refers to the trademark or brand name associated with a product. The first patents were granted as a royal favor by the King. Patent Medicines were first mass produced in America for the soldiers of the American Civil War. Both the Blue and the Gray liked them, probably because of the high alcohol content.

Patent Medicines are also important in American history because they were instrumental in newspaper and magazine advertising. The forerunner to the first magazine was created to advertise patent medicines. F.G. Kinsman produced weekly and monthly pamphlets free of charge for religious organizations in return for advertising his medications. Patent medicines were also hawked by traveling medicine shows and Snake Oil salesmen. Many such were run out of San Diego on a rail. The Snake Oil they sold, such as Clark Stanley's Snake Oil, really did not have any rattlesnake in it, but rather small amounts of alcohol, turpentine, camphor, ammonia, kerosene, and chloroform. Needless to say, the smell probably stimulated an intense desire to get well.

The old San Diego Union of the late 1800s was replete with ads offering patent medicines. Some of the more commonly seen included: Ayer's Cherry Pectoral for colds and coughs, Scott's Emulsions (cod liver oil) for anemia, Hood's Sarsaparilla (for scrofula — sarsaparilla contains testosterone), Castoria for children (castor oil), California Root Tea for asthma, female weakness, and kidney complaints (it was sold at Chase's Drug Store downtown for 50 cents a packet; 6 for \$2.50), Ayer's Sarsaparilla for purifying the blood, pimples, pustules, blotches, and boils, Dr. Ransom's Hive Syrup for coughs and colds (in 25 and 50 cent bottles), Dr. Kilmer's Swamp Root, a great kidney and bladder remedy — free bottle sent on request). One notable ad, which included the testimonials of several centenarians, was for Duffy's Pure Malt Whiskey, which was said to aid digestion, stimulate and enrich the blood, invigorate the brain, build nerve tissue, tone up the heart, and fortify the system.

Chinese herbalists in san diego

Probably the best and most knowledgeable herb doctors in old San Diego were Chinese physicians in the Stingree (Red Light) district, which centered at 4th Street between Island and K. The China doctors, such as Low Luke, who practiced out of an office at 850 4th Street in 1900, were sought out when western medicine failed, or when the outmost confidentiality was needed, as in the case of venereal disease (notable clients included high society, politicians, and legalists). The Chinese herb doctors were also excellent at treating blood poisoning — they would give daily treatments in which they would paint on an herbal ointment with a feather. Unlike those of western doctors, few of the flu patients of the Chinese doctors ever died.

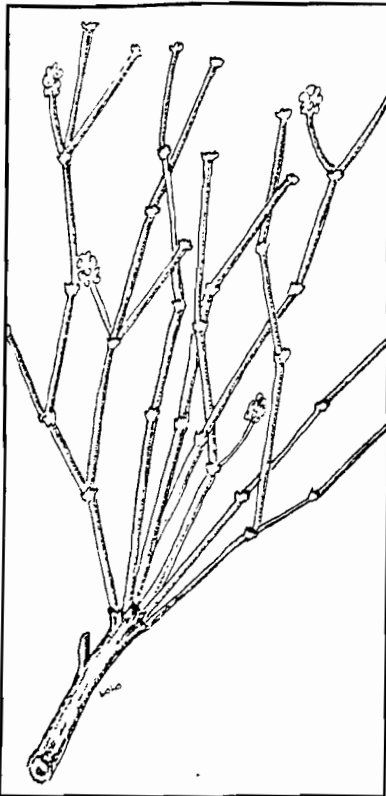
Field first aid remedies

Many of the herbs or medicinal plants that were used by the Indians, Spanish, Anglos, and Chinese of Old San Diego can be found today in Penasquitos Canyon. In the following section a list of the herbal or medicinal plants cited in the historic literature as potentially valuable for field first aid are listed. Inclusion in this list does not guarantee their effectiveness. Most have not been subject to any scientific testing. In many cases the active

ingredients might have been the placebo effect or the body's own healing mechanism. However, situations may arise where such knowledge might prove useful or even life saving. Extreme prudence and common sense should govern any necessity of their use. Since Penasquitos Canyon Preserve is a County and City Park the resources in it, including the plants, may not be picked or damaged. Many of the plants cited are available from local herbalists.

Headache — If you get a headache you can roll up a leaf of white sage (*salvia apiana*), put it in you nose, and breath through it; or, chew on a piece of willow bark (*salix* spp.) which contains an aspirin-like compound. If you can find them, sniff the seeds of black mustard (*brassica nigra*); or bruise a leaf of tree tobacco (*nicotiana gluca*) and put it on your forehead — your skin will absorb the active ingredients. To bruise a leaf, put it on a flat rock and lightly tap it with a smaller round sided stone — just enough to make the leaf moist without tearing it.

Toothache — The english have been known to chew a root of deadly nightshade (*solanum nodiflorum* — **this is a dangerous**



Mormon tea

mashed flowering tops of coast tarweed (*madia sativa*) or crushed leaves of mugwort (*artemisia douglasiana*). Also drink a tea of the coast tarweed, mugwort, white sage (*salvia apiana*) or gumplant (*grindelia hallii*).

Bites and stings — For insect bites apply the bruised leaves of scarlet pimpernel (*anagallis arvensis*) or plantain (*plantago major* or *plantago lanceolata*). Scarlet pimpernel is known also as "poor man's weather glass" because the flowers will close if it is going to rain. Plantain was called "white man's foot" by the indians because it indicated the presence of white's in the area. For black widow spider bites drink a tea from dodder vine (*cuscuta* spp.). Dodder is bright orange and sometimes called witches hair because it looks like orange hair. Use only that growing on wild buckwheat (*erigonum fasciculatum*). For scorpion bites the greek physician discorides recommended eating the root of curly dock

(*rumex crispus*) to take away the pain. For tarantula or rattlesnake bites suck the bite and then apply the crushed leaves of datura (*datura meteloides*; careful: this is a potentially hallucenogenic and deadly plant). As an insect repellent, rub wild onion (*allium* spp.) on your skin, as the Native Americans did.

Rope burns — Rub the flowers, leaves, and stem of bush monkey flower (*mimulus* spp.) in your hands, as did the spanish vaqueros.

Bruise — Remove the needles, pull back the outer skin, and apply a poultice of prickly pear cactus (*opuntia* spp.), or wash with a tea of scotch broom (*cytiscus scoparium*).

Scraps — Rub on bruised eucalyptus leaves. They contain eucalptol, an antiseptic oil.

Cuts and wounds — Put on bruised whole plant of everlasting flower (*gnaphalium* spp.); or the pulp of green coyote melon (*cucurbita foetidissima*), which looks like spaghetti squash; apply the juice of tree tobacco (*nicotiana gluca*) leaves; or an alcohol based tincture of cocklebur (*xanthium strumarium*). A wash of mayweed (*anthemis cotula*) tea may be helpful, as it contains an anti inflammatory agent.

Bleeding — Sprinkle on the pollen from the top of the cattail (*typha* spp.) spike. Yarrow (*achillea millefolium*) leaves may help stop bleeding. It was used by the greek and roman armies for that purpose. The pulp of beavertail cactus (*opuntia basileris*) can be helpful. For internal bleeding eat the green leaves of filar-ee (*eriodium cicutarium*). They taste good and will decrease bleeding and help prevent infection

Sprains and broken bones — Apply the heated or bruised leaves of cottonwood (*populus fremontii*) and drink a tea of bindweed, also known as chaparral morning glory (*convolvulus arvensis*), which the chinese call "healing tendon root".

Pain — Eat the fruits of the california poppy (*escholtzia fasciculatus*) which are mildly sedative and analgesic. Or chew on willow (*salix* spp.) bark for a pain killer the strength of aspirin. Indians chewed the resin of encelia (*encelia californica*) for pain.

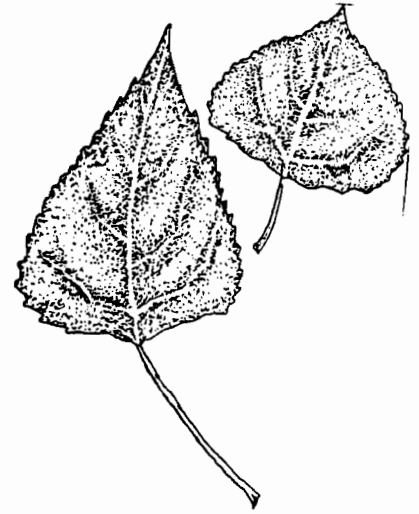
Smelling salts — To revive a person who has fainted try placing *artemisia palmeri* under their nose.

Sore throat — Wash and chew the root of yerba mansa (*amemopsis californica*), which the spanish did, or chew locoweed (*astragalus bicristatus*) as the indians did. Mesquite (*prosopis glandulosa*) gum may also be helpful.

Diarrhea — Eat leaves and berried of pacific blackberry (*rubus ursinus*) or the ground up seed pods of cocklebur (*xanthium strumarium*). You can grind the seeds with two rocks, using an indian method.

Warts — Prick the wart and apply the juice of poison oak (*toxocodendron diversilobum*) or the sap of milkweed (*asclepias* spp.). Or rub in the fuzz from beavertail cactus (*opuntia basileris*). The beavertail fuzz can also be used on moles.

Rheumatism — Drink a tea of gum plant (*grindelia hallii*); which the digueno called "semay kohilillp". This summer you



Fremont cottonwood

Birding in Peñasquitos Canyon California Towhees

by Barbara Zepf

Summertime usually brings the doldrums to the world of the birder. Most of the ducks, shorebirds, and gulls have moved north to breed. Most of the raptors have finished breeding and will start to disperse. The orioles and mockingbirds have already had at least two broods, and the mockingbird even ceases to sing for a month or so. Now is the time to go the mountains to visit those birds you can seldom see at lower elevations.

But there is one interesting thing to watch in Peñasquitos Canyon this summer — the mitigation work going on near the grave. While I think this work will prove to be for the betterment of the canyon in the long run, it's quite a disruption to the birds while it's in progress. Before the largest eucalyptus tree is cut down, I hope someone considers moving the Great Horned Owl's nest to one of the taller trees nearby. [It was — editor.] Great Horned Owls don't build their own nest, but usually use old nests of hawks.

Dirt baths

In the midst of all this confusion, some birds are having a field day — the California Towhees. While walking in the canyon one day at dusk, my husband and I noticed many towhees dirt-bathing and scratching for food all around the downed trees. So many bugs and seeds had been dislodged during the mitigation work the birds were having a feast. The towhees are one of the first birds to start calling in the morning and one of the last birds you'll see and hear before dark.

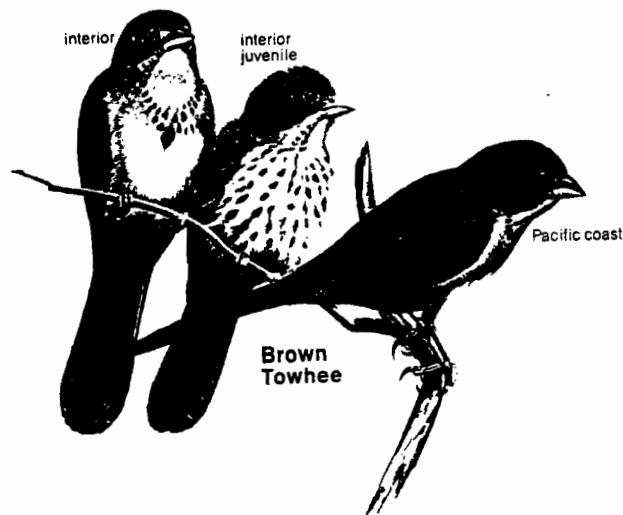
There are two closely related towhees that are residents in Peñasquitos Canyon — the California Towhee and the Rufous-sided Towhee. The California Towhee used to be called the Brown Towhee, but it was recently split into two species — the California Towhee (resident from southwest Oregon to Baja California) and the Canyon Towhee (resident from Arizona, New Mexico, Colorado and Texas to southern Mexico). Their calls are different, and they look somewhat different.

The Rufous-sided Towhee resides all across the United States and Mexico. The eastern and western races don't look exactly alike, but they're all the same species.

Mirror, mirror on the wall . . .

The California Towhee is an earthy-brown bird about 8 -1/2 to 10 inches long. It has rusty under-tail coverts. The throat and upper breast are buffy or rusty, sometime with faint rusty streaks. The tail is moderately long, rounded and dark. Both sexes look alike. The young are finely streaked below. California Towhees prefer shaded and sheltered spots. They aren't shy around gardens, but are very wary in the wild. Their call is a "CHINK". Their song is a rapid "CHINK-CHINK-CHINK-INK-INK-INK-INK-INK" in one pitch, often ending in a trill. California Towhees usually live in pairs. The male is strongly territorial — often a fierce fighter of its own image in a mirror or hubcap.

The Rufous-sided Towhee is quite spectacular looking compared to the somewhat drab California Towhee. The western version that we get in Peñasquitos Canyon is 7-9 inches long. The head, throat and breast are black. The sides are rufous (rusty-red or chestnut-colored). The belly is white. There are large white spots on the outer tips of its long, rounded tail. There are two white bars on the wings and white marks on the back. Their bill is black and conical shaped just like the California Towhee's. They have fiery red eyes. The female is washed-out grayish-black or brownish-black where the male is black. All juveniles



have dark streaks and spots but show the adult wing pattern. Their song is a drawn-out, buzzy "JU-WEE". The call note is "TWEE" or "CHWEEEE", sometimes sounding very cat-like.

The Rufous-sided Towhee prefers denser brush than the California Towhee. Both birds hop and kick with both feet together and usually fly close to the ground, pumping their tail. Both towhees eat weed seeds, grain and insect, but the Rufous-sided Towhee has a larger variety in its diet. It also eats caterpillars, snails, sow bugs, lizards, snakes, etc. They both scratch noisily and vigorously under thickets and in dry leaves, often sounding like a much larger animal as you are walking through the canyon.

Both towhees lay 3-4 eggs from March/April to August/September. They both like to nest somewhat low in a tree or bush, with the Rufous-sided Towhee nesting the lowest. The females do the incubating for 11-13 days. The Rufous-sided Towhee has 2 broods a year.

While the hot summer may confine your walks in the canyon to early morning or evening, keep an eye (and an ear) out for these two amusing birds. No, that is not someone following you in the underbrush, it's just one of the towhees "doing its thing"!

CalTrans Mitigation Underway

The long-awaited project to remove a 3-acre grove of eucalyptus trees from the east end of the Preserve is well underway. Readers will remember lengthy articles on this project in last year's newsletter. The eucalyptus, an invasive species that is slowly replacing native species, will be replaced with sycamore, cottonwood and oak trees, as well as willow and other understory plants. It's an important step in preserving the biodiversity and integrity of the Preserve.

If you would like to learn more about this mitigation join Les Braund on his nature walks July 11 or August 1 (see schedule for details). He will take his walks directly into the mitigation areas and discuss eucalyptus habitat versus oak habitats and the goal of the program. You may also write or call us for a copy of our position paper on the mitigation.

(Volunteers cont'd)

for the months of research and study spent on developing proposals for a prototype educational kiosk for the Preserve. Their proposals will soon be taken to the appropriate Parks departments and Citizens Advisory groups.

San Diego thorn mint survey in Sabre Springs

Althea Church and Mike Kelly continued the endangered S.D. Thorn Mint survey reported in our last issue. A population in Sabre Springs which will be part of a future open space area linked to Peñasquitos Canyon Preserve was surveyed. Like the main canyon populations, the Sabre Springs one is threatened. A construction road was bulldozed through the population, destroying some of it and bisecting it. In addition, several invasive weeds threaten the long term survival of the Thorn Mint. The weeds are desert artichoke, yellow star thistle, tumble weed and exotic grasses.

Final artichoke push succeeds

In a final push in June, volunteers Jeff Rundel, Don Albright, Tom Hopp, Charlie Church, Bob Schmidt, Alan Pepper, Carla Scott, Cindy Burrascano, Bruce Martin, Rich Breisch, Trinity Gabrielle, Cindy Burrascano and Mike Kelly cleared the last patches of Desert Artichoke, an invasive weed in the Preserve. Over 30,000 plants were eliminated from the canyon system. This will allow native species to fill back into most of these areas. Next year we should be facing a much smaller population of seedling artichokes and resprouts and, looking into the future, a minor maintenance problem. Special mention to Mike, Cindy and Trinity who put in 15-20 hours+ each during the last push.

(Forest Initiative cont'd)

This volunteer effort is called the Forest Conservation Initiative. It would impose a minimum 40-acre lot size on private property held within this national forest. This should preclude housing subdivisions from being built within the parks borders.

This initiative comes none too soon as development proposals are already before the County Board of Supervisors that would convert parcels that are currently used for grazing, ranching or for a private residence to subdivision tracts (sorry, "ranchettes"). The County Board of Supervisors voted a 20-acre minimum lot size several months ago, rejecting the 40-acre minimum lot size recommended by its own Planning Commission. Even the 20-acre lot size has proven to be a fig leaf behind which the Board has been busy granting exemptions that open the door for subdivisions.

The San Diego Union-Tribune endorsed the initiative in an aptly-named editorial "Wildlife or subdivisions" in its April 11 edition. The editorial hit the nail on the head when it noted that "Subdivisions and other development will fragment the wilderness and eventually destroy its viability. That's especially true in KCleveland National Forest. Most private property includes mountain meadows, which are an integral part of the forest and vital to the survival of many plants and animals, including deer and mountain lions. Developing the meadows with houses would cut the heart out of the forest." An earlier, December 18, 1991 editorial challenged the supervisors "to prove they are not beholden to developer interests . . ."

Protecting Cleveland National Forest is vital to the future of Peñasquitos Canyon Preserve. This isn't hyperbole, not even a stretch. The Forest is the core preserve, the gene pool for the entire region. Our Preserve, San Dieguito River Valley, the Tijuana River Estuary, all of our areas are but spokes in the wheel whose

(Medicinal Plants cont'd)

should find some on the hillside near the animal tunnel at the West End. Take nettle (*Urtica* spp.) and wipe or beat it against the area. Nettle contains formic acid which is the same thing that causes an ant bite to sting.

Bad breath — Eat fennel (*foeniculum vulgare*) seeds.

Asthma — Take a dried jimson (*datura meteloides*) leaf and light it with a match, then inhale the vapors. An old patent medicine called "asthma powders" used *datura* combined with salt peter for asthma attacks. **Do not try this -- *datura* is very dangerous.**

Acne — Crack open a castor (*ricinus communis*) bean and mash the seed. Apply it. Do not eat it. Internally it is a poison. Watercress (*rorippa nasturtium-aquaticum*), which is found along the stream bed, may also be helpful when taken internally.

Fevers — Try elderberry (*sambucus mexicana*) blossoms brewed as a tea — safe for use with babies.

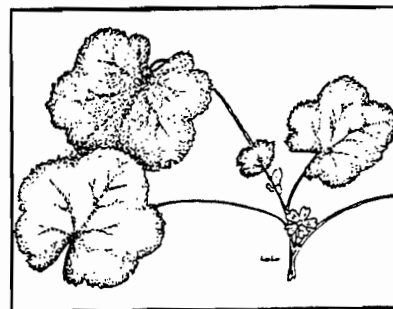
Scalding urine — Drink a tea of fleabane (*conzya canadian*).

Athlete's foot — Soak feet in eucalyptus leaf tea; or in a tea of nutgrass — chufa (*cyperus esculentum*).

Mouth ulcers — Chew on white sage (*salvia apiana*) leaves or the leaves and seeds of pigweed (*amaranth retroflexus*).

Exotic remedies — Some recent herbal research found that oat (*avena fatua*) straw can enhance your sex drive. Just grab a straw, which are all over the canyon, and chew. It is quite tasty green. If you need a ritual or spiritual cleansing, brush down the body with the leaves of the pepper tree (*schinus molle*), for what is known in spanish communities as a "limpiada" (ritual or spiritual cleansing). If you run into anyone with a deranged mind (like someone driving a 4-wheel drive vehicle in the preserve), feed them watercress (*rorippa nasturtium-aquaticum*). This is an old roman cure with modern applications. For melancholia eat the root of marsh peony (*paeonia californica*).

If your in the canyon at dusk, which is the time when the chinese think ghosts are most active (there is one in lopez canyon — when you pass by where it haunts, your teeth tingle and chatter), then carry the rhizome of the bird's foot fern (*pellaea mucronata*). It was used as a charm to keep away evil spirits by local Native Americans.



Mallow

Finally, if you want to sneak around the canyon and be invisible, you might try the seeds of bracken fern (*pteridium aquinum*) which the old english believe conveys invisibility. As in Henry the IV (Shakespeare): "we have the receipt of fern seeds — we walk invisible."

biological hub is Cleveland National Forest. Here is the gene pool from which we are constantly replenishing our animal and even plant populations. Our attempts to link our preserves and parks here on the coast go for naught if we can't protect not only our links to, but the very core preserve itself.

For more details on the initiative, copies of the initiative and accompanying petition and to make a much needed donation, write "Save Our Forests & Ranchlands" at Post Office Box 475, Descanso, CA 91916 or call 619-445-9638.

Friends of Peñasquitos Canyon July/August Events Schedule

Cool Evening Walks for the Summer

In summer we shift many of our outings from the morning to the early evening to beat the heat. This means we also have the opportunity to see many birds and animals we would miss on daytime outings, including mule deer, bobcat, owls and frogs. Bring flashlights and insect repellent for evening activities.

Outings are free. Wear sturdy shoes; bring water for longer hikes. Rain cancels. For more details or to organize group hikes, call 484-3219 for recorded information.

JULY

Dusk Walk in Peñasquitos Canyon (Canyonside Entrance)
Thurs., July 2, 6:30 p.m. Good opportunity to see nocturnal birds and animals. Take I-15 to Mercy Road. West on Mercy to Black Mountain Road. Ignore Preserve sign/entrance straight ahead and go right on Black Mountain. Take left into Canyonside Park entrance. Go past ballfields on right and proceed to white fence and new parking lot. We'll meet there. Bring insect repellent and flashlight. Led by Mike Kelly.

Rancho Santa Maria de los Peñasquitos Adobe Ranch Tour

Sat., July 4, 11 a.m. and noon (45 min. each), S.D. County Archaeological Society. Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park past ballfields to Preservesign and new parking lot. See historic adobe, settler and Indian artifacts.

Camino Ruiz Hearing at Planning Commission

Thurs., July 9, 9 a.m. The Mira Mesa Community Plan update is before the Planning Commission and the most controversial issue is the Camino Ruiz extension across the canyon. Come and testify. See July newsletter for details. Call for details at 566-6489.

Dusk Walk in Lopez Canyon

Thurs., July 9, 6:30 p.m. Opportunity to see nocturnal birds and animals. Meet in parking lot by La Cantina bike shop on north side of Sorrento Valley Blvd. in Sorrento Valley, 1/2 mile east of intersection with Vista Sorrento. Bring insect repellent and flashlight. Led by Brian Swanson.

Nature Walk

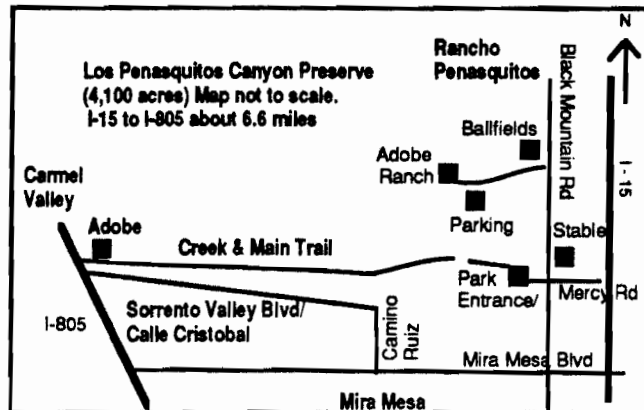
Sat., July 11, 8 a.m. (2 hours). Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Learn about plants the Indians and settlers used while living in canyon. Visit a mitigation site and see the restoration of native trees and shrubs in place of exotic eucalyptus in progress. Learn about the concept of bio-diversity. Led by Les Braund.

Full Moon Walk

Tues., July 14, 8 p.m. (1-1/2 hours). Meet in parking lot by La Cantina bike shop on north side of Sorrento Valley Blvd. in Sorrento Valley, 1/2 mile east of intersection with Vista Sorrento. **Bring flashlight.** Learn moon lore and legends from an anthropologist. Meet Ishtar the Babylonian moon goddess; Chaawp the Digueno Indian Meteor Spirit. Look for deer and other nocturnal animals. Watch out for hungry ghosts! Led by Will Bowen.

Medicinal Plant Walk

Sat., July 18, 6:30 p.m. (2 hours). Meet in parking lot by La Cantina bike shop on north side of Sorrento Valley Boulevard in Sorrento Valley, 1/2 mile east of intersection with Vista Sorrento. Learn about plants our Indian and settler ancestors (and people today) used for medicinal purposes. Led by Will Bowen.



Rancho Santa Maria de los Peñasquitos Adobe Ranch Tour

Sat., July 18, 11 a.m. and noon (45 min. each), S.D. County Archaeological Society. See July 4 for details.

Friends Monthly Business Meeting

Thurs., July 23, 7 p.m. at Rancho Santa Maria de los Peñasquitos. Take Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park past ballfields to Preservesign and new parking lot. Walk up to adobe ranch house.

The Steamboat Era on the Colorado and the Connection with Peñasquitos Canyon Preserve

Sat., July 25, 6 p.m.: free tours of the adobe ranch house and BYO picnic supper; 7 p.m.: Lecture/Slide show with Dick Coolidge. The important role of Capt. George Alonzo Johnson in establishing steamboat service on the Colorado will be detailed. Johnson became the owner of Rancho Santa Maria de los Peñasquitos (formerly the Johnson-Taylor Adobe) in the 1860s. At Rancho Santa Maria de los Peñasquitos in Peñasquitos Canyon Preserve. Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park past ballfields to Preservesign and new parking lot.

Dusk Mystery Tree Walk

Tues., July 28, 6:30 p.m. Meet at the parking-staging area off Black Mountain Road. Take the Mercy Exit off I-15 west to Black Mountain Road. Parking for the Preserve is opposite this intersection. Investigate the legend of the Mexican era sign map on trees in the Preserve that describe where the Mission treasure was buried. Visit a Native America grinding site and learn about the plants they used to survive. Led by Mike Kelly or Mike McCormick.

AUGUST

Nature Walk

Sat., Aug. 1, 8 a.m. (2 hours). Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Learn about plants the Indians and settlers used while living in canyon. Visit a mitigation site and see the restoration of native trees and shrubs in place of exotic eucalyptus in progress. Learn about the concept of bio-diversity. Led by Les Braund.

Rancho Santa Maria De Los Peñasquitos Adobe Ranch Tour

Sat., Aug. 1, 11 a.m. and noon (45 min. each), S.D. County Archaeological Society. See July 4th for details.

(Continued p. 10)

(Oaks cont'd)

response to California's Mediterranean climate and the associated factors that produce environmental stress such as fire, aridity, availability of moisture, temperature, growing season, and nutrient availability (Rundel, 1980). Coast live oaks are evergreen, which is thought to be a response to variable stress periods resulting in plants taking advantage of photosynthetic production throughout the year. Meanwhile, the plant expends less energy producing new leaves, and achieves greater net photosynthesis with a more efficient use of nutrients than deciduous species (Pavlik, 1991). Other responses to aridity and nitrogen availability are thick leathery leaves that slow gas exchange, deep and/or wide-spreading root systems, and shrub vs. tree forms (Rundel, 1980). Although some have been shown to withstand droughts to -30 bars in northern California (Griffin, 1973), *Q. agrifolia* is not found to grow on drier sites limited by low water availability. Tree to tree and stand to stand variation within the species seems to be large however (Griffin, 1973), and Mike Connelly of Cal Trans has noted that he has seen coast live oak in widely varying conditions in this county, from deep, moist soils in valley bottoms, to rock outcrops along cliffsides.

Fire and oaks

Although relatively fire resistant and slow to burn as an adult (Lathrop & Osborne, 1991), *Q. agrifolia* is nevertheless susceptible to the infrequent, hotter fires of the last fifty-plus years. Due to the fire suppression that has accompanied urban growth, fuel buildup has resulted in fires that have destroyed oaks and oak woodland communities (Snow, 1980). Coast live oaks are known to resprout after fires (or browsing) from their roots or crown, but in seedling stages, *Q. agrifolia* resprouts more slowly in response to fire than Engelmann Oak. Saplings of coast live oak were also found to have thinner bark than Engelmann Oak, were associated more often with riparian communities and moister environments, and found less often adjacent to chamise chaparral (a fire-adapted community) than Engelmann Oak (Snow, 1980). However, Plumb (1980) found that *Q. agrifolia*, with the thickest bark and highest moisture content compared with five other California oak species, had the highest fire resistance and highest crown recovery after hot fires.

Coast live oak canopies and leaves adjust to shade and light intensity. *Q. agrifolia* is known to develop two types of leaves: "sun leaves" which are small, convex, and contain two to three layers of photosynthetic cells to take advantage of strong light and to dissipate heat; and "shade leaves" which are larger, thinner, and flat, with only one layer of photosynthetic cells, taking advantage of low light intensities (Pavlik, 1991). Seedlings are not only highly tolerant and competitive in shade, but have been shown to have low survival rates in open areas (Griffin, 1971; Callaway & D'Antonio, 1991; Muick, 1991). Light intensities under oak canopies vary from 10% of incident sunlight in the interior of a closed canopy coast live oak woodland, to 60% at the edges of the canopy (Parker & Muller, 1982). Diurnal temperature fluctuations were moderated under oak canopies, and averaged 6° C. lower during the day and 5° C. higher at night over a year. In addition, soil structure differed, having twice the organic matter and significantly higher soil moisture and humidity under canopies as compared with open grasslands.

Decomposition of leaf litter in oak savannas is more rapid than in woodlands, where leaf litter tends to accumulate on the soil surface (Dunn, 1980). Precipitation increases nitrogen availability during the winter and early spring (Parker & Billow, 1987). Significantly higher levels of available nitrogen (nitrate-N) have been found in oak woodlands compared with open an-

nual grasslands, although actual levels are highly variable (10-200 p.p.m. in oak woodlands vs. <5 p.p.m. in grasslands) (Parker & Muller, 1982). In addition, macronutrients (Ca, Mg, and K) were found in higher concentrations under oak canopies than in grasslands (Dahlgren & Singer, 1991).

Coast live oak roots are ectomycorrhizal (where beneficial fungi attach themselves to the outside of the roots — as are all oaks), with that symbiotic fungi serving to increase root surface and absorption area, allowing more efficient uptake of water and nutrients (including nitrogen and phosphorus) (Dunn, 1980). *Q. agrifolia* have been described in the past as having an extensive shallow root system (Griffin, 1973), which when studied during excavation, was corroborated (Thomas, 1980).

Thomas found that coast live oaks, which initially send out a relatively deep tap root, develop an extensive shallow root system consisting of many small and large lateral roots that may reach 30 meters or more from the trunk, while the original tap root eventually degenerates. He found most roots primarily in the top 1.5 m. of soil, except for "sinker roots" which develop first as laterals, then drop vertically downward towards the water table within one to three meters of the trunk. The oaks he excavated also had extensive "feeder roots" which were described as "snake-like" and "like the tail of a poodle" and were found in every soil layer in mats or clusters down to 10 m. These roots are described as being largely responsible for the absorption of water and nutrients (Oakit, 1989). As oaks mature, they become increasingly susceptible to disturbance to the soil area underneath the canopy, especially of the top six inches of soil. Disturbances such as digging, filling, grading, compaction, the addition of excessive moisture or changes in hydrology and soil oxygen levels can lead to oak degeneration (Oakit, 1989; Costello et al, 1991).

[Next issue: Oak reproduction and restoration]

Publications and the Oak Foundation

For excellent publications on oak trees, written for lay people, we recommend the following books:

Oaks of California, hardcover \$28.95, paper \$19.95

Compatible Plants Under and Around Oaks, \$10.00

Seed to Seedling, \$10.

Add local sales tax on each item.

Shipping charges:

Under \$20, add \$3.00

\$20 - 39.99, add \$4.00

\$40 - 59.99, add \$5.00

\$60 - 79.99, add \$6.00

The Oaks of California books are wonderfully illustrated and include photographs by long-time Friends member Bill Evarts.

To order books or to join and support the work of the California Oak Foundation write:

California Oak Foundation

909 12th St., Suite 125

Sacramento CA 95814



Friends of Los Peñasquitos Canyon Preserve, Inc.

P.O. Box 26523, San Diego, CA 92196

619-484-3219

NONPROFIT ORG.
U.S. POSTAGE
PAID
POWAY, CA
PERMIT NO. 286

**Address Correction Requested
Return Postage Guaranteed**

Medicinal Plant Walk

Sat., Aug. 8, 5:30 p.m. (2 hours). Meet in parking lot by La Cantina bike shop on north side of Sorrento Valley Boulevard in Sorrento Valley, 1/2 mile east of intersection with Vista Sorrento. Learn about plants our Indian and settler ancestors (and people today) used for medicinal purposes. Led by Will Bowen.

Dusk Walk from Penasquitos Creek Park

Thurs., Aug. 13, 6:30 p.m. Meet at Peñasquitos Creek Park in Rancho Penasquitos. From I-15 take the Mercy Road Exit west to Black Mountain Road. Go right on Black Mountain Road and up the hill. Take a left at the first light, at Park Village Drive. Follow Park Village Drive to its intersection with Camino Ruiz. The park is on the left. Good opportunity to see nocturnal birds and animals. Led by Brian Swanson.

Full Moon Walk

Thurs., Aug. 13, 7:30 p.m. (1-1/2 hours). See July 14 for details.

Rancho Santa Maria De Los Penasquitos

Adobe Ranch Tour

Sat., Aug. 15, 11 a.m. and noon (45 min. each), S.D. County Archaeological Society. See Aug. 1 listing for details.

Toys, Buttons and Beads

Sat., Aug. 22, 6 p.m.: free tours of the adobe ranch house and BYO picnic supper; 7 p.m.: Lecture/Slide show with Dr. Lynne Christensen who will discuss artifacts discovered during the 1987 and 1989 digs at the ranch house, focusing on toys, buttons and beads and what they can tell us about the people and the eras they were in use at the Ranch. At Rancho Santa Maria de los Penasquitos in Penasquitos Canyon Preserve. Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park past ballfields to Preservesign and new parking lot.

Dusk Mystery Tree Walk

Sun., Aug. 23, 6:30 p.m. Join Meet at the parking-staging area off Black Mountain Road. Take the Mercy Exit off I-15 west to Black Mountain Road. Parking for the Preserve is opposite this intersection. Investigate the legend of the Mexican era sign map on trees in the Preserve that describe where the Mission treasure was buried. Visit a Native America grinding site and learn about the plants they used to survive. Led by Mike Kelly or Mike McCormick.

Friends Monthly Business Meeting

Thurs., Aug. 27, 7 p.m. at Rancho Santa Maria de los Penasquitos. See July 23 for details.

Check Your Label

Take a moment to examine the address label on this newsletter. Check to see if your expiration date has come and gone. If so, please take the time now to send in a renewal check for your membership dues. This will enable you to keep receiving our newsletter, recognized as one of the best environmental newsletters of any organization in San Diego. That way you'll keep learning about the progress of the Camino Ruiz issue and what you can do about it; about family walks; about the plants and animals that inhabit the Preserve, and the many conservation projects open to you and your family or friends.

Membership Application

Membership category? Circle below:

Senior (62) or Student \$7.00 Individual \$10

Family \$15 Sponsor \$25 Patron \$100

Corporate \$250 Life \$1000

Contribution \$ _____

I/We are interested in the following:

Volunteer to help the committee

Hikes

Indian Culture

Educational Workshops

School, Family, Youth Programs

Environment (Plants, birds, mammals, geology)

Other: _____

Name(s) _____

Address _____

City State Zip _____

Home Phone _____

Please make checks payable to:

Friends of Los Peñasquitos Canyon Preserve, Inc.

P.O. Box 26523, San Diego, CA 92196

Thank you for your support! Your donation is tax deductible.
Call 484-3219 or 566-6489 for more information.

7/92



Canyon News

Friends of Los Peñasquitos Canyon Preserve, Inc.

August/September 1992
Volume 6 No. 11-12

Volunteers Needed for Forest Initiative Petitioning

by Mike Kelly, president

Saturday, Aug. 29: 10 a.m. - 4 p.m.

Saturday, Sept. 19: 10 a.m. - 4 p.m.

Saturday, Oct. 3: 10 a.m. - 4 p.m.

These dates are the days the Friends have scheduled to collect signatures for the Forest Conservation Initiative. We need your help to staff tables in front of supermarkets in Mira Mesa, Scripps Ranch and Rancho Peñasquitos on these dates. Consider signing up for a two or three hour shift. You'll find that gathering signatures of registered voters is extremely easy with this initiative. Even the conservative San Diego Union has endorsed it. You don't have to be aggressive to help out. With the table and our attractive sign, people will be coming to you.

Call me at 566-6489 if you can help us on one or all of these dates.

As we explained in our last issue, this initiative is designed to prevent the development of the inholdings in the Cleveland National Forest. Already the County Board of Supervisors is giving the ok to subdivisions in this wonderful wilderness. The Friends Board voted unanimously to support this citizens' initiative to stop this development.

The initiative would impose a minimum 40-acre lot size on private property held within this national forest. This should preclude housing subdivisions from being built within the parks borders. This should have the effect of restricting economic activity to the grazing and agriculture that has been the norm since before the formation of the national forest. This 40-acre zoning is actually quite liberal when compared to zoning in the rest of the state or elsewhere in the country, where 80 and 160-acre minimum lot sizes for in-holdings in state and national parks is common.

As we said previously, "protecting the Cleveland National Forest is vital to the future of Peñasquitos Canyon Preserve. This isn't hyperbole, not even a stretch. The Forest is the core preserve, the gene pool for the entire region. Our Preserve, San Dieguito River Valley, the Tijuana River Estuary, all of our areas are but spokes in the wheel whose biological hub is Cleveland National Forest. Here is the gene pool from which we are constantly replenishing our animal and even plant populations. Our attempts to link our preserves and parks here on the coast go for naught if we can't protect not only our links to, but the very core preserve itself."

The San Diego Union-Tribune endorsed the initiative in an aptly-named editorial "Wildlife or subdivisions" in its

Outings Schedule

See Page 8 for a convenient "hangup" format.

Camino Ruíz Well On Way To Defeat

by Mike Kelly, president

The San Diego Planning Commission voted unanimously at its July 9 meeting to accept the Mira Mesa Community Plan Update with the Camino Ruiz extension across Peñasquitos Canyon Preserve deleted! The final step for the decade-long battle against Camino Ruiz will be a San Diego City Council hearing and vote on this same community plan. This will probably occur in late September or early October.

There was no serious debate over the future extension of Camino Ruíz — undoubtedly reflecting the broad and deep community support for keeping the Preserve free of more roads. Even the Traffic Division of the Planning Department remained silent on the issue. Until several months ago this same department had been relentlessly pushing in public meetings for the extension of the highway across the canyon.

Once the Mira Mesa Community Planning Group took its final vote on the Plan Update, however, it was clear to all that the road wasn't going to happen. The Planning Department itself took a position in favor of the Community Plan Update without the road extension. After this, the Traffic Division fell silent. The Planning Department's support wasn't a given, however. On another issue, that of the Facilities Benefit Assessment financing plan for the community, the Department didn't hesitate to take its disagreement with the Planning Group all the way to the City Council.

Since Councilmembers Tom Behr and Abbe Wolfsheimer, in whose districts the Preserve falls, are both on the record as opposed to the road extension, Council approval should be a formality. Other members of the Council will usually defer to the council person of the district when it's a district issue like this.



The Ecology and Restoration of Oak Woodlands, see p. 2

Restoration of Southern Oak Woodland — Part 2

Sandra Cleisz, City of San Diego Planning Department, Resource Management Section

[For the sake of space we have edited out a lengthy section of this part of our series on Oak Woodland Restoration. The missing section recounts visits to specific CalTrans restoration sites and is technical in nature. As we wrote in our last issue, the entire content of the original report, including several pages of source materials, is available from The Friends of Los Peñasquitos Canyon Preserve, at no charge. Simply send your request to our post office box — editor.]

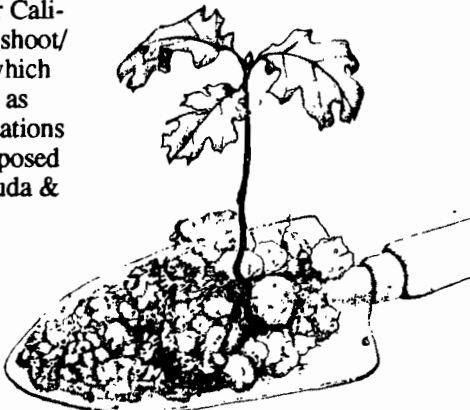
Reproduction

Coast live oak, and oaks in general, reproduce primarily through their seeds (acorns), which ripen in late summer to fall (August to November). *Q. agrifolia* acorns ripen in 6 to 8 months from flower pollination (Pavlik, 1991), and acorns are retained on the trees for a much longer period (September to February, and into June) than most other California oak species (Carmen et al, 1987). Annual acorn production varies considerably between individual trees, and year to year, with potentially detrimental effects on the wildlife that depend upon them (Koenig et al, 1991). Several species of wildlife are important to acorn dispersal, among them scrub jays, which cache acorns approximately 1 cm. deep in soil and in rock crevices (McBride et al, 1991), magpies, and squirrels, who bury large numbers of acorns in underground chambers (Griffin, 1980).

Q. agrifolia acorns exhibit no seedling dormancy, but do display delayed germination at increased elevations and under colder temperatures (Matsuda & McBride, 1989). However, acorns kept at low temperatures germinate at fast rates once transferred to room temperature. Coast live oak acorns are "slow germinators," starting later than other oak species and continuing over a longer period of time (December through February). Generally, speed of germination is closely related to collection dates, with acorns collected earliest germinating more rapidly (McCreary, 1989). Other factors found to be important are moisture content of seeds (when air dried for one week, coast live oak acorns lost 42% of initial moisture content and germination was reduced to 40%; after two to three weeks, 60-75% moisture was lost, and all seeds died) (Snow, 1991), and animal predation of acorns, especially after seed fall, making collection from trees the preferred method (Oakit, 1989; Griffin, 1980).

During seedling growth, coast live oaks display significantly less root growth than other species of California oaks, but significantly more than oaks from wetter climates (Matsuda et al, 1989). Leaf area to root weight ratios were largest in *Q. agrifolia* as compared to other California oaks, as were shoot/root ratios, both of which have been suggested as morphological adaptations of mesophytes as opposed to xerophytes (Matsuda & McBride, 1986).

Coast live oaks, like other California oaks, are not difficult to propagate. They germinate easily and grow to seed-



Drawing by Geri Hulise Stephens

ling stage quickly under favorable conditions. But in the field, the two most limiting factors to seedling survival have been identified as moisture availability and herbivory by animals (Griffin, 1971; Gordon et al, 1989; Swiecki & Bernhardt, 1991; Adams et al, 1992). Browsing by deer and cattle is known to have maintained oaks in seedling or shrub form for up to two decades (Griffin, 1971) and may inhibit eventual growth into tree form (Mensing, 1992). Oak size therefore has not been found to correlate well with age, and even large, old oaks have been found to be resprouts from fire, browsing, or other disturbance (Thomas, 1980). Seedling and sapling survival was found to be facilitated by association with certain species of understory or adjacent shrubs which are thought to provide "nurse plant" interactions for the coast live oak (Callaway & D'Antonio, 1991). Both browsing and drying were reduced when oak seedlings were found associated with shrubs. The "pulse theory" of regeneration has been proposed as operating for oak communities, where successful oak regeneration can take place only when many factors coincide in the same year (McCreary, 1989; Pavlik, 1991). Factors involved may include a heavy acorn crop, a wet spring, and low populations of seedling-eating animals, but the theory does not explain recruitment (or lack of) from seedling to sapling stage, which takes place over a much longer period of time. In addition, there is some evidence to suggest that prior to European arrival, recruitment of seedlings to saplings, and then to maturity, was slow but constant over time (Mensing, 1992).

Restoration/Planting

Research into the ecology and restoration of oaks and oak woodland communities has implications for restoration (or planting) of these vegetation types. Some of the most important factors to consider are:

- Site Selection: Choice of site should match local conditions for growth and survival of existing, or historic, oak woodland communities. Some information to gather and match are: histori-

Publications and the Oak Foundation

For excellent publications on oak trees, written for lay people, we recommend the following books:

Oaks of California, hardcover \$28.95, paper \$19.95

Compatible Plants Under and Around Oaks, \$10.00

Seed to Seedling, \$10.

Add local sales tax on each item.

Shipping charges:

Under \$20, add \$3.00 \$20 - 39.99, add \$4.00

\$40 - 59.99, add \$5.00 \$60 - 79.99, add \$6.00

The *Oaks of California* books are wonderfully illustrated and include photographs by long-time Friends member Bill Evarts.

To order books or to join and support the work of the California Oak Foundation write:

California Oak Foundation

909 12th St., Suite 125, Sacramento CA 95814

cal (or living) evidence of oaks and/or oak woodlands, average rainfall, temperatures, and evapotranspiration rates, soil texture, soil depth, topography (% slope and aspect), and depth to water table. In addition, landscape ecological factors should be considered, such as adjacency to other native habitat, and connectivity to nearby or adjacent native habitat. Healthy, viable communities of other native vegetation types should not be converted. If mitigation for loss of woodlands is occurring, the size of the mitigation site should at least equal to the impacted site.

- **Planting Details:** Planting dates of acorns or container stock should coincide with the winter or spring cool, moist season. Whether planting acorns or seedlings, seedstock should be from

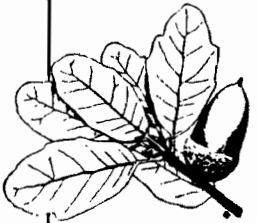
Seriously Threatened Oaks

California has 15 species of oak in the genus *Quercus*, 8 of which grow to tree size. Three of these facing serious problems today are:



Valley Oak, (*Quercus lobata*).

This tall spreading deciduous oak was once an important member of the Central Valley's riparian forests. From Shasta County to Los Angeles County, it is still a conspicuous oak in the oak savanna, especially in valley bottoms and on deep alluvial soils. Due to large-scale clearing for agriculture, flood control and development, this species' range has been dramatically reduced. The remaining valley oaks have not been reproducing well for the last eighty to one hundred years.



Blue Oak, (*Q. douglasii*).

This deciduous oak is the dominant oak of the oak savanna from Shasta County to Kern County. Where it shares its range with the valley oak, blue oak occupies the more shallow soils, steeper slopes and upland sites. This oak has long suffered from extensive clearing for urban and agricultural uses. Today's remaining woodlands are exhibiting limited regeneration in many portions of the state. This species appears to be suffering significant reproductive failure.



Engelmann or Mesa Oak, (*Q. engelmannii*).

This semi-deciduous oak has a limited distribution in less than 2 per cent of the state – primarily in western San Diego County. There the mesa oak replaces the blue oak in the oak savanna. This oak is seriously threatened due to its limited distribution, and the intense land use pressures in its habitat.

local genetic material. If planting acorns, several acorns per hole should be planted, at 5 cm. depth, on average. Container stock should be mycorrhizally inoculated, and be in "tubes" or "tubelings", to allow for ample root development. Quantity of stock to fulfill the objectives should consider seedling mortality rates as high as 90%. A site would ideally be planted over a 2 to 5 year period, to achieve a staggered planting that may take advantage of different climatic variables, while checking to see what adjustments should be made in the planting strategy to achieve the highest survival.

- **Cultural Details:** Planting and maintenance should include weed control, both before and after planting, for a period of at least 2 years. No fertilization should be used which might increase annual weeds. Sites should consider supplemental irrigation for at least a year, especially in drought conditions. A 2-3" layer of mulch is necessary, and should ideally consist of duff from oak woodland, and/or chipped oak wood or bark. Shade is also highly recommended for coast live oak, and may take the form of shade cloth, or other existing trees or shrubs.

- **Protective Devices:** Cages, preferably made from window screens, although 1/4" - 1/2" wire mesh can also be used, are highly recommended to protect seedlings from above and below ground herbivory, as well as to add shade for seedlings planted in open areas. These should be large enough (18" wide), tall enough (3-4') and buried deep enough (12-18") to serve as adequate protection from rodents and mammals, although protection against deer may need extra precautions.

- **Monitoring:** Monitoring and documentation of survival, condition, and growth rates of seedlings are important factors needed to judge success or failure of the planting project, to gain information for future reference, and to be able to adjust the planting or management strategy. Because the restoration of oak woodlands occurs over such a long period of time, preparations should be made to fund long term monitoring of the project (up to 50 years). Criteria to judge success or failure should not be based on survival and growth of plants alone, but also on the development of understory shrubs and wildlife interactions, and on successful regeneration of the oaks themselves.

Some of these considerations, as well as the supporting data, are summarized in an excellent report on Valley Oaks by Swiecki and Bernhardt entitled "Minimum Input Techniques for Restoring Valley Oaks on Hardwood Rangeland (1991).

Oak Woodland Restoration in San Diego County

According to Wayne Tyson of Land Restoration Associates, and Ted St. John of Tree of Life Nursery, actual restoration of oak woodland communities is not occurring. Instead, mitigation for oaks destroyed by road and freeway construction or land development are largely "tree plantings," without the structure, function, interactions, and understory plants associated with woodlands.

Dr. St. John strongly advocates the use of tubelings for seedstock, which allow adequate root development while also allowing ease in carrying numbers of containers onto a site. He is also against fertilization, which encourages a plant to develop a lush top unsuitable to field conditions. Tom Scott, Cooperative Extension Specialist at U.C. Riverside, stated that one of the major issues in oak restoration was that there were no criteria for selecting stock for planting at any site: no one knew whether and when to use acorns versus container stock.

The California Department of Transportation (Cal Trans) has experience with replacement plantings of oaks to mitigate the

The Last Roundup in Peñasquitos Canyon

by John Northrop

The word "roundup", as rancher Norwood Brown explained to me several years ago, means "gathering of the cattle." The term was first used in the early days of the west when large herds of various owners roamed the great plains in vast numbers. When the time and place of the annual spring roundup was announced by a prominent rancher, cowboys from the several outfits scattered around the territory rode to the site with their remuda (band of horses). When all were assembled, the riders fanned out over the range and drove the cattle to the main camp where they were separated, or cut out, into individual herds according to their brands. This was essentially the method Norwood used in "rounding up" his herd in Peñasquitos during the 1970s and 80s.

In the beginning, there was only one herd of about 75 range cattle carrying Norwood's old bar-N brand. Then, in the late 70s, Norwood's partner, Ray Witwer, introduced 35 head of Black Angus beef cattle from Nebraska. Twice a year, roundups were held in Peñasquitos at the holding pens just east of the Ruiz Adobe. First, Norwood phoned in the time and date of the event, and everybody concerned got busy checking saddles, bridles and lariats and toughening up the horse they planned to ride. On the appointed day, riders from La Hacienda Cabello in Sorrento Valley, Peppertree Farms in Carmel Valley, Loftin's on Del Mar Mesa, Horseman's Park in Peñasquitos, as well as Alison and Jim Walls from Poway made their way to the West end of the preserve in the early morning.

Once there, Norwood would give out directions; some riders were sent up López Canyon to look for strays, some to Sorrento Hills, some up López Ridge and others up above the falls in Peñasquitos and Shaw Valley. The plan, called "circling," was first to find and then "move" the cattle down out of the hills and valleys to the wetlands area at the confluence of López and Peñasquitos Creeks in Peñasquitos Canyon. There, the black angus would be "held" near the mouth of López Canyon by a couple of riders while Norwood's herd was gathered in the wetlands area near the holding pens. Since it took a lot of hard riding to get them there (they liked to hide in the brush in the creek bottom where most horses wouldn't go) it was late in the morning before the two herds were bunched in a loose holding pattern. Then the fun began!

All available riders rode upstream of the main herd and started to slowly "drive" the cattle toward the holding pens. At first, all appeared to be go smoothly; the riders clucked, whooped, "moored," whistled, whipped and swung their lariats and slapped their chaps to get the cattle moving toward the open gate. Suddenly, "WOOSH" about half the herd would split and make a dash for the other side of the creek! Riders galloped madly in pursuit, jumping over or plowing through the creek after them, and chasing the now very excited old mossy-horns all over the meadow.

After many an exciting chase, the riders would bunch the errant critters and try to drive them back across the creek, sometimes with success, sometimes not, until eventually they rejoined the main herd and we started "moving" them towards the holding

pens again. Sometimes they started to "mill" (walk endlessly in a circle with their heads pointed toward the center) and one of the more experienced riders would ride right into the center of the herd and out the other side, usually followed by one of the "leaders." (This process was used by cowboys as it gave them an opportunity to both check on the condition of the cattle and the number of their brand in the herd). Eventually, we'd get the herd to follow one of their "leaders" into the open gate, with the riders closing in and staying close to prevent another "breakout."

Once in the corral, we had a brief rest period to let the horses cool down and the cattle quiet down (they made a hell of a noise) while Mrs. Brown passed around coffee and soft drinks. Then the hard work began! Unlike roundups on the open range, "cutting" the herd was done on foot, instead of horseback. This hard, dusty, dangerous job consisted of separating the cows (the bulls were left out of the roundup) from the calves that needed branding and/or castrating, and letting the heifers go free after being inoculated and numbered. Ray Witwer, Christian Clews



Working the "squeeze gate" during a roundup in Peñasquitos circa 1982. Note calf making a hasty exit from the chute. Lila Jenkins, riding "Moony," was one of the regular roundup riders.

and Barbara Gerardi, being the most experienced, usually volunteered to do the "cutting" while the rest of us helped swing the heavy gates separating various parts of the holding pens.

Once a calf was isolated, it was headed down a long chute to where the veterinarian was stationed. He checked, inoculated, castrated and released each one to the loading ramp where the "squeeze gate" held them until it was opened by a cowboy pulling the door up with a rope threaded through a pulley on top. At that point, Norwood would mark on his tally-sheet the age, sex, condition and number (all animals had either a "cut" ear or a numerical tag attached to one ear, before release). It was a busy, happy, noisy time with the calves bleating for their dams, the restive cattle mooing, stomping and throwing dust around. I particularly remember one old mossy-horn that must have weighed over 1000 pounds that made a run for the 6-ft high fence,

The Flower Remedies Of Dr. Edward Bach

by William Bowen

Dr. Edward Bach was an English doctor trained at University College Hospital in London. In 1930 he gave up a lucrative business in vaccine preparation to devote himself to the study of the medicinal and healing properties of flowers. In the course of his research Dr. Bach discovered that the ingestion of certain flowers produced subtle affects on the human organism. As in homeopathic treatment, Bach flower remedies do not so much produce a measurable physical reaction as they encourage a change in psychological orientation. According to Bach, a shift in mood was the first step toward a cure. Bach believed that the genesis of organic disorders was to be found in precursory states of psychological conflict and distress.

"It is our fears, our cares, our anxieties, and such which open the path to the invasion of illness. Cure the fears, anxieties, worries faults and failings and disease will leave us."

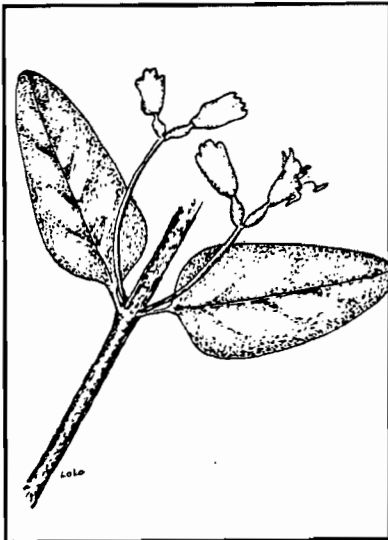
Since Dr. Bach thought that the mind was the "most delicate and sensitive part of the body," he counselled his patients to "take no notice of the disease but look to healing outlook." The major psychological problem states he felt it was essential to promptly address included: (1) fear; (2) uncertainty; (3) insufficient interest in present circumstances; (4) loneliness; (5) oversensitivity to outside influences and ideas; (6) despondency and despair; (7) overcare for the welfare of others (codependency).

Although Dr. Bach isolated a number of different flower remedies for a host of medical complaints, his medical writings are much more than a compilation of remedies. They are a commentary on healthy attitudes and ways of being that encourage good health.

A number of Dr. Bach's flower remedies (or close enough relatives) can be found in Peñasquitos Canyon. Although picking these flowers in the canyon is not permissible, it is satisfying to see them in the field and consider the psychological condition Bach said they were good for. While looking at, and perhaps smelling the more fragrant of his flower remedies, one can consider the impact of the associated psychological state of mind in their own life.

Bush monkey flower (*mimulus* spp.)

Is recommended for those suffering from the fears of everyday life — including the fear of worldly things, illness, pain, accidents, poverty, of the dark, of being alone, of misfortune. These people quietly and secretly bear their dread. They do not speak freely of it to others.



Honeysuckle

Chaparral honeysuckle (*lonicera subspicata*)

For those who live much in the past — perhaps a time of great happiness — or who dwell on memories of a lost friend or have ambitions which have not come true. They do not expect further happiness such as they have had.

Cottonwood (*populus fremontii*)

For those with vague unknown fears for which there can be no given explanation or reason. The person that needs this remedy may be terrified of something terrible which they fear is going to happen, but they have no idea what it will be. They may be haunted by day or night. And are often afraid to tell their troubles to others.



Mustard (*brassica nigra*)

For those who are liable to times of gloom or even despair, as though a cold dark cloud overshadowed them and hid the light and the joy of life. It may not be possible to give any reason or explanation for such attacks. Under these conditions it is almost impossible to appear happy or cheerful.

Oak (*quercus* spp.)

For those who are struggling and fighting strongly to get well or to improve the affairs of their daily life. They will go on trying one thing after another although their case may seem hopeless. They

will fight on. They are brave people fighting against great difficulties without loss of hope or effort.

Rock rose (*helianthemum scoparium*)

Bach's famous "rescue remedy." Useful for shock, injury, or sudden onset of illness.

Walnut (*juglans californica*)

For those who have definite ideals and ambitions in life and are fulfilling them, but on rare occasions are tempted to be lead away from their own ideals, aims, and work by the enthusiasm, convictions, or strong opinions of others. This remedy gives constancy and protection from outside influences.

Wand chicory (*chicorium intybus*)

For those who are very mindful of the needs of others. They tend to be overfull of care for children, relatives, and friends, always finding something that should be put right. They are continually correcting what they consider wrong and enjoy doing so.

Wild oats (*avena fatua*)

For those who have ambitions to do something of prominence in life, who wish to have much experience, and to enjoy all that which is possible for them, to take life to the full. Their difficulty is to determine what occupation to follow. Although their ambitions are strong they have no calling which appeals to them

Birding in Peñasquitos Canyon

Blue Grosbeaks

by Barbara Zepf

Summer reading

In the winter, gardeners drool over seed catalogs, envisioning the splendor of their yard in the spring. It doesn't matter how their garden turns out next summer, it's the dreaming that's half the fun. I find the reverse is true of birding for me. Winter in San Diego is full of birds; summer has its slow times. This is when I find myself turning to my "bird" library and dreaming about what I'll see in the fall.

I have quite an extensive birding library after nine years of birding. At last count I had over 75 books. Some I have read over and over, finding something new each time as my birding skills increase. I have my favorite authors like Pete Dunne, Mary Leister and Lola Oberman. They all invite me into the natural world as they see it, and they make me more aware of the natural world in my own neighborhood.

I have many reference books, all useful and downright pleasurable to read. *The Audubon Society Encyclopedia of North American Birds* by John K. Terres has got to be the "bible" of birding knowledge. It's 1109 pages long — packed with everything you ever wanted to know about birds. If I could only own one book about birds, this would be the one (not counting my field guide). I subscribe to three birding magazines — *Bird Watcher's Digest*, *Wildbird* and *Birder's World* — all thoroughly enjoyable — all saved for future reference. I know I'll never see some of the birds in these magazines. But, like the gardener, I drool over the possibilities. Between reading and nature shows on television, the "armchair naturalist" can expand his or her knowledge and keep in touch with the birds, even if there aren't many to see around your neighborhood in summer.

Blue Grosbeaks

There is never a time of year that doesn't have some birds to see in Peñasquitos Canyon. One spectacular bird that can be seen in the summer is the Blue Grosbeak. They usually arrive in late April and stay until September, although it's possible to see it as a migrant or casual visitor during any month of the year.

One of the best places to see this bird is in López Canyon. Park in the parking lot on Sorrento Valley Boulevard (Calle Cristobal). Follow the trail out of the parking lot across the creek. You'll shortly come to a fork in the road. The left fork takes you into Peñasquitos Canyon and the right fork takes you into López Canyon.

Follow the López Canyon trail until you come to a small sign on your right that says "Old López Road." Walk up this narrow trail a short distance and look down into the gully below. Blue Grosbeaks seem to like this area, flying from there to the creek and back. This is a very "birdy" place in general; several species of birds coexist here. But the Blue Grosbeaks are the most brilliantly colored ones you'll see.

The Blue Grosbeak is a 6-7-1/2 inches long. The male is a rich violet blue with two chestnut (rusty) wing bars. The upper bar is broad and the lower one narrow. The female is a warm brown, lighter below, with two rust-to-buff colored wing bars; the rump and primaries are tinged with blue. Juveniles resemble the female. First spring males show some patchy blue above and below. They have a very large, heavy, conical bill — hence the name Grosbeak. The bird has a habit of flicking its tail in a figure eight and spreading its tail. Their song is a series of rich ris-

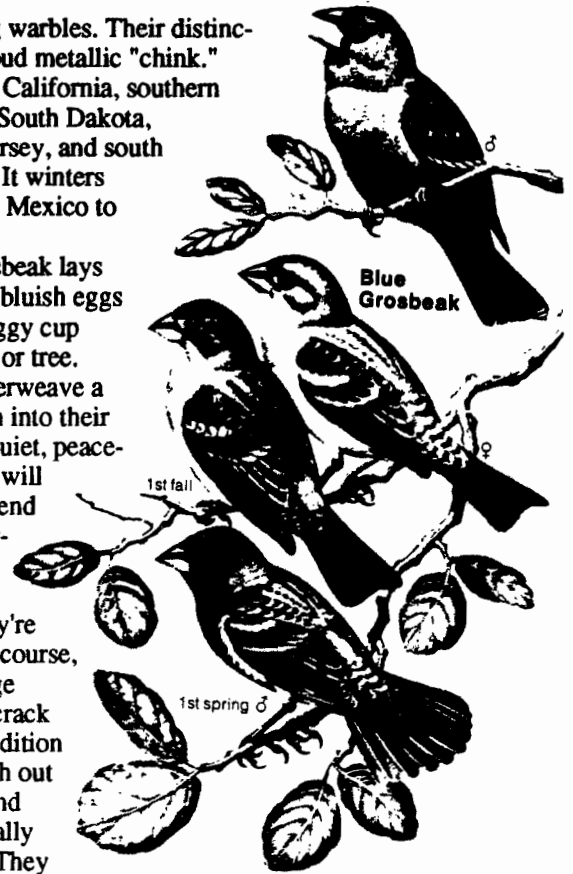
ing and falling warbles. Their distinctive call is a loud metallic "chink." It breeds from California, southern Colorado and South Dakota, east to New Jersey, and south to Costa Rica. It winters from Northern Mexico to Panama.

The Blue Grosbeak lays from 3-4 pale bluish eggs in a loose twiggy cup in a low shrub or tree.

They often interweave a shed snakeskin into their nest. They're quiet, peaceable birds, but will vigorously defend nesting territories against pairs of their own kind. They're seed eaters, of course, using their large heavy bills to crack the hulls. In addition they also search out grains, fruits and insects, especially grasshoppers. They

usually forage on the ground, but will also hop about in shrubs and trees. They like brush areas, roadsides and streamside thickets. They love to perch on fences and treetops, often sitting motionless for long periods singing from a favorite perch.

While looking for the Blue Grosbeak in López Canyon, take time to enjoy the rest of the flora and fauna along the way. López Canyon is part of the Los Peñasquitos Canyon Preserve, but there are fewer people here than in Peñasquitos Canyon Preserve, making it a better place to get away from it all. Keep an eye out for the three Great Horned Owls that fledged in López Canyon this year. There seem to be more coyotes here, too. Just be sure you leave before dark, or they'll lock your car in the parking lot. Good birding!



(Forest Initiative cont'd)

April 11 edition. The editorial hit the nail on the head when it noted that "Subdivisions and other development will fragment the wilderness and eventually destroy its viability. That's especially true in Cleveland National Forest. Most private property includes mountain meadows, which are an integral part of the forest and vital to the survival of many plants and animals, including deer and mountain lions. Developing the meadows with houses would cut the heart out of the forest."

For more details on the initiative, copies of the initiative and accompanying petition and to make a much needed donation, write "Save Our Forests & Ranchlands" at Post Office Box 475, Descanso, CA 91916 or call 619-445-9638.

San Diego Is Losing Its Biological Diversity

by Mike Kelly

Ironically, as San Diego becomes more ethnically diverse, it's losing its biological diversity. Our city is part of a growing trend towards ecological homogenization. Most of us are familiar with the extinction of plant and animal species due to the loss of habitat, over hunting or over collecting. But how many of us realize we also lose species to the invasion of exotic species?

Imported without controls

Exotic species are plants and animals that are imported from their native ecosystem into a foreign ecosystem — but without the web of other species that serve to control and balance them. Last year we learned the sweet-potato whitefly was devastating crops in our Imperial Valley. Night after night, our televisions showed clouds of these insects eating crop after crop, undeterred by massive onslaughts of pesticides. Yet, in the middle east where it is believed to have originated, this insect is held in check by local controls. Scientists are now visiting India and Pakistan to try to identify beneficial insects that could be introduced to check the whitefly without doing any harm themselves.

Many other introduced species of plants and animals are wreaking havoc on our biodiversity and our economy. While some of these "introductions" were accidental hitchhikers in imported cargoes, others were brought by earlier waves of immigrants, from Columbus on. Most of our native grasses have been replaced by foreign grasses. The most common tree we have in San Diego is the eucalyptus, brought from Australia.

As asthma-suffering easterners flocked to Phoenix for its dry, clean air, they brought their favorite trees and bushes with them. These promptly "polluted" the local air with the very pollens that excited their allergies and asthma! No one was thinking of the implications of importing these exotics to Arizona.

Exotics in Peñasquitos Canyon Preserve I estimate that as much as 20% – 25% of the biomass of Peñasquitos Canyon Preserve is exotic. Biomass means the organic composition of all the plants in the canyon taken as a whole. The single biggest component of this exotic biomass is eucalyptus trees. Other exotic species include pepper trees, phoenix palm trees, desert artichoke, black mustard, fennel, filaree, tamarisk, tumbleweed, and grasses. They're steadily encroaching on the native species and will eventually eliminate most of them — unless we first eliminate the exotics.

Why are these exotics so invasive?

Exotics replace our natives because, like the whitefly, the insects, birds, mammals and diseases that check their growth and spread in their homeland are absent here. Yet our own San Diego species still face predators and other limiting factors. Checks and balances take centuries, often thousands of years to co-evolve among various species. In its own natural web of ecological relationships, other plants developed antidotes to the poisons secreted by the eucalyptus to kill off other plants. Local species don't have the millenia of co-evolution available to them to do this. Hence, we see the die offs of other plants under and around eucalyptus. We see this in Scripps Ranch, UCSD, and increasingly in Peñasquitos Canyon.

Tamarisk — as we illustrated in a recent two-part series — like eucalyptus, not only soaks up enough water to lower water tables and deny it to other plants, it too exudes a salty poison to kill off competing plants. Anyplace water occurs, tamarisk trees will crowd out other species.

Many of the exotics, including eucalyptus and tamarisk, pro-

vide inferior habitat for insects, birds and mammals than the plants they replace. Habitat loss to development and agriculture and the invasion of exotics are producing a homogenization of our biology worldwide, not just here in San Diego.

Monoculture plantations

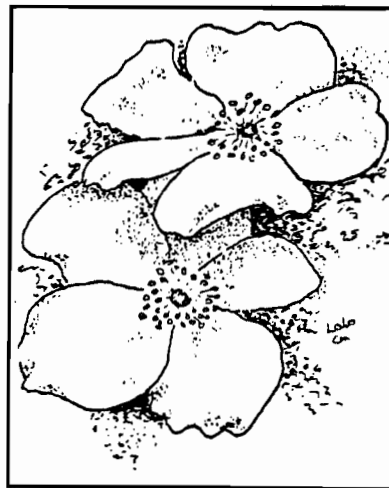
Even when native forests are replanted after lumbering, they are usually replaced by monoculture plantations. Herbicides and pesticides are routinely sprayed to prevent any species but the cultivated one from growing. In reducing our biodiversity we reduce our own chances for long-term survival, making ourselves increasingly vulnerable to problems such as the whitefly. We reduce the diversity of plants and animals from which new genes for better crops and medicines and other needs will come.

In Peñasquitos Canyon Preserve we will never be able to remove all of the exotic plants. However, we will remove the eucalyptus, tamarisk, tumbleweed and a number of other species and replace them with native trees and bushes. This is consistent with the founding mission of the park to preserve plants and animals native to San Diego.

As our neighborhoods become populated with exotics, hopefully future generations will be able to visit the Preserve to see what San Diego once looked like.

(Bach's flowers cont'd)

above all others. This may cause delay and dissatisfaction.



Wild Rose

Wild rose (*rosa californica*)

Recommended for those who without apparently sufficient reason have become resigned to all that happens and just glide through life. They take it as it is without any effort to improve things and thus find joy. They have surrendered to the struggle of life without complaint.

Willow (*salix spp.*)

Specific for those who have suffered adversity or misfortune and find these difficult to accept without

complaint or resentment, as they judge life much by the success which it brings. They feel that they have not deserved so great a trial, that their lot is unjust and they have become embittered. They often take less interest and are less active in those things of life which they had previously enjoyed.

The bach flowers remedies can be purchased in tincture form from herbalists and at health food stores. If you have legal access to the flowers, they can be prepared by soaking in spring water for several hours or steeping in hot water for several minutes. After preparation the tea water is ingested. My favorite method is to eat the flower fresh off the plant. Any of bach's medical writings are recommended because of their sensitive and thought provoking nature.

Friends of Peñasquitos Canyon September/October Events Schedule

Butterfield Stage Coach/Sabre Springs Walk

Walk through history with us September 19 as we explore a small part of the historic Butterfield Stage Coach route through Sabre Springs. This area will become open-space parkland connected to Los Peñasquitos Canyon Preserve in the near future. We'll also walk part of the new Sabre Springs trail system and explore the plants and animals of the area. See the listing below for details.

Outings are free. Wear sturdy shoes; bring water for longer hikes. Rain cancels. For more details or to organize group hikes, call 484-3219 for recorded information.

REMAINDER OF AUGUST

Friends Monthly Business Meeting

Thurs., Aug. 27, 7 p.m. at Rancho Santa Maria de los Peñasquitos. Take Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park past ballfields to Preservesign and new parking lot. Walk up to adobe ranch house.

Forest Initiative Petitioning at Area Supermarkets

Sat., August 29, 10 a.m. - 4 p.m. Call Mike Kelly at 566-6489 for details.

SEPTEMBER

Rancho Santa Maria De Los Peñasquitos

Adobe Ranch Tour

Sat., Sept. 5, 11 a.m. and noon (45 min. each), S.D. County Archaeological Society. Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park past ballfields to Preservesign and new parking lot. See historic adobe, settler and Indian artifacts.

Fitness Walk

Sat., Sept. 12, 8 a.m. Join Dr. Jaya Pereyman on a 10-K (6 mile roundtrip, 2-1/2-3 hours) brisk walk to waterfall and back. Bring water. Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite.

Full Moon Walk

Sat., Sept. 12, 7:30 p.m. (1-1/2 hours). Meet in parking lot by La Cantina bike shop on north side of Sorrento Valley Blvd. in Sorrento Valley, 1/2 mile east of intersection with Vista Sorrento. **Bring flashlight.** Learn moon lore and legends from an anthropologist. Meet Ishtar the Babylonian moon goddess; Chaawp the Digueno Indian Meteor Spirit. Look for deer and other nocturnal animals. Watch out for hungry ghosts! Led by Will Bowen.

Bird Walk at East End

Sun., Sept. 13, 8 a.m. (1-1/2 hours). Take Mercy Road exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Bring bird book and binoculars. Visit Eucalyptus mitigation area, see how new growth is coming in and reaction of birds. Led by Brian Swanson.

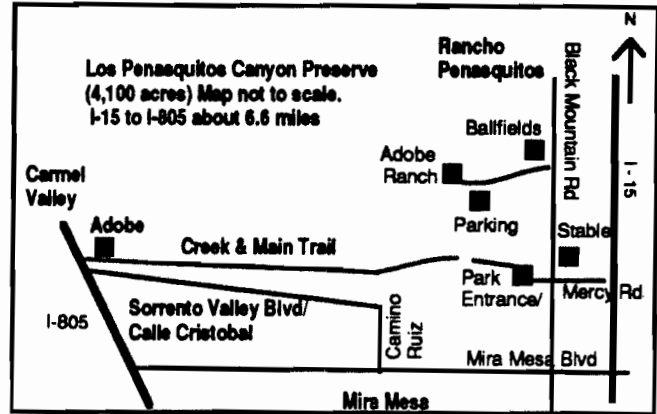
Rancho Santa Maria De Los Peñasquitos

Adobe Ranch Tour

Sat., Sept. 19, 11 a.m. and noon (45 min. each), S.D. County Archaeological Society. See Sept. 5 listing for details.

Forest Initiative Petitioning at Area Supermarkets

Sat., Sept. 19, 10 a.m. - 4 p.m. Call Mike Kelly at 566-6489 for details.



Butterfield Stage Coach/Sabre Springs Walk

Sat., Sept. 19, 9 a.m. Meet on Sabre Springs Parkway near the intersection with Poway Road. Several steep hills involved, about 3 mile roundtrip. We'll walk part of the historic Butterfield Stage Coach route, visit the Mercy property, soon to become part of Peñasquitos Canyon Preserve, walk the new Sabre Springs trail system in part and more.

Medicinal Plant Walk

Sat., Sept. 19, 5:00 p.m. (2 hours). Meet in parking lot by La Cantina bike shop on north side of Sorrento Valley Boulevard in Sorrento Valley, 1/2 mile east of intersection with Vista Sorrento. Learn about plants our Indian and settler ancestors (and people today) used for medicinal purposes. Led by Will Bowen.

Geology Walk

Sun., Sept. 20, 9 a.m. (3 hours). Meet in Mira Mesa on Lopez Ridge. From I-15 or I-805 take Mira Mesa Boulevard to Camino Santa Fe. Go north on Camino Santa Fe to the intersection with Calle Cristobal. Right on Calle Cristobal to Caminito Propico. Bring water and wear hiking boots since a steep hill is involved. Learn about area geology and visit the Preserve's waterfall. Led by geologist Don Albright.

Dusk Walk

Mon., Sept. 21, 6:00 p.m. Meet at the new parking lot past the ballfields at Canyonside Park. Take the Mercy Exit off I-15 west to Black Mountain Road. Go right on Black Mountain. Take a left into the Canyonside Park entrance of the park. Go past the ballfields to the white fencing. Left into the parking lot. Led by Don Albright.

Friends Monthly Business Meeting

Thurs., Sept. 24, 7 p.m. at Rancho Santa Maria de los Peñasquitos. Take Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up to adobe ranch house.

OCTOBER

Fitness Walk

Sat., Oct. 3, 8 a.m. Join Dr. Jaya Pereyman on a 10-K (6 mile roundtrip, 2-1/2-3 hours) brisk walk to waterfall and back. Bring water. Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite.

(Continued p. 10)

(Oaks cont'd)

loss of oaks and oak woodlands due to the construction of roads and freeways. In 1983, District 11 produced Ecological Paper #4 (Darnell, 1983) on southern California oak woodlands, which describes oak replantings as having "highly variable results, with 0 - 60% survival". Projects with irrigation show greater success than those without, and the report lists specific recommendations for sizes of container stock (1 gal.), spacing (8-10'), planting dates, irrigation, mulching, protection, and maintenance.

John Rieger, Cal Trans District Biologist, answered questions regarding mitigation of oak woodlands in general. Mitigation standards are negotiated between the biologists and upper management. The 10:1 ratio used on a site in San Clemente Canyon was one of the first times it was actually accepted and used, but is considered "standard" for oak mitigation by Mr. Rieger, due to the high rates of mortality associated with oaks. Cal Trans is also adding a new approach to be used in addition to oak plantings, which involves the purchase of land containing oaks. This approach is being taken to address the loss of resource values for the 20 to 50 years that accompanies the destruction of an oak woodland, as well as addressing the control of future losses.

Criteria used for site selection includes proximity to the impact site, existence of oaks on or near the site, and such ecological aspects as context, deep soils, and connectivity to wildlife areas. Aspect was not considered a significant factor, especially if oaks were found nearby. Criteria for success or failure is survival or mortality of the oaks. Failed sites are replanted after reasons for failure are assessed and adjustments made to the planting strategy. (I did not ask what percent survival or mortality constitutes "failure".)

Reference sites have not been used for oak mitigation because only oaks are planted, and not the associated understory species which might not survive the conditions on the site. Furthermore, the ecological paper on oaks serves as guidance for Cal Trans oak mitigation. It is expected that if or when the oaks survive and mature, the associated species will naturally come in, as oaks create their own environment — eventually. Preferred plant spacing is 15 to 20' on center, because closer spacing tends to produce an orchard effect, with tall, straight trees rather than wide-spreading canopy trees. And finally, topsoils from destroyed oak woodland sites are not saved, nor are parts of the oaks used to provide mulch for the mitigation site. (Generally, the contractor becomes owner of the impacted trees and can sell the wood, etc.)

Conclusion

Oak woodland restoration is a very difficult prospect. In an area such as coastal San Diego County, competition for use of land for human and resource needs is extremely high. Land development involves the destruction of native plant communities which have evolved as a result of complex interactions over time, and places restoration (or mitigation) in the position of competitor for additional use of land. When restoring oak woodlands, few sites may be found with a suitability for oak restoration, and it may be inappropriate to restore oak woodlands on sites where conversion of one habitat to another will take place.

Due to the time factor involved with oak woodland restoration, success is probably unable to be assessed before fifty years or more, and must involve such factors as wildlife use, understory species, and connectivity to other habitats, in addition to the survival of the trees. Therefore the two issues that stand out as needing resolution (and development of clear criteria) with respect to the restoration of oak woodlands in coastal San Diego County are site selection, and criteria for success. The other spe-

(Roundup cont'd)

crashed over the top of it and tore off across the creek to freedom! I never would have believed it if I hadn't seen it with my own eyes!

After Norwood's herd was released, we mounted up again and drove the black angus down from López Canyon to the now empty holding pens. Due to their relatively calm nature, and the fresh alfafa that Ray Witwer placed along the trail leading to the gate, they moved fairly quietly toward the open gate where all but a few rambunctious youngsters went inside the pens. After these were rounded up, the cutting and inoculating began again until all the animals had been released. The tired horses were then tethered to various hitching posts, pepper trees or horse trailers while Ray Witwer cooked the most delicious "steer burgers" I ever tasted! He said they were made from the previous year's butchered black angus and had the least fat of any beef you could find on the market . . . I believe it. We then sat around in what shade there was and listened to Norwood Brown tell about the early days in Peñasquitos, how they caught "handfuls" of crayfish from the creek and broiled them over open fires, swatted swarms of black flies (there still were plenty of those) and rode their horses hell-for-leather after "mavericks" (unbranded bulls) all over the canyon. Late in the day, we mounted up and rode back to our respective stables.

As I topped the rise in Sorrento Hills north of the Ruiz Adobe, I would halt my horse, turn in the saddle and watch the other riders loading their horses into vans and go out the gate, leaving the now peaceful herds lowing in the meadow. It was a beautiful sight! The crayfish are still there, as are the old holding pens, but, alas, the cattle are gone forever, victims of the drought and encroaching urbanization.

The cowboys, and cowgirls, are still around, though, for as Theodore Roosevelt said "of all forms of physical labor the easiest and pleasantest is to sit in the saddle."*

* Theodore Roosevelt, "Ranch Life and the Hunting Trail", Reprinted from the first 1888 edition by University of Nebraska Press, Lincoln, Neb.



Drawing by Carl Dennis Buell

cifics, regarding the survival of seedlings into sapling stages, and then onward toward maturity, and the successful regeneration of oak woodlands, are research questions that are currently being worked on, and may eventually be solved with monitoring, maintenance, and intervention. Clearly, there is a gap between the theory and research into the ecology of oak woodlands, and the practice of oak planting and restoration, although it appears that the gap is narrowing between the timing of research and the applications of those results in the field, as the body of literature and the number of interested parties continues to grow.



Friends of Los Peñasquitos Canyon Preserve, Inc.
 P.O. Box 26523, San Diego, CA 92196
 619-484-3219

NONPROFIT ORG.
 U.S. POSTAGE
 PAID
 POWAY, CA
 PERMIT NO. 286

Address Correction Requested
Return Postage Guaranteed

Forest Initiative Petitioning at Area Supermarkets
 Sat., Oct. 3, 10 a.m. - 4 p.m. Call Mike Kelly at 566-6489 for details.

Rancho Santa Maria De Los Peñasquitos Adobe Ranch Tour

Sat., Oct. 3, 11 a.m. and noon (45 min. each), S.D. County Archaeological Society. Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. See historic adobe, settler and Indian artifacts.

Rancho Santa Maria De Los Peñasquitos Adobe Ranch Tour

Sat., Oct. 17, 11 a.m. and noon (45 min. each), S.D. County Archaeological Society. See Oct. 3 listing for details.

Mystery Tree Walk

Sat., Oct. 10, 9 a.m. Meet at the parking-staging area off Black Mountain Road. Take the Mercy Exit off I-15 west to Black Mountain Road. Parking for the Preserve is opposite this intersection. Investigate the legend of the Mexican era sign map on trees in the Preserve that describe where the Mission treasure was buried. Visit a Native America grinding site and learn about the plants they used to survive. Led by Mike Kelly.

Bird Walk in López Canyon

Sun., Oct. 18, 8 a.m. Meet in the new parking-staging area off Sorrento Valley Boulevard. Parking lot is about 3/4 mile east of the intersection of Sorrento Valley Boulevard and Vista Sorrento, on the right side going east. Parking lot can also be reached by traveling west on Calle Cristobal in Mira Mesa. Lot is on left at bottom of the big hill into Sorrento Valley.

Fall Color Walk in López Canyon

Sun., Oct. 18, 9 a.m. Meet in the new parking-staging area off Sorrento Valley Boulevard. Parking lot is about 3/4 mile east of the intersection of Sorrento Valley Boulevard and Vista Sorrento, on the right side going east. Parking lot can also be reached by traveling west on Calle Cristobal in Mira Mesa. Lot is on left at bottom of the big hill into Sorrento Valley. With luck the sycamores should be turning to their fall colors. This is always a pleasant walk through a tree-lined canyon. We'll also visit the old López homestead.

Check Your Label

Take a moment to examine the address label on this newsletter. Check to see if your expiration date has come and gone. If so, please take the time now to send in a renewal check for your membership dues. This will enable you to keep receiving our newsletter, recognized as one of the best environmental newsletters of any organization in San Diego. That way you'll keep learning about the progress of the Camino Ruiz issue and what you can do about it; about family walks; about the plants and animals that inhabit the Preserve, and the many conservation projects open to you and your family or friends.

Membership Application

Membership category? Circle below:

Senior (62) or Student \$7.00 Individual \$10
 Family \$15 Sponsor \$25 Patron \$100
 Corporate \$250 Life \$1000
 Contribution \$ _____

I/We are interested in the following:

- Volunteer to help the committee
- Hikes
- Indian Culture
- Educational Workshops
- School, Family, Youth Programs
- Environment (Plants, birds, mammals, geology)

9/92

Other: _____

Name(s) _____

Address _____

City State Zip _____

Home Phone _____

Please make checks payable to:

Friends of Los Peñasquitos Canyon Preserve, Inc.
 P.O. Box 26523, San Diego, CA 92196

Thank you for your support! Your donation is tax deductible.
 Call 484-3219 or 566-6489 for more information.