Canyon News

Friends of Los Peñasquitos Canyon Preserve, Inc.

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Big Turnout Needed At Council Jan. 17

Critical Juncture for Carmel Mountain

by Mike Kelly, president

January 17, the San Diego City Council will decide the fate of Carmel Mountain. Carmel Mountain has the greatest diversity of plants and animals left in San Diego (see article this issue). And, unless we successfully mobilize, this area will fall to the developer's bulldozers.

The heart of Carmel Mountain is contained in Carmel Valley's Neighborhood 8a. Neighborhood 8a is slated for development in a series of plans coming before the council on Jan. 17. The plans are being brought by several landowners, the largest being Pardee Co. These plans were so insensitive to the geography and biology of Carmel Mountain that the Planning Dept. recommended denial of the project. In addition, at a Planning Commission hearing on these plans, held late this fall, the Commissioners also recommended denial.

Despite these actions, Pardee and the other owners formally requested that their projects be heard before the City Council — as is their right under the law. They need only five votes to win approval for one of the worst projects to come forward in recent times. We need only five votes to deny these plans, to send them back to the drawing board or, better yet, to designate Carmel Mountain as a future park (see article this issue).

In my opinion Pardee doesn't have a lock on five votes for several reasons. First, the council makeup these days is more independent than it was in the past. It's easier to get a hearing from a number of members of this council than it was with previous councils. Second, Carmel Mountain is a key, pivotal area in the Multiple Species Conservation Program, a program to which the Mayor is strongly committed and which the council has supported. Third, this project doesn't meet even the minimal public standards that council members like to see met in the sense of balancing the public interest with private interests in such projects. Ultimately, however, it will be the amount of public support for making Carmel Mountain part of our interconnected open-space park system that will garner five votes. If it appears to be just the "usual" hard core environmentalists, we may well lose. That is why we are dedicating the amount of space we are in this issue to Carmel Mountain, including Dave Hogan's article on Carmel Mountain's biology and the flyers from the Carmel Valley Nature Park Alliance.

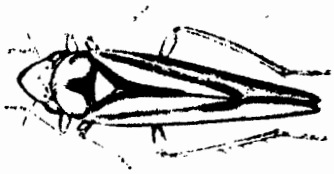
Three key reasons why you should take the time to make a phone call, write a letter or circulate a petition are:

1. Carmel Mountain has the greatest diversity of rare and endangered plant and animal species left in San Diego.

2. It's the cornerstone of a workable Multiple Species Conservation Program for the City.

3. It provides a crucial future wildlife corridor linkage between Peñasquitos Canyon Preserve and the western portion of the San Dieguito River Valley to the north.

Make this a priority this month! Come to the City Council hearing on the 17th. Write, phone or fax your City Council member and Councilman Harry Mathis. Carmel Mountain is in Mr. Mathis' district. Phone 236-6611; Fax 236-6999; write 202 C St., San Diego 92101.



Leafhopper

Carmel Mountain's Biodiversity: p. 2.

Nature Park Alliance: p 4.

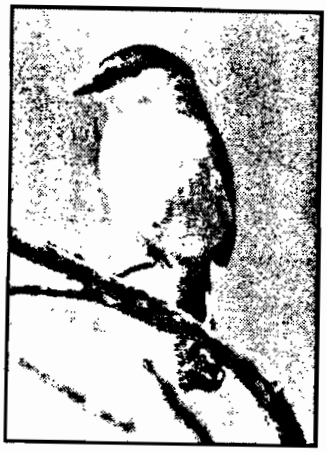
Inside

Gnatcatcher Survey Update

by Brian Swanson
Survey Coordinator

There are two species of gnatcatchers found in the Preserve. The blue-gray gnatcatcher, and the California gnatcatcher (*gnatcatcher* in this article). The California gnatcatcher is a small bird which feeds on insects in the coastal sage scrub. As the population of humans has risen, much of their former habitat has been developed.

Other pressures on these birds include fragmentation of habitat, and depredation by cats and brown-headed cowbirds. It's



Gnatcatcher

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Conserving San Diego's Bio-Diversity: Carmel Mountain and the Del Mar Mesa

SD Bio-Diversity Project & The Friends of Los Peñasquitos Canyon

[Editor's note. This article first ran in our June 1991 issue. Both Carmel Mountain and the Del Mar Mesa are treated as an integrated ecosystem biologically. Despite the passage of several years, the information is still relevant.]

I. Introduction

In the past twenty years, huge tracts of environmentally sensitive lands have been wiped out by irresponsible development. Lands like Mission Valley, once supporting large populations of species that have recently been listed as endangered, are now laced with freeways and shopping malls. In response to this problem, a few relatively small pieces of land have been set aside as ecological preserves. Too often, as is the case of Peñasquitos Canyon, ecosystems are viewed as closed, with finite boundaries.

In San Diego, such views have resulted in limited and inadequate preservation of canyons and vernal pools, ignoring the concept of *landscape* as an ecological unit. Preserving isolated canyons and pieces of chaparral serves only human needs and causes decline in diversity and species extinction. Wildlife left in these preserves completely disappears due to habitat isolation and predation by cats and dogs, while native plant species compete with heartier non-native plants such as eucalyptus and sea fig.

San Diego Bio-Diversity Project proposes the Del Mar Mesa/Peñasquitos Canyon Biological Preserve. Including Del Mar Mesa as part of the present preserve would unite several specialized habitats critical to insuring the sanctity of a chaparral ecosystem. Del Mar Mesa is the last undeveloped coastal mesa in San Diego County. This alone seems reason enough to set it aside as a preserve. The fact that the mesa contains twenty-two rare, threatened, or endangered species, along with two threatened habitats, elevates its preservation to a number one priority.

I: Carmel Mountain

Carmel Mountain, part of Western Del Mar Mesa, is home to 17 sensitive species and 5 threatened habitats and is known to the biological community as one of the most sensitive pieces of land on the San Diego Coast.

Carmel Mountain, located just south of Carmel Valley Road (due south of the small cemetery a couple of miles east of I-15 on your left), due to its incredible diversity of species and habitats, has been the highest protection priority for three years by the San Diego Biodiversity Project.

Del Mar Mesa is the last undeveloped coastal mesa in San Diego County. This alone seems reason enough to set it aside as a preserve. The fact that the mesa contains 17 sensitive species, along with five threatened habitats, elevates its preservation to a number one priority.

II. Profile of Del Mar Mesa

A. Location: Del Mar Mesa, approximately 3,000 acres, is situated between Peñasquitos Canyon, a major east-west drainage of Sorrento Valley and Carmel Valley, the northern boundary of the City of San Diego.

B. Natural History: Though relatively uninhabited and undisturbed, sections of Del Mar Mesa have been cultivated and others grazed by cattle in the past. There are also two small rural settlements, one at the western end called Arroyo Sorrento and another a few miles to the east, near Deer Canyon. There are approximately 50 homes.

C. Future Urbanization Plans: The western end of Del Mar Mesa is the most endangered by future development with plans for two large residential/light industrial developments — North City West Phase III and Sorrento Hills (Note: Sorrento Hills was graded in late 1990). These two projects are in the planning and permitting stages at present. The eastern end of the mesa is termed "future urbanization area," with no specific plans for development yet. The eastern end is the most undisturbed portion of the mesa.

III. High-Interest Species and Habitats

A. Plants: There are two state or federally listed plant species on Del Mar Mesa. The California Native Plant Society and WESTEC Services, Inc. (the consulting firm responsible for preparing the environmental impact report for the Sorrento Hills Project) have determined that the following plants occur on Del Mar Mesa. Records kept by the California Native Plant Society are far more accurate when it comes to the condition of the plant species than government or consultant inventory.

The following California Native Plant Society R-E-D Code is used to determine the status of each individual specie. Following this code is the list of high interest plant species on Del Mar Mesa and their corresponding R-E-D codes.

Rarity

1-Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction is low at this time.
2-Occurrence confined to several populations or to one extended population.
3-Occurrence limited to one or a few highly restricted populations, or present in such small numbers that it is seldom reported.

Endangerment

1-Not endangered.
2-Endangered in a portion of its range.
3-Endangered throughout its range.

Distribution

1-More or less widespread outside California.
2-Rare outside California.
3-Endemic to California.

San Diego Mesa Mint (*Pogogyne abramisii*)

R-E-D Code: 1-3-2

This federally listed endangered species is found in and around vernal pools on the eastern end of Del Mar Mesa. These pools are owned by CalTrans, bought to satisfy mitigation measures when Highway 52 was built through Kearney Mesa's vernal pool habitat.

San Diego Coyote Thistle (*Eryngium aritulatum*)

R-E-D Code: 1-3-2

This species is listed as endangered by the State of California and is under review for listing by the federal government. It can be located in all vernal pools on Del Mar Mesa.

Spine Flower Family (*Chorizanthe: californica, orcuttiana, parryi, procumbens, staticoides*)

Spine Flowers are extremely rare, with most of their sandy, mesa top soil already urbanized.

Del Mar Mesa Sand Aster (*Corethrogyne filaginifolia*)

R-E-D Code: 3-2-3

This species is endemic to the Del Mar area and occurs only on brushy slopes and bluffs. It can be found on the western end of the mesa.

San Diego Barrel Cactus (*Ferocactus viridescens*)

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This species can be found throughout the mesa on dry, south-facing slopes.

Torrey Pine (*Pinus Torryana*)

There are only a couple of specimens on the west end of Del Mar Mesa. This may have been the eastern border of Torrey Pines habitat before cattle grazing.

Del Mar Manzanita (*Arctostaphylos glandulosa*)

This species occurs from Encinitas to Del Mar. It can be found in mixed chaparral throughout Del Mar Mesa.

Western Dichondra (*Dichondra occidentalis*)

This herbacious perennial grows beneath larger shrubs. It can be found in abundance on rocky slopes after a fire.

Coast White Lilac (*Ceanothus Verrucoss*)

This plant is rare in California, but common elsewhere. It can be found throughout mixed chaparral on the mesa.

Sea Dahlia (*Coreopsis maritima*)

This herbacious perennial is found on the coast, stretching from northern Baja to southern Leucadia. It can be located on the western end of Del Mar Mesa.

Pygmy Spike Moss (*Selaginella cinerascens*)

This moss forms a grey ground cover in openings and underneath the chaparral on the mesa top and south facing slopes.

Seaside Calandrinia (*Calandrinia maritima*)

This species is found on rough, sandy bluff areas on the western edge of the mesa.

Other plants that may occur on Del Mar Mesa:

Shaw's Agave (*Agave shawii*)
San Diego Sagewart (*Artemesia palmeri*)
Golden Snake Cactus (*Bergerocactus emori*)
Orcutt's Brodiaea (*Brodiaea orcutii*)
Lakeside Ceanothus (*Ceanothus cyaneus*)
Summer Holly (*Comarostaphylis diversifolia*)
Short Leaved Dudleya (*Dudleya brevifolia*)
Cliff Spurge (*Euphorbia misera*)
Palmer's Grapplinghook (*Harpagonella palermi*)
Little Mousetail (*Myosurus minimus*)
Protrate Navarretia (*Navarretia fossalis*)
California Orcutt Grass (*Orcuttia Californica*)

B. Reptiles: The San Diego Herpetological Society and the San Diego Natural History Museum have determined that there are two threatened and one endangered species of reptiles occurring on Del Mar Mesa. This status is according to the San Diego Herpetological Society definition.

Coast Horned Lizard (*Phrynosoma coronatum blainuillei*)

This specie's range once spread up and down the southern California coast but rapid development and predation by domesticated species such as cats, have driven it back to very rural or totally undeveloped areas of the county. The Coast Horned Lizard can be found sparsely throughout Del Mar Mesa and adjacent Peñasquitos Canyon. **Endangered.**

Orange Throated Whiptail Lizard (*Cnemidophorus hypeythrus beldingi*). Same as above. **Threatened.**

Two Striped Garter Snake (*Thamnophis couchi hammondi*)

This snake is found throughout the mesa in water courses, permanent streams, or damp catch basins. **Threatened.**

C. Birds: There are three rare species of birds located on or around Del Mar Mesa. One, the Least Bell's Vireo, is listed by the State of California as endangered. The other two are presently under review for listing.

Least Bell's Vireo (*Vireo belli pusillus*)

Historically widespread throughout riparian areas in California and Baja California, it is now reduced to a few hundred pairs. The primary reason for its decline is due to habitat removal and modification with additional aggravation by brood parasites. Although Del Mar Mesa does not satisfy habitat requirements, Peñasquitos Creek would be eligible with riparian habitat rehabilitation and grazing elimination.

Coastal Cactus Wren (*Campylorhynchus brunneicapillus*)

This species is commonly found in desert areas, but the species located along the coast is extremely rare. A cholla thicket is required nesting habitat. Cholla thickets can be found throughout Del Mar Mesa, on dry south facing slopes.

California Gnatchatcher (*Polioptila melanura californica*)

Required nesting habitat for the Black Tail Gnatcatcher is coastal sage scrub. Cowbird parasitism and reduction of habitat are causing a severe decline in the species. This coastal sage scrub habitat can be found in abundance on both the western and eastern ends of Del Mar Mesa.

D. Habitats: There are a total of six separate habitats occurring on Del Mar Mesa, one of which is seriously endangered. Four others are threatened or rare.

Vernal Pools

Now beginning to gain media attention and growing public awareness, vernal pool preservation support is too little, too late. Only 5% of this rare habitat type remain. Protected pools in San Diego usually consist of a one acre preserve in the middle of a parking lot. Vernal pools found on Del Mar Mesa are in good condition, although pools on the western end are impacted by grazing. Pools owned by CalTrans on the eastern end of the mesa will soon be transferred to the California Department of Fish and Game for protection. The vernal pools found on the western end of the mesa are owned by developers and slated for development (i.e., destruction). In 1979, the City of San Diego developed a vernal pool preservation plan which required developers to contribute money into a fund used to purchase other pools when pools on their property are destroyed by their development plans. This fund is a total failure. No pools have been bought and very few remain to satisfy this criteria. The further destruction of vernal pool habitat cannot be allowed.

Riparian Habitat

Riparian habitat is disappearing throughout San Diego County due to rapid development. Preservation efforts in the past have been inadequate. Several species, including the Least Bell's Vireo, depend completely on riparian habitat for survival. This habitat also controls water quality and erosion. Riparian habitat can be found in Deer Canyon, on the eastern end of Del Mar Mesa but will be destroyed when and if Freeway 56 is rammed through to Poway from Interstate 5. McGonigal Canyon, on the other hand, is an overgrazed barren valley to the north and would be a more suitable site for the freeway. This should be seriously studied as an alternative.

Coastal Mixed Chaparral

This habitat, endemic to north coastal San Diego County is in decline. Most coastal mixed chaparral con be located between Carlsbad and Torrey Pines State Park on sandy mesas and is home to several endangered species. The main reason for the declining state of this habitat is urbanization. Coastal mixed chaparral can be found throughout Del Mar Mesa in abundance and is healthiest in the eastern portion.

Coastal Sage Scrub

Coastal Sage Scrub is on a rapid decline near the immediate coast. In 1979, it was estimated that 70% of the original coastal sage scrub in the county had been destroyed. This habitat can be found throughout Del Mar Mesa in large openings in the coastal mixed chaparral.

Southern California Grassland

This habitat is on the decline also. Grassland on Del Mar Mesa is found intermixed with coastal sage scrub throughout the mesa.

Carmel Valley Nature Park Alliance

Purpose: To establish "Carmel Valley Nature Park," a regional natural resource park, on 390 acres in the area known as Neighborhood 8A.

1. **Carmel Valley Nature Park Alliance supports establishing a nature park on Carmel Valley's southern border as an integral part of San Diego's commitment to open space planning envisioned by the Mayor and endorsed by the City Council.**
2. **City Council must not approve development plans for Neighborhood 8A that are contradictory to regional multiple species planning. Councilmembers should vote no on the proposed development plan for the area on January 17, 1995.**
3. **City Council should explore acquisition financing plans for the Nature Park including the Multiple Species Conservation Plan finance plan, federal funding and mitigation monies.**

BACKGROUND

Neighborhood 8A is a ready made park

Neighborhood 8A is a 390 acre parcel bordered on the south by Los Peñasquitos Canyon, on the north by Route 56 and on the west by Los Peñasquitos Lagoon. The area contains the most diverse population of animal and plant life in the county. The terrain is a combination of majestic sand bluffs, coastal plant life and mesa vegetation. Well traveled horseback, hiking and mountain bike trails traverse the area, and unobstructed ocean views are visible from almost anywhere.

The area is already a mature, well used Nature Park.

Multiple Species Conservation Plan (MSCP)

The MSCP seeks to solve the long standing land use war between developers and the public. By establishing a map based on scientifically determined biological resources, boundaries are established between developable land and areas that need protection. Builders know where to build and ecologically critical areas are defined. Two things are accomplished: development can proceed cost effectively because expensive and time consuming environmental review is eliminated, and endangered animal and plant life are protected in a regional system that maximizes ecological principles of integrated open space preservation.

San Diego's MSCP, nearing completion of the mapping phase, is a model for the nation and has the full support of Interior Secretary Bruce Babbitt. Due to the vision of Mayor Golding and the endorsement of San Diego City Council, the city is actively participating in the regional planning process. The next phase will involve developing a financing plan for land acquisition.

Neighborhood 8A is the most important piece of the MSCP map in the City.

San Diego City Council will vote on the development plan on January 17, 1995. Development in Neighborhood 8A is devastating to multiple species planning. The current plan offered by Pardee calls for 1572 units. Over 2.8 million cubic yards of dirt will be moved to accommodate the plan, destroying this critical habitat forever.

The Dept. of Fish and Wildlife, the City Planning Commission, Carmel Valley Planning Board, Endangered Habitat League, the Friends of Los Peñasquitos Canyon Preserve, and city planning staff oppose this plan.

A REGIONAL NATURAL PARK MAKES ECONOMIC SENSE

The Nature Park fulfills Carmel Valley's Open Space Community Plan Requirement. The Carmel Valley Community Plan calls for a natural park located where Route 56 and the Palacio Del Mar development now sit. Only a small lagoon (CVRP next to I5 remains.

A 390 acre park would satisfy the Plan's open space requirement.

Carmel Valley pays its way, and then some

Carmel Valley is pur profit for the City of San Diego because its infrastructure is paid for out of Facilities Benefit Assessment monies collected when homes are sold. Carmel Valley residents pay more in taxes and fees than they get back in facilities and services. The Kmart, a result of a disputed Community Plan change, alone will send $400,000 a year downtown.

Millions of tax dollars will be used to add luxury sky boxes to Jack Murphy Stadium, support the Republican Convention, subsidize a downtown sports arena and possibly link San Diego and Mission Bay with a canal. Carmel Valley will be paying its share for these projects.

It is reasonable and fair for the city to support a financing plan to acquire the land to create a regional Nature Park in Carmel Valley for the entire region.

Carmel Valley's Nature Park is North City's Sports Arena

Taxpayers will spend $50 million to subsidize a downtown sports arena that likely will never make money. Most don't. They do help attract

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business and tourism and enhance a city's image.
North City's visitor attraction is its natural resources which enhance San Diego's national reputation for scenic beauty.

This Nature Park is a natural museum
The Carmel Valley Nature Park, in combination with Torrey Pines Preserve, Los Peñasquitos Lagoon, Peñasquitos Canyon and the San Dieguito River Park, would create a natural museum representing every ecosystem of Southern California, lagoon, mesa, Torrey Pines and canyon.

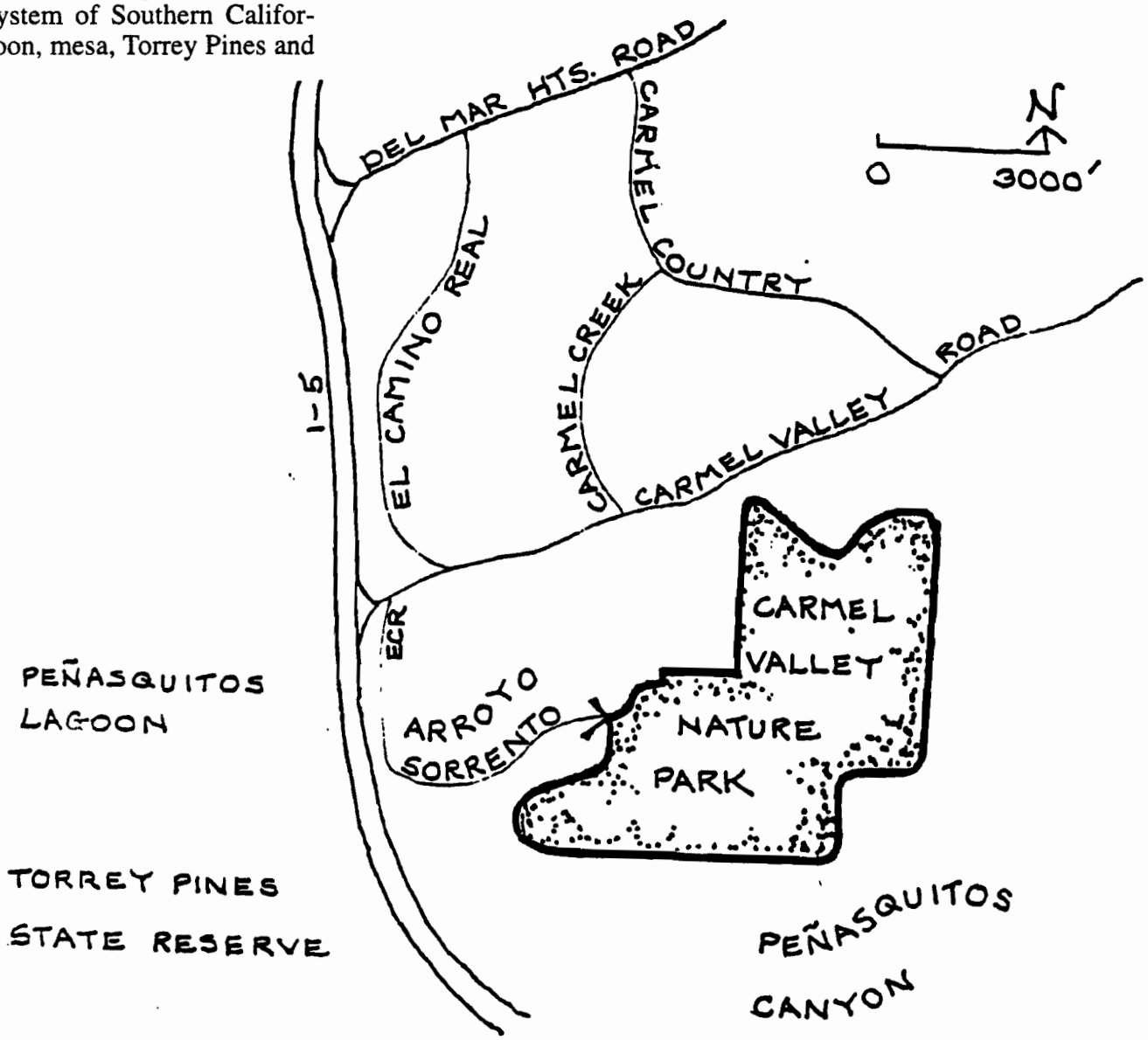
City Council must Vote No to the proposed development plan on January 17. We must save this unique ecological wonder for the entire region and generations to come.

The Carmel Valley Nature Park Alliance:

Steering Committee
Anne Harvey — Co-chair
Lisa Ross — Co-chair
Gabrielle Prater
Jerry Mailhot
Jan Fuchs
John Dean

The Park is endorsed by:
The Friends of Los Peñasquitos Canyon Preserve
Carmel Valley Coalition
Endangered Habitats League
Arroyo Sorrento Homeowners
Newton & Helen Mayer Harrison

For more information, contact:
Ann Harvey at 481-4169
Lisa Ross at 755-7999



Discovering Creek Inhabitants the Old Fashion Way

by William "BassMan" Bowen

Introduction

It was late November before last, in the cool clear evenings around Thanksgiving, that I first discovered fishing in Peñasquitos Creek.

Prior to that, I didn't think there were any fish in the creek, though, admittedly, I had sometimes wondered about the kids racing in a whirl of dust past me on the trail, fishing poles jutting at odd angles from holders on their sting ray bikes. I guess I thought they'd just be playing at fishing, but not really catching anything.

One evening, just for fun, I decided I'd try my luck. I was casting a purple worm, plopping it right next to the green cattails, which jutted at right angles from the surface of the large mirrored pool, located below the waterfall. I was admiring the purple colors of twilight and a mass of birds or bats circling high in the air. How tranquil I felt listening to the voice of stream as it bubbled and gurgled over the rocks.

Suddenly I felt a tug at my line. "A snag," I thought. But no, the snag started to fight! To tug and to pull! This was unexpected, it ruffled me, I felt my adrenalin pump. "My fishing was just an excuse to admire the evening air and the orange rays of dusk," I thought. "What dared disturb the tranquility of the evening air?" A few minutes later a nice size large mouth black bass was flopping at my feet on the gray volcanic rocks. I gently removed the barbless hook and let it slip with a swish back into the inky darkness of the pool — which soon regained its unruffled tranquil character.

I cast again. Nothing for a while, then another hit, which was lost. By now I was really excited.

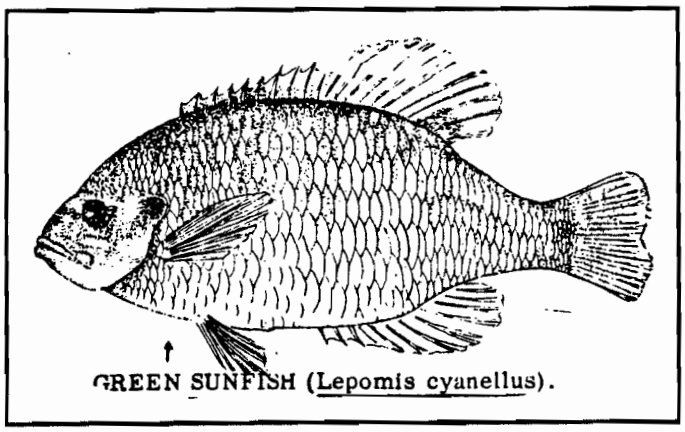
The next evening and the next and the next I came back, armed with plastic worms, poppers, and spinners, seeking more large mouth black bass. And I was not to be disappointed. "What scrappers! A good fight! A beautiful fish!," I secretly chirped. "And in a place and moment as close to heaven as you can get!" I measured my catch from jaw to the tail against my fishing pole and made a mark. Then I put the tape measure to that at home. One was 14 inches, other 12, one was 10. A few smaller. Very respectable figures for Peñasquitos Creek. And what a healthy-looking fish! Beautiful shape and green and black spectacled color. I could see now why bass fishing was such an obsession in America. But even better was where I was at. At dusk, in the violet light, long shadows, gray rocks, cattails, listening to the sound of the gurgling stream, it was really beautiful. At one place, the tumbling of the stream had a deep low pitch and actually sounded like muffled human voices. I dubbed the spot: "The Talking Rocks," and thought of leading a hike here so people could listen to the voice of the stream, something like the Oracle at Delphi.

All in all, I felt that I was really privileged to experience such a classic bass fishing hole.

After that I became determined to set out and try and discover what the true characteristics of our stream inhabitants really were.

This is what I have found out so far. Probably the best "fishin' hole" is below the waterfall and it appears that this is the area that is fished most. I have caught bass here, bluegill, sunfish, a bull frog that gulped an artificial bug, and have seen bullhead catfish to 12 inches idling over the submerged rocks under the light of the full moon.

Another spot that's good, but only for live bait, because the bass are only mildly amused by lures is near the El Cuervo adobe. Last New Year's Day about 4:30 p.m. I saw two older fellers take six small bass on live shiners. They said they usually catch about 5-6 bass whenever they come there. They also said that they caught bluegill there last year when there was that big algae bloom.



GREEN SUNFISH (Lepomis cyanellus).

I have never caught a bass in that hole, only managing a few "follows," but I did dredge up a nice fat catfish which, surprisingly, struck a plastic worm. Farther along the creek there's another deep pool, hidden in tall cattails, and probably 8 feet deep, where I was able to land a very large bluegill. It hit on the first cast.

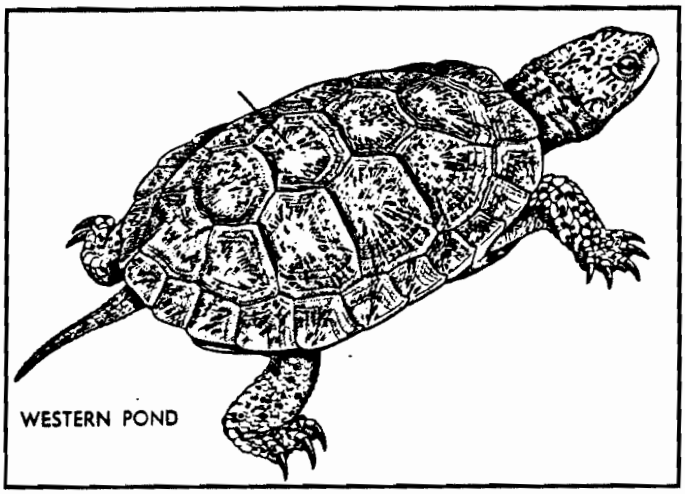
Still farther west, just before the Sorrento Valley willow stand, there is a nice little pool where I caught several bluegill and small bass at the end of last summer. But nothing goes on there now in December. Unfortunately, at this location, the fish are not very healthy, showing signs of worms and parasites.

Another outstanding place is the little pool to the left of the road over Lopez Creek into Lopez Canyon. One blistering hot day this last summer I ran into a very big school of bluegill. There must have been at least 20 of them right on the surface of the water, all turned right toward the road. In hindsight, I guess they were on the surface of the water because the oxygen content of the water was dropping rapidly as the summer ran on. Boy, were those bluegill hungry! They bit the little pieces of fresh yellow corn I offered with gusto. Most were really small, but when I ran out of corn and put on a small plastic worm I got a couple of 8-10 inchers, which were hiding under the rocks, to bite. Tracing López Creek north and west

I have observed numerous sunfish trapped in a small pool under the sycamores. I suspect some slipped to whatever remained of the algae-covered standing water as the summer bore on. Many must have been eaten by birds such as blue herons or egrets. Not many aquatic species make it through the summer in López Creek. Its a tough place to grow up. The pool they were in had served as a very large crayfish mudhole colony the year before. It was a real little Beirut apartment complex, with hundreds of pinchy claws poking out the front door. I suppose they all moved out, because it has now all but disappeared.

Stepping back and looking at things from a larger perspective, I suspect that there are bass all along the stream with most congregating in deep pools or holes. I have seen some as far east as Black Mountain Road. They were mostly small. As you go further west toward the water fall you don't see many bass. They seem to start up again west of the falls. The biggest fish seem to hide out about halfway from there to El Cuervo adobe.

Bass, as a species, are often very friendly and will come right up to look you in the face. Of course, if they see you they won't bite. You really have to sneak up on them and plop your lure in from a distance to stand a chance at catching one.


WESTERN POND

If you do catch a few the others soon get the message and split. If it's in the spring, however — when the smaller males guard the nest — if you can get a bass ticked off enough by waggling your lure in his face, it will bite out of sheer nastiness, even if he has seen you. The best lure seems to be a yellow feather lead head jig. Maybe they think it is a crayfish or a cricket. A long plastic worm doesn't work very well because they'll just bite the tail and you won't able to set the hook.

It's very odd thinking about bluegill and sunfish. The bluegill is generally a nice guy school fish, very sociable, and where there is one there is usually others. This isn't always the case, however. Sometimes you'll just see one or two hanging out with the bass. However, bluegill have to be careful of befriending bass because if the size is right they will eat them. In lakes, its bass which keep the bluegill population in check.

As far as sunfish go, these dudes are real nasty customers who are waggishly protective of their two inches of turf. They are loners with an attitude who can live almost anywhere and they will. Soimes you see them, sometimes you don't, just like the bluegill. I don't know where they go. You can usually always find a bass, except now in mid-December, when they too seem scarce. I am less sure about the bullhead catfish population of the creek. I have seen three at the waterfall and caught one at the west end. Catfish were the most recently discovered fish in the creek. But I'll just bet there are a bunch sniffing around the murky bottoms with those long whiskers.

I want to say a few words about crayfish before I go. This last summer there was a big population down at the west end of the canyon. But on the stream survey this fall we did not see many, especially east of the waterfall. The pH was high in the eastern part of the creek and crayfish don't do well over an 8.5 pH and we were getting some readings over 9.0! But then again they might have retreated to their mudholes were they are now. The mudholes look like little gopher holes and are right on the edge of the stream bank. I am happy to report that their were many baby crayfish flitting around in protected quiet pockets of water off the main stream which are too small for fish. They are about one inch long and beigein color.

Perhaps my happiest and scariest moment with crayfish came on a stream survey last month. I picked up a large crayfish, turned it over and let out a loud yelp. I thought it was covered with a thousand little bugs eating it up. But it turned out to be a mass of tiny baby crayfish clinging to the underside of the mother's tail. I had read about this but never seen it in action. I think it was a good omen of the potential health of our very important crayfish population.

I know there are some people out there who will object to what I've spoken about in this article. They will say how horrible it is to catch fish or to tell people there are fish in our creek.

The fact of the matter is that fishing is going on in the canyon whether we speak about it or not. Not a lot, but it's there. Of course, it's legal with a fishing license. Furthermore, none of these fish are native to the region or the creek. All have been introduced and are abundant throughout the state.

As far as my fishing, this has been about the only way I could inexpensively, with a limited expertise, find out something about creek inhabitants.

On the ethical side of things I sure someone will say, "How would you like to have a hook in your mouth?" Well, I wouldn't. But even in nature it's a dog eat dog world. A bass eats a bluegill and in turn dies and adds to the nutrients in the soil. We rise to the level of consciousness of our world for only a fleeting moment before we are recycled back into the cosmic compost heep. Fishing in the creek has been one important way we have learned about its inhabitants and has been a forerunner to recent morescientific studies.

I do believe we should have a catch and release fishing program. Fish and Game does this in special locations throughout the state. If people want to fish let's encourage them to release their catch. The supply of fish in the creek is not unlimited and constitute an important part of the food chain for our wildlife.

Then again perhaps we should periodically stock the creek. Or maybe we should fish it out and re-introduce native fish and ban fishing altogether. These are all questions to be addressed at some point in the future. Right now the information derived from fishing is about one of the best sources of data we have. Anyone who has fished the creek or seen fish caught should let us know what they know. They could do this and remain anonymous if they so desired.

There are several problems with some of the folks currently fishing in the creek. Some are thoughtless litter bugs and leave line, bait containers, cigarette butts, and cans after them in the canyon. Some also trample vegetation needlessly and even cut it back to get to a pool. A fishing license doesn't make damaging vegetation legal. Abandoned tangled fishing line is potentially the worst problem in that it can foul birds. I suggest we try and educate fishermen and enlist their aid and cooperon as we attempt to further our understanding of Penasquitos Creek.

Mt. Carmel Student Cleanup

Saturday, November 19, more than 80 volunteers from Mt. Carmel High School organized numerous volunteer activities in Peñasquitos Canyon Preserve. These volunteers assisted in planting native grass seeds to help restore areas in the Preserve; dug the holes for and planted scrub oak shrubs and live oak trees along the drive into the ranch house; picked up trash in several areas; pulled dozens of illegally dumped tires out of the canyon; collected cottonwood cuttings and potted them for rooting and future planting; and cleared a large area infested with tumbleweeds.

The day's activities were sponsored by the Mt. Carmel Associated Student Body (ASB) and coordinated by Justin Bonsey, their Community Commissioner. The ASB Advisor, Ms. Lyn Antrim, was an enthusiastic participant, along with several other teachers. Coordinator was Justin Bonsey, Community Commissioner. Service Clubs who sent volunteers included the California Scholarship Federation (Pres. Cindy Chan), Ecology Club (Pres. Thao Nguyen), Interact (Pres. David Williams), Uniting for a Positive Quest (Pres. David Castleman), Tennis Club, Key Club (Pres. Iva Macaspac). In addition, dozens of members of the freshman and sophomore classes participated.

New Class Planned

Wildlife Study / Tracking Team Update

by Barry Martin

It has been nearly one year since we kicked off the Preserve's Wildlife Study. We have gathered an impressive amount of data, much of which has been put into a computer database. This information will be useful as baseline data as we continue our analysis of the wildlife in the Los Peñasquitos Preserve. During the next year the Tracking Team hopes to answer several questions regarding the presence of and population levels of certain species in the Canyon:

Two years ago I spotted turtles in a pool east of Black Mountain Road. I haven't seen any since and we would like to know whether or not the Western Pond Turtle is still present in our creek.

We want to verify and monitor the existence and survival of the Black-tailed Jack Rabbit here.

We also used to have badgers in the Preserve but haven't seen any sign of them in about six months.

We've had three Mule Deer bucks killed in the space of a month. What impact will this have on our deer herd? How many bucks are left?

Many questions like these have come up over the past few months and we would like to know the answers. We always have room for additional volunteers to help with our research so give me a call if you're interested!

One aspect of this past year that I have found especially gratifying has been the opportunity to pass on the skills of tracking, nature and wilderness survival that I've been learning at Tom Brown's school. Our group is finishing the first session which was a sort of "test run." An "Advanced" session will be run for the graduates of the current session in February or early March.

Intensive weekend training coming up

In late March or early to mid-April we will offer an intensive weekend session (Friday evening, all day Saturday and Sunday) of "Beginning Tracking, Nature and Wilderness Survival." This course will offer you the opportunity to discover ancient "earth skills" which can lead to a deeper awareness of your connection to nature and harmony with your environment. Plenty of "hands on" experience is planned. You may recall a previous article in which I explained that completion of these classes would be a prerequisite for becoming a full fledged member of the Los Peñasquitos Canyon Preserve's Tracking Team. Whether you are interested in becoming a Tracking Team member or would like to take the class because you're interested in the subject, you're welcome. We will be limiting the class size to about 20-25, so you'll want to sign up early. A $30. fee will be required, $20. if you are a member of the Friends. Participants must be at least 18 years old and in good physical condition. (If there is interest a children's class will be offered later.) Watch the newsletter for exact dates; a flyer will be distributed.

If any of this sounds interesting to you and you would like to become involved or renew your involvement give me a call at 484-4007 or call the Friends' answering machine at 484-3219.

Watch Channel 39 During February Sweeps Week

Channel 39 is expected to broadcast a series of pieces on exotic invasive plants and animals during the annual February "sweeps" week. The Friends' Mike Kelly was interviewed for one of the San Diego pieces.

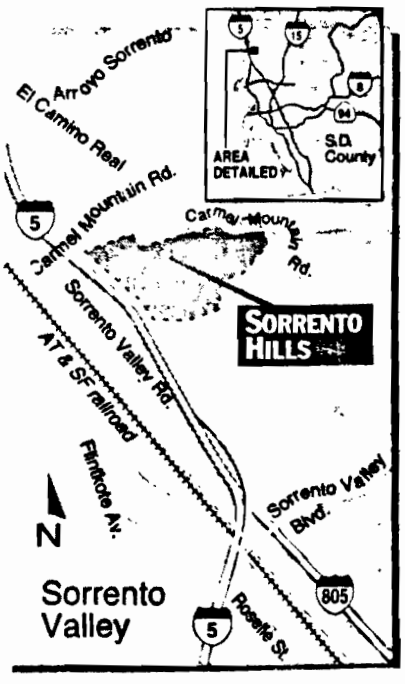
Landswap Finally Approved

by Mike Kelly

Dec. 6 the San Diego City Council approved 3 projects in Carmel Valley, the Sorrento Hills projects. This approval means that a land swap for Peñasquitos Canyon Preserve will now become final. As the San Diego Union-Tribune of Dec. 7 noted, "In land swap, Peñasquitos preserve gets big new parcel.

In 1986 the voters approved a swap of 166 acres of public land adjacent to Interstate 5 in Sorrento Valley for 288 acres of privately owned land adjacent to the the Preserve's waterfall plus $1.9 million. The 288 acres is part of the Del Mar Mesa. The parcel runs from the waterfall north up onto the mesa, connecting to other publicly owned parcels and to the Caltrans Vernal Pool Preserve. Thus, the preserve will be expanded by considerably more than the 288 acres once escrow closes. The $1.9 million will go into a Capital fund managed by the City. The interest will be available for Peñasquitos Canyon Preserve projects. In fact, the funds are restricted to be used only in the Preserve.

Eventually, we hope that these newly connected parcels will in turn be connected to the Black Mountain Open Space Park and beyond that to the north, the San Dieguito River Valley Park. The north is the only possible direction for a functioning wildlife corridor system that can prevent the biological isolation of the preserve, hence the strategic importance of this land swap.



Friends of Peñasquitos Canyon January/February 1995 Events Schedule

Winter Rains Spark Nesting and First Flowers

Rain initiates a cascade of events in the Preserve such as nest building in some bird species. Fuschia flowering gooseberry gets a head start on spring and pushes out its bright green foliage and its brilliant red flowers in January. Different species of ceanothus (wild lilac) are also early bloomers. Shooting stars decorate open patches in the chaparral or grassy areas with their yellow-black-white "rockets." Rain means good animal tracking for observers on our tracking walks.

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

Volunteer Opportunities
If you'd like to help with our conservation or other activities call Mike Kelly at 566-6489. We have ongoing animal surveys, stream surveys, invasive weed removal projects, seed collection and planting programs to name a few. We also need help with organizational aspects of our work.

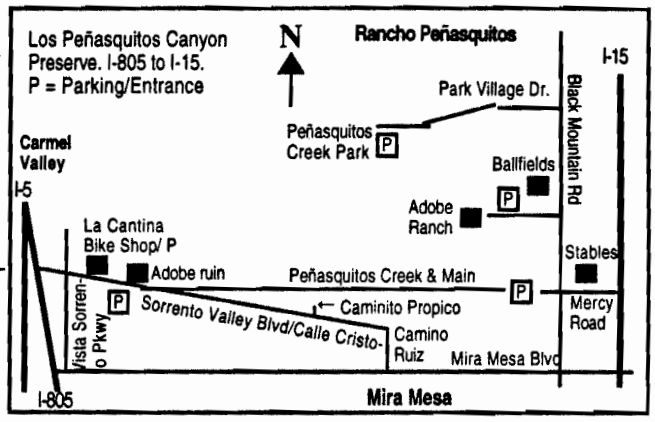
JANUARY

Rancho Santa Maria De Los Peñasquitos Adobe Ranch Tour
Sat., Jan. 7, 11 a.m. and noon (45 min. each), led by docents from the SD Archaeological Society. Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, then first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch. See San Diego's oldest residence, an historic adobe, settler and Indian artifacts. **Thomas Guide p. 1189.**

Tamarisk Removal Work Party
Sat., Jan. 7, 1 - 4 p.m. Help remove this invasive weed which is threatening Peñasquitos Canyon Preserve and Peñasquitos Lagoon. Call Mike at 566-6489 for location. No experience necessary. Wearold clothes: long pants, long-sleeve shirt, rubber boots or hiking shoes & bring gloves. Moderate to tough, good exercise for upper body. Rain cancels.

Sabre Springs Old Stage Coach
Sun., Jan. 8, 9 a.m. (2-2½ hours.) Meet on Sabre Springs Parkway, 1 block south its intersection with Poway Road. Take I-15 north to Poway Road, then Poway Road east to Sabre Springs Parkway. We'll walk part of an historic Stage Coach route, visit the Mercy property, soon to become part of Penasquitos Canyon Preserve, and walk the new Sabre Springs trail system. We'll also see several current and future restoration projects. One steep hill involved, wet stream crossing, moderate walk overall, about 3 - 4 miles roundtrip. Led by Mike Kelly.

Wildlife Surveys/Tracking
Sun., Jan. 8, 5 p.m. The latest in our training workshops. You must be a member of the Friends and enrolled in the wildlife survey, an ongoin project in the canyon. Call Barry Martin at 484-4007 for information on this project. At the ranch house. 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 path to ranch.



Bird Walk at East End
Sat., Jan. 14, 8 a.m. (2 hours). Expect lots of bird activity as this is the beginning of nesting season for some species. Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Meet on upper level. Bring bird book and binoculars. Easy walk. Led by Brian Swanson, president of the Natural History Museum Canyoneers.

Medicinal Plant Walk
Sat., Jan. 14, 3-5 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. Easy walk. Led by Will Bowen, Ph.D. **Thomas Guide p.1208.**

Mystery Tree Walk
Sun., Jan. 15, 8:30 a.m. (1½ - 2 hours). 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. Good chance to see early blooming plants. Meet at the parking-staging area off Black Mountain Road. Take the Mercy Exit off I-15 west to Black Mountain Road. Cross the intersection and enter the parking for the Preserve opposite this intersection. Easy to moderate walk, small hill, wet stream crossing. Led by Chris Bader. **Thomas Guide p. 1189.**

Celestial Skywatching
Mon., Jan. 16, 7-9 p.m. Join cultural anthropologist Dr. Will Bowen to view the night sky and learn how the ancients perceived the stars and some of the myths and stories about them. 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. Dress warm and bring a flashlight. **Thomas Guide p.1208.**

Friends Montly Business Meeting
Tues., Jan. 17, 7 p.m. At the historic ranch house. Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, then first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch. **Thomas Guide p. 1189.**

Nature Walk at East End
Sat., Jan. 21, 8 a.m. (2 hours). Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. See the first flowers of the season and learn about plants the Indians and settlers used while living in canyon. See many species of birds. Learn about the concept of biodiversity. Led by Les Braund. **Thomas Guide p. 1189.**

Rancho Santa Maria De Los Peñasquitos Adobe Ranch Tour
Sat., Jan. 21, 11 a.m. and noon (45 min. each), led by docents from the S. D. Archaeological Society. See Jan. 7 listing for details. **Thomas Guide p. 1189.**

Tracking & Nature Walk at East End
Sat., Jan. 28, 11 a.m. (2 hours). Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Meet on upper level. Learn to track animals and discover the natural environment they live in. Hike will include an overview of the animal surveys being conducted in Peñasquitos Canyon Preserve. Led by Chris Bader. **Thomas Guide p. 1189.**

Geology Walk
Sun., Jan. 29, 9 a.m - noon. Join Geologist Don Albright for a walk through time, including the Preserve's waterfall. Meet at

➡ p. 8 for more

Caminito Propico and Calle Cristobal in Mira Mesa. From the west take Sorrento Valley Blvd. east. It becomes Calle Cristobal as it passes Camino Santa Fe. The next street is Propico. From the east, take Mira Mesa Blvd. to Camino Santa Fe. Right on C. Santa Fe, then right on Calle Cristobal to Propico. Park in cul-de-sac on south side of Cristobal. Park legally. Steep trail. Bring water, sun protection. **Thomas Guide p. 1208.**

FEBRUARY

Rancho Santa Maria De Los Peñasquitos Adobe Ranch Tour
Sat., Feb. 4, 11 a.m. and noon (45 min. each), led by docents from the SD Archaeological Society. Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, then first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch. See San Diego's oldest residence, an historic adobe, settler and Indian artifacts. **Thomas Guide p. 1189.**

Medicinal Plant Walk
Sat., Feb. 4, 3:30-5:30 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, Ph.D. **Thomas Guide p.1208.**

Bird Walk in Lopez Canyon
Sat., Feb. 11, 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. **Thomas Guide p. 1208.**

Park Village Wildlife Corridor and Vernal Pool Walk
Sat., Feb. 11, 10 a.m. (2-3 hours). 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 Dr. to its intersection with Camino Ruiz. Park and walk to the northeast corner of the neighborhood park, opposite Darkwood St. Group will hike wildlife corridor running north and then swing up onto the Del Mar Mesa to visit vernal pools. Should see many blooming plants. Moderately rough terrain, wet stream crossing. Led by Mike Kelly. **Thomas Guide p. 1189.**

Mystery Tree Walk
Sun., Feb. 12, 8:30 a.m. (1-1/2 hours). 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. Good chance to see early blooming plants. Meet at the parking-staging area off Black Mountain Road. Take the Mercy Exit off I-15 west to Black Mountain Road. Cross the intersection and enter the parking for the Preserve opposite this intersection. Easy to moderate walk, small hill, wet stream crossing. Led by Chris Bader. **Thomas Guide p. 1189.**

Volunteer Work Party
Sun., Feb. 12, 1 - 4 p.m. Help protect our bio-diversity by removing invasive weeds which threaten Peñasquitos Canyon Preserve and Peñasquitos Lagoon. Call Mike at 566-6489 for location and directions. No experience necessary. Wear old clothes: long pants, long-sleeve shirt, boots or hiking shoes & gloves. Rain cancels. **Thomas Guide p.1208.**

Sacred Drum Night Walk
Wed., Feb. 15, 7-9 p.m. (2 hours). The night of a full moon is a good time to learn about sacred drumming and Native American songs. Bring drums and rattles if you like. 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. Led by Will Bowen, Ph.D, cultural anthropologist. **Thomas Guide p.1208.**

Vernal Pool & Fire Walk/López Ridge
Sat., Feb. 18, 8 -10 a.m. Meet at Caminito Propico and Calle Cristobal in Mira Mesa (via Camino Ruiz going north, or Sorrento Valley Blvd. going east). We'll tour the recent Penasquitos Canyon Fire area and discuss the ecology of fire and what to expect in this area in years to come. We'll also visit nearby vernal pools and learn about the plants and critters that live in them. Led by Les Braund. Wear good boots and clothes you don't mind getting dirty with ash. This one of a series of walks that will explore this area every month in the spring. **Thomas Guide p. 1208.**

Rancho Santa Maria De Los Peñasquitos Adobe Ranch Tour
Sat., Feb. 18, 11 a.m. and noon (45 min. each), led by docents from the S. D. Archaeological Society. See Feb. 4 listing for details. **Thomas Guide p. 1189.**

Thanks Volunteers!

Thanks to all of these very dedicated conservationists!
Exotic invasive weed removal & restoration: Mike Kelly, Cindy Burrascano, Melanie Howe, Christine Ohanian, Les Braund, Robb Hutsel, Robb Rhew, Kent Lachman, Lon, Tarja.
Final Stream surveys: Will Bowen, Mike Kelly, Cindy Burrascano, Mel Howe.
1994 Gnatcatcher Survey: See article this issue.
Special Mt. Carmel Cleanup: See article this issue.

Tracking & Nature Walk at East End
Sat., Feb. 25, 11 a.m. (2 hours). Take Mercy Exit off I-15 west to Black Mountain Road. Parking for Preserve is opposite. Meet on the upper level. Learn how to track animals and discover the natural environment they live in. Hike will include an overview of the animal surveys being conducted in Peñasquitos Canyon Preserve. Led by Chris Bader. **Thomas Guide p. 1189.**

Geology Walk
Sun., Feb. 26, 9 a.m - noon. Join Geologist Don Albright for a walk through time, including the Preserve's waterfall. Meet at Caminito Propico and Calle Cristobal in Mira Mesa. From the west take Sorrento Valley Blvd. east. It becomes Calle Cristobal as it passes Camino Santa Fe. The next street is Propico. From the east, take Mira Mesa Blvd. to Camino Santa Fe. Right on C. Santa Fe, then right on Calle Cristobal to Propico. Park in cul-de-sac on south side of Cristobal. Park legally. Steep trail. Bring water, sun protection. **Thomas Guide p. 1208.**

Friends Montly Business Meeting
Tues., Feb. 28, 7 p.m. At the historic ranch house. Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, then first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch. **Thomas Guide p. 1189.**

Ranch Center of Volunteer Activities

by Mike Kelly

What a scene it was. More than a hundred different people made the historic ranch house in Peñasquitos Canyon Preserve the center of their Saturday, November 19. Amateur, professional and student archaeologists attended a flint-knapping demonstration in one corner of the ranch's courtyard, learning how to shape stone tools the way our ancestors once did. In another area, several dozen volunteers and professional rangers attended a training for volunteer patrols in this and other parks. They received lectures and then went out into the field to practice "scenarios" for their future volunteer patrols.

Over by the red barn, more than 80 students and faculty from Mt. Carmel High School joined volunteers from the Friends of Los Peñasquitos Canyon Preserve and the County Parks Dept. in organizing a series of restoration and cleanup activities (see accompanying article, this issue).

Although it's not this busy every saturday, there's usually a fair number of volunteers at work each weekend in the Preserve. We're having fun and providing services while we do it. On any given weekend volunteers might be patrolling areas of the preserve on bike, foot or horse, helping the public enjoy visiting the canyon and helping protect its natural resources (Los Peñasquitos Canyon Volunteer Patrol). Others are leading walks at the historic ranch house (San Diego County Archaeological Society) or interpretive nature walks (The Friends). Still others are eradicating invasive weeds that "steal" habitat from native plants and animals (The Friends). Other folks help out on archaeological digs or historic restoration activities (San Diego County Archaeological Society and teachers and students from City College). During the year you might also stumble on boyscouts at work on one of the numerous Eagle Scout projects underway in the Preserve. On recent weekends if you were around the stream, you might have been startled to see volunteers in wet suits walking and swimming the stream, part of a larger team surveying the Preserve's riparian (stream) corridor (The Friends).

Whatever group we might belong to we're lucky to have two great rangers, County Ranger Reneene Mowry and City Ranger Bill Lawrence to work with. They make "giving something back" an easy and pleasant activity.

If you've ever wanted to get involved with some fun, outdoor activities, interesting people and be a part of worthwhile projects that give something back to the community, why not join us in one of these activities. Call me at 566-6489 and I'll see that your name and number are passed on to the right group.

(Gnatcatcher cont'd)

important that untrained persons not attempt to seek out these birds. Further, it is illegal to bushwack through gnatcatcher habitat. Misdirected good intentions can be a real threat to these birds as well. A bobcat, coyote or jay can watch humans or follow their scent trail to gnatcatcher territory or nests, finding an easy meal. The California gnatcatcher population has dropped to the point that the U.S. Fish and Wildlife Service has designated this bird as endangered, affording the bird a measure of protection.

The Friends, as part of an ongoing mandate to survey the resources of the Preserve, originated a survey of the the Preserveís California gnatcatcher population. Starting in 1993, a permit was obtained from the U.S. Fish and Wildlife Service, with the actual survey beginning in 1994. Due to the size of the study area (approxately 4,000 acres), we divided the Preserve into nine zones and limited the survey to those coastal sage scrub habitats most likely to support gnatcatcher populations.

The survey was conducted by teams of volunteers including Dr. Dick Barber, Melanie Howell, Bert and Margaret McIntosh, E.J. Johnson, Debra Hager, Claude Edwards, Dan Bylin, Eduardo Garcia del Rey, Barry Martin and Brian Swanson. Jerry Hooper, Henry Snowden, Mike Kelly, Keith Greer and Sandy Symington also assisted in the early stages of the survey. Each team was responsible for one or more zones. Teams visited their assigned zones every two to three weeks from mid-February through May, and again in August.

Besides the fresh air, survey members experienced other benefits. These included the sighting of wildlife such as a bobcat, roadrunner, rosy boa, and deer. All members, whether they wanted it or not, received a healthy amount of exercise (and burned calories!).

The survey found gnatcatchers present in six of the nine zones. Two zones were not studied, while one zone appears to be without a resident gnatcatcher population. These secretive birds, which have a characteristic *mewing* call, are easily overlooked. I believe that over time, using experienced and trained volunteers, we will be able to plot further populations in our Preserve. California gnatcatchers are being sighted in other parts of the preserve, beyond the study boundaries. It's hoped that in future surveys we can expand our study areas to include other likely habitat zones such as some of the finger canyons which haven't yet been surveyed.

We're trying a different approach to our surveying method in 1995. This year's survey is seeking experienced birders willing to commit two or three mornings in the spring and again in late summer to helping locate these elusive birds. I guarantee a rewarding experience as you contribute to the survival of this beautiful little jewel. Please call me if you can help (695-2209). As for those who are not yet experienced birders, I hope to see you on the trail for one of my monthly bird walks. Until then, happy trails to you!

Sewer Line Victory!

Nov. 28, 1994 the San Diego City Council unanimously voted to approve the "B-2" alternative for the path of a new sewer line in the north city area. This means the project will consist of a pump station on the Mercy property just east of I-15 on the southeast corner of the Poway Road/I-15 curve and a sewer line that will run along Mercy Road to Black Mountain Road to Miramar Road to Eastgate Mall in University Town Center.

They rejected arguments by some Sabre Springs homeowners who preferred a gravity feed line that would have run throughout the length of Peñasquitos Canyon Preserve. This was known as Alternative A and was actually the preferred route when this project started several years ago. The Friends were joined in opposition to a second line through the canyon by the California Native Plant Society, the San Diego Archaeological Society, the Mira Mesa Planning Group, the Miramar Ranch North Planning Group, the Rancho Peñasquitos Planning Group, the County Parks Dept. and the City Parks Dept.

Mike Kelly of the Friends served on the Focus Study Group formed by the Metropolitan Wastewater Dept. that studied these plans in numerous meetings for almost two years. This victory saves over 60 acres of habitat and prevents another ugly scar from running the length of the preserve.

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

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Vice-President: Tom Hopp, Ph.D. 566-4474
Treasurer: Rena Kerwin 693-3159
Secretary: Les Braund 566-3958

Other Members of the Board of Directors
Don Albright, Vicky Ausen, Chris Bader, Trinity Gabriel, Barry Martin, Alan Pepper, Ph.D., Brian Swanson,

Walks and Committees Leaders
Bird Walks & Gnatcatcher Survey Committee: Brian Swanson 695-2209
Conservation Chair: Alan Pepper, Ph.D. 586-7123
Geology Walk Leader: Don Albright 443-7982
Hike Committee: Trinity Gabriel 672-0229
Medicinal Plant & Night Walks: Will Bowen 452-7091
Nature Walk: Les Braund 566-3958
Newsletter Committee: Mike Kelly, Carla Scott, Vicky Ausen
Vernal Pool, Fire Ecology & other walks: Mike Kelly
Wetlands Restoration Committee: Don Albright, Tom Hopp, Susan George, Marcus Spiegelberg, Trinity Gabriel, John Northrop
Wildlife Survey Committee & Tracking Walk: Barry Martin 484-4007

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 (call me to discuss)
____ Hikes
____ Indian Culture **1/95**
____ 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.

Canyon News

Friends of Los Peñasquitos Canyon Preserve, Inc.

March/April 1995
Volume 9 No. 2

Reprieve for Carmel Mountain

by Mike Kelly, president

Much has happened concerning Carmel Mountain since our January newsletter, including:

- a successful City Council hearing;
- Formation of a Carmel Mtn. Conservancy — a non-profit foundation;
- Negotiations for a project redesign;
- Docketing a second City Council hearing.

First hearing was successful

As we predicted in this space in our last issue, the Pardee Co. didn't have a lock on the five votes needed to pass their Neighborhood 8a (Carmel Mtn.) project. On January 24, a hearing postponed from January 17 was finally held on the proposal to develop this area, the most sensitive and biologically diverse undeveloped land left in coastal San Diego. Pardee lost its bid for approval of their widely criticized plan. Instead, the San Diego City Council voted unanimously to support a motion made by Councilman Harry Mathis to reject the project as proposed and send it back for a redesign that would be compatible with the Multiple Species Conservation Program. His motion also called for the City Manager to develop an acquisiton plan that would include an option to acquire all of Neighborhood 8a for preservation. His motion is reprinted in this issue (page 3).

Mathis' motion called for the project applicants and the Planning Dept. to report back Feb. 14 if an "Agreement in Concept" could be reached on a redesign. This deadline was later extended to March 7. As we write this (March 4) it is not clear that such an agreement for a redesign will be

➨ p.8 for more

Volunteer Highlights:

Plant Rescue, Mar. 11: see p. 9
Native Grass Planting, Mar. 12: p. 9

Endangered Species Act Under Attack

by Les Braund

Congress is rapidly moving to remove the teeth from most environmental law. Encouraged by the massive Republican victory last November the Republicanís Contract for America is steam rolling over Federal regulations written over the last twenty five years to protect the public health and our natural environment. Of particular concern to Los Penasquitos Canyon are the attempts to gut or abolish the Endangered Species Act and to roll back Wetlands Protections and pass Property Takings legislation.

These actions have been taken despite polls done at the time of the election and after, which clearly demonstrates the publics desire to continue to protect and preserve our environment. Nearly 63% of voters polled one week after the election favored preserving or even strengthening the Endangered Species Act.

Yielding to the pressures of special interests; loggers, miners, cattleman, land developers, and land speculators many Democrats have joined with the Republicans in the House of Representatives to approve legislation which will create a massive new bureaucracy to determine the cost/ benefit of environmental, and public health regulations and to require compensation for property owners who have lost 20% of the value of their land by virtue of an environmental regulation.

➨ p. 10 for more

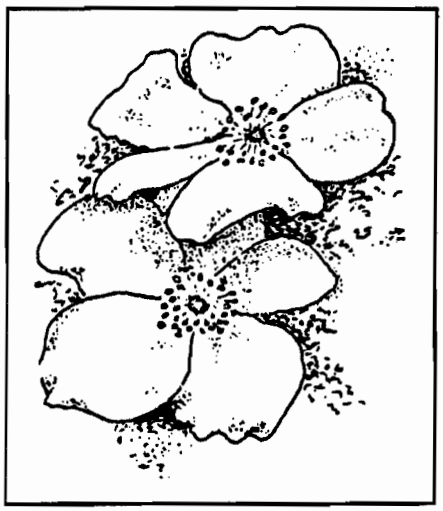
Highlights Inside

Where To See the Wildflowers

by Mike Kelly

This is already a good year for wildflowers. If you can, of course, visit Anza-Borrego State Park to see the flowers there. The peak of the bloom in the desert will be in the next two weeks. However, you can also enjoy great flower shows here in San Diego, albeit spread out over a longer time period. In Peñasquitos Canyon Preserve we will have over 100 different

➨ p. 11 for more



Wild Rose can be seen in several locations in the Preserve

Geology of the Linda Vista Formation

Carmel Mtn. & Peñasquitos Canyon's Rim Rock

by John Northrup, PhD, Consulting Geophysicist

Little cliffs

The name 'Peñasquitos' literally means 'little rim rock' in Spanish, so Peñasquitos Canyon can be thought of as 'Canyon of the Little Rim Rock'. It was so named by Capt. Ruiz, Commandant of the San Diego Presidio circ 1822 when he received the land grant from the Mexican Governor Pio Pico. The 'Little Cliffs' referred to the geological cap layer on the canyon walls on both the north and south rims opposite and below the falls (1). Sometimes it looks like caves under the cliffs if the sun casts a shadow from the cliffs which overhang in places (Fig. 1).

Shallow sea retreats

The cliffs are composed of a resistant sandstone layer called the Linda Vista Formation. These rocks, of late Pleistocene age, were deposited there about 1 million years ago at a time of higher sea level, when what is now Mira Mesa and Del Mar Mesa were covered with a shallow sea. As the sea retreated, due to elevation of the land as the San Andreas fault became active, it left a flat area, or peneplane, called the Linda Vista Terrace. Also, it left the remains of both a former shoreline and beach.

Natural concrete

These two distinct physiographic provinces now make up the two facies of the formation, the near-shore facies, QLn, (for Quaternary, Linda Vista, near shore) and QLb (the beach facies of the Linda Vista). OLn is composed of a 10-ft thick layer of potato-to-melon sized rounded stones cemented together with an iron-rich sand matrix. The rock is not only weather resistant but also impervious to water. That's why it forms both the cliffs about the Canyon and the vernal pools that dot the mesa tops. It has the consistency of concrete and, indeed, looks like cement that has been laced with boulders before it hardened.

The nearshore facies of the Linda Vista is replaced by the beach facies on the north wall of the canyon about half way between the falls and the Ruiz Adobe. The beach facies consists of the 10-ft layer of iron-rich sandstone enriched with iron concretions.

Fig. 1. "Little Cliffs" forming the north rim of Peñasquitos Canyon north of the waterfall.

Carmel Mtn. concretions

The concretions, a local concentration of the cementing material that has lithified sediment into rock, form around an initial nucleus of iron, called nodules, and spread outward from the center to form small spheres. The spherical concretions present in the Carmel Mountain area at the western end of Del Mar Mesa range from about 1 mm to 2 cm in diameter. Being made of iron, mostly hematite ($Fe_2 O_3$), these 'pebbles' are more resistant than the sandstone matrix so last longer.

Through the last millennium, the concretions have 'weathered out' so that they now form a 'pebblestone' pavement where tracks and trails cross the area. The larger ones now predominate because of the winnowing action of winds and rain that destroy and/or remove the smaller ones. Such a 'pavement' is shown in Fig. 2. Note the almost uniform size of the concretions (they're about the size of marbles) that form the 'pebblestone' pavement.

The sheer number of concretions in the area is astounding. For example, a recent study I made for the San Diego City Council showed that there are about 250 tons of concretions per acre-foot (that's the area of an acre covered with a 1-ft thick layer) in the Carmel Mtn. area where Pardee Construction Co. and others plan to build about 1500 houses on 400 acres. Since the deposit averages about 10-ft thick in that area, Pardee's property contains about 1 hundred thousand (100,000) tons of iron concretions!

The mode of deposition of the initial sediment is currently being reviewed. Kennedy (2) found invertebrate molluscan fauna (*Pectan Bellu*) in the Linda Vista formation suggesting a marine or brackish water environment. Phillips (ref. 3 characterized the beach facies of the Linda Vista as being formed in a bog-like reducing environment and thought that the concretions were formed when the iron was reduced to a metallic state by removal of non-metallic elements. In a more recent study, Rendell (4) proposed an aeolian (i.e. wind blown) deposit, like giant sand dunes, for QIB because of its variable thickness and evidence of cross bedding.

Rare formation should be saved

Whatever the origin, the beach facies of the Linda Vista formation is very rare. To my knowledge, only one other outcrop

City of San Diego
COUNCILMEMBER HARRY MATHIS
DISTRICT ONE
MEMORANDUM

DATE: 24 January 1995

TO: Honorable Mayor and City Council

FROM: Councilman Harry Mathis

SUBJECT: Item no. 330, Council Docket of Tuesday, January 24, 1995: Precise Plan for Carmel Valley Neighborhood 8A and related actions.

1. Neighborhood 8A is a Carmel Valley Planning Area consisting of apporiximately 390 acres. The proposal before you is the first one in which the ongoing development of the Multi Species Conservation Plan (MSCP) is a major consideration. The U.S. Fish & Wildlife Service has referred to Neighborhood 8A as having "exceptionally high biological value." Some members of the Carmel Valley Community have been actively promoting a no development option asking that the entire area be set aside as a "community park." City Staff has been actively engaged in discussions with the developer, and the government resource agencies in an attempt to determine whether a redesign of the development proposal can be arrived at which is consistent with the goals of the MSCP as well as the Carmel Valley Community Plan; one which will result in significant dedications of the most valuable habitat for preservation in this area.

2. In my view, the proposal before us cannot be supported. The community, the planning commission, and Staff have all recommended denial. It is my belief that the ongoing process of negotiation to attempt to find a viable redesign should be encouraged to continue. I recommend that since this proposal has been noticed, we hear public testimony today, and then I will make the following motion:

Motion:

Move that the matter be continued for 3 weeks to February 14 to allow further discussion between the applicant, staff, and the resource agencies to come to agreement on the basic outlines of a project redesign. The parties should return to Council on February 14 to indicate whether an "Agreement in Concept" has been reached sufficient to proceed with a detailed redesign effort.

These discussions should proceed in accordance with the following guidelines:

1) The Carmel Valley Community Planning Board, and interested environmental groups shall be kept informed and afforded the opportunity for review and comment prior to the matter coming back to the Council.

2) Any redesign proposal shall be consistent with the goals of the MSCP.

3) The City Manager shall develop an acquisition financing plan for those areas in 8A which are not subject to dedication through exaction. The plan should also consider an option to acquire all of Neighborhood 8A for preservation.

I ask for your support on this motion.

(Geology cont'd)

is known, and that's in Point Loma. An important aspect of the formation is that it supports a unique mosaic of flora and fauna peculiar to the area. From short-leaved Dudleya (*Dudleya brevifolia*) to Orange whiptail lizards (both endangered species) and vernal pools, the Carmel Mtn. area is unique and should be saved as part of the Multiple Species Conservation Plan.

References

1. Northrup, J. (1989) Geology of Peñasquitos Canyon, Windsor Associates, P.O. Box 90282, San Diego, CA 92109.
2. Kennedy, G.L. (1973) Early Pleistocene Invertebrate fanule from the Lindavista Formation, San Diego, California: San Diego Soc. of Nat. History, Transactions, v.17,pp, 119-128.
3. Phillips, R.P. 1975, Unpublished manuscript.
4. Rindell, A., 1995. Unpublished manuscript.

Fig. 2. A typical "pebblestone pavement" on Carmel Mtn. Note the near uniform diameter of the iron concretions exposed on the ground. Pen indicates scale.

Birding in Peñasquitos Canyon

Northern Harrier

by Barbara Zepf

Treading lightly

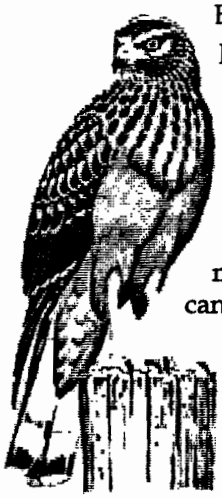
I often stop and wonder for whom does this canyon exist — man or beast? Hopefully, it is here for both. Nevertheless, the canyon is home for the deer, bobcats, raccoons, skunks, birds, insects, snakes, etc. while we just "drop in" for the day. Maybe, in making New Year's resolutions, we could make a 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.

Migrating birds

The canyon still looks like a good place to stop for a surprising number of migrant birds. I still continue to add to my Penasquitos 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!

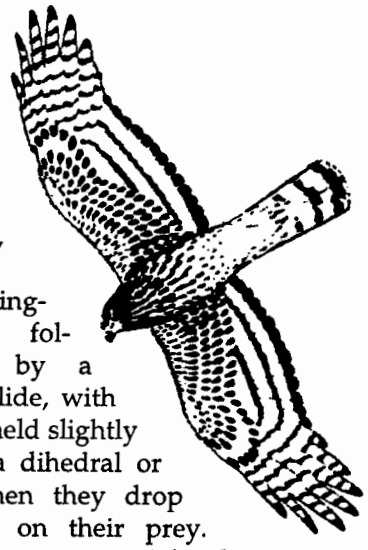
Grassland cruisers

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 streaking on spotting on the belly. Immatures resemble adult females but are washed with cinnamon below and on the wing linings.

Low riders of the grasslands

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 flv 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 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 doe 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!

On Patrol

From the Saddle

by Flave Pisciotta

A group of approximately thirty riders comprise the Equestrian Volunteer Patrol in the canyon preserve. We are "on duty" one day a month. Alex and I have been patrolling in the park for the last year and a half, and riding in the park for the past fifteen years.

Patrol day starts at 9 in the morning, when we check in with Bill, get our assignments, check out our radios and first aid kits, tack up our horses and "head out." Each patrol day is different. The purpose of the patrol is to provide information to the public on the facilities, rules, regulations, and ecology of the canyon, and report accidents or other serious problems to the Park Ranger.

Generally we ride on the north side of the park, and a good part of our time seems to be spent talking to the bikers, who enter the preserve from the Mesa and the Walden pond areas. They all proclaim to be "first time" park visitors, and we are amused by the inventive excuses provided by the bikers as to why they are in the wrong part of the preserve.

Our new radios are terrific, as we can keep in touch with the other patrols and the rangers from any area in the canyon.. Before we got the new radios, we were out of range beyond the falls and were always seeking high ground in order to make contact.

The canyon is unique and wonderful, it changes continually with the seasons and the weather. One of our favorite rides is around Walden Pond, and after the recent rains it is completely full and spilling over into the canyon (we are pleased to learn that it will soon become part of the preserve). You can hear the bull frogs from way up the canyon, they are so happy! They sound like the Peñasquitos Orchestra Base players warming up — except that the tune isn't quite right yet. Another favorite spot is the high ground north of the falls; from there you can see almost all of the canyon to the east and the west. The only thing missing is Mr. Brown's cows.

Ranger's Report

Flood Damage Closes Canyon

by Bill Lawrence, Senior City Park Ranger

[**Editor's note**: *Since this article was written, the first attempt was made to bring in fill and regrade the main trail on the east end. It failed. The soil was still too saturated and liquified under the wheels of the grader, requiring that it bee towed out of the canyon. On a similar note, while surveying the road damage my own 4-wheel drive pickup got stuck after the ground liquidifed under my tires. Now, as we go to press, we are in the midst of another big rainfall. However, guided activities to safe parts of the Preserve are still being permitted, including the Friends' walks* — Mike Kelly.]

The Preserve was closed on January 5 after a massive flood surged through the Preserve Canyons during the rainstorm on January 4, sometime between 8 and 10 pm. The height of this water was about 3 feet in the wider flood plains and 16 feet or more at the falls. I've heard comments that this was a 100 to 500 year flood. Actually this phenomenon is expected to occur more frequently and possibly with even greater flows, mainly because of the series of recent volcanic activity throughout the world. Moreover, the flooding is expected to be more flashy; that is the water will move with greater volume for a shorter time. It's because the water has little chance to soak in (infiltrate). Much of our watershed has been paved or has houses built over soils that normally can absorb much of this runoff. The surface water is also directed down straight drains so it reaches the creeks very rapidly.

The bad news is the flooding damaged a major portion of the main trail and destroyed whole sections of the hiking and nature trails on the south side of the creek. Most culverts are completely blocked and will have to be replaced. Trees continue to fall over (this is a natural occurrence for sycamores, by the way). The water is just below the surface in many areas even outside the flood plain. We must wait until the soils are dry enough, so heavy equipment and trucks can be used to haul in fill the holes and repair the damage. We will try to have these roads repaired in a few weeks, but any rains will further delay this work. As soon as the roads are passable, we will reopen the Preserve.

To check when the canyon is open again, call 538-2480 for recorded information.

Now for the good news. A tremendous amount of new soil has been deposited throughout Los Penasquitos Canyon. This new soil provides nutrients for the vegetation and is evident by the explosive new growth on many of the riparian trees and shrubs. Bycontrast, however, a lot of soil appears to be lost in López Canyon because the waters moved so rapidly down this fairly narrow canyon. Scouring can be observed in most of López Canyon where large amounts of cobbles have been exposed. Several manholes were seriously undercut and water utilities crews are working to complete this job.

On our Saturday patrol last week we noticed that the spring flowers are just starting to bloom. The park was officially closed because of the heavy road washout. The best excuse we heard for being in the park when it was closed was: "we came down from our home, and it wasn't posted there", and "but on the bottom of the sign it said the park would be open after a few nice days, and the sun has been out for two days now" People don't realize that emergency vehicles are not able to get into the preserve without the roads.

I was really surprised to see how much erosion was caused by the overflow of the creek. It washed out a majority of the road on the south side of the park, east of the falls, and also

➡ p. 8 for more

Part One

An Introduction to the Ecology of Peñasqutos Creek

by Will Bowen, Ph.D

Introduction

Peñasquitos Creek meanders down from Poway, winds its way through Peñasquitos Canyon into Peñasquitos Lagoon and finally drains out of the lagoon mouth into the Pacific Ocean at Torrey Pines State Beach. Although our creek is but one tiny strand in the vast fabric or tapestry of life, it is none-the-less an essential aspect of the larger whole, sharing mutual influence with the world and worldly processes constantly going on around it.

Down-sizing step-wise from the global to local level, Peñasquitos Creek can be viewed from several distinct perspectives or levels. First, the creek is as an element in the ecosystem that includes our canyon and adjacent areas, such as the Del Mar mesa top and the lagoon lying to the west. Second, the creek stands on its own as a unique entity or system displaying particular characteristics common to creeks and streams. Third, the creek is composed of many smaller self-contained micro-habitats; individual micro-universes with their own ecological logic. Fourth, the creek is the home or container for numerous individual plant and animal species, which are, in turn, their own living systems.

But no matter where we turn the lens of inquiry the key issue that confronts us is "ecology." By ecology we mean inter-relationships, for nothing exists by itself; all things exist in relationship. Thus, sycamores snuggle next to the creek bank seeking soils moist with water and, in turn, offer shelter to birds and even parasitic plants, such as mistletoe, which will homestead in the canopy.

To think deeper about the relationships inherent to the creek environment, we must not look just to the things, both animate and inanimate, biotic or abiotic, of the creek, but to the how of their relating — the actual processes and interactions, both physical and chemical, among and between them.

Healthy ecological relationships imply the concepts of "balance" and "harmony," for only within some defined parameters or limits, on some scale of harmonious or appropriate interaction, are such relationships even possible. Extremes, too much or too little, upset balance or harmony and may lead to degradation or change in the health of both system and species.

The key laws of creek ecology worth knowing are those of "limits" and "tolerance." All processes require a certain minimum, can tolerate a certain range, but also have a maximum that places limits on survival. Too much or too little spells disaster. Thus, if the water in creek turns too cold or too hot, fish begin to die. For survival, certain envelopes of appropriate life process must be maintained.

The job of the Friends, and those who are interested in nurturing ecologically healthy creeks and streams, is to monitor and try to assure that both species and physical objects and processes exist and that the relationships of these entities and processes aremaintained within acceptable or appropriate limits.

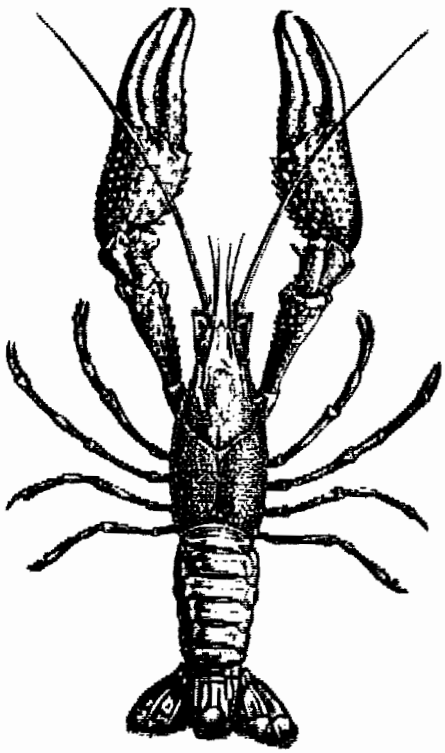
The personal benefit for doing this work includes the satisfaction of helping to insure the survival of the natural world. Benefit also accrues in that this type of work helps to move one's vision of nature from the simple and mundane to a world of increasing complexity and intricate mystery, which we may wonder at, even as we try to tinker with it.

A brief history of the creek

The ever-so-numerous river cobbles and high walls of the Peñasquitos "little cliffs" argue for a once great river that must have cut a swathe through our canyon. Although fossils are rare, there may have been strange creatures which roamed its banks and waters.

Salmon probably charged upstream and exotic birds hovered overhead. Trees were abundant and grand, at least until the climatic changes which created the modern dry Mediterranean conditions. Now, where once stood the great timber stands of the past geofloristic period, known as the Arco-Tertiary, grows the shrubby chaparral. The only descendants left remaining of the once great forests are the willows, cottonwoods, sycamores, and live oaks clinging to the moist soils of stream banks.

For some 10-12 thousand years the



Crayfish

lush environment of the creek has served man, providing water, food, medicine, and building material. Native Americans fished, set traps, washed clothes, leached acorn meal, and bathed in the creek waters. The early European colonists also drank the waters of Peñasquitos creek, watered their horses and cattle, and irrigated their crops. Later Anglo cattlemen also made use of the creek for watering their stock. Now, although the creek is still a lifestream for plants and animals, for man, it is primarily a recreational resource.

Still, considering the written record for the past 100-125 years, it is difficult to get a clear picture of the evolu-

(Creek Ecology cont'd)

tion of the historic stream. An article in the San Diego Union, dated 4/28/1869, stated that the canyon environment offered: ". . . gurgling streams of water, shaded by large trees, filled with birds of silvery voices, and among flowers of the most beautiful hues." The article went on to describe the creek habitat in particular as: ". . . a little stream skirted by tall and graceful cottonwood and slender willows."

Another Union article, dated 7/7/1872, states: "The springs in that lovely little valley are still flowing full of water, and the place is consequently green and fresh." An advertisement for canyon property, placed by Benton, Silliman, & Taylor, dated 7/30/1886, described the hydrology of the canyon as: ". . . water from the creek and from numerous ever-flowing springs of clear cold water is more than sufficient to irrigate many times the area of the tract." Benton et al went on to say that: "The land along the creek is heavily timbered with sycamore, live oak, and willow . . ."

However, an official survey report of M.G. Wheeler, dated July 1878, states: "There is no timber to speak of only a few Sycamore & Oak trees along the banks of the Paguay or Peñasquitos creek." Wheeler went on to say: "There are no permanent streams. Paquay creek goes dry in the summer might that the water stands in holes occasionally."

An earlier survey report written up by Max Stoebel in April 1865 also indicates that both Peñasquitos and López Creeks went dry in the summer. Of "Cuerbo Creek" (López Creek), Stoebel said: "The first 40 chains I measured along Cuerbo gulch which at that time (April) had a little stream of water running through it, but which becomes dry in the summer time." Stoebel continued by saying that water was stored from the springs in Peñasquitos in Pilitos (little tanks): "These Pilitos furnish water in the dry season when the Peñasquitos creek has become dry . . . ."

Lee Lagrange, of the Peñasquitos Lagoon Foundation, says that 20 years ago he road his bike through the canyon to work everyday and he observed that the Creek was very seasonal, with only a few pools of standing water during the hot weather months. Lagrange believes that the current flow in the creek has much to do with runoff from the Poway development of the last 20 years.

Apparently, although Peñasquitos Creek must have been once grand in the distant past, it was probably seasonal in historic times, and year round only in the recent past.

Geological influences

Geological factors play a major role in creek ecology. The oldest rocks in San Diego county lay the basic course for the gravity-fed run of creek water. These volcanic rocks, from the Jurassic Age, are nestled in loamy soils and gritty sand creating land contours through which the stream chooses the path of least resistance.

The creek alternates between extremes of riffles and pools, with an "average" channel or stream bed condition somewhere inbetween. Riffles are those areas of narrow banks (down to 2 feet), cobble bottoms, and fast running shallow (to only a few inches deep) frothy water. Here the water speeds up and narrows rolling over rounded stream stones, called cobbles, creating many pleasant and comforting sounds such as murmuring, gurgling, and bubbling.

The deep pools of the creek are areas of wide banks (up to 30 feet) and/or deep cuts (to 8-9 feet deep). Here the water slows to a slow crawl. In pools, the bottom may be rock, packed soil, sand, mud, or silt.

Although there is a wide range of variations between riffles and pools, on the average, the creek generally ranges from 8-13 feetwide and 1-3 feet deep, with packed soil dotted with a few cobbles.

The riffles, pools, and general stream or channel conditions, produced by differing geological processes, give rise to distinct micro-habitats where different species have evolved and adapted. In riffles, the shallow depth and fast current make it difficult for most species to survive. Usually we find only a few well-anchored plants and some insects and insect larva dug in under the cobbles. In the general stream condition, you find crayfish, mosquito fish, and occasionally, freshwater mussel. In the deep pools life abounds. Here bass, bluegill, frogs, and turtles coexist, finding abundant food and hiding places.

Hydrology

The hydrological aspects of the creek refer to all the issues involving the water. The running waters of the creek are called the "lotic" environment while associated or adjacent quiet areas of ponds or pools are referred to as "lentic," or standing waters.

The water within the creek originates in Poway from springs and creeks. It is also fed by direct water from rain, from the surface run off of the watershed, from interflow transpiring under the surface of the earth, and from ground water discharge.

The movement or flow of the water in the creek is generated by gravity. The water speeds downhill as it heads toward the ocean. The velocity or speed of the water varies, effected by the slope or grade of the land, stream depth and width, as well as resistance or friction of the material in the bed and banks.

The chemistry of the stream water is effected by many factors. Even rain water is not pure but contains many inorganic compounds. The run off from rains picks up loose soil from development, pesticides and insecticides from lawns and gardens, automotive products, dead animals, animal feces, and other decaying organic matter, making the rainy season the worse for the water chemistry and health of the creek.

The surrounding terrestrial environment, through the weathering of rock and other parent materials, contribute nutrients to the stream water. This may lead to variation in water chemistry in different locations, which, in turn, affects the surrounding life. For instance, in areas where the water is higher in calcium we often will find a higher density of crayfish and mollusks, as they need this nutrient for mineralization of the exoskeleton and shell.

The hydrology of the creek changes considerably, depending on the season. During the rainy season the waters rise to a flood level. Flash flooding and the rushing water tear down many plants, displace fish, and scour out the creek

Part Two will appear next issue

(Carmel Mountain cont'd)

reached. Six of seven issues at dispute seem to have been resolved. However, the last issue, mitigation of environmental impacts of the remaining development, a big issue, remained unresolved.

Broad support was evident

Key to the outcome of the January 24 hearing was the broad support demonstrated for preserving Carmel Mountain. Leading off testimony was an organized presentation consisting of John Dean, former chair of the Carmel Valley Planning Group, Mike Beck of the Endangered Habitats League, Craig Adams of the Sierra Club, Mike Kelly of the Friends, and Bob Rauch, current chair of the Carmel Valley Planning Group. They were followed by additional testimony from Norma Sullivan of the Audubon Society, Jan Fuchs of the Carmel Valley Planning Group, John Northrop of the Carmel Valley Trail Riders Association, and Lisa Ross of the Carmel Valley Nature Park Alliance and others.

Very important testimony was given by Mike Wells, representing the State Dept. of Parks and Recreation, South Coast District. He confirmed the importance of Carmel Mountain as a vital connection between Torrey Pines State Reserve, Torrey Pines Lagoon and Peñasquitos Canyon Preserve. It's unusual to have someone from State Parks testifying at a public hearing such as this.

Non-profit Conservancy founded

A new non-profit foundation, the Carmel Mountain Conservancy, has been formed to help identify, acquire and later manage, the 390 acres that make up this area. They have begun the process it takes to become a tax-exempt organization under state and federal law. They are already hard at work contacting potential funding sources.

If you would like to help the work of this new group, contact Ann Harvey at 481-4169 or Diana Gordon at 793-4409.

Negotiations for a redesign

At its January 24 meeting, the City Council directed the Planning Dept. staff and Pardee and the other property owners to see if they could come up with a redesign of the project that would be more environmentally sensitive. At a recent meeting with the Planning Dept. staff, many of us who have been active around this issue, were told that 6 out of 7 issues at stake had been resolved. As we go to press, however, the 7th issue is still outstanding. The results of these negotiations are to be reported back to the City Council at its March 7 meeting. It's possible that the issue could be continued to a future date if both parties report they have no agreement but are close and just need a bit more time.

Next City Council hearing

Besides a continuation, two other actions are possible at the March 7 City Council meeting. If both parties, the owners and the Planning Dept., report they are deadlocked and can not reach an "agreement in concept," the project can be put to an up or down vote. We don't believe Pardee and the other owners have the five votes to win approval. Under the law, a no vote would prevent the applicants from reapplying with their projects for one year.

If both parties say they have an "agreement in concept," the details will be reported to the Council. As of 1 week ago, the conceptual agreement called for approximately 50% of the 390 acres to be set aside as permanently protected open space. To the environmental and community representatives at the recent Planning Dept. meeting, on paper the redesign looked as good as any project could — if you're going to have any development on the land — under the circumstances. All present still prefer total acquisition of the site, funding permitting. The Council would then vote to support or not support the conceptual redesign. If, as would be likely, they voted to support, the motion would be that both parties prepare detailed plans and additional environmental review as required under the law and **report back to the Council in 90 days**.

What many of us are concerned about is that we don't want a conceptual agreement on a redesign to preclude our search for funding to acquire the entire 390 acres. We will strive to get the Council's agreement to continued the "acquisition option" as a viable alternative at least until the 90-day design period is up.

Your signatures on the petitions, your letters and calls to Councilman Mathis, have all helped stop the original project and put us in a position to save much, if not all of this wonderful area. We need your continued support in this next period. Continue your calls and letters, this time focusing in on the need to continue the "acquisition option" process.

Write, phone or fax your City Council member and Councilman Harry Mathis. Carmel Mountain is in Mr. Mathis' district. Phone 236-6611; Fax 236-6999; write 202 C St., San Diego 92101.

(From the saddle cont'd)

washed a lot of trash into the canyon. Perhaps when the park opens, the hikers could help by carrying plastic trash bags and picking up trash as they walk.

Equestrian Wish List:

1. For the piles of barbed wire to be picked up, as well as the barbed wire to be taken off the post and rail fence on the north side of the park, west of the adobe. The barbed wire can be extremely dangerous to the horses legs and feet.

2. For a few tree stumps to be left by Sycamore Crossing, so that we can have a place to sit while we eat lunch on patrol.

3. Provide another ranger to help Ranger Bill on weekdays so that we can patrol during the week to provide visitor assistance and to insure that the park regulations are not abused during the weekdays.

We feel very privileged to be a part of the patrol, and to be able to enjoy the park while contributing to its preservation. Several months ago, while patrolling, we came upon a female hiker on the trail. She said, "I love to walk the trails on weekends, and how pleased and relaxed I feel with the presence of the mounted patrol". Needless to say, she made our day. This let us know that our time as a volunteer helps to make the park special to our visitors as well as ourselves. Happy Trails . . .

Friends of Peñasquitos Canyon March 1995 Events Schedule

Great Wildflower Show Beginning

Note: although the Park is closed due to flood damage, we are being allowed to take groups in on walks to safe areas of the park. All of our walks for March were planned with this in mind.

Wildflowers are bursting into bloom in every habitat in the preserve. Join us on one of our many walks to enjoy the color and fragrances. See the article in our newsletter on where to see these flowers.

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

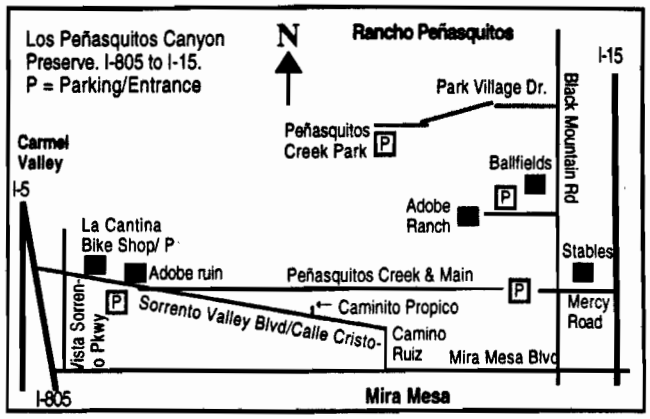
Volunteer Opportunities
If you'd like to help with our conservation or other activities call Mike Kelly at 566-6489. We have ongoing animal surveys, stream surveys, invasive weed removal projects, seed collection and planting programs to name a few. We also need help with organizational aspects of our work.

MARCH

Rancho Santa Maria De Los Peñasquitos Adobe Ranch Tour
Sat., Mar. 4, 11 a.m. and noon (45 min. each), led by docents from the SD Archaeological Society. Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, then first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch. See San Diego's oldest residence, an historic adobe, settler and Indian artifacts. **Thomas Guide p. 1189.**

Medicinal Plant Walk
Sat., Mar. 11, 3:30-5:30 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, Ph.D. **Thomas Guide p.1208.**

Volunteer Plant Rescue
Sat., Mar. 11, 10 a.m. - 1 p.m. Help us save plants from an area next to the preserve that is about to be developed. We'll later use these plants in restoration efforts in the preserve. Bring gloves, plastic pots and a shovel if you have them. Meet at Caminito Propico and Calle Cristobal in Mira Mesa. From the west take Sorrento Valley Blvd. east. It becomes Calle Cristobal as it passes Camino Santa Fe. The next street is Propico. From the east, take Mira Mesa Blvd. to Camino Santa Fe. Right on C. Santa Fe, then right on Calle Cristobal to Propico. Park in cul-de-sac on south side of Cristobal. Park legally. Call Mike at 566-6489 for more information. **Thomas Guide p.1208.**



Native Grass Restoration
Sun., March 12, 10 p.m (**tentative**). Join Les Braund in helping to plant native bunch grass (*nacella pulcra*) and other species in an area to be restored near the historic ranch house. Meet at the red barn near the ranch house. Bring gloves. Main tasks are digging holes and planting. Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, then first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch. Call Les at 566-3958 or Mike at 566-6489 to let them know you can help and to confirm time.

Medicine Wheel Walk
Wed., Mar. 15, 7-9 p.m. (2 hours). The night of a full moon is a good time to stargazing, learn about sacred drumming and storytelling. Bring drums and rattles if you like. 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. Led by Will Bowen, Ph.D, cultural anthropologist. **Thomas Guide p.1208.**

Wildflower, Vernal Pool & Fire Walk/López Ridge
Sat., Mar. 18, 9 a.m. Meet at Caminito Propico and Calle Cristobal in Mira Mesa (via Camino Ruiz going north, or Sorrento Valley Blvd. going east). We'll tour the recent Penasquitos Canyon Fire area and discuss the ecology of fire and what to expect in this area in years to come. We'll also visit nearby vernal pools and learn about the plants and critters that live in them. Led by Les Braund. Wear good boots and clothes you don't mind getting dirty with ash. This one of a series of walks that will explore this area every month in the spring. **Thomas Guide p. 1208.**

Rancho Santa Maria De Los Peñasquitos Adobe Ranch Tour
Sat., Mar. 18, 11 a.m. and noon (45 min. each), led by docents from the S. D. Archaeological Society. See Mar. 4 listing for details. **Thomas Guide p. 1189.**

Mystery Tree & Wildflower Walk
Sun., Mar. 19, 8:30 a.m. (1-1/2 hours). 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. Good chance to see Adolphia Californica and other blooming plants. Meet at the parking-staging area off Black Mountain Road. Take the Mercy Exit off I-15 west to Black Mountain Road. Cross the intersection and enter the parking for the Preserve opposite this intersection. Easy to moderate walk, small hill, wet stream crossing. Led by Chris Bader. **Thomas Guide p. 1189.**

➡ p. 10 for more

Tracking & Nature Walk at Ranch House
Sat., Mar. 25, 11 a.m. (2 hours). Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, then first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch. Learn how to track animals and discover the natural environment they live in. Hike will include an overview of the animal surveys being conducted in Peñasquitos Canyon Preserve. Led by Chris Bader. **Thomas Guide p. 1189.**

Nite Owl Walk: reservations needed
Sat., Mar. 25, 5-7 p.m. Join us for an early evening owl walk. Expect to be serenaded by Pacific chorus frogs as we watch and listen for Barn, Great Horned, Western Screech owls and bats. Bring flashlight. **By reservation only.** Call Brian at 695-2209 to sign up and for meeting place.

Geology Walk
Sun., Mar. 26, 9 a.m - noon. Join Geologist Don Albright for a walk through time, including the Preserve's waterfall. Meet at Caminito Propico and Calle Cristobal in Mira Mesa. From the west take Sorrento Valley Blvd. east. It becomes Calle Cristobal as it passes Camino Santa Fe. The next street is Propico. From the east, take Mira Mesa Blvd. to Camino Santa Fe. Right on C. Santa Fe, then right on Calle Cristobal to Propico. Park in culde-sac on south side of Cristobal. Park legally. Steep trail. Bring water, sun protection. **Thomas Guide p. 1208.**

Friends Monthly Business Meeting
Tues., Mar. 28, 7 p.m. At the adobe ranch house. Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, make first U-turn, take right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch.

Tracking, Nature and Wilderness Survival Weekend
Fri., March 31 through Sunday, April 2. Since class size is limited reservations are required. Call Barry Martin at 484-4007 for details. See article in Newsletter for details.

(Endangered Species cont'd)

While debating on the floor of the House of Representatives the Property Takings legislation the Republicans often referred to the ìJudyís Houseî property. This property is located on the upper Sugarloaf Key in Florida. It is obviously in a coastal estuary and subject to periodic flooding and was valuable habitat for the endangered Florida Key Deer. The land ownersí, supposedly a mom and pop who just wanted to build a house, were denied the use of their property for ten years. The owners sued. After a lengthy legal battle they were granted permission to build not a single house as the supporters of the taking legislation claimed but a condominium project. Had they been denied the permit to build under proposed takings regulations the Federal government would have been required to compensate the owners for the loss of value exceeding 20% of the total value of the property. The problem is that the compensation would be based on the value of the land had they been allowed to build the maximum number of units on the property instead of it value as a wetland.

Les Braund has formed a group, KNOAH's ARC, to defend the Endangered Species Act. He can be reached at: 566-3958.

This legislation if left intact could bankrupt the country by requiring compensation from the individual regulatory agency budget for every speculator and developer who proposes any ill conceived project on their property despite the negative impact the project will have on the environment or surrounding property values. The opportunity for fraud and scam artists is unparalleled .The real intent of the legislation is to circumvent environmental law and stop environmental considerations from interfering with the rights of developers to develop their land as they see fit.

Locally projects like 8A, Carmel Mountain, would be allowed to go ahead as designed by the developers because there is no money to buy the property. Pardee could proceed to develop their land despite the presence of a large number of endangered species. Proposed amendments to this legislation would even further restrict efforts to preserve sensitive land by placing a limit on the amount of time the government has to purchase the property; as an example one year or less. Given the current austere budgets of Local , State, and Federal governments and the voters rejection of any bond measures, there will be little if any money to buy sensitive land. Consequently there will be no environmental protection for endangered species or their habitat.

The Property Takings legislation, Risk Assessment legislation and another threat to environmental protection the Unfunded Mandates legislation have all been combined into one bill, HR 9. The reason for the consolidation is to make it more difficult for the Senate, where the bill will be debated next, to substantially alter the bill. Should the Senate propose changes deemed unsatisfactory to the House of Representatives then the bill goes to the joint Senate/House of Representatives conference committee where changes can be made without public debate, thus restoring egregious amendments.

Everyone concerned about the future of wildlife, bio-diversity , and open space should write, call or meet with their Congressman and Senator and express their concern. Not to do so will surly result in a tremendous loss of bio-diversity, open space and wildlife.

For the record congressmen Hunter, Cunningham, Packard, and Bilbray voted for HR 9 while Congressman Filner voted against it.

Thanks Volunteers!

Thanks to all of these very dedicated conservationists!
Plant Rescue: Will Bowen, Cathy Buco, Doug Fenske, Tom Hopp, Mel & Millie Howe, Robb Hutsel, Holly Jarratt & friend, Mike Kelly, Kent Lachman, Brian Swanson, Elizabeth.
Exotic invasive weed removal & restoration: Mike Kelly, Melanie Howe,

flowers, vines, shrubs and trees in bloom over the winter and spring months. Some will be in ones and twos in scattered locations; others will appear in patches; some will succeed each other in a habitat such as vernal pools and one area will be characterized by a massive, continuous flower show for the next several months.

Burn area for best show

Our massive show, of course, is to be found in our burn area straddling López Ridge. See our schedule for guided tours of this area. In general, burn areas provided good flower shows because fire destroys the old vegetation, chaparral in our case. This not only opens up the soil to more water and sun, but also adds important nutrients to the earth. Fire is also needed to break the dormancy of the many seed types that have been waiting in the "seed bank" since the regrowth after the last fire in the area.

In one botanizing expedition through one gulley in this burn area more than 60 different flowering plants were encountered and identified! While some plants will occur in modest size patches, the entire area will be covered with tens, even hundreds of thousands each of several species, such as morning glory, fire poppy, large-flowered phaecelia, mallow, ceanothus, and others. Both Les Braund and Mike Kelly will be leading walks in this area over the next three months. See our schedule for details.

Vernal Pools: most mysterious show

Vernal pools are often a mystery to people. They're ephermeral, only lasting a few months. They hold only a few inches of water. They occur on an otherwise flat mesa top. Yet they are host to a wonderful variety of plants and animals. In some, not all pools, you can encounter the Mesa mint (*pogogyni ambramsii*), a Federally listed endangered species. In fact, once in bloom, you would have to be incapable of the sense of smell not to be aware of its presence. It's intoxicating odor can overpower the olfactory senses of the unwary downwind of it. Although striking in masses, it is best appreciated up close, on one's knees or belly. Only then can you appreciate its colors. Like many other vernal pool plants, it's a "belly flower."

Other tiny organisms are also found in vernal pools. One such is the fairy shrimp, a fresh-water shrimp smaller than your fingernail on your pinkie. It's translucent and swims upside down. It's one of the early denizens of vernal pools and one of the reasons the Friends like to start vernal pool walks in February, when the shrimp is in full swing. For, the name of the game in vernal pools is succession. Close on the heels or is it flippers or . . . whatever, of the shrimp, come the spadefoot toad and pacific chorus frog tadpoles, voracious and ready to eat most anything, including shrimp and even each other. Later these will evolve into their adult forms and cause no small amount of amusement as they frantically hop out of the visitors way — often numbering hundreds in a single spot. As the vernal pools slowly dry up, a succession of plants bloom in its decreasing periphery, often in rings of flowers such as the downinngia. Hurry, though, by May the show is all but over until the next season.

Other color spots

Early March is the time to see a variety of bloomers in the chaparral plant community. Chaparral is generally found on north facing slopes. Ceanothus (wild lilac) is in fragrant bloom in López Canyon east of the Camino Santa Fe bridge. Fuschia flowering gooseberry shows its red clors at this time, especially in the oak understory.

Indian warrior can still be found in open spaces and along the edges of the chaparral. Spice bush covers itself with diminutive, but sweet smelling blooms. The trailhead at Caminito Propico is one place to see these. Wild cucumber can be found both in the chaparral and in the riparian understory all over the park.

In grassy areas look for pockets of shooting stars, blue dicks and morning glories (also in the burn area). Take the Mystery tree walk north of the equestrian center to enjoy the pungent Adolphia californica (spine bush) .

Deadly nightshade is already out in grasslands and coastal sage habitat; honeysuckle vine in the chaparral; the brilliant yellow mahonia in the understory of the scrub oak and chaparral and along the south side of the main trail at the east end; scrub oaks; willows throughout the creek area; purple yerba santa in scattered locations, but especially Lopez Canyon east.

Yellow flowers are beginning to bloom in small pockets, but will come into their own in late March, April and May, including encelia californiica (San Diego Sunflower) on our coastal sage covered slopes (south facing). The exotic mustard will peak in April. Try to guess which hillside is covered by mustard and which by encelia, for each is capable of doing so; yet each has a distinctly different shade of yellow. López Canyon east and west of the Camino Santa Fe bridge is a good area for yellows in late March and April.

The biggest show of blues and purple flowers is yet to come when our Lupines and vetches cover entire meadows later this spring. The north side trail east of the ranch house to and past the waterfall is a good area for sighting these. Many more flowers are yours to discover. Explore!

Wild cucumber (Echinocystis fabacea) is a vine found in the chaparral and riparian habitats. It has an intriguing sex life (you must attend a walk to learn how intriguing); it produces a large globular fruit. You can also learn how Native Americans used it in fishing!

Friends of Los Peñasquitos Canyon Preserve, Inc.
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Planting pots needed!

If you have 1 or 5 gallon plastic planting pots to spare call Mike at 566-6489. They will be used to rescue and grow natives.

Friends' Directory

Officers
President: Mike Kelly 566-6489
Vice-President: Tom Hopp, Ph.D. 566-4474
Treasurer: Brian Swanson 695-2209
Secretary: Les Braund 566-3958

Other Members of the Board of Directors
Don Albright, Vicky Ausen, Chris Bader, Trinity Gabriel, Barry Martin, Alan Pepper, Ph.D., Brian Swanson,

Walks and Committees Leaders
Bird Walks & Gnatcatcher Survey Committee: Brian Swanson 695-2209
Conservation Chair: Alan Pepper, Ph.D. 586-7123
Geology Walk Leader: Don Albright 443-7982
Hike Committee: Trinity Gabriel 672-0229
Medicinal Plant & Night Walks: Will Bowen 452-7091
Nature Walk: Les Braund 566-3958
Newsletter Committee: Mike Kelly, Carla Scott, Vicky Ausen
Vernal Pool, Fire Ecology & other walks: Mike Kelly
Wetlands Restoration Committee: Don Albright, Tom Hopp, Susan George, Marcus Spiegelberg, Trinity Gabriel, John Northrop
Wildlife Survey Committee & Tracking Walk: Barry Martin 484-4007

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 (call me to discuss)
____ Hikes
____ Indian Culture **3/95**
____ Educational Workshops
____ School, Family, Youth Programs
____ Environment (Plants, birds, mammals, geology)

Other: _____

Name(s) _____

Address _____

City State Zip _____

Home Phone _____

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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.

May/June 1995
Volume 9 No. 3

Buying Time for Carmel Mountain

by Mike Kelly, president

On April 11, 1995, the San Diego City Council voted 8-1 to adopt a motion put forward by Councilmember Harry Mathis for a two-track policy for Neighborhood 8A (Carmel Mountain). This was a victory for activists seeking to preserve the biodiversity of this wonderful area.

The Council's action postpones a final decision on Carmel Mountain until October of this year. During the intervening 6 months, community activists will try to form an assessment district in Carmel Valley to raise part of the funds needed to acquire the Pardee Corps' critical parcel A. The City Manager was directed by this same motion to aid the community in this and other efforts to raise the needed funds. Parcel A contains important Southern maritime chaparral and vernal pool habitat. It was already agreed to acquire parcels to the north of Parcel A. The second track of the Council decision is a replan based on a series of criteria worked out by City staff, representatives of Pardee and environmental leaders. In his written motion, Councilmember Mathis stated his opposition to Pardee's proposals for parcel A: "I am not in support of this proposal for parcel A. I believe that the public should be afforded precedence in the opportunity to have the site preserved in a natural condition. He linked the potential acquisition of this parcel to the Multiple Species Conservation Program, saying: "Finally, I ask my colleagues to join me in seizing a rare opportunity to help preserve a unique and valuable resource which will be the cornerstone of our MSCP efforts. I am particularly pleased that

➡ p.5 for more

Volunteer Patrol Events:
See page 8

On Patrol

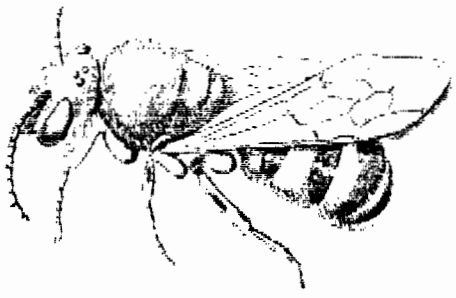
by Jaime Lawrence
Los Peñasquitos Volunteer Patrol

12th Annual California Trails Conference Report

On the weekend of March 17-19, 1995, I attended the 12th Annual California Trails Conference at the Highland Springs Resort in Beaumont California. In addition to the main conference, I also participated in an all day workshop on trail design and layout at the Big Morongo Canyon Preserve.

The preserve is a significant stopover on the pacific flyway, and is a popular destination for birders nationwide. Management of the preserve was recently assumed by the Bureau of Land Management in a joint agreement with the Nature Conservancy. The preserve has the dubious distinction of having had its *entire* trail network destroyed by both fire and flood during the last two years. The resident Ranger, who acted as our host, has been assigned the daunting task of redesigning and rebuilding the preserve's trail system, and it was one of these trails that the workshop participants had the opportunity

➡ p. 8 for more



Metallic sweat bee male (*Agapostemon species*), one of many California bee species not killed off by an invasive mite (see p. 6).

Highlights Inside

News Briefs

Del Mar Mesa planning moves forward

April 18, the San Diego City Council voted unanimously to approve a new planning process for Subarea V of the Future Urbanizing Area (FUA). This area includes the heart of the Del Mar Mesa, critical habitat to the north of Peñasquitos Canyon Preserve. It is this habitat that includes the most important wildlife corridor that would prevent the Preserve from being isolated. The new planning process for Subarea V requires that the landowners submit a Specific Plan for the whole area, which will include clustering of development at a maximum density of 1 unit per 4 acres and dedication of open space to the Multiple Species Conservation Program. The density is below the threshold that requires a vote of the people as required by Proposition A, passed by the voters in 1984. The Council's decision came on a motion made by Councilmember Harry Mathis that broke a stalemate over how best to move forward in planning land in the FUA in the aftermath of

➡ p. 5 for more

Part Two

An Introduction to the Ecology of Peñasquitos Creek

by Will Bowen

bed, distributing debris everywhere. Ironically, some plants, such as willow, have adapted to this periodicity and will re-sprout in the new siltation loads brought downstream by the flooding. Other plants have also adapted to flooding by using the rushing waters to scatter seeds. Scouring flood waters also remove the summer build up of algae, opening the way for a fresh start for stream life each spring.

In contrast to the flooding of the late winter when the creek is the dry season of late summer when the water dwindles to a trickle. During these times of much less water, pools are shallow, the water grows warmer, sometimes up into the 70's or 80's, and the oxygen content diminishes, again making life perilous for stream inhabitants. This is also the time when you see large algae blooms covering much of the surface of the pools in the stream, leading to odious smells, clogged waters, and elevated pH (acid/alkaline balance).

It is important to understand that hydrological conditions, such water flow rate, temperature, chemistry, and oxygen level, interact with geological processes and the influence of relative amounts of shade or direct sunlight to create many unique stream environments. For instance, water is generally warmer after traveling downstream and in areas of direct sun exposure, while DO (dissolved oxygen), though related to water temperature, may vary from place to place. Areas well shaded by willow overhang usually have cooler waters, more leaf litter, and often more fish. Speaking of fish, each has its own unique band of optimal water temperatures and tolerance for DO (dissolved oxygen) and will most often be found where the conditions are right for them.

Indeed, all along the creek there exists a network of micro-environments, where plants and animals have become specialized and highly "clumped." It's the patterns in the physico-chemical environment of the creek that has created these unique micro-habitats, in which we can both identify and predict a differential distribution or clustering of organisms.

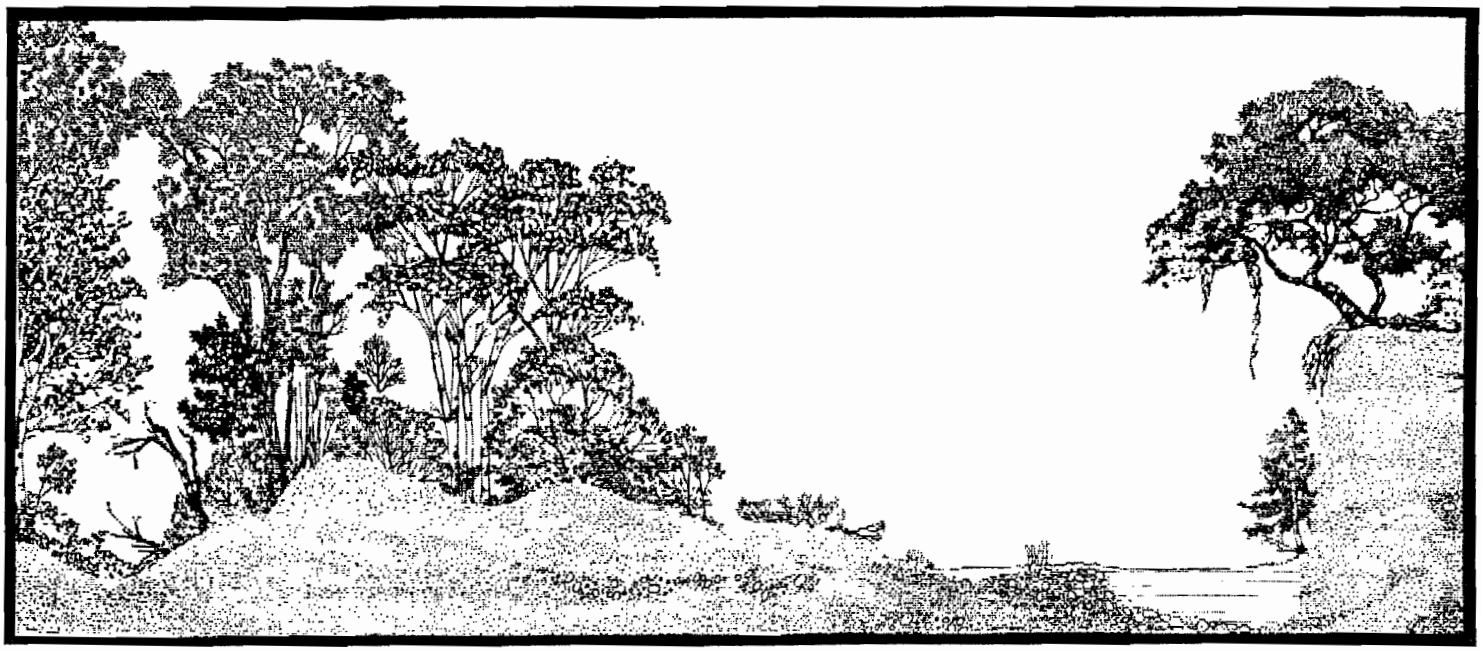
Energy base

The primary energy source, or base upon which the pyramid of life of the creek rests, can be traced to the nutrient rich detritus or plant matter which has fallen into the steam and is decaying. It's essential that there are trees and sedges along the creek, because the energy from fallen willow, sycamore, mulefat, cotton wood leaves, as well as from the stems from sedges and rushes, which creates a steady state of potential energy fueling creek life. The decaying leaves and plant matter rotting in the creek are fed upon by filter feeders, shredders, collectors, and grazers, such as insects, mollusks, snails, and crayfish, which are, in turn, consumed by predators higher up on the food chain.

The riparian habitat

The trees and plants, such as willows, cattails, and oaks, that grow within and beside the creek are called "riparian flora." This flora dominates the "streamside riparian habitat," or "zone" which when dense, is called the "riparian forest."

Ecologically-speaking, the riparian habitat is a distinct band or corridor, of water, vegetation, and associated fauna centering around the waters of a stream or creek. The riparian habitat is quite remarkable and usually much more complex and diverse than the surrounding landscape, owing to the abundant water supply.



Cross-section of an alluvial stream

Experientially-speaking, the riparian zone is generally cooler and moister, offering more foliage, shade, covering, and many interesting and unusual odors, colors, sounds which are not found in the adjacent sage scrub, woodlands, grasslands, or chaparral.

It's important to note that there are many different types, kinds, gradations, and/or combinations of riparian habitat, including willow riparian, sycamore-willow riparian, oak riparian, etc.

The riparian habitat can be divided into levels, of which there are three, including "groundcover" or the plants growing close to the earth; understory, which includes herbs, shrubs, and small trees; and the canopy, or the tree tops and branches. Life has diversified into these three levels owing to competition for scarce resources, which is referred to as resource partitioning.

Subsequently, we find toads and frogs, poking around plantain and fallen leaves on the ground, salamanders hiding in the holes in sycamore trunks, and black shoulder kites spying restfully from the topmost willow branches.

Streamside plants and trees

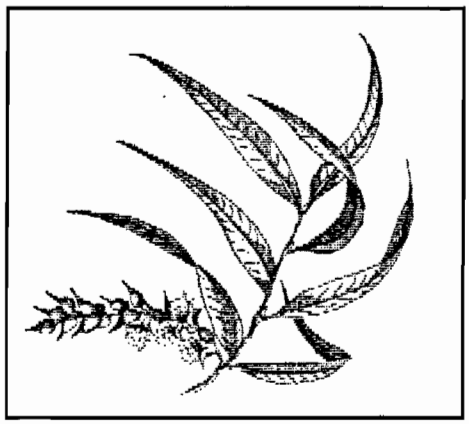
If you were to walk down the center of the creek, as the Friends did during the stream surveys, the plants you would most likely encounter midstream would be aquatic. Aquatic plants grow under the water, such as Elodea or water weed (up to two feet thick on the bottom), or float on top of it, like the tiny emerald green duckweed (*Lemma spp.*), or like the unsavory (to us) algae.

Aquatic plants need to be well-anchored and streamlined to deal with the forces of stream velocity. The only alternative is to drift with the current . . . which only works when the waters are not raging.

Turning from the submerged or floating deep water aquatic plants to the emergent vegetation on the banks and in shallower waters, you would notice other aquatic plants with roots and stems in the water and leaves under or slightly above. These include the Whorled Marsh Pennywort (*Hydrocotyle verticiliata*), which is shaped something like a green valentine heart, and the Water Pimpernel (*Samolus parviflorus*) with a long raceme and the dangling bell-like flowers, said to be a Celtic herb with curing power, and Watercress (*Rorippa nasturtium aquaticum*), which the rich use to make sandwiches.

Coming up on the stream bank other herb-like plants present themselves including, Plantain (*Plantago major*), Marsh Fleabane (*Pluchea odorata*), the edible Wild Celery (*Apiastrum angustifolium*), the delightfully fragrant Yerba Mansa (*Anemopsis californica*), and Curley Dock (*Rumex crispus*), another edible potherb.

Moving farther back from the creek into the understory of the riparian woodland you find the leathery green Poverty Weed (*Iva hasiana*), also known as San Diego Marsh Elder, the pink-flowered Wild Rose (*Rosa californica*), thorny Pacific Blackberry (*Rubus ursinus*), which never seems to produce any berries, the bristly yellow-flowered Prickly Lettuce (*Lactuca serriola*), the Willow-herb (*Epilobium spp.*), which has tiny pink flowers and seeds with a tuft or silky hairs, the purple-flowered False Indigo (*Amorpha fruticosa*), which looks like a lupine, cocklebur (*Xanthium spinosum*),



Black willow (*Salix nigra*)

mugwort (*Artemesia douglasiana*), and mulefat (*Baccharis sarothroides*).

In other areas, you find a habitat which is very robust and all inclusive, consisting of cattails and/or the bulrushes. The Cattail (*Typha latifolia*) can grow quite tall and is identified by the flat leaves and red-brown spike. Alternating with cattail one often finds the sharpely triangular-stemmed Pursh (*Scriptus robustus*), or Bull Tule, which can grow up to 9 feet tall. Less frequently you also see the Tule (*Scriptus acutus*), which has roundish, or tereted, hollow-stemmed culms, seemingly made of styrofoam with a coat of green paint. Down near the West End of the canyon, where you have some salt marsh indicator plants, such as salt grass, frankenia, and pickleweed, you can also find another type of Tule, which is a little taller, slightly triangulated, and a slightly different shade of green.

Shorter less robust types of the sedge-like plants growing as emergent vegetation along the banks of the creek include the triangular-stemmed Wooley Sedge (*Carex lanuginosa*), which grows 2-3 feet high, Slender Creeping Spike Rush (*Eleocharis montevidensis*), which looks like a thin grass with little round head, the sloppy-looking beige-colored Toad Rush (*Junctus bufonius*), and a cyperus with a helicopter blade flower head known as Nutgrass (*Cyperus esculentum*). Another easily identified more solitary rush, with very sharp, defensively-modified leaves and tasty seeds that are a favorite of ducks, is Mexican Rush (*Juncus mexicanus*).

Trees found in the riparian woodland habitat include sycamore, willow, coast live oak, and cottonwood. The California Sycamore (*Plantus racemosa*) has a very thick gray trunk and limbs, often with large holes, which serve as nesting sites for birds and animals. This native tree needs a great deal of water to replace the leaves it loses each year.

Many Coast live oaks (*Quercas agrifolia*) can be found just east of the water fall. They have very beautiful bark and sometimes keep one foot in the stream water. Cottonwoods (*Populus fremontii*), which are related to willow, are not very numerous along the creek, but there are a handful of senescent ones (old and in decline) west of the waterfall near hangglider hill. The only young cottonwoods to be found in the system were planted as part of a mitigation project north northwest of the adobe ranch house in the east end.

There are several species of willow found along our creek. It's very hard to tell them apart. Much interbreeding or hybridization seems to be occurring. I found one willow that had both rounded and sharply pointed leaves,

➡ p. 11 for more

Birding in Penasquitos Canyon

Canyon Food Chain and the Red-tailed Hawks

by Barbara Zepf

When I first started writing this column, I told you I never left home without my binoculars, not even to go grocery shopping. This still holds true. While I live in Mira Mesa, I shop for groceries in Peñasquitos. I think there is an unconscious desire on my part to pass the canyon, at least once a week. I always buy my lunch in Peñasquitos and stop by the canyon on the way home to eat it.

While munching on my sandwich the other day, I was thinking how easy it was for modern man to participate in the food chain. You buy it — you eat it! Lunch is not such an easy affair for the creatures in the canyon. The food chain is too easily interrupted. The "grocery store" may be out of what you need (and it's too far to go to another one). Predators may be lurking overhead (or on the ground). It may be too dry (making your food die back or disappear altogether).

Food chains in operation

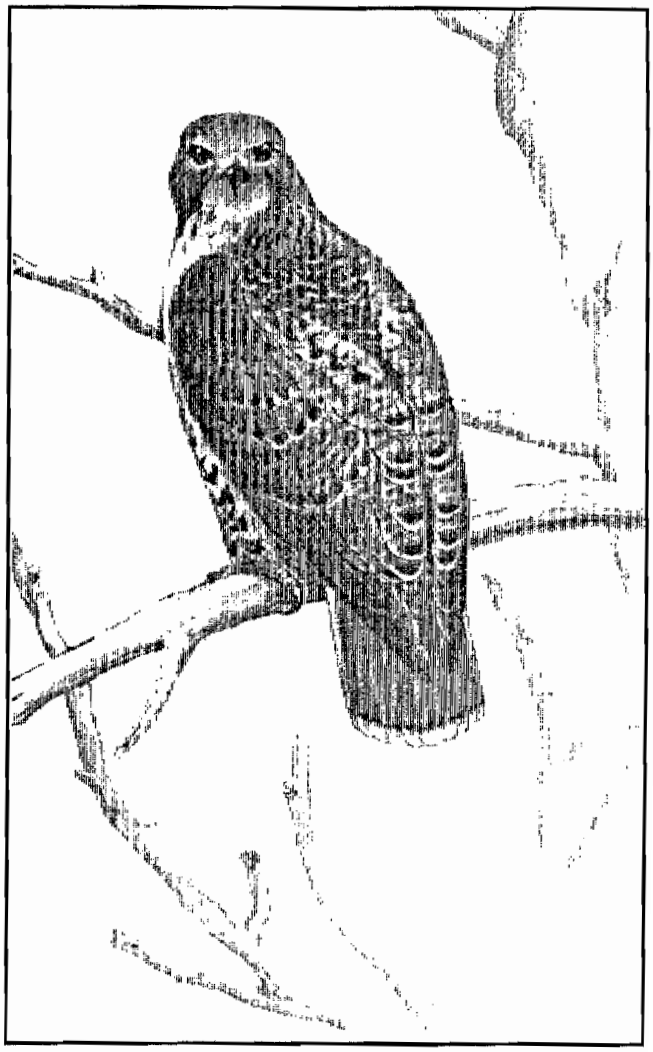
I had the pleasure of watching two food chains in operation last week. A crayfish was skimming for food along the bottom of the creek. A Belted Kingfisher dove in for a quick bite for lunch — end of crayfish — full belly for the Kingfisher. A Valley Pocket Gopher kept peeking out of his burrow at me. Finally he got brave enough to make several short trips out in the open to closely crop the vegetation nearby and drag it below ground for his snack. Both the Kingfisher and the Pocket Gopher are not at the top of their particular food chain. Overhead soared the ultimate members — two Red-tailed Hawks. While I did not see the food chain completed that day, I did have the pleasure of watching those two hawks — magnificent!

Red-tailed hawk characteristics

The Red-tailed Hawk is the largest hawk that regularly occurs in Peñasquitos Canyon. Some of them undoubtedly migrate; some are year-round residents. The Red-tailed Hawk is a member of the Bueto Family — the soaring hawks. They circle overhead and drop on their prey in a steep dive. They have broad, rounded wings, a thickset body, and broad fanned tails. The sexes usually look alike, with the female being somewhat larger. The reason for this is unknown, but one educated guess is that the female's larger size gives a bigger bulk for incubating the eggs (which is usually her exclusive domain). The smaller size of the male gives him more maneuverability for hunting to feed the female and young and for warding off intruders at the nest.

The Red-tailed Hawk is a large bird. It ranges over all of North America. It has a wider ecological tolerance of habitats than any other North American hawk. It's 19–25 inches long with a wingspread of 46–48 inches. The adults are dark brown above, their eyes are brown and their legs and feet are yellow. They are white below with brown streaks on the lower neck and a broad band of dark streaking across the white belly. The upper side of their tail is chestnut red, light pink below. The leading edge of the underside of the wings is black or dark. This dark bar is a reliable identification mark on all Red-tailed Hawks. It is called the patagial bar. The bird just described is the typical plumage. Many variations occur in this bird. Some Red-tailed Hawks, like the Krider's form, are very pale; others like the Harlan's form are totally dark. There are many gradations in between. The Red-tailed Hawk usually has variable mottling on his back.

The immature look somewhat different. Their eyes are a lighter color (gray-brown-yellow) and their tails are gray-brown with many blackish bands. They are heavily spotted and brown-streaked below.



The Anything Diet

Red-tailed Hawks will eat just about anything — mice, grasshoppers, rats, squirrels, gophers, rabbits, moles, skunks, crayfish, etc. Their main prey is rodents. They have phenomenal eyesight (binocular vision) that enables them to see prey at a great distance, usually from a perch in a tree or pole near fields. They take off with powerful wingbeats, then glide to snatch prey from the ground with sharply curved talons.

Mating and nesting

I have had the delight of watching Red-tailed Hawks nest in the canyon for seven years. They are thought to mate for life, or until one of the pair dies. For five years, I saw the same two hawks nesting. Two years ago, the male appeared with a new (very

(Red-tail hawk cont'd)

dark) mate. I have seen three active nests in the east end of the canyon. I know there are more elsewhere that I have not observed. They tend to use the same nest year after year. This same nest is sometimes used by the Great Horned Owl earlier in the year. The nest is a large, bulky affair, 2 1/2–3 feet across. It's made of sticks and twigs, lined with bark, often decorated with some green sprigs. In the canyon, the hawks build nests up 15–70 feet or higher in the sycamore or eucalyptus trees. They lay 2–3 eggs from February to June.

Last week I watched my favorite pair, circling overhead as they screamed — their call is a harsh, descending "keeeeer." Their acrobatics are a joy to observe. The male will dive suddenly from a great height at the female. She will turn over in the air and present her claws to him in mock combat. They will tumble towards the ground, eventually parting. Then they will swoop to a perch in a tree didn't quite come to completion, but as I left, they were starting the whole routine over. I hope to see them on the nest the next time I visit the canyon.

Once they nest, you have plenty of opportunities to observe them. From incubation to fledging is a long affair. The female will incubate the eggs for 28–32 days, and it will be another 45 days or so before the young leave the nest. Even then, they tend to perch in a spot nearby waiting to be fed by the parents for a few more weeks. Sometimes they even return to the nest to bed down for the night. Listening for the incessant calling of the young for food is one good way to find a hawk's nest. Those babies seem to have an insatiable appetite!

Some young may be very tame, and therefore, easily approached. Adults fear man; they have even been know to attack a man as he was climbing to their nest. Most people fear the Hawk's large hooked beak, but those razor-sharp talons are the real threat.

I hope the Red-tailed Hawks will return to nest in the canyon this year. It is such a thrill to watch the young flapping their wings in the nest, getting ready for the big day when they finally launch into the air for the first time. Some manage only a few feet, but most seem to soar effortlessly after a rather ragged takeoff. As I watch with bated breath, my heart soars with them! Good birding!

(Carmel Mountain cont'd)

this represents a community initiative by the people living in the area who know better than anyone how important this resource is. Their willingness to bring to brear both their time and financial resources cries out for a strong signal from the Council that we are prepared to help them achieve their goal which will ultimately benefit all of us and future generations."

Despite the near unanimous vote, the 8A hearing was quite contentious. Tense exchanges between Councilmember Mathis and Pardee representative Mike Madigan were described by some in attendance as "a classic showdown."

Acquiring parcel A is not a "slam dunk." It's going to take a lot of hard work. The non-profit Carmel Mountain Conservancy will need all the help it can get over the next 6 months. To help call Ann Harvey at 481-4169 or Diana Gordon at 793-4409.

Thanks Volunteers!

Thanks to LDS

A special thanks goes out this month to the Church of the Latter Day Saints for an outstanding cleanup effort in the Preserve. More than 150 youth and adults turned out April 29 for a much needed cleanup of flood-deposited trash in the canyon. Thanks to Vicky Ausen, Robb Hutsel, Mike Kelly, Barry Martin, Kate Martin, and Chris Bader of the Friends for helping organize it.

Exotic invasive weed removal & habitat restoration: Mike Kelly, Melanie Howe, Cindy Burrascano, Robb Hutsel, Les Braund, Cathy Buco, Elizabeth Dunigan, Paul Micheletti, Rena Kerwin, Trinity Gabriele, Barbara Lohne, and Karen Smith.

(News Briefs cont'd)

the defeat of Proposition C from last June's ballot. At that time, the voters rejected the proposals put forward for developing the FUA. The few landowners who still wanted to support comprehensive planning for at least part of the FUA had been stymied by a requirement put forward from the City Attorney's office that the City Council had to first amend the Framework Plan for the FUA before they would be allowed to proceed with planning for Subarea V. Many environmental groups opposed adopting any amendment to the Framework Plan in the absence of a plan for the area. Councilmember Mathis' motion, which was supported by the Friends, the Sierra Club, Proposition A leader Dave Kreitzer, the League of Women Voters and others rejected the City Attorney and City Manager's contention that an amendment was needed at this time and gave the ok to landowners to proceed with the planning effort and to return to Council with a plan within one year..

Supreme Court upholds planning by initiative

The California Supreme Court ruled 5-2 that a city or county general plan can be amended by the voters, that is, by initiative. The decision came in the *DeVita v. County of Napa* suit. Landowner Devita hoped the Court would rule that local initiatives were inferior to the comprehensive planning process codified in state law. They were supported by the Building Industry Association of Northern California. Landowners and Developers have found it easier to buy influence at the state level than the local level, especially with voters and hoped to invalidate growth management initiatives such as Proposition A passed in 1984 in San Diego.

MSCP hearings set

EIR/EIS hearings on the Multiple Species Conservation Program will be held Wednesday evenings June 7, 14, 21. They will come before the San Diego Planning Commission July 27 and the San Diego City Council August 8 and then two to four weeks later. A summary of the Draft MSCP plan is available free from the City's Planning Dept. The full EIR is available at a cost of $35 from the same dept.

What Will the Long-term Impacts Be?

Where Have All the Bees Gone?

by Mike Kelly

It's disturbing, how we can take for granted something important in our surroundings — to the point where we don't miss it when it's gone.

I'm in Peñasquitos Canyon Preserve as many as 5-6 times per week. I spend much of my time observing the plants and animals about me. Yet, this spring, I didn't miss our honeybees until I read an article in the San Diego Union-Tribute. The article reported agricultural officials as saying that some 80 percent of the wild honeybees had been killed by a tiny parasitic mite.

Once I read this I knew it to be true. The absence of bees had been noted at some subsconscious level. I was able to think back to my many excursions past large banks of flowers that would have been aswarm with honeybees. I realized my own garden, filled with a variety of flowers, was absent the constant noise of the many bees I once found there. I contrasted these experiences with my camping trips south of the border, in Baja, where I encountered many bees in remote areas.

Alien mite parasitizes alien bees

The parasitic mite killing honeybees across the country is *Varroa jacobsoni*. It comes from Southeast Asia. Once this alien mite invades a wild hive, it wipes it out. Hives kept by beekeepers can often be protected from the mites by using pesticide, often in a strip form. Ironically, the honeybees found across America, both in domestic hives and in the wild, are themselves alien invaders!

The Honey Bee (*Apis mellifera*) originally came from southern Asia, from where it migrated into Europe. It wasn't recorded in the U.S. until the mid-seventeenth century. It quickly spread throughout the continent. Some 5 different races of Honey Bee have been identified, with a great variety of strains within each. These bees are **social**, unlike many of our native bees. In face, it is Honey Bees that give the impression that all bees are social and live in complex, class divided hive societies, a misimpression held by the general public. See the accompanying article for a description of a native, solitary bee species.

Agricultural versus natural areas impacts

The greatest impact of this foreign mite is expected to on agriculture, on crops that depend on wild bees for their pollination. This includes the avocado crop in San Diego. However, many beekeepers have succeeded in maintaining healthy hives of Honey Bees and can rent these out to farmers needing them. There is apt to be a short-term shortage of such rentable populations, perhaps lasting several years. In the Union-Tribune article, Kirk Visscher, an assistant professor of entomology at the University of California at Riverside is quoted as saying "Completely removing honeybees should have no impact on California's native plant species." This, he feels, is due to the fact that native plants evolved before the European honeybee was introduced to California. Other bee species, wasps and other insect pollinators can also pollinate plants.

I think this opinion is a bit premature. I have noticed — now that I'm looking — that some of our native plants aren't fruiting much this year. For example, wild cucumber (*Echinocystis fabacea*) and lemonaide berry (*Rhus integrifolia*). Where every vine or bush, respectively, in previous years went from flowers to mature fruit, this year I estimate less that 1% of these two species are doing so in Peñasquitos Canyon Preserve. I'd be interested in observations from others of these and other plants. Which others aren't fruiting? I can think of a series of interesting questions on possible impacts.

Since it's true that these plants evolved without the European (Asian) Honey Bee, why aren't they fruiting? Were they pollinated by a species of bee or other insect displaced by the foreign bees? By a bee or insect that is now extinct?

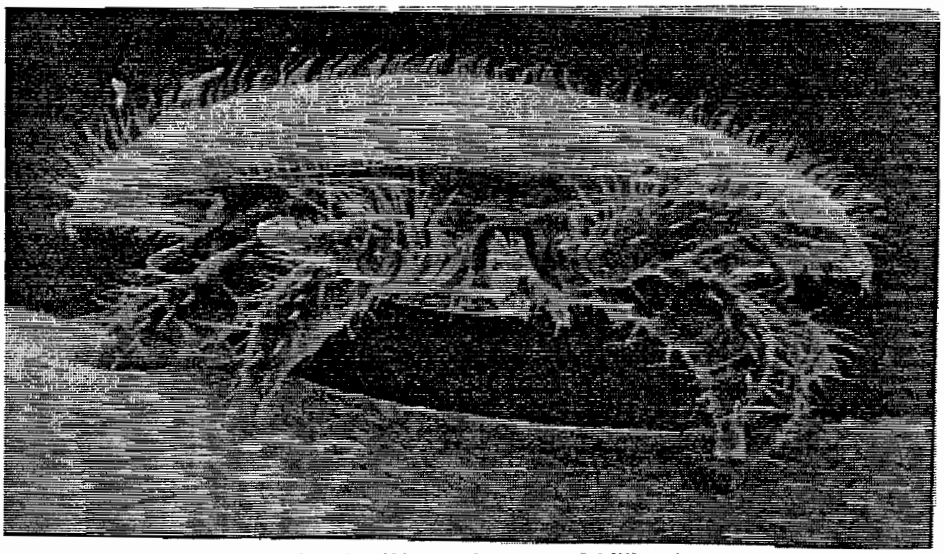
Has loss of habitat caused a decline in native bees and other pollinators in favor of the alien bees?

Has anyone studied the pre-Colonial contact natural history vis-a-vis the impact of foreign crops, animals and insects on native bees and other pollinators?

Will the absence of the Honey Bee hurt exotic invasive plants such as black mustard? This could be a positive development for those of us who are seeking to eradicate certain exotic pest plants in favor of native plants.

Further reading

Hogue, Charles L., Insects of the Los Angeles Basin, 2nd edition, Natural History Museum of Los Angeles County, 1993.



The parasitic mite (*Varroa jacobsoni*) killing honeybees, here magnified 80 times life size.

Not All Bees Are Social

Vernal Pool Bees

by Mike Kelly

[**Note.** This article first appeared in the Friends' newsletter in 1991; we felt this an appropriate time to reprint it – Editor]

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.

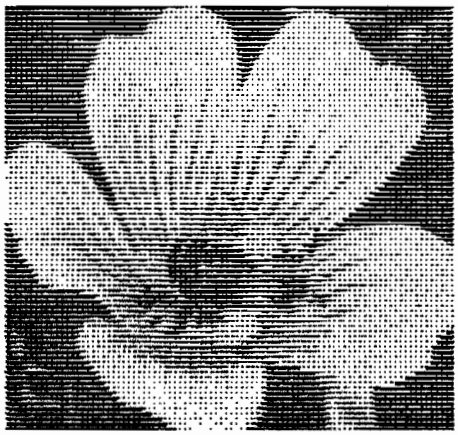
Thousands of years of evolution in Southern California have shaped her genes for survival in a desert climate. Droughts are normal. Her genes wait them out. Nature has selected her genes to wait for the right degree of moisture in the soil. If not, she might emerge from her underground chamber and not 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 mima 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



***Andrena (Hesperandrena) limnanthis* collecting pollen from Limnanthes, the plant to which it's restricted.**

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 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. For an excellent article on native bees dependent on vernal pool plants, see "Native Bee Pollinators of Vernal Pool Plants," *Fremontia*, April 1995.

(Patrol cont'd)

to lay out. In the morning session – with mechanical tools – and again in the afternoon – with state of the art GPS (Global Positioning System) instruments – workshop participants learned the basics of modern trail design and construction.

The balance of the conference was spent at the resort attending seminars on topics related to the conference theme: *Trails and Greenways for Liveable Communities*. Seminars that I attended that were especially applicable to my duties as a patrol member were: *Solving Conflicts Among Trail Users; Stop! Don't Go Down That Path; Environmental Values and Trails* and a luncheon, *Cougar Caucus*.

Updates on legislation and funding effecting trails, as well as the economic benefits – of trails were presented at the evening sessions.

San Diego County was well represented at the conference. Members of the San Diego County Open Space Division, San Diego County Trails Council, Back Country Horsemen, San Dieguito River Park Authority, San Marcos Trails Committee, as well as engineers from the cities of San Marcos and Carlsbad were all participants. The City of San Marcos' *Rail to Trail* project was one of the seminar topics, and the San Diego County Trails Council received numerous awards for its work on the restoration of the California Riding and Hiking Trail, as well as its contributions to the state Trails Days Celebration.

All in all, the weekend was a well organized and information filled event, and there isn't enough space in this newsletter to share all I've learned. In future articles, I'll give more detailed reports on the seminars, and my opinion on how patrol members and friends can apply some of the strategies and suggestions which were presented, in our struggle to preserve and maintain Los Peñasquitos Canyon.

In closing: *"Don't turn your back on the wildwood. It's a place that's so precious and rare. Don't turn your back on the wildwood, with care she'll always be there"* Walk'in Jim Stoltz, "THE VISION," Presented March 18, 1995, Courtesy 12TH Annual California Trails Conference.

Patrol Schedule Reminders

Patrol schedules are now printed on a quarterly basis. Patrol Members who are unable to scheduleœin advance are encouraged to fill the open patrol slots after the schedule has been printed. Volunteers are especially needed for afternoon patrols on any weekend, and any time on the 1st Saturday of each month. If you can help out, call or leave a message – 538-2480.

Until additional patrol members can be recruited, newer patrol members may be requested to patrol on days they did not choose. Minimum patrol coverage is 1:00 a.m., and 1 p.m. team per weekend day. Preferred coverage is 2 teams per shift. With only 33 members active, and multiple requests for the same schedule, more senior patrol members will be given preference, and those with less seniority will be contacted by the schedule desk for reassignment. Minimum patrol coverage will be the goal for the spring and summer quarters. Please accept my apologies for any inconvenience this may causeœour newer members.

Don't forget! Summer quarter schedule changes due by June 1ST. Send schedule changes to: Los Penasquitos Canyon Preserve
Attention: Schedule Desk
12020 Black Mountain Road, San Diego, CA 92129

From the Ranger

Wanted

17 patrol members to assist with Park Days on June 4th. Call Bill Lawrence at 538-2480 to volunteer. Also: Please submit all articles for *Canyon News* no later than the 15th of the month. Send all articles to:
Bob Wylie 10229 Lipscomb Drive San Diego CA 92126

Patrol Notes

by Bob Wylie

As this goes to the printer, the Preserve is still closed to visitors. Hopefully, by the time you read this, it will again be open and we patrol members can return to our normal routine of greeting visitors, and providing information. During the closure, we have been functioning more in an enforcementœposture, which is not the most comfortable thing for most of us. This time has provided a unique opportunity to recruit new members, however, as it has been easy to point out some of the advantages of joining up.

It's always rewarding to experience the cooperative attitude of the majority of the people contacted, and that appears to be a reflection of the great work the patrol is doing. There will always be occasions when a person is confrontational, but don't allow that to affect your attitude, or spoil your day. One jerk isn't worth spoiling a beautiful experience!

Scheduling is a thankless job, and we all owe a debt of gratitude to J. Lawrence who tries hard to accommodate our individual needs. If you have flexibility in your schedule, let her know, and give her as many alternate days for patrolling as you can. By looking at the schedule, it's easy to see where help is needed, so if you're free that day, why not volunteer for the extra shift?

This newsletter provides the Patrol with a vehicle to communicate, or share an experience with others involved at the LPCP. Other members are interested in what you have to say and your insights, so don't be shy about contributing! Just send your thoughts, ideas, or articles to me . See you out there!

Friends of Peñasquitos Canyon May/June 1995 Events Schedule

Evening Walks Highlight Wildlife

Spring and early summer are when we have more evening walks. We still lots of wildflowers, but dusk is a wonderful time to be in the Preserve and it's also the best time to see wildlife. By June the first fawns of the year are to be seen in the company of their mothers and aunts. Baby coyotes can be heard adding their high-pitched and squeaky voices to the adult coyotes' evening choir. The young of many other birds, reptiles and animals can often be seen during these dusk walks.

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

Volunteer Opportunities
If you'd like to help with our conservation or other activities call Mike Kelly at 566-6489. We have ongoing animal surveys, stream surveys, invasive weed removal projects, seed collection and planting programs to name a few. We also need help with organizational aspects of our work.

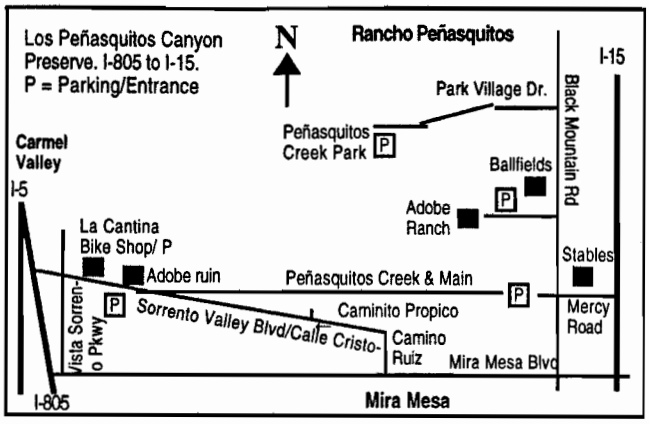
MAY

Endangered Plant Surveys
In May we'll be surveying for the San Diego thorn mint (*acanthimintha ilicifolia*) and the Poway or Thin mint (*monardella linoides viminea*). Call Mike Kelly at 566-6489. Day and time is flexibile. May be after work during week or on weekend. This is an easy activity.

Wildflower, Vernal Pool & Fire Walk/ López Ridge
Saturday, May 6, 9 a.m. Meet at Caminito Propico and Calle Cristobal in Mira Mesa (via Camino Ruiz going north, or Sorrento Valley Blvd. going east). You'll tour the recent Penasquitos Canyon Fire area and discuss the ecology of fire and what to expect in this area in years to come. We'll also visit nearby vernal pools and learn about the plants and critters that live in them. Should be able to smell and see the wonderful Mesa mint, a Federally Endangered species. Led by Les Braund. Wear good boots and clothes you don't mind getting dirty with ash. **Thomas Guide p. 1208.**

Rancho Santa Maria De Los Peñasquitos Adobe Ranch Tour
Saturday, May 6, 11 a.m. and noon (45 min. each), led by docents from the SD Archaeological Society. Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, then first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch. See San Diego's oldest residence, an historic adobe, settler and Indian artifacts. **Thomas Guide p. 1189.**

Mystery Tree & Wildflower Walk
Sunday, May 7, 8:30 a.m. (1-1/2 hours). 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. Good chance to see Adolphia Californica and other blooming plants. Meet at the parking-staging area off Black Mountain Road. Take the Mercy Exit off I-15 west to Black Mountain Road. Cross the intersection and enter the parking for the Preserve opposite this intersection. Easy to moderate walk, small hill, wet stream crossing. Led by Chris Bader. **Thomas Guide p. 1189.**



Waterfall Wildflower Walk
Saturday, May 13, 9-12 p.m. Join Mike Kelly for a walk to the Preserve's waterfall and back via a loop trail. Should see lots of wildflowers too. Meet at west end of 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 Dr. Follow this to its intersection with Camino Ruiz. Park legally and walk to the northwest corner of the park.

Volunteer Habitat Restoration Work Party
Sunday, May 14, 10 a.m. Join us for an exotic weed removal project. Should last about 3-4 hours. Plan to bring gloves, a snack or picnic lunch and water. Jeans recommended. Moderate physical activity. Call Mike at 566-6489 for details on where to meet.

Bird Walk, West End
Sunday, May 14, 4-5:30 p.m. Join Brian Swanson for a bird walk at a time when the birds are very active in thewest end of the Preserve. 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. **Thomas Guide p. 1208.**

Night Walk
Sunday May 14, 7-8:30 p.m. Nighttime is a great time to hear and see the frogs and toads and other critters of the Preserve. 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. Led by Will Bowen, Ph.D, cultural anthropologist. **Thomas Guide p. 1208.**

Advanced Tracking Training Workshop
Friday, May 19 - Sunday, May 21. Join Barry Martin for an intensive weekend of wildlife tracking. Requires previous training and experience through beginner level. Call Barry at 484-4007 to RSVP and for more details.

Rancho Santa Maria De Los Peñasquitos Adobe Ranch Tour
Sat., May 20, 11 a.m. and noon (45 min. each), led by docents from the S. D. Archaeological Society. See May 6 listing for details. **Thomas Guide p. 1189.**

Medicinal Plant Walk
Sat., May 20, 5-7 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, Ph.D. **Thomas Guide p.1208.**

Geology Walk
Sun., May 21, 9 a.m - noon. Join Geologist Don Albright for a walk through time, including the Preserve's waterfall. Meet at Caminito Propico and Calle Cristobal in Mira Mesa. From the west take Sorrento Valley Blvd. east. It becomes Calle Cristobal as it passes Camino Santa Fe. The next street is Propico. From the east, take Mira Mesa Blvd. to Camino Santa Fe. Right on C. Santa Fe, then right on Calle Cristobal to Propico. Park in cul-de-sac on south side of Cristobal. Park legally. Steep trail. Bring water, sun protection. **Thomas Guide p. 1208.**

➡ p. 10 for more

Friends' Monthly Business Meeting at Ranch House
Tuesday, May 23, 7 p.m. Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, then first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch. The Friends' Board of Directors meets to plan out the day to day activities and campaigns of the Friends organization. Members are welcome to attend.

Tracking & Nature Walk at Ranch House
Saturday, May 27, 11 a.m. (2 hours). Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, then first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch. Learn how to track animals and discover the natural environment they live in. Hike will include an overview of the animal surveys being conducted in Peñasquitos Canyon Preserve. Led by Chris Bader. **Thomas Guide p. 1189.**

JUNE

Nature Walk
Saturday June 3, 9 a.m. (1-1/2 hours). Join Les Braund for a general nature walk in the east end of Peñasquitos Canyon Preserve. Should still see flowers and plenty of young birds. Learn about bio-diversity and visit a nearby grave site and a mitigation project. Meet at the parking-staging area off Black Mountain Road. Take the Mercy Exit off I-15 west to Black Mountain Road. Cross the intersection and enter the parking for the Preserve opposite this intersection. **Thomas Guide p. 1189.**

Rancho Santa Maria De Los Peñasquitos Adobe Ranch Tour
Saturday June 3, 11 a.m. and noon (45 min. each), led by docents from the SD Archaeological Society. Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, then first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch. See San Diego's oldest residence, an historic adobe, settler and Indian artifacts. **Thomas Guide p. 1189.**

Annual Park Day '95
Tracking Our Origins: Native Americans & Wildlife of the Canyon
Sunday June 4, 10 a.m. - 3 p.m. See enclosed flyer for details.

Mystery Tree Walk
Sunday June 11, 8:30 a.m. (1-1/2 hours). 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. Meet at the parking-staging area off Black Mountain Road. Take the Mercy Exit off I-15 west to Black Mountain Road. Cross the intersection and enter the parking for the Preserve opposite this intersection. Easy to moderate walk, small hill, wet stream crossing. Led by Chris Bader. **Thomas Guide p. 1189.**

Bird Walk, West End
Sunday June 11, 4-5:30 p.m. Join Brian Swanson for a bird walk at a time when the birds are very active in thewest end of the Preserve. 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. **Thomas Guide p. 1208.**

Sabre Springs Historic Stagecoach Walk
Saturday June 17, 10 a.m. (About 2 hours). Join Mike Kelly for a walk into the past. We'll visit one of the few remaining segments of San Diego's historic stagecoach line. We'll also visit a stream area with lots of California live oaks and sycamores and should see a variety of wildflowers as well. Take I-15 to Poway Road, go east on Poway Road to Sabre Springs Parkway. Go right on Sabre Springs Parkway and park on the right hand side. Walk will leave from this first block. Moderate difficulty, including 2-3 stream crossings. **Thomas Guide p. 1189.**

Volunteer Habitat Restoration Work Party
Sunday, June 18, 9 a.m. Join us for an exotic weed removal project (probably fennel). Should last about 3 hours. Plan to bring gloves and water. Moderate physical activity. Call Mike at 566-6489 for details on where to meet.

Rancho Santa Maria De Los Peñasquitos Adobe Ranch Tour
Saturday June 17, 11 a.m. and noon (45 min. each), led by docents from the S. D. Archaeological Society. See May 6 listing for details. **Thomas Guide p. 1189.**

Solstice Walks: AM & PM
Wednesday June 21. Join us for two Solstice walks and learn how our ancient ancestors used the solstice sun to plot their calendars and daily lives from these events. First, join us to greet the dawn at 5:30 - 7 a.m. Then, in the evening, join us for sunset at 7:30 - 9 p.m. 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. Led by Will Bowen, Ph.D, cultural anthropologist. **Thomas Guide p. 1208.**

Tracking & Nature Walk at Ranch House
Saturday June 24, 11 a.m. (2 hours). Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, then first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch. Learn how to track animals and discover the natural environment they live in. Hike will include an overview of the animal surveys being conducted in Peñasquitos Canyon Preserve. Led by Chris Bader. **Thomas Guide p. 1189.**

Medicinal Plant Walk
Saturday June 24, 6-8 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, Ph.D. **Thomas Guide p.1208.**

Geology Walk
Sunday June 25, 9 a.m - noon. Join Geologist Don Albright for a walk through time, including the Preserve's waterfall. Meet at Caminito Propico and Calle Cristobal in Mira Mesa. From the west take Sorrento Valley Blvd. east. It becomes Calle Cristobal as it passes Camino Santa Fe. The next street is Propico. From the east, take Mira Mesa Blvd. to Camino Santa Fe. Right on C. Santa Fe, then right on Calle Cristobal to Propico. Park in cul-de-sac on south side of Cristobal. Park legally. Steep trail. Bring water, sun protection. **Thomas Guide p. 1208.**

Friends' Monthly Business Meeting at Ranch House
Tuesday June 27 (tentative), 7 p.m. Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, then first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch. The Friends' Board of Directors meets to plan out the day to day activities and campaigns of the Friends organization. Members are welcome to attend.

Dusk Walk in Peñasquitos Canyon (Canyonside Entrance)
Thursday June 29, 7 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 repellant and flashlight. Led by Mike Kelly.

(Ecology cont'd)

usually indicative of two different varieties!

The distinct types of willow include rounded-leafed Arroyo Willow (*Salix lasiolepis*), narrow-leafed Sandbar Willow (*S. hindsiana*), the tall stature Black Willow (*S. gooddingii*), and the reddish-stemmed Red Willow (*S. laevigata*).

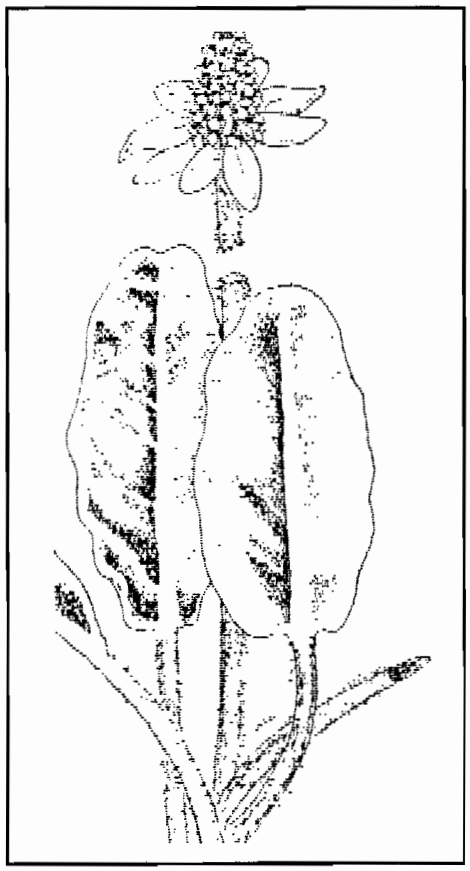
Other trees include the occasional Walnut (*Juglans californica*), and the pests trees eucalyptus (*Eucalyptus spp.),* Brazilian pepper (*Schinus terebinthiolius*), and tamarisk (*Tamarix chinensis*), which are being removed from the Preserve.

Species

The rich complexity of the riparian habitat creates conditions favoring a variety of homesites and food sources, and is thus highly important to wildlife. Indeed, studies have shown that riparian habitats support higher densities of wildlife than any other habitat.

If you walk along the banks of the creek will you will often see tracks of animals and their runs, which are like roads or tunnels through the vegetation. Sometimes the animal runs cross the creek and are a good path to follow if you are worried about the possibility of sinking in mud. Most common tracks include those of coyote (*Canas latrans*), deer (*Odocoileus hemionus*), racoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), with the occasional striped skunk (*Mephitis mephitis*), fox (*Urocyon cineroargenteus*), bob cat (*Lynx rufus*), and mountain lion (*Felis concolor*). The mammals come down to the creek for a drink or something to eat. Often you will see their scat laden with crayfish shell.

Many birds make use of the foliage and canopy of the plants and trees growing along the creek. On the West End you often find the electro-voiced Red Wing Black Bird (*Agelaius phoeniceus*) resting on cattail and sedge, sometimes the pristinely clean Snowy Egret (*Leucophoyx thula*) and Cattle Egret (*Casmerodius albus*), or the old man of the air, the Great Blue Heron (*Ardea herodias*), poking about in the mud, and, occasionally, the hover bird or White-tailed (formerly black-shouldered) Kites (*Elanus leucurus*) and Indian legend Red-Tailed Hawks (*Buteo jamaicensis*), resting in willow canopy. The only migratory duck using the stream is the couple-conscious Mallard (*Anas platrhynchos*). On the east end you can find the Belted Kingfisher (*Megaceryle alcyon*), which dives for fish, and Nuttall's Wood Pecker (Dendrocopus nuttalli), which produces a drumming noise when using its very hard beak to drill small holes in trees for storing acorns.



Yerba mansa (*Anemopsis californica*)

The Friends recently discovered many fish swimming the creek in the deeper pools. All are exotic, introduced fish. No native fish is known to survive in local streams. They include large mouth black bass (*Micropterus salmonoides*), bluegill (*Lepomis macrochirus*), sunfish (*Lepomis cyanellus)*, bullhead catfish (*Ameriurus nebulosus*), andthe everpresent guppy-like mosquito fish (*Gambusi*), whose job it is to eat mosquito larvae floating under the water's surface in stagnant areas.

Amphibians also live in or near the creek. The bull frog (*Rana catesbeiana*) is there year round ("Jug-o-Rum"), while the Pacific Tree Toad (*Hylla regilla*), now called the Pacific Chorus Frog ("Ribit) , and Western Spadefoot Toad (*Scaphiopus hammondi*) ("kwalk"), uses it seasonally for mating. There may also be Western Pond Turtles (*Clemmys marmorata*) in the creek, but they have not been conclusively identified.

The inhabitants of the stream bed, known as bentic or bottom, is home for freshwater mussels up to an inch big, tiny black watersnails, and the Red Swamp Crayfish (*Procambrius clarkii*). The crayfish is not native to this area but are very useful in helping keep the creek clean by feeding on decaying willow and sycamore leaves. They turn this waste material into protein which is consumed by species further up the food chain.

Last but not least there are many insects busying themselves around the creek. They include the dragon and damsel fly, water strider and wolf spider. You can also see butterflies, such as the white Cabbage Butterfly (*Artogeia rapae*), brown Mourning Cloak (*Nymphalis antiopa*), yellow Swallowtails (*Papilio spp.*), and the Admirals (*Vanessa atalanta* and *Basilarchia lorquini*), dancing about, for a goodly part of the year.

Conclusion

The best kept secret of the Friends is that the ultimate way to see the canyon is right down the middle of the stream. Here you really are in the heart of the matter, for all life in the canyon centers around Peñasquitos Creek. It is also very pleasant to stroll along the banks of the stream or sit under a tree and contemplate its mysteries. Some places in the creek give you the feeling of being in a Louisiana swamp — without the humidity or alligators. Others have the flavor of Huckleberry Finn and Tom Sawyer. If you are very lucky, and the wind is in the willows, you may just see Mole, Ratty, and Toad of Toad Hall, "messing about in boats."

So if you really want to give yourself a treat and want to do some important work at the same time please contact the Friends about volunteering for the new stream survey coming up this summer.

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

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Friends' Directory

Officers
President: Mike Kelly 566-6489
Vice-President: Tom Hopp, Ph.D. 566-4474
Treasurer: Brian Swanson 695-2209
Secretary: Les Braund 566-3958

Other Members of the Board of Directors
Don Albright, Vicky Ausen, Chris Bader, Trinity Gabriel, Barry Martin, Alan Pepper, Ph.D., Brian Swanson,

Walks and Committees Leaders
Bird Walks & Gnatcatcher Survey Committee: Brian Swanson 695-2209
Conservation Chair: Alan Pepper, Ph.D. 586-7123
Geology Walk Leader: Don Albright 443-7982
Hike Committee: Trinity Gabriel 672-0229
Medicinal Plant & Night Walks: Will Bowen 452-7091
Nature Walk: Les Braund 566-3958
Newsletter Committee: Mike Kelly, Carla Scott, Vicky Ausen
Vernal Pool, Fire Ecology & other walks: Mike Kelly
Wetlands Restoration Committee: Don Albright, Tom Hopp, Susan George, Marcus Spiegelberg, Trinity Gabriel, John Northrop
Wildlife Survey Committee & Tracking Walk: Barry Martin 484-4007

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 (call me to discuss)
____ Hikes
____ Indian Culture **5/95**
____ 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.

Park Day '95

TRACKING OUR ORIGINS

Native Americans & Wildlife of the Canyon

Peñasquitos Canyon Preserve
Adobe Ranch House

Sunday, June 4, 10 am - 3 pm

Schedule

8-10 am	Nature walk: hike to waterfall, and return to ranch (6 miles). Meet at parking-staging area opposite Mercy Road.
8:30-10 am	Equestrian walk/ride to Kit Carson Crossing. Meet at RP Equestrian Center. (RSVP at 271-8806)
10 am	Exhibits open.
10 am-3 pm	Native American Performances and Storytelling
10 & 10:30 am 1pm & 1:30 pm	Tracking Walk (meet at ranch house, 30 min.)
10-11:30 am 1-2:30 pm	Lost Proofing (meet at ranch house, 1-1/2hr.)
10 am & 2 pm	Debris Hut Construction at Ranch house (Interactive)
11:30 am & 2:30 pm	Tracking Box Exercises
12-12:30 pm	Awards Ceremony

Admission is Free!

- Native American Exhibitions
- Tour nearby animal crossings; watch animal trackers at work
- Live wild animals from Project Wildlife & others
- Savor Indian Fry Bread & other foods
- Animal tracking, native plant, & other field trips
- Historic adobe ranch tours
- Wilderness Survival Exhibit

Los Peñsquitos Canyon Preserve Task Force
Task Force Chair County Supervisor Pam Slater
City Councilmember Harry Mathis
City Councilmember Barbara Warden
join with
The Citizen's Advisory Committee to present Park Day 1995

Tracking Our Origins

Exhibits

- Wild animals from Project Wildlife & Wildlife Center
- Viejas Indian School
- San Diego Museum of Man
- Native plants (Calif. Native Plant Society)
- Local Indian basket weaving
- Peñasquitos & El Cuervo artifacts
- Animal tracks (Friends of Los Peñasquitos Canyon Preserve)
- S.D. County Archaeological Society
- Wilderness survival
- Historical archaeology
- Sierra Club, Audubon Society, Clean Water Program, People for Trees, County Parks, Knott Oak Foundation, Friends of Rancho Peñasquitos Library & others.
- Los Peñasquitos Volunteer Patrol
- San Diego Turtle & Tortoise Society
- Watershed Dynamics-Resource Conservation District
- Touching table from the S.D. County Dept. of Parks & Recreation

General Activities

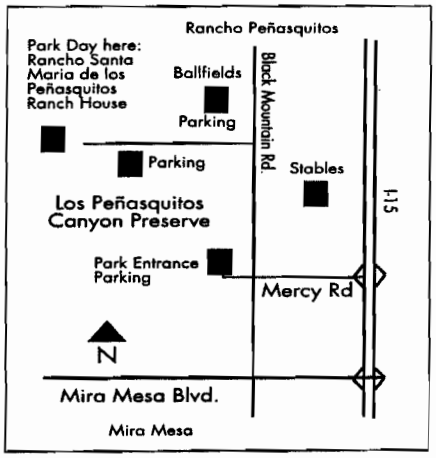
- Learn how volunteers can join wildlife studies in Peñasquitos
- Field trip: animal tracking and how animals are important to archaeology
- Field trip: native plants and how they support wildlife
- Firemaking with the bow drill

Children's Activities

- Lost "proofing"
- Native American storytelling
- Debris hut construction
- Tracking box exercises
- Casting animal tracks
- Pony rides for kids under six (6)

Commemorative T-shirts

Available at reasonable cost.
Proceeds go to Preserve.



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Canyon News

Friends of Los Peñasquitos Canyon Preserve, Inc.

July/ August 1995
Volume 9 No. 4

Stop! Don't Go Down That Path

J. Lawrence/LPVP

(Second in a series of reports from the 12th Annual California Trails Conference)

STOP! DON'T GO DOWN THAT PATH — a familiar phrase most often heard by Preserve visitors who have strayed from the established trails, seemed an unlikely title for a Trails Conference session. As it turned out, the three key speakers of this session - Norm Levy, Supvising Ranger, City of Santa Cruz; Tim Gallagher, Manager San Luis Obispo County Parks Open Space and Cultural Resources Agency; and Glen Lyles, Shoreline Park Manage., City of Mountain View — would have probably have appreciated hearing a volunteer patrol member shouting this out to them, because it might have helped them avoid the pitfalls they all eventually encountered along the trail to park and trail planning implementation.

Following an excellent introduction by Holly Van Houten, National Park Service, each speaker took the podium, and poured out a tale of woe that brought even the most unemotional among us close to tears. No master plan, trails plan, open space plan, and a general plan recreation element that was last revised in 1968 was the starting point for an ambitious project encompassing 13,000 acres of parklands and close to 100 miles of trails. Poor communication — which frequently bordered on no communication — plagued the Stevens Creek Trail development in its' multi–jurisdictional and political dealings from the very start. From the hiring of consultants with no local influence (and even less understanding of local issues), to impatient user groups, angry ranchers, and threatened farmers, failure and disaster seemed to dog each participant every step of the way. Frankly, the only thing each of the speakers were successful at was depressing the audience!

These sorrowful dissertations were, however, only the tip of the iceberg. Next came descriptions of city council and county supervisor meetings that would curl your hair. Sessions packed to over-

➡ p.12 for more

Volunteer Patrol Events:
See page 12

Carmel Mtn: Last Unspoiled Coastal Mesa

John Northrop, PhD,
Consulting Geophysicist

Introduction

Carmel Mountain, sandwiched between Peñasquitos Canyon and Carmel Valley, rises 427 ft. above the valley floor and represents the last remaining unspoiled coastal mesa in San Diego (Fig. 1). It forms a wildlife corridor between Peñasquitos Canyon Preserve and the Carmel Valley Restoration and Enhancement Project. Because of the mountain's unique rock outcrops, a titanium rich iron oxide beach rock (called *ill-menite*), several rare and unusual plants (wart leaved ceanothus, Del Mar Manzanita, Short-leaf dudleya) thrive there. Little else can get a foothold in the iron-rich rock with little or no topsoil in San Diego's semi-arid climate. The plants that do grow there have drought resistant mechanisms such as dropping their leaves in dry seasons. They're also fire resistant and resprout from their roots after a burn. For example, the burn area shown in Fig. 1, which occurred in July 1986, has almost completely recovered.

The flora and fauna aren't only unique but also unspoiled because the drought resistant plants are "woody" so the deer won't eat them. The area was never grazed (cattle won't eat them either), never been plowed (it's too hard) and never been chained. It's what the Spanish explorers saw when Father Sierra the first traversed the area.

With the coming of the "Anglo," it was shunned and. in fact, labeled "useless land" on the 1880s maps because it couldn't be farmed. Thus we have in our own backyard, the last remaining unspoiled coastal mesa in San Diego. It's well worth saving.

➡ p. 16 for more

Highlights Inside

Public Meeting

Save the Endangered Species Act

Les Braund

A public meeting to save the Endangered Species Act will be held Thursday, July 20, at 7 p.m. in the Scripps Miramar Library, 10301 Scripps Lake Drive (across from Miramar Lake). The meeting will focus attention on the need to mobilize the public to prevent the gutting of both the state and the federal Endangered Species Acts.

Guest speakers will include land use attorney Dwight Worden, assistant economics professor Nicholas Flores (Univ. of Colorado, Boulder), public interest and environmental law attorney Steve Crandall, Western Coordinator for the National Endangered Species Coalition Stacey Shull and the National Director for the Endangered Species Coalition Jim Jontz.

The meeting is cosponsorsed by K.N.O.A.H.'s A.R.C. (Knowledge, Need, Opportunity, and Hope – Advocates for Responsible Conservation), the local chapters of the Sierra Club, Audubon Society, League of Women Voters, the Endangered Habitats League, and the Friends of Los Peñasquitos Canyon Preserve.

The Foxes of Los Peñasquitos

Barry Martin, Wildlife Survey Coordinator

The teaser

I punch the numbers into the phone; after a few rings an answering machine kicks in. A woman's voice comes on ("here we go again," I think, "another session of phone tag.") I listen to Louise tell me to leave a message. "Hello, my name is Barry Martin, I'm returning your call regarding the fox you saw in your back yard." I give my number and the best time to reach me, then hang up.

After working all winter to organize the Los Penasquitos Canyon Preserve Wildlife study last year, I wrote some articles for the Friends newsletter explaining the purposes of the study and an appeal for volunteers. We received many phone calls in response and had a good showing at our organizational meetings. Some people, reading that we were beginning to gather data on wildlife in the preserve, called to give us information about things they had observed.

When I returned from a trip one day last May to find a message waiting for me concerning a fox, I sensed something out of the ordinary. I was eager to hear about this case and was disappointed to find that I couldn't get the story right away.

Earlier in the year another neighbor across the street had told me about a fox that came into their back yard and ate out of their dog's dish on the back porch late one night as they were watching TV. After hearing about that, I climbed the hill behind their house and looked around. Sure enough there were the fox's tracks and scat. I kept tabs on it for several months, realizing eventually that its range included the hill behind our house. I learned a few things about this animal as a result of my observations during that time and about foxes in general from my collection of field guide books.

My impression was that they are very stealthy, mostly nocturnal and seldom seen. So when I got the message about a fox showing up in this woman's back yard in broad daylight, I was worried that something might have been wrong with it, or maybe it wasn't really a fox.

Spa fox

She calls later that day, "he walks along the fence and eats the berries off of that tree in my neighbor's yard, and lately he's been laying on their spa cover sunning himself." I ask some questions, get her address and soon I'm heading over to look around. Unfortunately the fox isn't to be seen and hadn't been seen in a few days.

Searching both yards for tracks, I notice the homes back up to the very busy Black Mountain Road. Between the road and these back yards is a fairly steep hill covered with dense landscaping. This landscaped section is maybe 25-30 feet wide and is at least a half mile from the preserve. This animal would have crossed at least 3 roads enroute to this location if it came from the preserve. I find some old tracks but they are distorted from sprinkler activity. We talk awhile and I ask Louise to try and get photos and to let me know when it returns. I would like to see some clear prints and pictures for a positive I.D. She agrees and I leave wondering about this little animal, realizing there is a lot more I need to learn about foxes.

Dog or cat family?

So begins my search for more knowledge pertaining to the fox. Initially I look again through several field guides and find the general information you expect from such books. I want to know more and start digging for more detailed information. Time to hit the libraries!

First I want to get an overview. I find a lot of conflicting information between older material and more recent information, but an interesting picture emerges as I sift through it all. Foxes are members of the dog family (*Canidae*); however they're the only species of the dog family that will walk like a cat, direct registering, meaning the back foot lands directly on top of where the front foot had been while using a walking gait. Also, the gray fox is capable of climbing, which is very "cat like" behavior. In fact there was some dispute back in the old days when they were originally classifying animals as to which family to include them.

Genus and species roundup

Foxes are distributed throughout the world, in Africa, Asia, Europe and the Americas. The four genera consist of the vulpine foxes, genus *Vulpes*; the South American foxes, genus *Dusicyon*; the bat-eared fox, of the genus *Otocyon*; and the two species of the genus *Alopex*, the Arctic fox, *Alopex lagopus*, and the Steppe fox or corsac, *Alopex corsac*. The genus Vulpes has 12 species and numerous subspecies distributed over America, Eurasia and Africa. Four of these species are very similar: the red fox, *V. vulpes*, Blanford's fox, *V. cana*, the Tibetan sand fox, *V. ferrilata*, and the Bengal or Indian fox, *V. bengalensis*. Two foxes of the genus Vulpes are found in the arid and sandy regions of North America: The kit or swift fox, *V. velox*, and the pygmy or long-eared fox, *V. macrotis*, considered by some zoologists to be a subspecies of the kit fox. You may have heard of the San Joaquin kit fox which is of this genus, and which has been nearly wiped out by development in the San Joaquin Valley.

Four Vulpes species are typical inhabitants of desert regions and the dry grasslands of the African savannah: the fennec, *V. zerda*, Ruppell's fox, *V. rupelli*, the pale fox, *V. pallida*, and the silver-backed or Cape fox, *V. chama*. Closer to home, there are two species of gray fox, both formerly considered to be members of the *Urocyon* genus, but now regarded as Vulpes: *V. cinereoargentus*, found from southern Canada down to Venezuela, and *V. littoralis*, which lives on the islands off the coast of Southern California. The *Dusicyon* genus consists of five species. The wood fox, *D. thous*, inhabits the rain forests that extend from Columbia to Uruguay, as does the short-eared dog, *D. microtis*. The colpeo fox, *D. culpaeus*, and the gray pampas fox or Azara's fox, *D. gymnocercus*, are found throughout much of South America from the Equator down to Tierra del Fuego, living on the great pampas grasslands and in mountains at altitudes of up to 13,000 ft. above sea level.

Local focus

Now armed with the big picture of foxes the world over, I start to concentrate my focus on our local area. I call the Natural History museum and make an appointment with one of the docents.

I meet Scott on the steps of the Natural History museum in Balboa Park on one of those beautiful San Diego afternoons that make me hate the thought of doing anything indoors. An affable guy with a genuine interest in wildlife, Scott works at the Zoo and volunteers during his after hours time at the museum. He guides me to the library and we get acquianted as we walk. Soon I've forgotten about what I might have been missing outside as we get to the library and start searching for any recent studies on foxes. We then go to a speci-

men room and look at several gray foxes that had been collected as far back as the early 1900's. The room reeks of preservative chemicals, but when I see the foxes as he pulls the drawer open I disregard the smell and become engrossed in examining these beautiful animals. They had been collected in the Santa Ysabel area — Cleveland National Forest territory — which contains the gene pool for most, if not all of the major mammal species found in our area here to the west.

Gray foxes are natives

The foxes I examine are representative of the gray foxes we have in Los Peñasquitos Preserve. It's widely held that the gray fox is the only type of fox found in our area of Southern California. The gray fox ranges throughout the eastern U.S., west to North and South Dakota, Nebraska, Kansas, Oklahoma, most of Texas, New Mexico, Arizona, California, north through Colorado, southern Utah, southern Nevada and western Oregon. The gray fox prefers open woodlands, chaparral and rimrock country. I should interject at this point that the red fox, which ranges through most of Canada and the U.S. is absent from much of the west coast, i.e. southern California. It is also not seen in Nevada, Arizona or from southern Alberta and southwest Saskatchewan to southwest Oklahoma, northwest Texas and coastal North Carolina to peninsular Florida. The red fox prefers farmland and treeline areas to heavy brush or thick forests.

Red fox is an exotic invasive

It's interesting to note that the red fox was imported to America in the mid-eighteenth century from England and released by landowners along the east coast. These folks enjoyed fox hunting or "riding to the hounds" and found the native gray could not run as fast or as long as the red. I'm sure that the gray fox's ability to climb probably confounded the hunters as well, prompting them to start importing the reds. Consequently there is a healthy population of red foxes in America and recent data suggests it may even be expanding its range. In fact there is some question as to whether or not any red foxes have expanded into our area. This is a question we hope to answer during the course of our wildlife study.

Back to the gray fox

Looking at the specimens in the museum's collection I realize the gray is not a large animal. They range in wieght from 7 to 13 lbs., 14 to 15 inches at the shoulder, length of head and body 21 to 29 inches, length of tail 11 to 17 inches. Its coat is a "grizzled grey" or "salt and pepper" on the upper areas, reddish below and on the back of the head. The throat area is white. The tail is very bushy and long, appearing almost too big in comparison to the body size. There is a distinguishing black stripe or "mane" down the total length of the tail which is tipped with black. The sides of the neck, backs of ears, legs and feet tend to be rusty yellowish in color. Ears are quite prominent, and the narrow muzzle is black along the sides.

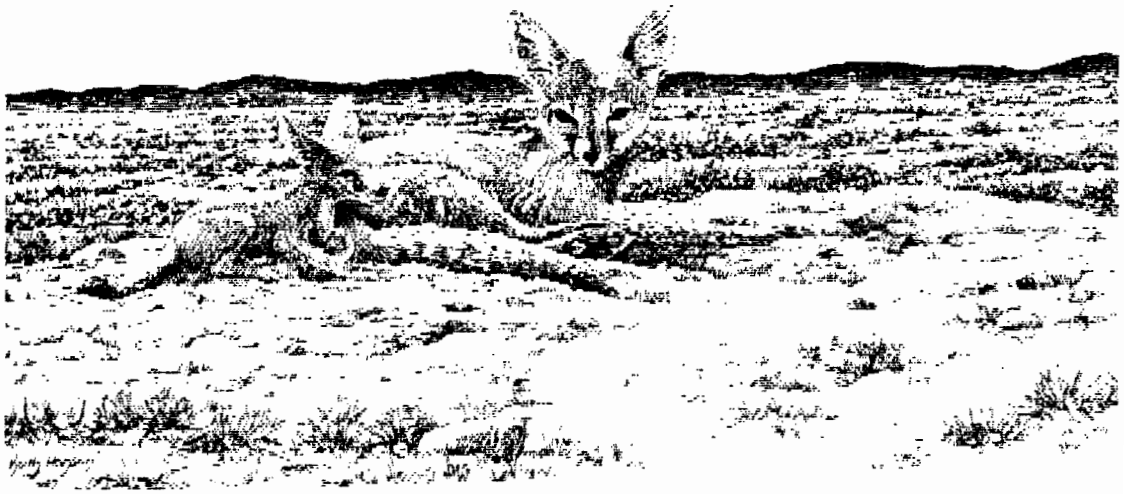
For comparison purposes, the red fox tends to be bigger, and as the name implies, its coat is red. The tip of the red fox's tail is white. Swift and kit foxes have black only on the tip of the tail and are much smaller than both the red and grays. Thanks to my job as an airline pilot I get to see many different areas of the country, so while tracking on the east coast I found that the gray foxes there are smaller than their western counterparts.

The skull of the gray fox contains 42 teeth, which is common to the canids. If you were to find a skull during one of your hikes it could be fox if it contained a dental configuration of 3 incisors on each side of the upper and lower jaws (3-3), 1-1 upper and lower canines, 4-4 upper and lower premolars, 2-2 upper molars and 3-3 lower molars for 20 upper and 22 lower teeth totaling 42. You would know it is in the dog family for sure and size would help to confirm which species of dog. The gray fox skull is smaller than coyote and red fox, so if armed with that knowledge and a good field guide containing a section on skulls, you will be able to make a positive I.D.

I spend a couple hours with Scott learning about the foxes they have in their collection at the museum and exchanging information about projects each of us are involved with. He gave me a lot of good information and inspired me to continue researching this intriguing little animal.

Phone again

The phone rings and I pick it up to hear Louise telling me in an excited voice that he has been back — and this time her neighbor got pictures! Later that afternoon I'm looking at the pictures and the tracks this unusual animal left. The photos are excellent, showing a very healthy, mature gray fox, walking the fence, the back wall and lounging on the hot tub cover. These photos were taken in broad daylight, and the fox seemed very relaxed. One question is answered, this definitely is a gray fox and it looks very healthy. The other question regarding this out of character boldness is still perplexing. I head home intending to learn more about the gray fox. At first I'm disappointed because I have trouble finding current research done on gray foxes. I do find many articles and short pieces and start to form an explanation for this fox's seemingly bold approach.



San Joaquin Kit Fox from California Wild Lands by Dwight Holing, Chronicle Books, 1988.

One article from *National Wildlife* magazine entitled "The Red Fox goes to Town" by David Stamps, explains the phenomenon of urban dwelling foxes. In his article Stamps discusses several documented cases of red foxes thriving in cities. He explains, "Fox encounters may be increasing simply because urban expansion takes people into prime fox habitat. "Unlike most other animals, foxes do not necessarily move out as people move into fox territory. The animals may also be moving into the human domain."

Indeed a number of species such as racoons, skunks, crows and others have

➡ next page for more

(Fox cont'd)

adapted and thrive in urban areas. Perhaps the fox also falls into this catagory. As Stamps says, "Lawns and low shrubs in residential landscapes teem with moles and small rodents, just the sort of meals to keep a fox in the neighborhood." Another aspect he points out which can be applicable to our area is the competition between coyote and fox. In the wild, coyotes compete with foxes for the same types of prey. The two often will not share ranges. "Coyotes, for all their adaptability and boldness, do not generally venture into the densely built-up cities . . ." says Mr. Stamps.

Fox versus coyote: round 1

So the fox, free of competition from the coyote in areas farther away from wilder terrain may tend to exploit the urban fringe more freely. Although from my own experience in the preserve I've seen fox tracks crisscrossing the same areas that are dense with coyotes, I believe this point has historically applied more with the red fox in the East and Midwest than here with our gray foxes. However, given the experiences of the past year I'm convinced that is changing.

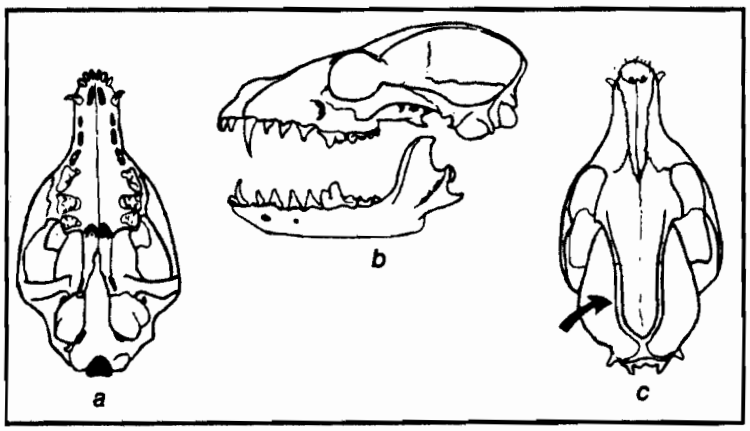
It's about 11:00 p.m. now, a few weeks after the incidents involving the fox in Louise's back yard. My son got to keep a duck his third grade class hatched over the past several weeks. The agreement was we'd watch him grow for a few weeks, then donate him to Bate's Nut Farm. I built a small pen for him in the back yard and all the while wondered in the back of my mind about "our" fox. It's been warm lately, so our windows are open as I fall asleep. Suddenly I'm aware of the duck quacking in a most unusual way. . . . I know right away — the fox! I know the pen is sturdy and will protect the duck so I stalk slowly out to the deck overlooking the back yard. The pen is just hidden from view by the patio cover, so I lean as far as I can over the rail to get a look at what is happening — "creeeack!" I hear a board under my foot as I'm leaning over the rail. In the same instant I see the fox bolt up the back hill like a shot, not making the slightest sound, its huge bushy tail trailing straight out behind like a flag in a stiff breeze! "Wow, did you see that!" By this time my wife Marti is standing at the door looking bewildered, "What are you doing out here?" she asks in that "My husband is nuts!" kind of voice.

Occasionally in the evenings we hear him barking late at night on the hill behind our house. It's nothing like you've ever heard, a hoarse, sharp "harf, harf, harf," followed by an eerily high pitched sort of squealing or whimpering sound. The first time I heard it, it sort of gave me the creeps. Lately I've listened for him, but haven't heard his wierd sound and I wonder if he's ok., hoping he just moved on and is still thriving.

Foxy tracks

I still find evidence of gray foxes throughout the Preserve. There is one hanging around the Adobe Ranch house lately. We see his tracks and scat around there quite frequently. The front tracks of the gray fox measure 15/8" to 2" long by 13/8" to 13/4" wide. The rear tracks measure 11/2" to 13/4" long by 11/4" to 11/2" wide. The nails of the gray fox do not always register since they are **semi-retractable**; its tracks can be mistaken for those of a cat. Its track size is actually between that of a domestic cat and a large bobcat, and as I mentioned earlier, the fox even walks like a cat, with direct register. Some biologists suggest that the gray fox represents an evolutionary link between the canines and the felines.

Upon closer inspection you'll notice a much smaller heel pad on the fox than on cats and a symmetry common to the canids. The fox tracks have a certain delicate nature also suggestive of cats, but again the over all shape gives it away. I've noticed that if you look at the space between the heel pad and toes, you find a very large gap, especially between the front of the heel pad and the back of the two middle toe pads. Additionally, if you were to draw a horizontal line across the top of the two outer toes, it would cross below the two middle toes. The average stride length of a walking grey fox is 8 to 12 inches. Running stride is 18 to 36 inches, trail width averages 33/4 inches.



Skull of the Gray Fox (Urocyon cinereoargenteus): a, ventral view; b, lateral view; c, dorsal view (arrow to sagittal crest). From California Mammals by E.W. Jameson, jr. and Hans J. Peeters, Univ. of Calif. Press, 1988.

Distinctive runs and scat

Many times I've found portions of trails where the fox was running. A fox digs in when running, leaving claw marks even in hard ground, but no pad prints. In fact, on the hill behind our house, I've found several of these "claw mark only" prints very close to fox scat.

The gray fox's scat is small, narrow, roughly cylindrical, 1/2" to 5/8" in diameter, usually sharply tapered at one end. Because the gray fox eats berries and fruit, its stool tends to be darker and contains a lot of seeds as well as hair. Often I see coyote and fox scat in the same location. The gray fox will mark scent posts, detectable by a musky or skunk-like odor. They mate February – March and can have as many as 2 to 7 young. The average size litter is 3 to 4. Offspring are born in March or April, weaned at three months, hunting for themselves at four months. The male helps tend young, but will not den with them.

Dens of grays will be hollow trees, caves, rock crevices, woodpiles or they may enlarge an existing hole in the ground such as a woodchuck den (I know, we don't have woodchucks around here.). You may find bone fragments, feathers or similar leftovers around the entrance to one of these dens.

Evolutionary fast track?

As with most general rules there are exceptions, and with all species scrambling to adapt and survive in an ever changing world, I believe we are witnessing in the fox an example of exceptional behavior becoming indicative of a high degree of adaptability. This, I hope, will help ensure the survival of these animals even under the threat of over-developmentt.

This point is pressed home to me as we wait in the "hold short" area of the runway at Charlotte, N.C. International airport. I look across the runway to a grassy area maybe 100' away from the approach end of the runway. In the long shadows of late afternoon I catch the movement of a red fox jumping up into the air and pouncing. Then, scrambling around it hops up again, then again, in and out of the clumps of green grass. "He's playing with his din-

ner . . ." I tell my copilot. We watch him for awhile, then it's our turn to take off. We stick to the business at hand but later I reflect on the fact that here was this presumably wild animal looking quite comfortable and playful on the fringes of a very noisy, active, populated place.

We've all seen wild animals on occassion in places where we'd least expect them, looking confused or lost. But these instances are giving way more and more to animals exhibiting no more apprehension than you or me going about our normal routine around the house. My hope is that we will have the foresight to allow establishment of more and more protected open space linked by a network of corridors that allow nature to flow and evolve as it needs to. This, along with the strong survival instinct inherent in animals like the gray and red foxes, will help to maintain the biodiversity necessary to ensure the overall quality of life on our shrinking planet.

I haven't talked to Louise for a long time so I don't know if her fox has been back. If you read this Louise, give me a call and let me know! Just the other day my wife told me she heard that strange barking sound a couple weeks ago when I was away on a trip. And while on a short run the other day, not far from our house down by the creek in the Preserve, I was heartened to find tracks and scat of the gray fox, the "cat-like" dog who, as a species, remains alive, well and for the most part, still seldom seen in and around the Canyon Preserve.

For anyone interested I'll be happy to provide some suggestions for further reading. Write me in care of the Friends.

Newsletter Submissions

Since we have no paid staffers *Canyon News* depends on our readers for articles. Our articles run the gamut from news about the canyon to poems to animal observations to hard science about a species or habitat and letters. If you would like to submit something for the newsletter here's how to do it.

Ideally we would like to receive your article on a computer disk accompanied by a printout. We can accept either Macintosh or IBM disks, 5-1/4 or 3-1/2 inch. The word processing program you use isn't important.

Beginner's Class

Tracking, Nature and Wilderness Survival Weekend

Barry Martin, Wildlife Survey Coordinator

The Los Peñasquitos Canyon Preserve's (LPCP) tracking team will conduct another beginning class in "Tracking, Nature and Wilderness Survival" the weekend of July 21st –23rd. It's an intensive training course beginning Friday, 6:00 – 8:30 pm, all day Saturday and Sunday, with bag lunches required both days. We go until 8:30 pm Saturday, with a Saturday evening meal provided. This is a bargain at $20.00 for members of the Friends and $30.00 for non-members ($10.00 is applied to membership).

You'll be introduced to the skills and underlying philosophy as taught at Tom Brown Jr.'s Tracking, Nature and Wilderness Survival School. Tom Brown Jr. is the renowned outdoorsman who has authored several field guides and books dealing with tracking, nature and wilderness survival. He acquired his knowledge while growing up in the Pine Barrens region of New Jersey. Under the tutelage of full blooded Southern Lipin Apache, Stalking Wolf, Tom mastered these ancient skills over a period of more than 10 years.

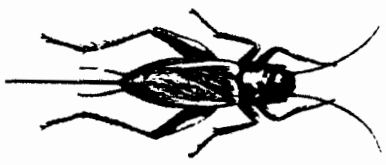
By the time you read this I will have attended 5 of Tom's one week classes starting with his "Standard Class," "Advanced Standard," "Advanced Tracking," "Advanced Awareness," and "Scout." I strongly recommend that you attend Tom Brown's Standard Class if you have any interest in the outdoors. You must apply nearly a year in advance since the interest is so high. In the meantime you can attend our class for a strong taste of what you'll find at Tom's.

We initiated this training program at LPCP to help people involved in our wildlife study. It's now hoped that we will attract more people into the study through this training program. It's become apparent, however, that there is a genuine interest in these skills we are teaching and that this interest goes beyond merely learning to recognize tracks. If you would like to attend our class, please call me at 484-4007 to sign up. Hurry, it's filling up fast!

An "Advanced Tracking and Awareness" weekend is being planned for September. Prerequisites for this class include completion of the Beginning class, two tracking walks with one of the tracking teammembers and participation in one of the quarterly wildlife study zone inspections.

Tracking team members practice their tracking skills regularly in the Preserve and several have agreed to take graduates of the beginning class with them by prior arrangement. If you would like tracking with a team member to fulfill this requirement, all you need to do is call one of the persons listed below and set up a date and time. Each team member listed has their most consistent days available listed next to their name and number. Hope you have a great summer! Happy tracking!

Chris Bader, Tues., Thurs., Fri. after 5:00PM; Sat after 11:00AM, Sun after 9:00AM — 593-1381;
Lee or Lindsey Kirchhevel, Flexible — 276-8735;
Erik or Lani Noreke, Sun. and Weekdays, AM — 565-4586;
Rick Botta , Weekdays after 5:00PM, most weekends — 672-0584
Tarja Jacobsen, Sat. and Sun. 6:00AM-10:00AM— 436-2100



A Preliminary Survey

The Frogs and Toads of Los Peñasquitos

Will Bowen, PhD

Introduction

Amphibians, such as toads and frogs, are important elements in the ecosystems of Peñasquitos Canyon and related adjacent areas. However, like many aspects of nature in the canyon, little is conclusively known about them. A study of the frogs and toads of the canyon promises twofold benefit: it's of local concern; and, it also helps address the global issue of the growing reports of declining world-wide populations of amphibians.

Warty, slimy bug-eyed "sensitive" indicators?

It should be of deep concern to us to consider that apparently, throughout the world, the numbers of toads and frogs are in mysterious decline. Granted we may have more emotionally curious interest in siting or contemplating more "charismatic megaspecies" such as deer, bobcat or mountain lion, but the warty or slimy bug-eyed amphibians are also deserving of our consideration. Indeed, they maybe even be more important to us than many other species because they are perhaps the most sensitive indicators of the overall health of the planet.

They're so sensitive because they are in such close contact with the world. As the term amphibian implies, frogs and toads may swim on or beneath the surface of the water, lay eggs in water, wear a coat of water on their skins, bask in the sun, hop on the land and even burrow into loose soil for long periods of drought determined dormancy. It is this intimate sampling from water, soil, and sunlight which makes amphibians such excellent gauges of the health of the natural world.

The health of amphibians reflects the combined effects of many separate influences in their ecosystems. Additionally, they are exemplary monitors of local conditions because they remain in fairly confined regions for their entire lives. For these reasons, we really ought to change our view of our amphibians from "our frogs to our princes."

I say the frogs and toads of the canyon are our princes because knowing about how well they are doing can really tell us about the condition of the water, soil, and overall health of the canyon, perhaps more than any other species.

We need to worry more about our anurans (frogs & toads). We need to worry because they may start declining like their brethren worldwide. This would signal grave problems for the canyon.

Causes of decline

The potential causes of the decline of the frogs and toads in our canyon, and the world at large, has been attributed to a number of factors. Increased ultraviolet radiation filtering through holes in the ozone layer, pesticides, herbicides, and pollutants rushing into the streams and ponds, habitat destruction in the service of development, and introduced exotic predators have all been blamed. The evidence seems to suggest that all of these factors may be at play.

This spring, Edward Irwin and I began a survey of the anurans of the canyon and related areas to help determine the species present, their population figures, habitation and breeding sites, and their general health. Together and singly, we went into the canyon and explored nearby areas which we thought shared an ecological relationship with the canyon proper.

Pacific Chorus Frog (*Pseudacris regilla*)

Present and accounted for

We identified the presence of two frogs: the native Pacific Chorus Frog (*Pseudacris regilla*), formerly called the Tree Toad or Tree Frog (*Hylla regilla*), and the introduced Bullfrog (*Rana catasbeia*). We also noted the presence of two toads: the Western Toad (*Bufo boreas halphilus*) and the Western Spadefoot Toad (*Scaphiopus hammondi*). The Chorus Frog and Bull Frog populations appear vital, the Western Toad appears to be more present than last year, and the Spadefoot Toad is guardedly present in appropriate numbers.

Missing

We did not find any Red-legged Frog (*Rana aurora*), African Clawed Frog (*Xenopus laevis*), or Arroyo Toad (Southwestern Toad, *Bufo microscaphus californicus*). This does not mean that they might not be in, or near, the canyon. Just that, at this time, we did not see any.

In all likelihood, there are no more Red-legged Frogs left in the canyon or elsewhere in all of San Diego County. This is a species close to extinction in our area. A slight possibility exists for the presence of the other species in our canyon. We do not want the African Frog, which is as close to us as San Clemente Canyon, because they are a voracious predator. The State Dept. of Fish & Game is currently trying to remove them. The Arroyo Toad is supposed to still exist at some historic population sites in San Diego County. City biologist Maggie Loy, in her biology report for the canyon thought they might be found downstream of the waterfall, but we probably do not have enough of the right habitat for them.

We also found that the nearby vernal pools, Deer Lake, and Carmel Mountain, probably exert some important ecological influences on the amphibian populations in the canyon. In addition, we should be more concerned with the canyon walls or slopes, where species may seek loose soil to burrow into (we do not know if they stay and burrow in at the vicinity of the vernal pools).

The implication is that it is in our best interests to be not simply concerned with the canyon proper, but also the areas around it, such as the canyon slopes, vernal pools, Deer lake, Carmel Mountain, and Del Mar Mesa.

Frogs And Toads

The Pacific Chorus Frog is abundant in the canyon and vernal pools during the wet and rainy breeding season of late winter and spring. In the summer and winter they are only occasionally seen. This frog is usually considered the most abundant anuran in coastal Southern California. We can feel fairly confident that their population in our neighhood is healthy at this time.

No sunscreen needed?

One reason for the health of the Chorus Frog may be their high resistance to ultraviolet radiation — actually about six times that of the Western Toad, for example. This relative resistance is based on the presence of differing amounts of an enzyme, called "photolyase" which repairs the DNA damaged by ultraviolet rays. Ultraviolet radiation is also dangerous because it weakens immune response leaving amphibians less able to fight off bacteria and fungus infections. Increased amounts of the protective photolyase may explain

why the Chorus Frog is prolific while the Western Toad is in decline across the West.

Interested observers can identify the Pacific Chorus Frog by a number of key factors. It's very small, ranging from about 1/2 to 2 inches, full grown. It comes in many color variations from lime green to dark brown and *can actually change color in a just a few minutes*. The Chorus Frog can also be identified by the black eye stripe and the toe pads. The Chorus Frog is the anuran which we hear most often in the canyon. It will gather and sing in semi-circular groups around ponds, puddles, or pools. The call is the familiar fast rhythmic "ribitibit--ribit" or the drawn out . . ."krieg."

The Chorus Frog is a good climber but usually stays on the ground. The eggs are laid in two jelly envelopes arranged in loose irregular clusters and usually attach to vegetation. The tadpole is usually small but may reach 1 -1/2 inches. It's dusky (dark) to olive brown above with eyes set well out at the sides of head. The tail is large compared with the body. It flares a little above and below the head region and is speckled. The diet of this frog includes

Arroyo Toad (Southwestern Toad, Bufo micro–scaphs californicus

leaf-hoppers, flies, ants, wasps, beetles, caterpillars, spiders, and snails. These are very active frogs and somewhat difficult to spot or catch even if they sound very loud. They will jump out of your hand and are hard to hold because they are so small. For close up inspection it's best to catch them with a hand net.

Invasive Bull frog

The Bull Frog (*Rana catesbeiana*) exhibited a strong showing on our survey, although their presence is nothing like the abundance of the Chorus Frog, except perhaps at Deer Lake, where they are prolific. This is a non-native frog which was introduced into Southern California in 1922. It is now distributed throughout the state. It's a large frog, ranging from 3-1/2 to 8 inches in length.

The coloration is olive green or brownish, often spreading to a lime green on the head. The lime green color and the large ear drum are the keys to this species identification. Also indicative is the call, heard only from the male, which is a deep "Jug-o-rum," sounding like a cow with a bass voice! They will also emit a squawk like "Kroc!" or "Krack" when startled. Usually you will just hear this and see a big splash as the frog dives.

Highly aquatic, the Bull Frog is always near water. It favors quieter waters with plant cover along the shore. It's diurnal and will often be out basking in the sun during the day. If startled it will let out a warning cry and/or jump into the water and dive down to hide under leaf litter or aquatic plants.

Little sumo wrestlers

The males of this species are territorial and will engage each other in wrestling matches. The defeated male will swim away riding low in the water, like a dog with its tail between its legs. The most dominant and aggressive males are "high floaters" — they actually ride higher in the water. Low men on the totem pole and females are always low floaters. Perhaps this is where the term "highfalutin" (pretentious) came from. The Bull Frog lays its eggs in a floating mass which is about 1 egg thick and 5 feet in diameter. The tadpoles are very large, growing to 5-1/2 inches and resemble the young of the Red-legged Frog, except that they do not have the pinkish tinge underneath. The Bull Frog tadpoles may overwinter and not be transformed until the following spring. The diet of the adult is grasshoppers, dragon flies, water spiders, caterpillars, flies, beetles, ants, wasps, small fish, other frogs, tadpoles, snakes, turtles, birds, and mice. The bad news about this frog is that it is a *chief competitor with the endangered Red-legged Frog and appears to have displaced it.* The Bull Frog will eat the Red-leg and outcompete it for food. Although some individuals attribute the decline of the Red-legged Frog solely to the presence of the Bull Frog, the disappearance of the Red-leg appears to be due to more than just the presence of the Bull Frog.

Disappearing Red-legged frog

The Red-legged Frog (Rana aurora) is the largest native frog in the state, growing from 2-1/2 to 5 inches in length. It was formerly common but is now endangered and probably nearing extinction. The problem dates back to the turn of the century when it was overharvested as a food source. Maggie Loy called it a species of local concern in 1979 but things have grown even worse since.

The Red-leg is a fairly delicate frog, easily susceptible to environmental stress. While there apparently are some up on the Santa Rosa Plateau, they are now very scarce throughout the state. We did not see any on our survey and I doubt we have any in the canyon or the county. The coloration is brownish to olive with white-centered dark spots or blotches, small dark flecks and a whitish line or streak from mouth to shoulder. The undersides of the lower belly and legs are reddish and are the defining feature. The call is a stuttering grating guttural sound given on one pitch often ending in a growl and lasting about three seconds.

This is a highly aquatic pond frog which prefers slow, still, quiet, permanent water with a dense shore line providing good cover. The diet includes insects, beetles, and caterpillars. These frog mate at night, like the Chorus Frog. In the late winter they gather and begin to sing in breeding choruses to attract females. Interestingly enough, the female calls back. The male hears her return call and swims toward her.

Armpit estacy?

During breeding season the male has a large nuptial bump on the first finger of each hand. This bump is important in tactile stimulation of the females armpits, causing her to lay eggs, which he deposits sperm on as they are released. The eggs float in grape-like clusters which are 3-10 inches in diameter. The tadpoles that develop from the eggs are a yellowish brown with a pinkish belly and may grow to be up to three inches in length.

Although none of these frogs were detected by Maggie Loy during her biological survey of the canyon in 1978-9, she did mention, without giving the exact source, that a report from 1977 claimed that this species had been observed. Since this frog is especially sensitive to drought. my personal feeling is that we may not have had many of this species in our canyon in the past, owing to the intermittent drying of the creek during the hot months of the year. Some may have been able to survive in the remaining pools of standing water but probably not many.

New voracious invader: the African Clawed Frog

The African Clawed Frog is a recently introduced species that may be in the canyon. We did not detect any. Neither were they mentioned by Loy. The impact and spread of this frog is unknown. Fish and Game are trying to keep track of this voracious predator and keep it out of the habitat of native fish such as the Three-Spined Stickleback. Edward Irwin claims to have spotted a tadpole of this species in a pool in San Clemente Canyon, which means we need to fear their entrance into our canyon if they are not already here.

➡ next page for more

Spadefoot

The Western Spadefoot Toad is a small toad which is adapted to arid conditions, often breeding in vernal pools. It grows to only 1-1/2 to 2-1/2 inches long. The coloration is olive, gray, or silvery, often with hour-glass-like markings on the back, and a long pale stripe down each side. The eyes are large and protuberant. The chief defining characteristic is the little black sharp-edged spur on each of the hind legs — which give it the name "Spadefoot." The males of this species have a loud voice which may carry 1/2 mile. It something like a cat-like purr, but stronger and hoarser. Stebbins said the sound was "like running your finger over the teeth of a pocket comb." There is also a warning call, sounding like a "kwalk", which lasts 1/2 to 1 1/4 seconds. The Spadefoot is primarily nocturnal, coming out at night to eat insects and worms. I have only seen them in them in the daytime, however, for instance, right outside the Del Mar Mesa vernal pools in the mud cracks of the little road rut pool, last year and the year before, but not this year.

Burrow location a mystery

The Spadefoot constructs burrows in loose soils to a depth of at least three feet. It will also use the burrows dug by other animals. Three feet is just about the depth where the water remains year round at the vernal pools. At this depth they can avoid temperature extremes and dryness. They can survive underground as long as moisture remains, sometimes for years.

The Spadefoot will congregate at favorable burrowing sites which are sometimes well removed from the breeding sites. We do not know if the Spadefoot burrows year round at the vernal pools or hops off to an area of more loose soil, perhaps on the canyon slopes. There certainly is enough water at the vernal pools, if they go down deep enough, but the surface soil can get pretty hard when it dries out. They would have to dig down before the ground dried out too much.

When the late winter rains come and soak the soil, creating temporary pools, the Spadefoot emerges from the ground to breed. Then, cyclically, as the temporary water dries, they again use their spadefoot to dig themselves, going backwards, down into the soil.

The eggs that are laid in the temporary pools are in cylindrical jelly-coated grape-like clusters. They attach to plant stems or other forms in shallow quiet water. The tadpoles of this species are easy to distinguish from those of the Chorus Frog, being larger and broader with the eyes looking upward — not out to the sides. The tadpoles are olive, gray, or blackish speckled above and have a large round head. The eyes are close together and well up on the head. They look something like a quarter with a tail. They can get up to 3 inches long. It only takes about 2 months go from egg to toadlette because they have to transform quickly before the pools evaporate.

The Western Toad was observed by myself in significant numbers this year at the Del Mar Mesa Vernal Pools, but no where else. I saw about 5 outside the vernal pools in a road rut pool, and about 50

Red-legged Frog (*Rana aurora*)

in one road pool inside the preserve, and hundreds if not thousands mixed in with equal parts of Chorus Frogs in the large pool. This is the first time I have seen them. Loy did not detect it in 1979 either but assumed their presence.

The Western Toad can grow quite large — from 2 to 5 inches in length. Contrary to popular belief, toads will not give you warts but *they do give off a skin secretion that is harmful to dogs and other creatures* that would try to bite them. A dog chewing on a toad could die, so please do not let your dog catch them.

The Western Toad is identified by its off-white body color, numerous warts, and black blotches on the back, each with a reddish center. It also can be keyed out by the pale stripe running down the middle of the back. The hind feet of the young are a bright yellow and have NO spur like the Spadefoot. So you should be able to tell them apart quite easily. You'll also notice that the lower abdomen is distinctly darker than the upper abdomen and chest.

This toad is mainly nocturnal but will also come out during the day all year long, accept during cold or dry spells. It likes to eat grasshoppers, caterpillars, flies, mosquitoes, beetles, wasps, crayfish, snails, spiders and other things. In addition, it will also feed on the European Brown snail and the Gray Slug, which means they are great to keep in your garden for pest control (and people do this). There is no way to identify this toad by the call because it has no vocal sac and hence a very weak voice. It's a very good question to try and understand why it does not have a voice like other rans — one should always ask oneself . . . "What is the evolutionary significance of this feature or behavior?". . . when confronted with such anomalies.

This toad uses the water in the vernal pools to lay its eggs. They're laid in strings. The tadpoles can grow up to 2 inches long and are black or olive. You can tell them apart from other tadpoles because the body is fully dark and not just the gut region. Also, the tail is narrower and is straight back, not turned up slightly like the Chorus Frog or Spadefoot. The Western Toad is very important to our survey because it's in decline. Dr. Chuck Peterson, of Idaho State University, who studies them in Yellowstone National Park, says this species is in real trouble. Other studies have also shown that the once common Western Toad is in decline in Colorado and Eastern Wyoming, where it is now non-existence in 85 percent of its historic range.

Species of special concern

The Southwestern or Arroyo Toad was not seen on our survey. Neither was it seen by Loy 16 years ago. She called it a "California Species of Special Concern." Although she did not detect its presence, she thought that it could probably be found downstream of the waterfall in the wash area along the creek. Frankly, all though there are bits and pieces of the right habitat, I do not think there is enough to expect the presence of this species. Just to clarify, the correct habitat for the Arroyo Toad is a wash, which is a dry stream bed, or an arroyo, a dry gully or gulch, which is a small canyon or ravine cut by an intermittent stream, or a stream with a long sandy bank, populated with willows, cottonwoods, and sycamores, for any of this species to be in our canyon. They will bask right out in the open on these sandy banks during breeding season.

The Arroyo Toad grows to 2–3 inches in length. The color is variable, but it is usually grayish-green to brownish with reddish brown spots. It has a v-shaped mark on the head.

This toad is chiefly nocturnal but can be active at daytime when breeding. It lays its eggs in a tangled jelly string with a single envelope. The eggs are usually deposited on the bottom in quiet parts of a clear stream. The tadpoles are olive gray or tan, mottled with brown and white below.

They can grow to about 1-1/2 inches in length.

The voice is quite distinct. It is a melodious trill lasting 8-10 seconds, rising in pitch at first and often ending abruptly. The diet includes snails, crickets, beetles, ants, bees, caterpillars and moths.

Breeding Sites

Calle Cristobal vernal pools

We visited this vernal pool site on Calle Cristobal several times during the wetting and aquatic phase of the vernal pool cycle. We observed a great many Chorus Frog tadpoles of different sizes, an great number of froglettes. However, only one older 2-inch adult was detected. Some of the Chorus Frog tadpoles were in pools with fairy shrimp, which they apparently eat. I think that overall, the Chorus Frog numbers were about what they were last year. We could find just 4 Spadefoot tadpoles and no adults. The Spadefoot tadpoles were in a tiny little pool in red Linda Vista soil, all by themselves. The Spadefoot population seems down from last year.

As I reflect back, I think there might have also been some tadpoles of the Western toad present, as well, but I am not sure. We all need to get better at our tadpole identification.

West end wetlands /López Canyon mouth

During this last fall I observed perhaps 10–20 very large Bull Frog tadpoles on the north side of the little road that goes from the parking lot into Lopez Canyon. They were probably 4–5 inches long and were overwintering, awaiting transformation this spring. You could see them there down on the bottom along with crayfish. On a night hike in the early part of the year when the canyon was pretty wet and flooded I observed a frog about 4 inches long in a puddle by the storm drain. Because of its size I thought it might be a Red-Legged Frog. But I have since come to realize that it had to be a second year Bull Frog. It was too dark to see for sure and it escaped before I could catch it. The chances that it was a Red-legged are remote.

This spring Irwin and I saw one large Bull Frog tadpole and witnessed three Bull Frogs jump into the water of López Creek as it winds under the sycamores beneath Indian Village Hill overlooking the west end wetlands. In past years, I've seen Bull Frogs in the pool underneath the cactus patch there.

I just wonder how those Bull Frogs and their tadpoles survive the rushing waters during the rains. You would think they would be carried down and out to sea. [**Editor's note:** During one of the big winter floods near the ranch house I found that the Chorus Frogs had moved out of the stream area, out of the entire flood zone actually, into a field! They all appeared to be in this one field. The noise of their combined voices was awesome. I suspect other frogs also move out of the flood zone — Mike Kelly.]

This area also sports small numbers of Chorus Frog tadpoles. Irwin and I also found two large 2-inch adult Chorus Frogs in the stream under the sycamores east of the López canyon kiosk.

López Canyon

As I walked out along the creek deep into López Canyon I heard many of the

African Clawed Frog (Xenopus laevis)

"ribit" and "krieg" calls of the Chorus Frogs. But I found only a few, not great numbers. If you make a, excuse the word,a "fart" noise with your lips they will call back. You can even get into a call and response cycle with them by doing this.

Farther into López Canyon there is one deep large pool in a gully out just past the López house. On a frog hike in April we saw probably 20–30 Chorus Frogs, some of whom were mating. They go crazy when they mate and will not try and hide at all. It's the hormones, you know.

These were small ones, about 1-1-1/2 inch long, which were probably second year frogs. I do wonder if the baby Chorus Frog mate right after they are transformed from tadpoles.

I could find no Bull Frogs or toads farther back into this canyon.

Peñasquitos Creek: Sorrento Valley to the waterfall

Twice I've seen smaller Bull Frogs near the El Cuervo Adobe. I haven't seen any tadpoles of this species in the creek. On a dirzzly night one of the Bull Frogs was sitting with its head out of the water, near the culvert carrying excess López water into Peñas–quitos Creek. I think it was after the baby crayfish that hide in this quiet tributary.

I have often heard the "jug-o-rum" call from the creek area across from hanglider hill. I think they are pretty spread out along the creek. There are a couple at the waterfall. One actually gulped a lure I tossed down for bass.

Waterfall to Black Mountain Rd

We didn't study this area in depth. I don't know it well. I've only seen a limited amount of tadpoles here. I don't recall seeing any frogs or toads here.

Sorrento Hills

I visited the small vernal pool which is just east of the SDG & E power station on the mesa north of the West End of the canyon in the late vernal pool aquatic/early drying phase. This vernal pool preserve was packed with exotic grasses; a little bit of water remained in one small pool, which was populated primarily by Spike Rush and Coyote Thistle. There were large numbers of baby Chorus Frog, tadpoles also remained. The numbers were about what I've seen each of the last 4 years. I didn't see any Spadefoot tadpoles or toadlettes, but I have not seen them in the past neither.

Shaw Ridge Road

Up on Shaw Ridge Road, east along the dirt road from the crossroads at "Hollywood and Vine," Irwin and I were lead to a small cement pond adjacent to a house, by Mr. Alex Censor, a local resident. We found this cement pond teeming with probably 300-500 tadpoles of the Spadefoot toad. Some where turning into toadlettes; even on the tadpoles you could make out the little black heel spur. Mr. Censsaid they were in there every year. We looked at two other dirt pools nearby but did not find any toads or frogs.

Deer Lake & Bean Fields

From Mr. Censor's house we walked down the horseman's path past Kneckel's bean field out toward deer Lake. The bean field had just been plowed. There were many small pockets and puddles of water dug up along the course of the old stream bed out from Deer Lake toward the field. Here we found approximately 20 young bullfrogs about 4 inches long. They were easy to catch. They give a warning call, then dive, but the water is too shallow for them to hide. They try to squeeze next to or under a river cobble but it doesn't work. You can catch them.

Once you have them they don't squirm right out. If you look at their eyes closely you can see the transparent nictitating membrane which closes so they can see under water. We also found crayfish and a couple of small bass in the puddles which had been washed down from the Lake during the rains. We were able to catch the bass and release them in the Lake. As we walked up to the Lake proper we found many young Bull Frogs and some very large older adults. We even found the skin

➡ next page for more

(Frogs cont'd)

of a huge adult which Irwin said had been eaten by its peers. I could not resist going fishing and caught a young bass on my first cast.

It's extremely beautiful here. The Lake has a mirror-like surface which highlites the densely vegetated slope of the mesas. I don't think many people have been to Deer Lake. This is one place you really want to see.

Carmel Mountain

I went up to Carmel Mountain on a hike lead by Diana Gordon of the Carmel Mountain Conservatory in April and several times after that on my own. On the eastern bluff we found a handful of about 10 Spadefoot tadpoles in a large muddy road pond. Two were found dead on the margins of the puddle. We also saw a couple of Chorus Frogs as we walked back. When I went back in May I stayed near the southern boundary trying to decide if there were once pristine vernal pools there and I did not see any toads or frogs.

Del Mar Mesa Vernal Pools

This is an excellent place to visit. It is humid and quite dazzling in an understated sort of way during the height of the vernal cycle. It just teems with sunlight and insects and the splashy presence of colors and intoxicating odors which make you woozy.

In years past I've seen Chorus Frogs in the pools and Spadefoots outside the front gate. This year I was surprised by the presence of large numbers of Western Toads. At first I did not know what they were. They looked like a toad but where was the heel spur? I especially expected them in the road rut pools outside the main gate. Last year I took some great photographs of Chorus Frogs and Spaoots looking out from the mud cracks. This year it was all Western Toads and Chorus Frogs.

In that road rut pool outside the front of the main preserve there were two soggy paper coffee cups sitting in the water. I went to take them out and "plop," "plop" about 4-5 Western Toads fell out. Inside on the main road where the soil is that light gray clay there was a road pool near the largest vernal pool. Here about 50 of the Western Toads were congregated. One or two Chorus Frogs were also in the pool. As I walked up they all hopped from the spiny Coyote Thistle surrounding the pool into the water. There they sat in groups at the water's edge; some under the tiny canopy of the Coyote Thistle that grew part way into the water. Looking southward into the large vernal pool I noticed that it was totally loaded with a mixture of Chorus Frogs and Western Toads; just thousands of them in

Western Toad (Bufo boreas halphilus)

about equal numbers. I also heard the call of an adult Bull Frog or Spadefoot, but I could not find it. I assume it came up to eat the toadlettes. It could not have been a Chorus Frog adult, because the call was wrong nor a Western Toad which has no call. If you can you should carry a glass jar to look at tadpoles and toadlettes. You put them in with a little water and can observe them up close much better than in the pool or in your hand. Then you just dump them and the water back into the pool with no harm done.

You'll notice that the Chorus Frog can cling to the sides of the jar while the toad cannot. The tadpoles look just exasperated. Their little heart beats a mile a minute and they suck water through their gills for air like crazy. They will run all around trying to find a way out. Everything in nature is just lunatic about survival.

Miramar Navy Base Vernal Polls

Irwin was involved in research at the Vernal Pools on the base in January, March, and April. He found a large number of Chorus Frog and Spadefoot tadpoles in these pools.

Miramar Road Vernal Pools

I skirted the fence of the one enclosed pool and walked around the unfenced pools across the street east of Miramar Mall in May. The Mesa Mint was in full bloom and doing well. I could not find anyidence of frogs or toads. They might have been there previous to my visit but there is so much noise, cars, and industrial activity to make it a happy home. The frogs and toads would have to be very confined if they were here and would have to burrow straight down. I would say probably few or no frogs or toads were here.

Conclusion

From all appearances, I would say this was a good year for anurans in the canyon and surrounding areas, such as the vernal pools. Because of the variation inherent in natural cycles it's difficult to know a great deal on the basis of one years observational survey. But there are somethings we can know or can infer from the data we have.

The Chorus Frog and Bull Frog is doing well. The Western Toad showed up at Del Mar Mesa this year. The Spadefoot is around perhaps at the same population as the last few years or a little less. These species are restricted to certain isolated breeding sites. The Chorus Frog and Bull Frog have the most leeway in that they can use the Creek and Deer Lake. The Western Toad and Spadefoot are confined to breeding in the vernal pools.

I think we can give up hope of the Red-Legged Frog in the canyon. I would be surprised if anyone found an Arroyo Toad. The Arroyo Toad could be easily reintroduced from specimens from the county. It would be difficult to get any Red-Leg to introduce because they are so rare. In addition, we would have to contain the exotic predator species such as the Bull Frogs and the bass. It should also be noted that the Bull Frog is a threat to Pond Turtles and native fish, as well as the Red Legged Frog.

We have to fear the introduction of the African Clawed Frog. It is a voracious predator. We should not let a population develop.

The vernal pools are so connected and inter-related to the canyon that they should become part of the Preserve. Its just makes sense. Many animals go there from the canyon to drink and forage and there is where our Toads and a great deal of our Chorus Frogs breed.

We need to have surveys each year during breeding season. We should go once a week or once a month to each breeding site and do some counting of species. We could select one pool in a complex for in depth study or do a general survey. We should accumulate data over time to correct for natural cycles and watch for change. We should not decline to make warranted inferences (what what we know implies) and interpretations (what it means) based on our data because we fear we do not have enough information.

We need to know where the Western Toads and Spadefoots burrow during the dry season. Do they stay at the vernal pools or move to loose soil? We have to be able to know that these burrowing sites will not be disturbed.

We have to fear the continued development and population growth around the canyon. Pollutants, pesticides, and insecticides brought down by the rains into the creek could be damaging to the Chorus Frog.

The vernal pools are pretty well protected from run off being on the high ground of mesa tops. They have fences around them to prevent dumping and motor-driven vehicles. We ought to explore

(Frogs cont'd)

other potential sources of impact on anurans populations in these pools. If the theory of the ozone layer destruction is true we, can expect declines in our anurans as things get worse. One study in Oregon showed that eggs covered from sunlight did better than those exposed to direct sun. If need be, we can go in to the creek and vernal pools, find frog and toad eggs and cover them up without a big problem. Of the bunch, the Western Toad is the most sensitive. We should keep careful counts of their numbers for our own good and to contribute to the national research. I also I think we ought to monitor theSpadefoot carefully.

If our anuran population does start to suffer we can be sure it means things are going bad for the canyon and repercussions will ensue throughout the food chain. Toads and frogs should be one of the "canaries in the mine" — part of an early warning system for detecting and dealing with potential problems that might damage the ecosystems of the canyon.

Postscript

I think we are all familiar with the Grimm's fairy tale of the "Frog Prince." In this story, the frog retrieves the princess's golden ball from the well, in which it has fallen. In return, the princess promises the frog anything he wants. But the princess reneges on the deal and runs off. The frog travels to her castle to collect his due. He wants to talk with, eat with, and sleep with her. Under her father, the King's, prodding, the princess agrees to live up to her word. But when it comes to sleeping with the frog, well, that is just too much. In disgust, the princess throws the frog against the bedroom wall, whereupon he turns into a handsome prince whom she falls in love with, marries, and lives with happily ever after.

I think this tale is a metaphor for us. I think that we are beginning to see that frogs and toads are actually handsome princes because they have so much to teach us about the ecology of the canyon and how to monitor and assure its survival. On top of this, medical scientists have shown that anurans are an excellent source of healing agents. They are like the rainforests--storehouses of pharmaceutl products just waiting to be tapped. Hundreds of chemical secretions have been isolated from their skin, including compounds used as painkillers, for burn treatment, and for heart attacks. Others are being researched for their anti-viral and anti-bacterial power.

I think amphibians are as important as mammals or birds and deserve as much attention and respect. I hope you will get as excited about the toads and frogs of the canyon as I am. They are handsome creatures when you get to know them and utterly excellent examples of the adaptive handiwork of nature.

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Volunteer Thank Yous

Girl Scouts

A special thanks goes out to Girl Scout Troop 8045 from Poway under the leadership of Cathy Schmidt. The girls joined Mike Kelly in a trash pickup in a riparian area behind the ranch house. They also helped cut an invasive weed, Fennel as part of a habitat restoration project in the same area.

Mt. Carmel H.S. Choir

After this winter's flooding, cleanup has been a dire necessity. 30 members of the Mt. Carmel High School Choir turned out Saturday, May 20, to cleanup the Preserve's upstream drainage in Sabre Springs. Some 5 pickup truck loads of lumber, tires and trash were hauled out of the stream area.

NCCC

An 11-member volunteer team of the National Community Conservation Corp. (Americorps) joined the Friends in working for the Preserve for two weeks in May. The team took on the brutal task of removing tamarisk, an extremely invasive pest tree, from the Preserve's upstream drainage in Sabre Springs. They also got rid of a large patch of fennel, anothe problem invasive plant, in the ranch area. The team's perserverance was exemplary, as they stayed on the job despite half the team contracting serious cases of poison oak, encountering several rattlesnakes and fighting constant allergies!

Endangered plant surveys

Mike Kelly and Trinity Gabriel did the annual count and health checkup of the State endangered plant, the San Diego Thorn mint (*Acanthomintha ilicifolia*).

Helping out with the first of our endangered Monardella surveys were Cindy Burrascano, Reneene Mowry, Trinity Gabriel, Mike Kelly, and Laurie Hastings. *Monardella linoides viminea* (Poway mint, thin mint, or willowly mint) is a California State listed endangered plant species. This is the third year we have conducted this survey. Another Monardella survey will be conducted in July. Call Mike at 566-6489 to be part of this one.

Invasive weed removal

Working in this our 5th year to eradicate artichoke thistle (*Cynara cardunculus*) from the Preserve were: Mike Kelly, Robb Hutsel. Sarah and Jim Kellner, and Liz Rozecki. This exotic pest plant is now under control in the Preserve. In fact, the Friends have already begun working in areas adjacent to the Preserve to remove this plant.

This is also our fifth year for tamarisk eradication. Les Braund, Cindy Burrascano, Doug Fenske, Liz Rozecki, Rick Botta, Elizabeth Dunigan helped out in the lastest round in June. In July we expect to finish removing the final patch from the Preserve. Call Mike at 566-6489 to help on this final crew. The Friends have already been hard at work to eradicate tamarisk from the upstream drainages of the Preserve, especially in Sabre Springs.

Trinity Gabriel and Cindy Burrascano helped with thinning out the Eucalyptus population in the Preserve these past two months.

Other volunteers

Another special "tip-o-the-hat" to Melanie Howe, who helped out on innumerable occasions with a variety of exotic removal projects, as well as botanizing plants in the Preserve.

Of course we don't want to forget the Wildlife Tracking Teams who are volunteering their time on a constant basis in the Preserve.

Rattlesnake Season Upon Us

Mike Kelly

Imagine my surprise. It was the first week in January when rattlers are still in their dens. **NOT!**

It was a red diamondback and it was curled up under a small ledge of the Lindavista sandstone formation on a west facing slope on Carmel Mountain. Once again I think I broke the world sideways broad jump record when it generated that blood-curdling rattle.

Because of all the rain we've had these recent years, we have a bumper crop of rattlesnakes. I've met 4-5 in or around the Preserve, a lot for me, even considering all of the bush wacking I do. All were "polite," either ignoring me or warning me I was getting too close. None attempted a strike — in other words, a typical encounter.

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. 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 snakebit kit with you. The Extractor is a popular small kit that fits into a pocket . It's available in sporting goods stores. Study the in-

➨ p. 15 for more

ON PATROL

Bob Wylie

I was going to write a brief blurb about radio "shorthand", and thought that I would introduce it with the idea that one thing we share in common, whether we bike, hike or horse through the Canyon, is the radio. The more thought I gave to the introduction, the more I became convinced that there are so many things that we share in common, that perhaps the radio we carry is really less important than the others.

Although we differ greatly in our vocations, and backgrounds, we are all drawn to the Canyon by the ideals we share. For most it is a combination of contributing, and a sense of "doing good", with a desire to preserve something which we value. Perhaps we feel the need demonstrate that the decent among us are willing to stand and be counted, when we live amid so much negativism. Whatever your personal reasons, your presence in the Canyon contributes to creating an environment which is welcoming to visitors, and enjoyable for your fellow patrol members. *Keep up the great work!*

Oh, the radio codes? Well, lets try "10-8", which means "on patrol and ready for any calls", and "10-20" which is your location. This is normally a question such as "What is your 10- 20?", or just "your 20?" Most of all, make your transmissions easily understood, whatever you say. Let's hear from **you** for the next article. See you out there.

From The Ranger

Volunteers are needed for scenarios and ride-alongs in august for the new volunteer patrol training. Call **Ranger Bill at 538-2480.**

(STOP! cont'd)

flowing with angry citizens screaming "property rights", article upon article in local papers, and open season on politicians in office that suggested studies or supported projects — no item seemed too embarrassing for the speakers to raise. At this point, the session was dangerously close to becoming a Trails Anonymous meeting. Conference participants began questioning where this trail would end, and hoping it would be soon. It was obvious that much of what had been said was very close to home for many in the audience — uncomfortably close.

Then it happened! The speakers rallied the crowd with the pronouncement that despite their mistakes, the projects had ultimately been successful (hindsight being so much keener than foresight). After a short break, they would have a more entertaining tale to tell, but one (as with all good fables) with a very important moral.

And so dear readers, until the next Canyon News and the and the anticipated happy ending to our speakers' adventures in trail planning, take the time to reflect on your experiences in establishing and maintaining the Preserve, and what you have learned and what you would have done differently. Then tune in next issue and see if your solutions mirror those of the STOP! DON'T GO participants.

Friends of Peñasquitos Canyon July/August 1995 Events Schedule

Dusk Walks Best Time To See Wildlife

During the summer months the most enjoyable time to visit the Preserve is early morning or dusk. Dusk is a wonderful time to be in the Preserve and it's also the best time to see wildlife. The evening hours are also cool, a welcome relief after a hot day. They's often the most fragrant hours in the Preserve. Why not join us for one of our evening walks.

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

Volunteer Opportunities
If you'd like to help with our conservation or other activities call Mike Kelly at 566-6489. We have ongoing animal surveys, stream surveys, invasive weed removal projects, seed collection and planting programs to name a few. We also need help with organizational aspects of our work.

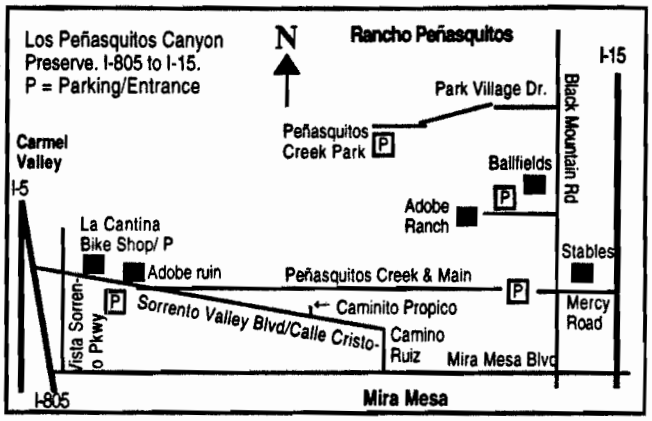
JULY

Endangered Plant Surveys
In July we'll survey for the the Poway or Thin mint (*monardella linoides viminea*). Call Mike Kelly at 566-6489. Day and time is flexibile. May be after work during week or on weekend. This is an easy activity.

Habitat Restoration Work Party
In July we expect to finish removing the invasive plant tamarisk from the Preseve with a final work party Sunday, July 16 at 8 a.m. (before it gets hot) . Call Mike at 566-6489 to help.

Rancho Santa Maria De Los Peñasquitos Adobe Ranch Tour
Saturday, July 1, 11 a.m. and noon (45 min. each), led by docents from the SD Archaeological Society. Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, then first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch. See San Diego's oldest residence, an historic adobe, settler and Indian artifacts. **Thomas Guide p. 1189.**

Mystery Tree Walk
Sunday, July 9, 8:30 a.m. (1-1/2 hours). 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. Good chance to see Adolphia Californica and other blooming plants. Meet at the parking-staging area off Black Mountain Road. Take the Mercy Exit off I-15 west to Black Mountain Road. Cross the intersection and enter the parking for the Preserve opposite this intersection. Easy to moderate walk, small hill, wet stream crossing. Led by Chris Bader. **Thomas Guide p. 1189.**



Living the Sky Walk
Wednesday, July 12, 8-9:30 p.m. . Join cultural anthropologist Will Bowen for a night hike focusing on stargazing, moon watching and storytelling. Learn of Indian legends of the night sky. Meet in parking lot by La Cantina Mountain Bike Shop on north side of Sorrento Valley Boulevard in Sorrento Valley, 1/2 mile east of intersection with Vista Sorrento. From the east take Mira Mesa Blvd. west to Camino Santa Fe. Right on Camino Santa Fe to second light. Left on Sorrento Valley Blvd and all the way to the bottom of the hill. The bike shop is on the right. From the west, I-5 or 805 to Sorrento Valley. Take Sorrento Valley Blvd. east through the business district. Last building on the left houses the bike shop. **Thomas Guide p.1208.**

Nature Walk
Saturday, July 15, 8 a.m. (1-1/2 hours). Join Les Braund for a general nature walk in the east end of Peñasquitos Canyon Preserve. Should still see flowers and plenty of young birds. Learn about bio-diversity and visit a nearby grave site and a mitigation project. Meet at the parking-staging area off Black Mountain Road. Take the Mercy Exit off I-15 west to Black Mountain Road. Cross the intersection and enter the parking for the Preserve opposite this intersection. **Thomas Guide p. 1189.**

Rancho Santa Maria De Los Peñasquitos Adobe Ranch Tour
Saturday, July 15, 11 a.m. and noon (45 min. each), led by docents from the S. D. Archaeological Society. Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, then first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch. See San Diego's oldest residence, an historic adobe, settler and Indian artifacts. **Thomas Guide p. 1189.**

Habitat Restoration Work Party
Sunday, July 16, 8 a.m. (early, before it gets hot!) This should be the final work party (in a 4-year effort!) needed to rid the Preserve of the invasive weed tamarisk. No experience needed. Bring water and sun protection. Call Mike Kelly at 566-6489 to help.

Dusk Walk – East End
Wednesday, July 19, 7–9 p.m. Join Mike Kelly for a dusk walk in the Preserve's east end. Meet at the parking-staging area off Black Mountain Road. Take the Mercy Exit off I-15 west to Black Mountain Road. Cross the intersection and enter the parking for the Preserve opposite this intersection. Good chance to see wildlife and enjoy a cool, fragrant evening in the Park. Bring flashlight and insellect repellant. **Thomas Guide p. 1189.**

Save Our Land & Our Wildlife! Public Meeting to Save the Endangered Species Act
Thursday, July 20, 7–9 p.m.
K.N.O.A.H.'s A.R.C. and the Endangered Species Coalition of San Diego County (Friends, Sierra Club, Endangered Habitats League, League of Women Voters, Audubon Society) invites you to the Scripps Miramar Ranch Library, 10301 Scripps Lake Drive (across from Miramar Lake) to hear from a series of speakers about attacks on the Endangered Species Acts (State and Federal) and to help plan to defend them.

Tracking, Nature and Wilderness Survival Weekend
Friday, July 21 – Sunday, July 23. The Los Peñasquitos Canyon Preserve's (LPCP) tracking team will conduct another beginning class in "Tracking, Nature and Wilderness Survival" the weekend of July 21st through 23rd. It's an intensive training course beginning Friday, 6:00 – 8:30 pm, then all day Saturday and Sunday, with bag lunches required both days. We go until 8:30 pm Saturday, with a Saturday evening meal provided. This is a bargain at $20.00 for members of the Friends and $30.00 for non-members ($10.00 is applied to membership). Call Barry at 484-4007 if you are interested in participating.

➡ p. 14 for more

Raptor Bird Walk, West End
Sunday, July 23, 5-7 p.m. Join Brian Swanson for a bird walk in Lopez Canyon at a time when the birds are very active in thewest end of the Preserve. You'll look for White-tailed kites, kestrels and three kinds of hawks. Meet in the new parking-staging area on the south side of Sorrento Valley Boulevard in Sorrento Valley, 1/2 mile east of its intersection with Vista Sorrento Parkway. From the east take Mira Mesa Blvd. west to Camino Santa Fe. Take a right on Camino Santa Fe and proceed all the way to Calle Cristobal/ Sorrento Valley Blvd. Go left on Sorrento Valley Blvd about 1 mile. At the bottom of the hill you'll find the parking lot on the left side. From the west, take Sorrento Valley Blvd. east until you see the big hill. Take a right into the new parking lot. **Thomas Guide p. 1208.**

Beginner's Tracking Training Workshop
Friday, May 19 - Sunday, May 21. Join Barry Martin for an intensive weekend of wildlife tracking. Requires previous training and experience through beginner level. Call Barry at 484-4007 to RSVP and for more details.

Friends' Monthly Business Meeting at Ranch House
Tuesday, July 25, 7 p.m. Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, then first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch. The Friends' Board of Directors meets to plan out the day to day activities and campaigns of the Friends organization. Members are welcome to attend.

Nature Walk with Barbara Moore — Lopez Canyon
Saturday, July 29, 9 a..m. Bring binoculars, sun protection, water and join Barbara Moore for a nature walk in Lopez Canyon. Meet in the new parking-staging area on the south side of Sorrento Valley Boulevard in Sorrento Valley, 1/2 mile east of its intersection with Vista Sorrento Parkway. From the east take Mira Mesa Blvd. west to Camino Santa Fe. Take a right on Camino Santa Fe and proceed all the way to Calle Cristobal/Sorrento Valley Blvd. Go left on Sorrento Valley Blvd about 1 mile. At the bottom of the hill you'll find the parking lot on the left side. From the west, take Sorrento Valley Blvd. east until you see the big hill. Take a right into the new parking lot. Barbara Moore is the co-author of the book Walking San Diego. She often has copies available for purchase and autographs. **Thomas Guide p.1208.**

"St. John's Day" Evening Hike
Monday, July 31, 7:30-9 p.m. . Join cultural anthropologist Will Bowen for a "mid-summer's eve" hike, exploring folk, peasant and primitive views of nature. St. John's Day of mid-summer is an auspicious time for communing with nature. Learn about healing plants and the resplendent life of summer in the Preserve. Meet in parking lot by La Cantina Mountain Bike Shop on north side of Sorrento Valley Boulevard in Sorrento Valley, 1/2 mile east of intersection with Vista Sorrento. From the east take Mira Mesa Blvd. west to Camino Santa Fe. Right on Camino Santa Fe to second light. Left on Sorrento Valley Blvd and all the way to the bottom of the hill. The bike shop is on the right. From the west, I-5 or 805 to Sorrento Valley. Take Sorrento Valley Blvd. east through the business district. Last building on the left houses the bike shop. **Thomas Guide p.1208.**

AUGUST

Stream, Turtle and Wildlife Corridor Surveys
In August and September we'll be continuing the stream survey begun last fall. To date we've finished the 7 miles of creek in the Preserve. This year we'll be doing the upstream drainage in Sabre Springs. In addition, we'll be doing a special turtle survey. Our Wildlife Tracking teams will be doing special corridor studies from the west end of the Preserve into Sorrento Valley. Call Mike Kelly at 566-6489 if you're interest in any of these.

Rancho Santa Maria De Los Peñasquitos Adobe Ranch Tour
Saturday August 5, 11 a.m. and noon (45 min. each), led by docents from the SD Archaeological Society. Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, then first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch. See San Diego's oldest residence, an historic adobe, settler and Indian artifacts. **Thomas Guide p. 1189.**

Evening Walk with Barbara Moore — Lopez Canyon
Tuesday, August 8, 6–8 p.m. Bring water and insect repellant and join Barbara Moore for an evening nature walk in Lopez Canyon. Meet in the new parking-staging area on the south side of Sorrento Valley Boulevard in Sorrento Valley, 1/2 mile east of its intersection with Vista Sorrento Parkway. From the east take Mira Mesa Blvd. west to Camino Santa Fe. Take a right on Camino Santa Fe and proceed all the way to Calle Cristobal/Sorrento Valley Blvd. Go left on Sorrento Valley Blvd about 1 mile. At the bottom of the hill you'll find the parking lot on the left side. From the west, take Sorrento Valley Blvd. east until you see the big hill. Take a right into the new parking lot. Barbara Moore is the co-author of the book Walking San Diego. She often has copies available for purchase and autographs. **Thomas Guide p.1208.**

Moon Godess Walk
Thursday, August 10, 8–9:30 p.m. The hike explores the sights, sounds and scents of the canyon at night. Hikers will compare the modern relationship with natural world with more traditional ideas of mother earth, nature and religion. Led by cultural anthropologist Will Bowen. Meet in parking lot by La Cantina Mountain Bike Shop on north side of Sorrento Valley Boulevard in Sorrento Valley, 1/2 mile east of intersection with Vista Sorrento. From the east take Mira Mesa Blvd. west to Camino Santa Fe. Right on Camino Santa Fe to second light. Left on Sorrento Valley Blvd and all the way to the bottom of the hill. The bike shop is on the right. From the west, I-5 or 805 to Sorrento Valley. Take Sorrento Valley Blvd. east through the business district. Last building on the left houses the bike shop. **Thomas Guide p.1208.**

Medicinal Plant Walk
Saturday, August 12, 7–8:30 p.m. Learn about medicinal plants, Indians, settlers and people today use. Led by Will Bowen. Meet in parking lot by La Cantina Mountain Bike Shop on north side of Sorrento Valley Boulevard in Sorrento Valley, 1/2 mile east of intersection with Vista Sorrento. From the east take Mira Mesa Blvd. west to Camino Santa Fe. Right on Camino Santa Fe to second light. Left on Sorrento Valley Blvd and all the way to the bottom of the hill. The bike shop is on the right. From the west, I-5 or 805 to Sorrento Valley. Take Sorrento Valley Blvd. east through the business district. Last building on the left houses the bike shop. **Thomas Guide p.1208.**

Dusk Walk to Kit Carson Crossing (north side)
Wednesday, August 16, 7 – 9 p.m. Good opportunity to see nocturnal birds and animals. We'll cross the stream at the historic crossing used by Kit Carson. Meet at Peñas–quitos 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. Bring insect repellant and flashlight. Led by Mike Kelly. **Thomas Guide p. 1189.**

(Calendar cont'd)

Rancho Santa Maria De Los Peñasquitos Adobe Ranch Tour
Saturday August 19, 11 a.m. and noon (45 min. each), led by docents from the S. D. Archaeological Society. Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, then first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch. See San Diego's oldest residence, an historic adobe, settler and Indian artifacts. **Thomas Guide p. 1189.**

Friends' Monthly Business Meeting at Ranch House
Tuesday, August 22 (tentative), 7 p.m. Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, then first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch. The Friends' Board of Directors meets to plan out the day to day activities and campaigns of the Friends organization. Members are welcome to attend.

Nature Walk
Saturday, August 26, 8 a.m. (1-1/2 hours). Join Les Braund for a general nature walk in the east end of Peñasquitos Canyon Preserve. Should still see flowers and plenty of young birds. Learn about bio-diversity and visit a nearby grave site and a mitigation project. Meet at the parking-staging area off Black Mountain Road. Take the Mercy Exit off I-15 west to Black Mountain Road. Cross the intersection and enter the parking for the Preserve opposite this intersection. **Thomas Guide p. 1189.**

Bird Walk – Ranch House
Sunday, August 27, 5–7 p.m. Join Brian Swanson for a bird walk at the historic adobe ranch house. Chance to see owls. Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, then first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch. See San Diego's oldest residence, an historic adobe, settler and Indian artifacts. **Thomas Guide p. 1189.**

Wish List Items

Soil and water testing equipment
Self propelling mower for native grass restoration.
Horse drawn mowing, plowing equipment for native grass and tree planting.
Front end loader for erosion and siltation repair work.

San Dieguito River Valley Park

Mike Kelly

In June the San Diego County Board of Supervisors voted 4-1 to take all private land out of the planning process for this park. The Board indicated it wants the park to end at I-15, before moving into the County — even cutting itself off from land in the County already purchased with San Dieguito River Park Bond monies.

The park was planned to extend from the coast at Del Mar all the way to Volcan Mountain along the San Dieguito River. Besides being a wonderful recreational opportunity for hikers, equestrians and bicycle riders, it would also function as a badly needed east-west wildlife corridor. In fact, this corridor is vital to the future biological health of Peñasquitos Canyon Preserve. The Preserve has no such connection itself and is rapidly becoming isolated. Wildlife corridors would run north from the Preserve across the Del Mar Mesa to connect up to the San Dieguito Park.

Publicly, Supervisors Slater, Bilhorn, Jacobs and Cox (only Ron Roberts voted to preserve the park) claimed to be championing "private property rights." This is the latest slogan of politicians who want to get reelected to office on the same wave that produced the recent Gingrich Republican Congress. "Property rights takings" has become the mantra of a hard core extreme right wing of the Republican Party that claim thats "big" government is "taking" away their property rights and denying them economic use of their land. They rail against any government regulation as a "taking." As recent pols have uniformly shown, however, the Republican victory last November certainly had nothing to do with a backlash against environment issues or the environmental movement. It had a lot to do with general dissatisfaction with the party in power and the state of the economy. When so-called property takings issues have been put on the ballot as in Arizona last year, they have been handily defeated by the voters.

What's at stake in the River Valley is that the small number of big landowners there believe they can make more money by developing their land for subdivisions. For example, there's already a developer wanting to put sub-divisions in the Santa Isabel Valley (yes, Dudley's Bakery area). It's the same old story — greed — and damn the "public good." The Board's action was a vote against the whole concept of zoning and planning. Zoning and planning recognize that there have to be limits on what can be done with a piece of land — in the public interest. Flood zones, landfill or dump siting, reservoirs, roads, sites suitable for industrial uses, sites suitable for resendential homes, and yes, park and open space siting. These are all legitimate uses of planning and zoning. It couldn't be done if privately owned land was not included. Ever since the wretched excesses of the 19th century, when zoning and planning didn't exist, this has been the law.

Consistent with their River Park decision, the County Board of Supervisors also announced their intention to exclude private property from the Multiple Species Conservation Planning that's been underway for three years now. They apparently see the environmental movement and support for environmental issues as a good (read, *weak*) target for their political ambitions — reelection.

Hopefully, we and the public can prove them wrong and show that there is a need and desire for an open space recreation and wildlife system.

(Rattlers cont'd)

structions 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 neighborhoods in the past seven years, neighbors found two rattlesnakes in garages, two coming out from under the back deck, one on the front deck, two in their backyards and two in the street. Three 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.

Earlier this year a frantic neighbor came running over to my house, yelling about the rattler in her backyard. Sure enough, it was a big, 4-5' red diamond. I used my snake stick to catch it, put it in a bucket with a cover and relocated it down in the Preserve.

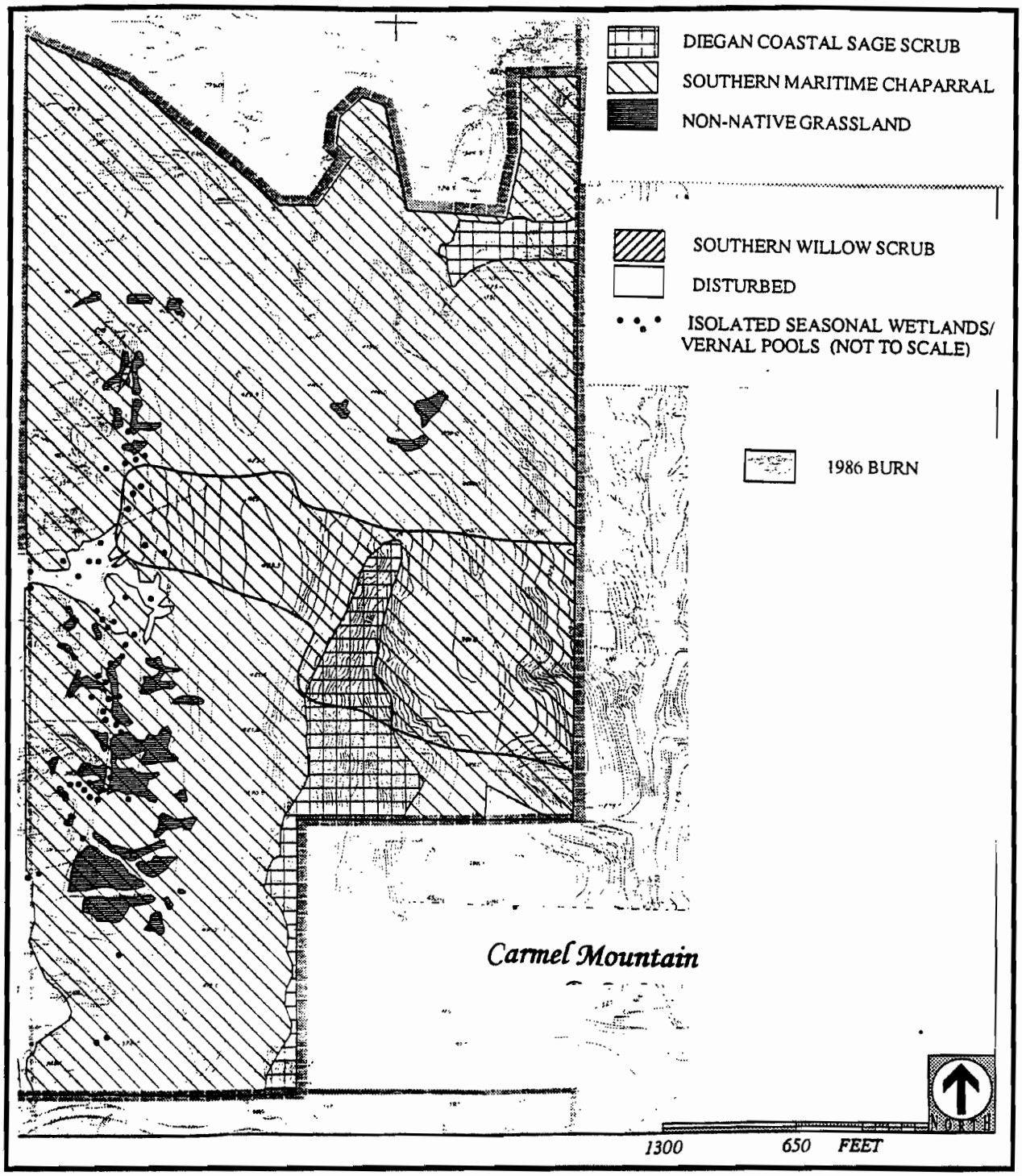


Fig. 1. Topographic map of Carmel Mountain and vicinity showing the various Habitat areas and the 1986 burn area (from: Environmental Impact Report for Carmel Valley Area 8A, City of San Diego, October 19, 1994).

Geology

About 1,000,000 years ago, the sandstones and shales of the La Jolla Group (about 40 million years old) were deposited in a shallow marine environment that is now most of Del Mar and La Jolla. Subsequently, when the area subsided, they were beveled by a shallow sea that extended from the coast ranges to the ancestral Pacific Later, when the sea receded westward in response to the incipient San Andreas Fault that caused up warping of land to the east. A north-south strand line composed of a wave-cut beach and barrier sand dunes extended from San Diego to Carlsbad.

During the ensuing 500 thousand years or so, the strand line moved westward from what is now Mira Mesa to Torrey Pines, leaving the beachrock behind. This ancient beach rock, called the Lindavista formation, is about 700,000 years old in the Mira Mesa area, and about 500,000 years old in Torrey Pines.

The Carmel Mountain rocks are somewhere in between in age and can therefore be considered unique because they are not found elsewhere. In fact, the Lindavista to the east is a near-shore deposit of cobblestones, called Qln (for Quaternary, Lindavista, near shore) that form the rim of Peñasquitos Canyon. The rocks on top of Carmel Mountain are labeled Qlb (for Quaternary, Lindavista, beach).

Sometime during the ensuing half million years or so, some of the grains of sediment became enriched by iron and titanium that percolated downward through the sedimentary column and formed the marble-sized concretions found there today. Though nobody knows for sure how they formed, geologists think that the beach rock that was initially deposited in a shallow-water oxidizing environment dried out when later dry conditions prevailed. Along with the drought, conditions changed to a reducing environment so that the iron and titanium were "re-

duced" to their elemental form (Fe++ and Ti++++). When such "reductions" take place, concretions (spherical nodules formed out of cemented sands and clays surrounded by a hard shell) were formed *in situ*. (They form spheres because that is the geometric shape that provides the greatest volume for the least surface area). In fact, they may be still growing deep in the country rock.

The reason we see only the larger, half-inch diameter "marble size" concretions on the surface now (see Fig. 2) is that the smaller ones are simply blown away by the wind or washed away by winter rains.

A nationally unique geologic feature

The concentration of iron-titanium rich illmenite, is believed to be greater in the Carmel Mountain area than anywhere else in North America (Anders Rindell, personal communication) and amounts to about 5lbs per cubic foot. If one computes the total amount in the 300 acre area owned by Pardee Construction Corp., assuming a thickness of about 20 ft, somewhere between half a million and one million tons of illmenite exists on Carmel Mountain. It has never been mined, apparently because such a venture would be unprofitable.

A layer of consolidated clay, called "hard pan," that is impermeable to water underlies in the Lindavista formation on Carmel Mountain. This layer keeps rainwater in the phreatic zone (area between the surface and the hard pan) and creates a perched water table, hundreds of feet above the main aquifer in the area. This, in turn, allows water to collect in pools, called vernal pools (from the Latin, vernal, meaning "spring"), which in turn support endangered species such as the Mesa mint. Because so many (about 97%) of the vernal pools in San Diego have been destroyed by development, they are now protected — somewhat.

Habitat

The habitat on Carmel Mountain is made up of a mosaic of three types. Listed in order of abundance, they are: 1) maritime chaparral, 2) coastal sage shrub, and 3) vernal pools. They will be discussed briefly below.

Southern Maritime Chaparral

The majority of the area (271 acres) is vegetated with southern maritime chaparral. Chamise, warty stem ceanothus (a white blooming ceanothus, an endangered species) and Del Mar Manzanita (a threatened species) make up the bulk of the woody shrubs, but some scrub oak is present on the slopes. In addition, there are several populations of short-leaved dudleya (*dudleya blochmaniae ssp. brevifolia*, another endangered species). The understory supports both cottontail and jack rabbits, desert wood rats (*Neotoma lepida intermedia*, a threatened species), orange-throated whiptail lizards (an endangered species) and the San Diego horned toad (another endangered species). Rattlesnakes also abound in this habitat.

Although the chaparral has never been disked or chained, it has been burned over periodically. The lat burn was in 1986 (see Fig. 1) and has all but completely recovered as Diegan Coastal Sage Scrub.

Diegan Coastal Sage Scrub

Diegan Coastal Sage Scrub constitutes the second most abundant habitat (79 acres) in the area. Coastal sage brush, wild buckwheat, black sage, white sage, sagebrush and coast encelia make up the bulk of the brush. San Diego barrel cactus (*Ferocactus viridescens*, a threatened species) adn bayonet cactus are also present and, in one area on a south facing slope, there's a stand of coastal cholla cactus where the cactus wren (an endangered species) makes its nests. California gnatcatchers (*Popioptila californica*, an another endangered bird species) nests exclusively in this habitat. Lemonade berry, orange monkey flowers and dodder (witches hair) round out the unique coastal sage scrub habitat.

Vernal Pools

There are about 150 vernal pools (a protected habitat) in the area, some marked by wooden stakes with numbers thereon. They range from about the size of a bathtub to that of a tennis court. Many are marked by small mounds, called "mima mounds," that support many native grasses and wildflowers and provide browing areas for deer. The vernal pools also support specialized species such as the western spade footed toad and microfauna (e.g., fairy shrimp, an endangered crustacean).

Summary and conclusions

Carmel Mountain consists of a unique geologic formation containing illmenite concretions that supports many rare and endangered species. Pardee Construction Co. plans to build about 900 houses and associated roads. There will be a delay of several months before the bulldozers can roll because of a so-called "compromise motion" approved by the San Diego City Council recently. During this hiatus, conservationists have an opportunity to purchase the property and save it for an open space park. With that goal in mind, the Carmel Mountain Conservancy, a non-profit organization, has been formed in an effort to keep this rare habitat in its pristine state. The City's Multiple Species Conservation Project is also actively looking at the area for inclusion in the MSCP. In fact, it's called a "core" area by MSCP biologists because of its unique biologic diversity.

What you can do

To help save Carmel Mountain send $25 or more to: Carmel Mountain Conservancy, PO Box 375, Del Mar, CA 92104. Bumper stickers are also available at $1 each and, if you have big bucks, call 682-7026.

Fig. 2. Photograph of ilmenite concretions found on Carmel Mountain (courtesy of Anders Rindell).

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

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Vice-President: Tom Hopp, Ph.D. 566-4474
Treasurer: Brian Swanson 695-2209
Secretary: Les Braund 566-3958

Other Members of the Board of Directors
Don Albright, Vicky Ausen, Chris Bader, Trinity Gabriel, Barry Martin, Alan Pepper, Ph.D., Brian Swanson,

Walks and Committees Leaders
Bird Walks & Gnatcatcher Survey Committee: Brian Swanson 695-2209
Conservation Chair: Alan Pepper, Ph.D. 586-7123
Geology Walk Leader: Don Albright 443-7982
Hike Committee: Trinity Gabriel 672-0229
Medicinal Plant & Night Walks: Will Bowen 452-7091
Nature Walk: Les Braund 566-3958
Newsletter Committee: Mike Kelly, Carla Scott, Vicky Ausen
Vernal Pool, Fire Ecology & other walks: Mike Kelly
Wetlands Restoration Committee: Don Albright, Tom Hopp, Susan George, Marcus Spiegelberg, Trinity Gabriel, John Northrop
Wildlife Survey Committee & Tracking Walk: Barry Martin 484-4007

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 (call me to discuss)
____ Hikes
____ Indian Culture **7/95**
____ 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.

Canyon News

Friends of Los Peñasquitos Canyon Preserve, Inc.

Please Post

September/October 1995
Volume 9 No. 5

Friends' Event Calendar for September & October 1995

Highlights This Page/ Full Calendar Begins Reverse Side / News Articles Begin on Page 5

Biodiversity & Human Life Evidence for a Strong Endangered Species Act

Sept. 28, Thursday, 7 pm
National University's Chamberlain Hall
4085 Camino del Rio South (Mission Valley)

Dr. Kurt Benirschke and Dr. Ted Case will speak on the history and importance of the Endangered Species Act (ESA) at this second in a series of educational forums on the ESA. Dr. Benirschke is currently Professor Pathology at UCSD and the 1995 Conservation Medalist of the Zoological Society of San Diego. Dr. Case is currently Professor of Biology at UCSD. Admission is free. The meeting is hosted by KNOAH'S ARC and the Dept. of Mathematics and Natural Sciences. Co-sponsors include the Friends, the Audubon Society, The Sierra Club, and the Endangered Habitat League.

Carmel Mountain (8a)

Sept. 21: Meeting
Oct. 3: Hearing Oct. 3
(See full calendar & article this issue)

California Exotic Pest Plant Confer.

Oct. 6–8: Atascadero, Calif.
(See article this issue)

Native Plant Sale:

Oct. 14, Saturday, 10 am – 2 pm
Casa del Prado, Balboa Park
(See full calendar for more details)

Troubling Times for Turtles, Terrapins and Tortoises

Friday, Oct. 20, 1995, 7 pm
Historic adobe ranch house in Penasquitos Canyon Preserve.

Dr. Jeff Lovich will give a slide show presentation on the current status and problems of turtles, terrapins and tortoises throughout the world, but with a special focus on the American southwest. See the full calendar listing for directions and a map to the ranch House. There is no charge for the meeting.

Dr. Lovich is a Research Wildlife Biologist, a member of the editorial boards of the American Society of Ichthyologists and Herpetologists and the journal *Chelonian Conservation and Biology*. He is also a member of the Tortoise and Freshwater Turtle Specialist Group of the IUCN (World Conservation Union) Species SurvivalCommission, and the Board of Directors of the California Exotic Pest Plant Council. Dr. Lovich has published over 50 scientific papers, most of which address the ecology, systematics, and zoogeography of freshwater turtles. In addition he has published two books. He is coauthor of the book *Turtles of the United States and Canada* published by the Smithsonian Institution Press. He is a co-editor of, and contributor to, the book *Biological Diversity: Problems and Challenges* published by the Pennsylvania Academy of Science. Dr. Lovich currently conducts research on desert tortoises, a federally protected species in portions of their range. His presentation will cover, among other things:

- Why almost 1/2 of the world's 270 turtle species are in need of conservation action.
- Why 43% of the native turtles of the U.S. are endangered, threatened, candidates for protection, or sensitive species.
- Why turtles, which have survived since the tinme of the dinosaurs face significant challenges in a world controlled by humans — time may be running out for the timeless turtle.

Hot! Hot! Hot! Beating the Heat in PQ Preserve

September and October are often hot months in San Diego, the hottest if a Santa Ana hits. When you hike or bike in the Preserve be sure to wear a hat and bring plenty of water. Too many people have been suffering heat exhaustion — don't be one of them. Early morning and early evening are the best times to be in the Preserve..

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

Volunteer Opportunities
If you'd like to help with conservation or other activities call Mike Kelly at 566-6489. The Friends have ongoing animal surveys, stream surveys, invasive weed removal projects, seed collection and planting programs to name a few. We also need help with organizational aspects of our work.

SEPTEMBER

Stream, Turtle and Wildlife Corridor Surveys
In September and October we'll be continuing the stream survey begun last fall. To date we've finished the 7 miles of creek in the Preserve proper. This year we'll be doing the upstream drainage in Sabre Springs. In addition, we'll be doing a special turtle survey. Our Wildlife Tracking teams will be doing special corridor studies from the west end of the Preserve into Sorrento Valley. Call Mike Kelly at 566-6489 if you're interest in any of these.

Rancho Santa Maria De Los Peñasquitos Adobe Ranch Tour
Saturday, Sept. 2 , 11 a.m. and noon (45 min. each), led by docents from the SD Archaeological Society. Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, then first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch. See San Diego's oldest residence, an historic adobe, settler and Indian artifacts. **Thomas Guide p. 1189.**

Dream Helper Spirit Guide Hike
Friday, Sept. 8, 8–9:30 p.m. Learn about the symbolic meanings Native Americans associated with animals, birds, reptiles, and insects. Discover your own animal spirit helper or guide and find out what he/she can do for you. Led by cultural anthropologist Will Bowen. Meet in the parking lot by La Cantina Mountain Bike Shop on the north side of Sorrento Valley Boulevard in Sorrento Valley, 1/2 mile east of its intersection with Vista Sorrento Parkway in Sorrento Valley. From the east take Mira Mesa Blvd. west to Camino Santa Fe. Right on Camino Santa Fe to second light. Left on Sorrento Valley Blvd and all the way to the bottom of the hill. The bike shop is on the right. From the west, I-5 or 805 to Sorrento Valley. Take Sorrento Valley Blvd. east through the business district. Last building on the left houses the bike shop. **Thomas Guide p. 1208.**

Bird Walk in López Canyon
Saturday, Sept. 9, 5:30 p.m. (1-1/2 hours). Good opportunity to see raptors. Meet in the new Parking-Staging area off the south side of Sorrento Valley Blvd., 1/2 mile east of its intersection with Vista Sorrento Parkway. From the east take Mira Mesa Blvd. west to Camino Santa Fe. Right on Camino Santa Fe to second light. Left on Sorrento Valley Blvd and all the way to the bottom of the hill. Parking entrance is on the left. From the west, I-5 or 805 to Sorrento Valley. Take Sorrento Valley Blvd. east through the business district. Parking entrance is on the right two hundred yards after the last building on the right. Bring bird book and binoculars. Led by Brian Swanson. **Thomas Guide p. 1208.**

Intermediate Tracking Walk
Sunday, Sept. 10, 8 a.m. (3 hours). This walk will be led by the Friends' Tracking Team. A **prerequisite** is having taken the Friends beginning tracking walk. **Note:** A ***minimum*** of 2 intermediate tracking walks are required in order to take the upcoming advanced class. Meet in the parking lot by La Cantina Mountain Bike Shop on the north side of Sorrento Valley Blvd. in Sorrento Valley, 1/2 mile east of its intersection with Vista Sorrento Parkway in Sorrento Valley. From the east take Mira Mesa Blvd. west to Camino Santa Fe. Right on Camino Santa Fe to second light. Left on Sorrento Valley Blvd and all the way to the bottom of the hill. The bike shop is on the right. From the west, I-5 or 805 to Sorrento Valley. Take Sorrento Valley Blvd. east through the business district. Last building on the left houses the bike shop. **Thomas Guide p. 1208.**

Mystery Tree / Native American Walk
Sunday, Sept. 10, 8:30 a.m. (1-1/2 hours). 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. Meet at the parking-staging area off Black Mountain Road. Take the Mercy Exit off I-15 west to Black Mountain Road. Cross the intersection and enter the parking for the Preserve opposite this intersection. Led by Chris Bader. **Thomas Guide p. 1189.**

Nature Walk
Saturday, Sept. 16, 8 a.m. (1-1/2 hours). Join Les Braund for a general nature walk in the east end of Peñasquitos Canyon Preserve. Learn about bio-diversity and visit a nearby grave site and a mitigation project. Meet at the parking-staging area off Black Mountain Road. Take the Mercy Exit off I-15 west to Black Mountain Road. Cross the intersection and enter the parking for the Preserve opposite this intersection. **Thomas Guide p. 1189.**

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Rancho Santa Maria De Los Peñasquitos Adobe Ranch Tour
Saturday, Sept. 16, 11 a.m. and noon (45 min. each), led by docents from the SD Archaeological Society. See Sept. 2 listing for details. **Thomas Guide p. 1189.**

Stream Survey Kick Off
Sunday, Sept. 17, 9 a.m. (3-4 hours). The Friends annual stream survey begins. This year the focus will be on Peñasquitos Creek's upstream drainage in Sabre Springs. Call Mike at 566-6489 if you want to be part of one of the survey teams.

Carmel Mountain (8a) Meeting
Thursday, Sept. 21, 7 p.m. The monthly meeting of the Citizens Advisory Committee for Peñasquitos Canyon Preserve is being held at the Doubletree Hotel in Carmel Valley (11915 El Camino Real, 481-5900) to facilitate a special discussion on the campaign to save the Carmel Mountain (Neighborhood 8a) open space. City Councilmember Harry Mathis will lead off the discussion, including the possibility of setting up an assessment district in Carmel Valley to purchase the land. The public is encouraged to attend.

Sensory Awareness Dusk Walk
Friday, Sept. 22, 7 – 9 p.m. Evening is a great time to use all of your senses in the outdoors. Join Mike Kelly in enjoying the different sensory experiences the Preserve offers. It's also a good opportunity to see nocturnal birds and animals. We'll cross the stream at the historic crossing used by Kit Carson. Meet at Peñasquitos Creek Park in Rancho Penasquitos. From I-15 take the Mercy Road Exit west to Black Mountain Road. **Ignore** the park entrance directly across the intersection and 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. Bring insect repellant and flashlight. **Thomas Guide p. 1189.**

Medicinal Plant Walk
Saturday, Sept. 23, 6-7:30 p.m. Learn about medicinal plants, Indians, settlers and people today use. Led by Will Bowen. Meet in the parking lot by La Cantina Mountain Bike Shop on the north side of Sorrento Valley Boulevard in Sorrento Valley, 1/2 mile east of its intersection with Vista Sorrento Parkway in Sorrento Valley. From the east take Mira Mesa Blvd. west to Camino Santa Fe. Right on Camino Santa Fe to second light. Left on Sorrento Valley Blvd and all the way to the bottom of the hill. The bike shop is on the right. From the west, I-5 or 805 to Sorrento Valley. Take Sorrento Valley Blvd. east through the business district. Last building on the left houses the bike shop. **Thomas Guide p. 1208.**

Friends' Monthly Business Meeting at Ranch House
Tuesday, Sept. 26, 7 p.m. Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, then first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch. The Friends' Board of Directors meets to plan out the day to day activities and campaigns of the Friends organization. Members are welcome to attend.

Biodiversity and Human Life: Evidence for a Strong Endangered Species Act
Thursday, Sept. 28, 7 – 8:30 p.m. Join us for the second in a series of educational forums on the Endangered Species Act. The guest speakers will be Dr. Kurt Benirschke, Professor of Pathology, UCSD and 1995 Conservation Medalist, Zoological Society of San Diego and Dr. Ted Case, Professor of Biology, UCSD. At National University's Chamberlain Hall, 4085 Camino Del Rio South (Mission Valley). Hosted by KNOAH'S ARC and the Dept. of Mathematics and Natural Sciences, National Univ. Please call 566-3958 or 271-7565 to let us know you are coming for seating counts.

OCTOBER

Intermediate Tracking Walk
Sunday, Oct. 1, 8 a.m. (3 hours). This walk will be led by the Friends' Tracking Team. A **prerequisite** is having taken the Friends beginning tracking walk. **Note, a *minimum* of 2 intermediate tracking walks are required in order to take the next advanced class.** Meet at the west end parking-staging area off the *south side* of Sorrento Valley Blvd., 1/2 mile east of its intersection with Vista Sorrento Rd. From the east take Mira Mesa Blvd. west to Camino Santa Fe. Take a right on Camino Santa Fe and proceed all the way to Calle Cristobal/Sorrento Valley Blvd. Go left on Sorrento Valley Blvd about 1 mile. At the bottom of the hill you'll find the parking lot on the left side. From the west, take Sorrento Valley Blvd. east until you see the big hill. Take a right into the parking lot.

Carmel Mountain (8a) City Council Hearing
Tuesday, Oct. 3, 10 a.m. An important hearing to decide the fate of Carmel Mountain open space (Carmel Valley) is scheduled for this date in the San Diego City Council chambers. Your support is needed. For more details and to confirm the date and time, call Ann Harvey at 481-4169.

Storytelling and Stargazing
Sunday, Oct. 8, 7:30 - 9 p.m. Observe the night sky. Learn about how Native Americans saw the stars and constellations. Hear traditional stories. Led by cultural anthropologist Will Bowen. Meet in the parking lot by La Cantina Mountain Bike Shop on the north side of Sorrento Valley Boulevard in Sorrento Valley, 1/2 mile east of its intersection with Vista Sorrento Parkway in Sorrento Valley. From the east take Mira Mesa Blvd. west to Camino Santa Fe. Right on Camino Santa Fe to second light. Left on Sorrento Valley Blvd and all the way to the bottom of the hill. The bike shop is on the right. From the west, I-5 or 805 to Sorrento Valley. Take Sorrento Valley Blvd.

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east through the business district. Last building on the left houses the bike shop. **Thomas Guide p.1208.**

Native Plant Sale
Saturday, Oct. 14, 10 a.m. - 2 p.m. Casa del Prado, Balboa Park. Your chance to select native plants for your garden and get free advice from the experts. Currently no local nursery stocks a selection of native plants even close to what you will see at this plant sale! Sponsored by San Diego Chapter of California Native Plant Society. Be sure to come early for the best selection.

Mystery Tree / Native American Walk
Sunday, Oct. 15, 8:30 a.m. (1-1/2 hours). 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. Meet at the parking-staging area off Black Mountain Road. Take the Mercy Exit off I-15 west to Black Mountain Road. Cross the intersection and enter the parking for the Preserve opposite this intersection. Led by Chris Bader. **Thomas Guide p. 1189.**

Bird Walk in Lopez Canyon
Saturday, Oct. 14, 5:30 p.m. (1-1/2 hours). Meet in the new Parking-Staging area off the south side of Sorrento Valley Blvd., 1/2 mile east of its intersection with Vista Sorrento Parkway. From the east take Mira Mesa Blvd. west to Camino Santa Fe. Right on Camino Santa Fe to second light. Left on Sorrento Valley Blvd and all the way to the bottom of the hill. Parking entrance is on the left. From the west, I-5 or 805 to Sorrento Valley. Take Sorrento Valley Blvd. east through the business district. Parking entrance is on the right two hundred yards after the last building on the right. Bring bird book and binoculars. Led by Brian Swanson. **Thomas Guide p.1208.**

Troubling Times for Turtles, Terripins and Tortoises / Friends Annual Meeting
Friday, Oct. 20, 7-9:30 p.m. Join the Friends for our annual meeting. We'll begin the evening with free refreshments at 7 a.m. At 7:30 we'll have a 15 minute business meeting to elect our officers followed by the presentation and slide show by Jeff Lovich, Ph.D. on turtles. We hope to have live turtles/tortoises on display. Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, then first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch. **Thomas Guide p. 1189.**

Nature Walk
Saturday, Oct. 21, 8 a.m. (1-1/2 hours). Join Les Braund for a general nature walk in the east end of Peñasquitos Canyon Preserve. Learn about bio-diversity and visit a nearby grave site and a mitigation project. Meet at the parking-staging area off Black Mountain Road. Take the Mercy Exit off I-15 west to Black Mountain Road. Cross the intersection and enter the parking for the Preserve opposite this intersection. **Thomas Guide p. 1189.**

Rancho Santa Maria De Los Peñasquitos Adobe Ranch Tour
Saturday, Oct. 21, 11 a.m. and noon (45 min. each), led by docents from the S. D. Archaeological Society. See Oct. 7 for details. **Thomas Guide p. 1189.**

Friends' Monthly Business Meeting at Ranch House
Tuesday, Oct. 24, 7 p.m. Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, then first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch. The Friends' Board of Directors meets to plan out the day to day activities and campaigns of the Friends organization. Members are welcome to attend. **Thomas Guide p. 1189.**

Sensory Awareness Dusk Walk
Thursday, Oct. 26, 6:30-8:30 p.m. This will probably be our last dusk walk of the year. Evening is a great time to use all of your senses in the outdoors. Join Mike Kelly in enjoying the different sensory experiences the Preserve offers. It's also a good opportunity to see nocturnal birds and animals. Meet at the parking-staging area off Black Mountain Road. Take the Mercy Exit off I-15 west to Black Mountain Road. Cross the intersection and enter the parking for the Preserve opposite this intersection. Bring insect repellant and flashlight. **Thomas Guide p. 1189.**

Tracking & Nature Walk at Ranch House
Saturday, Oct. 28, 11 a.m. (2 hours). Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, then first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch. Learn how to track animals and discover the natural environment they live in. Hike will include an overview of the animal surveys being conducted in Peñasquitos Canyon Preserve. Led by Chris Bader. **Thomas Guide p. 1189.**

Haunted Halloween Hike
Sunday, Oct. 29, 7:30–9 p.m. Wear a costume to this spooky ghoul and ghost haunted hike. Be prepared for scares. Bring candy for the kids. Led by Will Bowen. Meet in the parking lot by La Cantina Mountain Bike Shop on the north side of Sorrento Valley Boulevard in Sorrento Valley, 1/2 mile east of its intersection with Vista Sorrento Parkway in Sorrento Valley. From the east take Mira Mesa Blvd. west to Camino Santa Fe. Right on Camino Santa Fe to second light. Left on Sorrento Valley Blvd and all the way to the bottom of the hill. The bike shop is on the right. From the west, I-5 or 805 to Sorrento Valley. Take Sorrento Valley Blvd. east through the business district. Last building on the left houses the bike shop. **Thomas Guide p.1208.**

Canyon News

Friends of Los Peñasquitos Canyon Preserve, Inc.

September/October 1995
Volume 9 No. 5

Carmel Mountain (8A) Decision Time

Ann Harvey

On August 15, the San Diego City Council voted 8-1 to notify all the owners of residential property in Carmel Valley, the City parts of Del Mar, and Sorrento Hills that they may be included in a special assessment district to purchase, for preservation, Parcels A and B in Carmel Valley's Neighborhood 8A. As reported in this newsletter (July-August 1995), an assessment district to purchase the most important part of Neighborhood 8a is one of two options approved by the San Diego City Council. The second option is a "compromise" plan that would allow development while preserving a much smaller piece of the area. Both options are proceeding on parallel tracks through City government. An assessment district is a parcel tax on all property owners owning property within certain boundaries.

What are Parcels A and B, and why are they so important?

Parcels A and B are the 150 acres which form the heart of the mesa known as Carmel Mountain. If we can preserve enough of the mesa, including these parcels, Torrey Pines State Park has offered to take over management costs and responsibilities for the land. The preservation of these parcels will determine whether Carmel Mountain becomes just another housing development or the newest branch of Torrey Pines State Reserve.

Carmel Mountain lies south of Route 56, east of I-5, and northwest of Peñasquitos Canyon. It's a nexus of wildlife corridors connecting Peñasquitos Canyon to Peñasquitos Lagoon and Torrey Pines, and to the Carmel Valley riparian restoration corridor

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Volunteer Patrol Events:
See page 12

I Urge You To Get Involved in this Issue

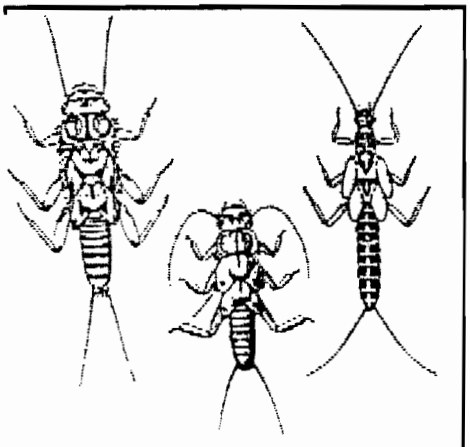
Personal Opinion by Councilmember Harry Mathis

[This article is reprinted from the August 3 *Carmel Valley News*— editor.]

As promised, my column this month is devoted to updating the community on efforts underway to acquire Parcel A in Neighborhood 8A.

In April, Council approved my motion for a dual track option for neighborhood 8A which allows the applicant to move forward on a staff proposed precise plan redesign which would envision a reduced development area and MSCP compliance. At the same time, at my behest, Council gave the community an opportunity to buy the property and directed city staff to work with the community in the formation of an

➨ p. 7 for more



Stonefly: Order Plecoptera, 1/2" -1-1/2", 6 legs with hooked tips, antennae, 2 hair-like tails. Smooth (no gills) on lower half of body. Subject of 1995 Friends' stream survey. (See p. 10 for more information)

Highlights Inside

Attacks Step Up on Endangered Species Act

Les Braund

The attack on environmental law continues in the Congress of the United States. This month the long awaited release of the Young (R-Alaska) Ponbo (R-Calif.) Endangered Species Conservation and Management Act was being circulated in the halls of Congress. The reason for the delay was that they have been waiting for the Supreme Court to hand down their "Home Sweet" decision.

The Sweet Home decision was the case where the Supreme Court concluded that destruction of critical habitat of an endangered species amounted to a "taking" of harming of a threatened species. The Supreme Court concluded that preservation of essential habitat was fundamental to the preservation of species.

The concept preservation of habitat is supported by the National Science Foundation, government agencies, biologists, botanists, Zoologists, and wildlife managers around the world. Everyone concerned with preserving

➨ p. 8 for more

(Carmel Mountain cont'd)

(CVRP), and, through the Future Urbanizing Area, to San Dieguito River Valley Park. Development proposals for 8A currently before the City Council threaten all these connections, and would isolate and reduce the conservation value of all the other painstakingly preserved areas. Torrey Pines, in particular, would lose much of its biological diversity and become merely an isolated fragment, a "sterile garden."

Carmel Mountain is also the home of San Diego's last large stand of Southern Maritime Chaparral. Southern Maritime Chaparral is the plant community which once characterized most of coastal Southern California. Over 90% of it has been lost to development. The 270 acre Carmel Mountain stand represents 14% of all that remains. It is the only stand, outside of Camp Pendleton, which is believed to be large enough, and all-in-one-piece enough, to remain viable. The City's Multiple Species Conservation Plan (MSCP) calls for 100% conservation of all stands of Southern Maritime Chaparral which are over 50 acres in size, unfragmented, and connected to other habitat areas. Carmel Mountain qualifies on all counts. And yet, the City Manager's "compromise" development plan for 8A, which the Council directed should be MSCP-compliant, would directly destroy half the Southern Maritime Chaparral on site. Edge effects from roads and housing would degrade much of the rest.

A unique mosaic, a Noah's ark

Carmel Mountain (CM) has an unusually wide variety of elevations, soil types, and microclimates. Its Southern Maritime Chaparral is interwoven with Coastal Sage Scrub, a plant mix normally found in drier areas, with mesa top vernal pool wetlands, and with riparian pockets deep in the canyons. The intermingled plants form a unique mosaic found nowhere else on earth.

CM's collection of special ecological niches provides food and shelter for an extraordinarily high number of animal species. CM consists of only 400 acres, and yet, with the possible exception of Otay Ranch, which is 23,000 acres, Carmel Mountain is home to more different kinds of plants and animals than any other piece of land in San Diego County. It's a true Noah's Ark.

Carmel Mountain is a breathtaking piece of land. The mesa stretches nearly a mile north-south. From its high points, you can see for miles in all directions, from the mountains in Julian to the waves breaking on the beach at Torrey Pines. Perhaps the most magical thing about it is that, because of the way its western ridges overlap and interweave, you can see the ocean, and watch the sun set behind silhouetted Torrey pines, but you can't see I-5. It's as though it had never been built. When you stand on Carmel Mountain, you are the tallest thing for miles around. You feel like you are looking out over all of civilization.

Important Meetings

September 21 there will be an informational meeting on Carmel Mountain 8A at the Doubletree Hotel in Carmel Valley hosted by the Citizens Advisory Committee for Peñasquitos Canyon Preserve. Councilmember Harry Mathis and others will provide information and answer questions on the assessment district and other issues. The public is definitely invited.

October 3 The San Diego City Council is expected to hold the first of two hearings on the proposed assessment district to purchase Carmel Mountain. Your attendance is badly needed! Call Ann Harvey at 481-4169 to confirm the meeting date and time (these are subject to last minute changes).

The mesa is full of wildly eroded red rock sculptures. The ground surface itself is fascinating and beautiful, covered with lime-green and gray lichens, and red and purple metallic marble-like Peñasquitos pebbles. In spring, there are meadows of wildflowers, each one different from the one just around the bend. The ocean wind always blows. It's difficult to imagine a more perfect ready-made park. And the landscaping has been taking care of itself, with no irrigation, for over 10,000 years.

Only remaining coastal mesa

The mesa will soon be a desperately needed island in a sea of development. The City Council has already approved, mostly within the last two years, 9,800 new housing units and over 7 million square feet of commercial-industrial space within a 1-1/2 mile radius around the mesa. Added to existing development, that makes a total of nearly 80,000 people who could enjoy the mesa every day without having to drive to get to it. Torrey Pines and Peñasquitos Canyon are rapidly approaching being overused. Carmel Mountain already has miles of trails, from wide, looping red fire roads to tiny animal trails out to the ends of ridges and down into sandy canyon bottoms.

San Diego is often described as a city built on coastal mesas. Carmel Mountain is San Diego's only remaining undeveloped coastal mesa. If we ever want to know what one looked and felt and smelled like (like ocean mingled with sage and Artemisia) before the Europeans came, this is our last chance.

Pardee Construction Company's first plan for the mesa, still actively before the Council, would remove the top of the mesa and use it to fill the canyons, destroying virtually all the resources on the mountain. The Pardee /City Manager's " MSCP compromise" plan, due to come before the council on October 31, would directly destroy half the mesa and the adverse edge effects of housing and major roads would jeopardize much of the rest. The open space in this plan would be dominated by houses, divided by streets, and fenced — with access to it severely restricted. The community-proposed "acquisition option" would ultimately preserve more than two-thirds of Carmel Mountain, and would allow the creation of a natural open-space park.

Fair market value?

Throughout the early hearings for 8A, Pardee Construction Company insisted, on the record, that Pardee was a willing seller and the land was for sale at fair market value. So the community decided to try to buy it. Extrapolating from the tax records, Pardee Construction Company paid about $2 million for Parcels A and B. In April, an independent appraiser hired by the City priced the property at $12 million. To

(Carmel Mountain cont'd)

allow for the possibility that Pardee might not remain a willing seller, the City designed an assessment district to yield $18 million. In July, a Pardee hired appraiser priced the property at $30 million, and Pardee added its planning costs and came up with an asking price of $43 million. So now we have a serious problem: if the assessment district yield falls short of a court-adjudicated price for parcels A and B, the City might have to either boost the assessment or make up the difference out of City funds. If neither of these alternatives proved possible, the City might have to pay Pardee's court costs and damages for the temporary loss of use of the land.

In August, a City-commissioned poll of Carmel Valley and Del Mar Heights residents said that 40% of the homeowners would pay a parcel tax of $109 a year for 30 years to buy Parcels A.and B. 59% said that they would pay the tax if they knew that Torrey Pines would pay maintenance and operation costs, which Torrey Pines has offered to do. The actual assessment district amounts would be $102 for single family homes and $71 for attached homes. So it looks like an assessment district would work — for $18 million. But the community objects strenuously to paying $43 million. Among other reasons, that could create inflated values for other lands in 8A and in the Del Mar Mesa area which the City hopes to include in its MSCP preserve.

The same City poll said that 84% of the homeowners in Carmel Valley and Del Mar Heights opposed an upzone for development in Neighborhood 8A. Under the current zoning, approximately 50 houses could be built, and they would have to be clustered to protect and preserve most of Carmel Mountain's scenic and biological resources. Stay tuned.

Funds Needed!

Your donation is desperately needed to help get the message out about the importance of preserving Carmel Mountain. Please send whatever you can afford to:

Carmel Mountain Conservancy
PO Box 375
Del Mar, CA 92104.

(Mathis cont'd)

assessment district. Both the development and acquisition options will be back before Council in October.

An alliance of environmental and community-based groups is working closely with the City to establish an assessment district which will finance the purchase. The proposed assessment district will probably include all residential (mapped or built) property in Carmel Valley, Sorrento Hills and Torrey Pines community planning areas. It may or may not include commercial and industrial properties.

At present, the city has appraised Parcel A which is located along the top of the mesa south of SR 56 east of Carmel Creek Road at just under $12.1 million. The cost per property ownerr to buy this parcel will depend on the number of properties in the district, the final purchase price and the term and rate for the financing bond.

On August 15, City Council will hold its first public hearing on the assessment district and decide whether or not to initiate the process to form the district. The initiation must take place in August in order to meet the October deadline established in April. This is a critical hearing for members of the public to attend. Even though the initiation action only starts the process, which will include two additional public hearings, Council will continue to gage the community's willingness to be assessed at this hearing. If you are unable to attend the hearing, I encourage you to voice your support by writing to the City Clerk at 202 C Street, M.S. 2, San Diego, CA, 92101.

Following initiation, property owners will be notified of their intended participation in the district, their exact cost per year and the dates of the two public hearings. At those two hearings, the City Council will take testimony from the public to determine whether the district is viable and supported by the community.

A community-based coalition of Carmel Valley and environmental leaders called The Carmel Valley Preservation Team has formed to mobilize the community effort to support this acquisition and disseminate information about the assessment district. You may already have seen their tables set up at the Summer Serenades and local shopping centers. In the coming weeks, you will hear much more from them as they continue their efforts. If you'd like to get involved, you can reach the Preservation team at 481-4169.

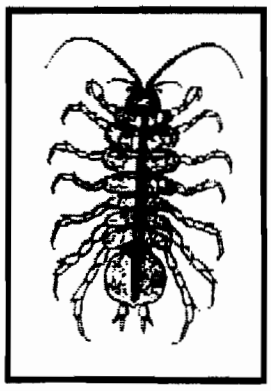
For the record, I would like to state my strong support of the acquisition effort underway. The preservation of the mesa portion of Neighborhood 8A is one of my top priorities. Its importance as a wildlife corridor, as a critical component of the City's MSCP and as a community openspace resource cannot be underestimated.

But more important thin its environmental value, THIS IS WHAT THE COMMUNITY HAS SAID IT WANTS — so much so that by a two to one margin, Carmel Valley and Torrey Pines residents said they'd be willing to pay for its purchase. For all of these reasons, I sponsored and received the support of the Mayor and my Council colleagues to give the community valuable time to develop a financing strategy.

I am also committed to creating an assessment district which most fairly spreads acquisition costs lthroughout the region and to getting the best price possible for the land in question. But I need your help . . . I cannot expect the support of my Council colleagues without the support of the community. Ultimately the Council will only approve the district if they feel that it is what the community wants. In the end, this will pass or fail on the support of the community.

Without an assessment district, the job of preventing development on this mesa top doesn not look promising. This acquisition effort is on a dual track with a compromise development proposal which Council will consider and may adopt if there is no means to finance acquisition of Parcel A. Though the compromise proposal promises to contribute hundreds of acres of open space to the MSCP, this open space would only be partly located in Carmel Valley.

I urge you to get involved in this issue. Because of its lasting impact on the area. the entire community should actively participat in this decision. If you have ideas, comments or want to know how you can get involved, please call Chris Cameron of my staff at 236-7762.



Sowbug: Order Isopoda. 1/4"-3/4", gray oblong body wider than it is high, more than 6 legs, long antennae. One of the benthic organisms to be studied in the Friends' stream survey.

(Endangered Species cont'd)

biodiversity agrees habitats must be preserved.

Not so with the new majority in Congress. The most egregious plank of the Young/Pombo bill is that habitat protection is specifically excluded from the "takings" definition of harm. Takings under the current Endangered Species Act means harming in any way, i.e., killing, trapping, etc. To most people — and the Supreme Court — destruction of habitat constitutes harming a species as well. "Habitat modification" as the Young/Pombo bill refers to it is specifically excluded from the definition of harming or taking a species.

An example of how ridiculous the position is imagine this scenario. You have bald eagles on your property and you would like to build a condominium project there. It's illegal to shoot the eagle with a shot gun, but if you destroy its foraging habitat by building condos all over it and the eagle starves to death that's legal.

The second proposal of the Young/Pombo bill which would have a devastating effect on endangered species is that it makes compliance with the law "voluntary." Neither the government nor private property owners would be required to comply. This provision opens up the National Forests and Bureau of Land Management lands to exploitation without regard to environmental damage or endangered species. There are some provisions for private land owners who are interested in protecting diversity on their land, but nothing to prevent someone bent on developing their land short of outright purchase from destroying habitat on their land.

When private property which is designated for preservation results in a loss of value to the owner of 20% or more, the government agency making the designation must compensate the land owner. This is the "takings" legislation that the "Wise Use" movement has been promoting.

There are so many problems with the "takings" issue that many believe it will render all levels of government bankrupt within a few short years. Land speculators and people out to defraud the government will reduce funds to zero quickly. It's ironic that Congress is passing legislation to require compensation for private property owners on the one hand, yet, on the other hand has reduced or eliminated funding for purchasing any land. The National Park Service budget included 51 million dollars for land acquisition this year. Next year, their total land acquisition budget was reduced to 6 million dollars for the entire nation. Carmel Mountain (8A), an area sought for its unique biodiversity has been appraised for between 12 million and 44 million dollars. It should be obvious that the intent of "takings" legislation is to thwart environmental protection.

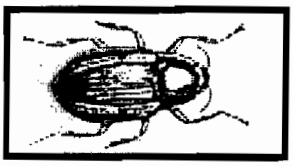
There are more offensive portions to the Young/Pombo bill, including:

- Populations of endangered species in zoos and hatcheries are to be counted with wild populations.
- Congress must pass individual legislation to protect sub-species such as the California Gnatcatcher.
- Requires time consuming, expensive, and redundant peer review of listing applications.
- Allows consideration of private sector scientific data on a par with unbiased academic and professional data.
- Greatly restricts private citizens right to file suit to preserve endangered species.

The final egregious compoment of the act is that it allows the Secretary of Interior to establish "conservation objectives." One possible "conservation objective" it permits would be to allow species to go extinct! Imagine what would happen if there were another Secretary of the Interior like James Watt?

Your help is needed to preserve our national treasurers and our biodiversity. You can start by informing your friends and neighbors of what is happening. Write letters to the editor of your local newspaper. Meet with the editor of your local paper and ask them to support a strong Endangered Species Act. Write letters to your Congressperson and Senator. Try to be as specific as you can. If you want further information on specific bills pertaining to the environment call me at 566-3958. Finally, write to President Clinton as his veto may be our only help to save environmental laws.

If you have time, arrange a meeting with your elected officials and explain to them your concerns. If you have friends who are in business and their business relies on a healthy, diverse environment, bring them along. Use any new angle to pursue elected officials to support environmental issues; religion, ethics, morals, natural beauty, psychological concerns, economics. Most importantly, **do something**. If we all stay home and do nothing except gnash our teeth we and all future generations will suffer from our arrogance and lack of concern.



Riffle Beetle: Order Coleoptera. 1/4", oval body covered with tiny hairs, 6 legs, antennae. Walks slowly underwater. Does not swim on surface. Part of stream survey

Volunteer Thank Yous

Endangered plant surveys

Helping out with the second and last of our endangered *Monardella linoides viminea* (Poway mint, thin mint, or willowly mint) surveys were Cindy Burrascano, Reneene Mowry, and Mike Kelly.

Invasive weed removal

Despite the summer's heat, many folks helped us attack artichoke thistle (*cynara cardunculus*), fennel (*foeniculum vulgare*), pampas grass (*Cortaderia jubata*), tamarisk (*Tamarix ramosissima*) and others. Helping were: Cindy Burrascano, Trinity Gabriel, Mike Kelly, Les Braund, Robb Hutsel, Doug Fenske, Mel Howe, Liz Rozycki, Rick Botta, and Vicki Ausen.

Stream survey volunteers

Helping to plan out the upcoming stream survey were: Paul Micheletti, Reneene Mowry, Brian Swanson, Chris Bader, Will Bowen, Lisa Gray, Lance Urabe, Liz Rozycki, Cindy Burrascano, Melanie Howe, Linda Pardy, and Mike Kelly.

Wildlife Surveys

See our "Trackers' Corner" in this issue for a list of the people helping out on our ongoing wildlife surveys.

Newsletter

Thanks to Carla Scott, Trinity Gabriel, Vicki Ausen, and Mike Kelly for their help putting the newsletter together.

Trackers' Corner

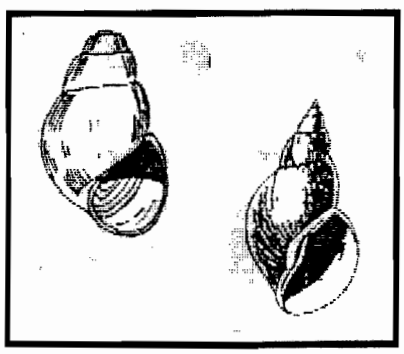
In coming issues this little box will become a regular column with submissions from our wildlife survey volunteers. They'll share with our readers some of the critters they're encountering, some of the knowledge they're discovering about their place in our ecosystem and some of the fun they have doing the surveys.

Quarterly Survey

Survey teams completed their quarterly surveys of wildlife zones in the Preserve in August and got together for a "debriefing" BBQ to share their experiences. Attending were Lee and Lindsay Kirchhevel, Eric and Lannie Norecke, Rick Botta, Liz Rozycki, John Fisher, Chris Bader, Barry Martin, Susan Potts, Mike & Heather Guest, and Mike Kelly. Besides these folks, several others are also involved in the ongoing surveys, including Tarja Jacobson and The Keating Family.

Mike presented some comments on the importance of the wildlife surveys, particularly the wildlife tunnel and possible future projects. Lannie shared a well-organized printout of comments of participants of the recent tracking training critiquing the sessions, including a number of suggestions for future tracking weekends that were well received. Barry shared some of his recent training experiences at Tom Brown's wilderness tracking school.

Reflecting the growing experience and sophistication of the volunteers, an animated discussion that began on "tracks" quickly moved onto "compressions" and didn't end until after 11 p.m.!



Gilled snail: Class Gastropoda. Shell opening covered by thin plate called operculum. Shell usually opens on right.

Letter to the editor, *Canyon News*

Re: Frogs Raised in Carmel Valley

As a postscript to Will Bowen's excellent article on frogs in the last issue of Canyon News, I would like to let the membership know about a frog raising enterprise that flourished in Carmel Valley about a mile below Deer Lake 45 years ago. The spring-fed pond, just east of the Little McGonigle Ranch house, was built by Dr. George Johnson, a well-known San Diego surgeon, in 1949, for a permanent water supply and for fire fighting purposes. It's about the size and shape of a skating rink (see Fig. 1) and over 20 ft. deep and shows on the topographic map (Ref. 1). Dr. Johnson planned to have sheet metal pilings placed around the edges of the pond to keep it full, but because that would have cut off water to the lower reaches of the creek, it was never completed (Ref. 2).

The property was later sold to financier Bill Black who raised frogs in the pond as an experiment in aquatic farming. Large holding pens were built east of the pond to hold the frogs which were raised in the pond from tadpoles and then fished out and placed in the holding pens made of cinder-block walls about 4 ft. high — where the frogs were kept for sale to gourmet restaurants when they reached saleable size. The business was later abandoned and the water used for irrigation purposes. To this day, I have no idea what kind of frogs they raised, but, judging from the size of the walls around the pens, they must have been able to jump close to 4 ft, so they may have been bull frogs. It would be interesting to go there now and try to identify what frogs inhabit this pond.

Sincerely yours, John Northrop

Ref. 1. Del Mar Quadrangle, California, San Diego County, 7.5 minute series-topography, U.S. Dept. of Interior, U.S. Geologic Survey, 1967. Photo revised, 1975.
Ref. 2. A Short History of Carmel Valley and McGonigle Canyon, by John Northrop, Windsor Associates, P.O. Box 90282, San Diego, Ca 92109.

Fig. 1. Photograph of the frog pond at Little McGonigle Ranch. From Ref. 1.

Stream Survey 1995

Mike Kelly

This fall the Friends will continue the stream survey begun in 1994. Our mission is to thoroughly describe Peñasquitos Creek, not only where it cuts through our Preserve, but also in our upstream drainage (Poway and Sabre Springs), and where it goes when it leaves the park (Sorrento Valley and Peñasquitos Lagoon).

Volunteers

We still welcome volunteers besides those already involved. Call Mike at 566-6489 if you're interested.

Goals

Our mission breaks down into a number of goals which involve mapping and cataloguing the physical, chemical and biological characteristics of the creek and surrounding riparian (creek side) zone. In other words, we'd like to identify all of the plants and animals that make up the riparian ecosystem and analyze the quality of this system, especially its water. Pollution of our creeks and other water bodies is quite common. We want to see if Peñasquitos Creek is suffering from significant pollution, and if so, what the sources are. This data will serve as a baseline to measure future "threatening" events against. For example, if there should be a repeat of the gasoline spill that poisoned Rattlesnake Creek in Poway (which feeds into Peñas–quitos Creek) we would be able to measure the effects of the poisoning on the system. Should another sewer line leak (a minor one years ago) occur, we could measure the impact.

With our data we hope to be able to identify problems early on and to take measures to reverse or mitigate them.

Fun and beauty

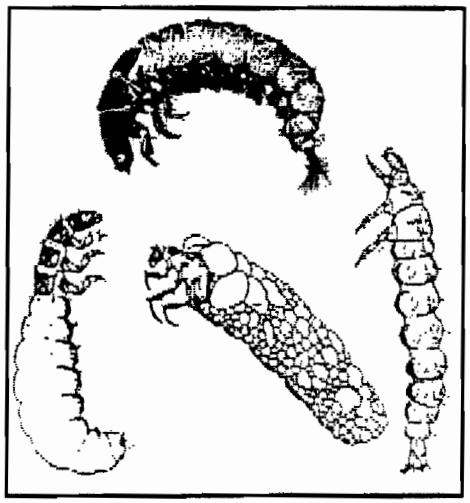
The survey last year took a lot of work, some 12 half day sessions over 3 months, but it was also something else: just plain fun. All the participants marvelled at seeing remote areas of the stream they had never visited before and at how beautiful they were. We found a diversity of life, in and adjacent to the creek, that confirmed how important this riparian belt is to our entire Preserve and surrounding open space lands. We had fun donning wetsuits when fall turned into winter and exploring 7-8' deep ponds. We not only walked the stream banks, we walked and swam the creek from I-15 to I-805 (the "merge"). Only the occasional thicket of cattails (typha spp.) forced us out of the stream for short distances. This year we will add new dimensions to our study. Where last year we took only basic temperature and pH readings, this year we will conduct a series of about 10 tests on the water in different areas. We will also begin a study of *benthic* organisms. What are they? Read on.

Training

As preparation for this year's survey I attended a class on water quality testing offered by the County Water Authority. This all day course taught us how to conduct a series of some 10 water quality tests and what they mean. Classroom sessions were supplemented with a field trip to Lake Murray where we actually tested the water. The Friends Board of Directors then voted to buy the Water Quality Testing Kit recommended by the County Water Authority. Test results from our surveys will be uploaded into the County's computer system from our own, making our data and that of many others around the county, available for public inspection. One of the sites we test in the Preserve will be a site used by both the City and the County, thus allowing a comparison of data. Two other volunteers plan to take the next class offered by the County. We will also be instructing survey volunteers in how to conduct the tests.

Benthics

In addition, Linda Pardy, one of our volunteers, works for the State's Water Quality Board for our region. She did a presentation at our organizing meeting on *benthic* organisms and why they are good indicators of water quality. These organisms are the macroinvertebrates commonly found in water and in the bottom of water bodies, in our case the creek. These ran the gamut from crayfish to mollusks to worms to insects such as the stonefly pictured on page 5 of this newsletter. She also described the process of collecting and identifying these organisms. The Friends are currently in the process of purchasing the necessary nets and collection jars and identification keys we'll need. In addition, the Friends will be helping to collect enough large-mouth bass to allow a State laboratory to do a toxin/carcinogen study of the water. Following are the protocols for 5 stream-related goals we have adopted.



Caddisfly: Order Trichoptera, Up to 1", 6 hooked legs on upper third of body, 2 hooks at back end. May be in a stick, rock or leaf case with its head sticking out. May have fluffy gill tufts on lower half.

Five Related Projects

1. Continue the physical, chemical and biological description of Peñas–quitos Creek, this year from Springhurst Drive on the Poway/San Diego border all the way to I-15, about 2-2-1/2 miles (Sabre Springs)
2. Spot test Peñasquitos Creek from I-15 to I-5 with the new chemical testing kit, 10 tests.
3. Turtle survey: including possible capture and release of turtles in likely ponds identified in 1994 survey (permits necessary for this).
4. Collect sufficient large-mouth bass for a flesh study of carcinogens by State Fish and Game
5. Benthic organism survey

Goal 1 Protocol for Sabre Springs

Survey upstream, west to east to avoid sending silt into survey area.

Describe the vegetation, especially the dominant canopy tree, if any, the dominant understory plants, the ground covers, any rare plants observed and other noteworthy plants.

Note exotic bushes/trees, especially tamarisk, pampas grass, brazilian peppers, palms, pampas grass

Measure the width of the stream, particularly at narrows, clogged channels.

Measure the depth, length, width of ponds, width and depth free flowing sections, ripples.

Note condition of the bottom of the ponds, free flowing sections (cobble, firm soil, sand, mud or silt)

Identify sites for **later** spot full spec-

➡ next page for more

trum chemical tests, especially of ponds with algae cover, clear sections and fast-flowing sections and any tributaries, seeps or springs flowing into the creek. Measure upstream before it joins the creek (**Note: we will do fewer pH and temp tests this year, mainly when we anticipate a difference (algae, tributary).**

Measure the water temperature of ponds versus free flowing sections. Measure temperature differential between top layer of algae covered ponds versus the bottom layer.

Take GPS readings of ponds, springs, other noteworthy sites

Note animals, especially aquatic observed. Note tracks and scat observed on banks. Note condition of banks, overhangs, steep, crayfish burrows

Undecided: Do Crayfish measuments as we did last year?

Optimum team size 3-4.

Start date: Sept. 17, 9 a.m. Meeting place to be decided.

Goal 2 Protocol for Spot Chemical Testing Creek :

Conduct the 10 Tests at specific locations, including already established Black Mountain Bridge. Want accessible locations, but don't want to overlook important locations. Locations identified at meeting:

López Canyon: Montongo Street Detention basin, pure runoff now, so test soon; isolated pools in canyon, test soon and pools next to crossing from west end parking lot into Lopez. Test again after first winter rain and later in spring (3 times basically).

Camino Ruíz Wildlife Corridor: "Bowl" area off Darkwood easement as 1 site and second site after it passes under Park Village Drive and well below the park site (see if park is contributing fertilizers). 3 times as with López.

Walden Pond: 3 times as with López.

Chirquirita Creek: above pond, at pond and spillway just before PQ Creek.

Preserve, main: Black Mountain Bridge, Monikhe Adobe spring, Santa Maria Adobe spring, La Tortola, I-15, West End channel.

Sabre Springs sites: to be identified during biological surveys.

Optimum team size 3-4.

Start date: After kit arrives

Frequency: 1) Late summer, 2) after first "flushing" rain (1/2 inch, 3/4, 1 inch?) of season, 3) late spring, after last big (expected) rain.

Goal 3 Protocol/Procedures for Turtle Survey

1. Touch base with Turtle and Tortoise Society. Discuss permits (State Fish and Game) necessary for capture and release of tutles, of removing exotic turtles from system, supply of natives if not present. Traps if any avaible.
2. Pick locations
3. Obtain traps, files, sardines, scale
4. Pick locations
5. Set up schedule. Discuss trap time in water, possible difficulties, etc.
6. Exotics, removal and placement in homes, refuges.
7. Reintroducing western ponds

Optimum team size 3-4 plus rotators to sit the traps.

Start date: once permits and traps are in hand.

Goal 4 Protocol for Bass Carcinogen Study

Catch 8-10 large large-mouth bass, refrigerate and send to State Lab. Linda has details. Will & Linda.

Goal 5 Protocol/Procedures for Benthic Organism Survey

1. Procure supplies: nets, and specimen jars and ethyl alcohol.
2. Need protocols and keys from other groups.
3. Pick locations, riffles and mud areas. Times. From year to year need to note rainfalls, wet vs dry years, etc.
4. Need to develop our own detailed protocol, especially for set up and capture.

Optimum team size 3-4.

Start date: when we have equipment and protocols ready.

Frequency needs to be decided, probably seasonal.

Newsletter Submissions

Since we have no paid staffers *Canyon News* depends on our readers for articles. Our articles run the gamut from news about the canyon to poems to animal observations to hard science about a species or habitat and letters. If you would like to submit something for the newsletter here's how to do it.

Ideally we would like to receive your article on a computer disk accompanied by a printout. We can accept either Macintosh or IBM disks, 5-1/4 or 3-1/2 inch. The word processing program you use isn't important.

(Fire cont'd)

Pam Slater, City Councilmembers Warden and Mathis), the Parks Dept. and others. With our support, the County applied for and received a grant to conduct a series of small prescriptive burns in the Preserve.

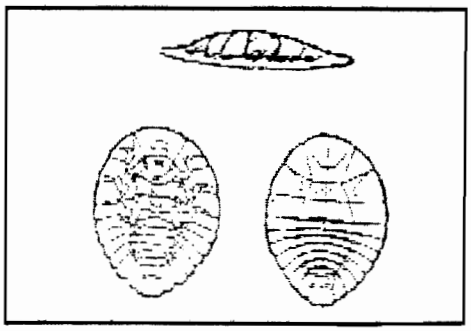
We want to create a mosaic of small fire breaks in the Preserve. The area that burned last fall for example, shouldn't be able to support another significant fire for as much as 15-20 years. These fire breaks would be small, in the range of 50 to 200 acres and probably be on the order of 1-2 areas a year.. They are always carried out after a detailed Fire Plan, a "prescriptiion" has been drawn up by the proper authorities. They're carried out at a time of year and with weather conditions such as to reduce the chance of they're getting out of control. Fire fighting personnel are always present.

Before being able to burn in the Preserve, a number of official permits are needed from various agencies, including U.S. Fish and Wildlife Service, The City of San Diego Environmental Services, the Air Quality Control District and the Fire Dept.

Such prescriptive fires will help reduce the possibility of a catastrophic fire and will also be good for the biology of the Preserve.

Questions?

If you have any questions about our prescriptive fire plan or about brush management feel free to call me at 566-6489.



Water Penny: Order Coleoptera, 1/4", flat saucer-shaped body with a raised bump on one side and 6 tiny legs on the other side. Immature beetle.

From The Ranger

Senior Ranger Bill Lawrence

Road & trail repair

Good news: the work to finish the road on the south side has been approved and funds are available. I am still trying to get the road on the north side and the Carson Crossing repaired.

Habitat grant

The State Legislature approved funding for the State's Habitat Conservation Fund (HCF), which in turned approved 3 grants totalling $149,000 for San Diego. One of the grants, for $49,000 is for riparian enhancement in Peñasquitos Canyon Preserve. This 3-year grant will allow us to purchase equipment and herbicide necessary to complete much of the work already started by the Friends. Actually, because of the volunteer programs and work previously completed on riparian habitat by the Friends, the approval process was quite straight forward.

Field studies

I've been developing our request for field study course through UCSD Ecology professors. One idea is to develop a computer model for analyzing and managing our natural resources. Another is to study a large disturbed area (say from Cattle disturbance) and wetlands to determine succession and impacts over a long period. Please send me ideas and recommendations.

Natural Resources Management

We are at the half way mark on the natural resources management plan and are preparing to submit this draft portion to the Citizens Advisory Committee (CAC) in October. The plan could be completed by January or February 1966.

On Patrol

First Aid & Volunteer Training

Flave Pisciotta

Last Saturday Alex and I attended the Volunteer Patrol training classes at the beautiful new visitor center at Mission Trails Regional Park. Every two years volunteers must take a refresher first aid and CPR class, so we eagerly took advantage of the opportunity to brush up on our emergency training.

This was our first visit to the new facility and we were certainly impressed. We took some time after class to explore the rest of the park with an eye to finding a staging area with access to the trails. Unfortunately we found that the facilities in the east section of the park for bikers and equestrians are sadly lacking. We couldn't help thinking of the wonderful East and West staging areas in Los Peñasquitos.

Saturday was the first of three weekend training sessions during the month of August for all new volunteers for the four local parks. Prospective park volunteers are first interviewed by the park ranger or rangers where they will patrol. Once they are selected they then attend the three training sessions.

The First Aid and CPR class was taught by Jackie Edie and it proved to be a full and very informative day. Jackie stressed the importance for the volunteer to know how to give emergency first aid promptly until the arrival of professional medical help. Some of the first aid situations that were discussed were heart attack, stroke, bleeding, snake bite, burns, broken bones and shock. As volunteers we carry an emergency medical kit while we are on patrol. Alex and I have prepared our own emergency kit which we carry in our saddle bag.

The remaining two sessions for the new volunteers will be spent spent learning the parks rules and regulations, how to use the radio, S.D.P.D. orientation, patrol procedures, and even an introduction to archaeological and cultural resources . The last day is spent going through emergency scenarios, and understanding how to react in typical emergency situations.The volunteers are taught to assess the situation first and at no time to put ourselves in danger, and to always patrol with a partner. The emergency scenarios were very helpful in making us all more aware of the correct way to respond in an emergency situation.

During our patrol days this summer Alex and I have been working with Ranger Bill to mark and map the trails in the woods. Some of the trails were washed out during our winter rains and need to be reestablished or relocated to higher ground. Its been a nice cool project for the hot days of summer.

Speaking of the hots days of summer, this is a reminder for everyone who is in the park, to remember to take enough water for yourself, and your animals. Bill said that during last weekend, there were several cases of heat exhaustion which can lead to a more serious heat stroke condition.

I would like to encourage all of you who love and use the park to talk to Ranger Bill and Reneene about becoming volunteers. My husband Alex and I are equestrian volunteers. We look forward to our days in the park. As a volunteer we keep records of the days activities including the different animal species we view or the lovely flowers that are in bloom. Weren't the wild flowers especially beautiful this year? As you know; we always get more in return than we give when we volunteer. Happy Trails.

California Exotic Pest Plant Council

Annual Meeting, Atascadero, California

Oct. 6-8, 1995

If you would like information on the program and registration for this conference please call Mike Kelly at 566-6489.

An Issue Whose Time Has Come?

Prescriptive Burning in the Preserve

Mike Kelly, president

We may be on our way to a record-breaking fire season for San Diego County. Already we've seen fires on Miramar Naval Air Station (3), Marroon Valley, Rancho Peñasquitos. Now two fires roar out of control in Dulzura and El Capitain in the east county. In Peñasquitos Canyon Preserve we had a 270-acre fire Sept. 30, 1992 that came close to homes in Mira Mesa.

This fire started in grasslands on the south side of Peñasquitos Creek in the main canyon, about 1/2 mile west of the waterfall. The fire was quickly moved by a moderate wind up into the chaparral brush on the north facing (south slope) of the canyon. It reached Calle Cristobal at one point and easily jumped the road to ignite brush on the south side of López Ridge. The main fire burned east southeast and threatened homes on the west side of Caminito Propico.

The 1992 fire sparked the Friends to action. We decided to take a more proactive stance viz-a-viz fire in the Preserve. We approached this issue from a dual perspective. Many of our members live on the edge of the Preserve and look at it as homeowners whom fire threatens, including this author.

But I and other members of the Friends also approach fire biologically, for the role it plays in our ecosystem.

Part of the local ecology

An important part of any open-space system is fire. It's been a part of our local ecology for many thousands of years. Despite our best fire-fighting and suppression efforts, the question with fire in our open-space parks is never if, but only when. This is true, not only in San Diego, but over most of California and many other states. The uncontrolled fire in Yellowstone National Park several years ago comes to mind.

Fire suppression may only postpone inevitable

Unfortunately, our fire suppression work over the years has not only simply postponed the inevitable, but has often made the fires that do occur worse. When a normal fire cycle of 25 - 60 years is postponed, a big buildup of fuel takes place. Then the fires that do occur burn much hotter and spread much further, often endangering homes and businesses. That's why the policy in National and many state parks now is to let some fires burn. When lightning strikes ignite an area, fire and park personnel will try to suppress it only if it threatens structures or important features of the park, otherwise, they just monitor it. If conditions are unusually hot or windy, of course, they move to suppress. Over time, this policy will break up the large, previously contigent blocks of natural vegetation, of fuel, into a mosaic of uneven aged vegetation. This reduces the possibility of what is called a *catastrophic* fire — one that occurs under the worst conditions, has no natural breaks in its path and is essentially uncontrollable. It was snow that finally extinquished the Yellowstone fire!

The Ecology of Fire

Delaying fire hurts the biology of our open spaces. In fact, we can't have a healthy ecosystem here without fire. Many plants require fire to germinate their seeds or to get the nutrients they need. *Ceanothus*, our mountain lilac, is one such plant. Most of our plants are fire adapted, meaning they will tend to survive a fire in good numbers. Most of the shrubs burned in the Lopez Ridge fire of 1992 have resprouted. Many new species of flowers and shrubs that weren't present in the area prior to the fire are now flowering there. Friends' surveys after the fire showed a marked jump in the number of plants and animals there. Since the fire, we have taken the public on tours of the area to demonstrate the role fire plays in our ecology. People are always amazed to see the burned shrubs resprouting from their base (crown) and to see the millions of wildflowers.

Burns are ultimately good for the wildlife. Old growth stands of chaparral and sagebrush or of forests, tend to be limited to a small number of species because the trees in the forest or the shrubs in the chaparral crowd out and deny sunlight and water to other species. Habitat for wildlife is thus reduced. Old chaparral becomes too dense for deer and other critters to move through it. Fire opens up the area and brings a flush of new, succulent growth that lasts for years. After our López Ridge fire wildlife flocked to the area.

Wildlife in a fire

Fires kill wildlife, but not nearly as much as once popularly believed. Studies during and after the Yellowstone Fire showed a small mortality due to the fire. Most wildlife was able to move away from the fire's path. Rodents survive by staying in their burrows. Just a few inches of soil above them is enough to shield them from the heat. Controlled or prescriptive burns, which we'll talk about next, covering a much smaller area and burning cooler, take even less of a toll. on the wildlife. Very quickly after a fire, wildlife populations increase because of the increased diversity of food. On balance, despite any mortality during a fire, fire improves chances for wildlife in the longer term. The exception is when a catastrophic fire wipes out an entire habitat. For example, if a fire were to burn all of the coastal sage scrub in Peñasquitos Canyon Preserve, several species of animals, perhaps even a plant species, might become locally extinct. Controlled burning of smaller areas can reduce the danger of a catastrophic fire wiping out entire habitats or species.

Prescriptive burning

These are the reasons why the Friends have taken the initiative to plan a prescriptive burn program for the Preserve. We have already taken this plan — over the last two years — to adjacent communities, to the Citizens Advisory Committee for the Preserve, to the Peñasquitos Canyon Preserve Task Force (County Supervisor,

➡ p. 11 for more

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

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Friends' Directory

Officers
President: Mike Kelly 566-6489
Vice-President: Tom Hopp, Ph.D. 566-4474
Treasurer: Brian Swanson 695-2209
Secretary: Les Braund 566-3958

Other Members of the Board of Directors
Don Albright, Vicky Ausen, Chris Bader, Trinity Gabriel, Barry Martin, Alan Pepper, Ph.D., Brian Swanson,

Walks and Committees Leaders
Bird Walks & Gnatcatcher Survey Committee: Brian Swanson 695-2209
Conservation Chair: Alan Pepper, Ph.D. 586-7123
Geology Walk Leader: Don Albright 443-7982
Hike Committee: Trinity Gabriel 672-0229
Medicinal Plant & Night Walks: Will Bowen
Nature Walk: Les Braund 566-3958
Newsletter: Mike Kelly, Carla Scott, Vicky Ausen
Tracking & Mystery Tree Walks: Chris Bader
Vernal Pool, Fire Ecology & other walks: Mike Kelly
Wetlands Restoration Committee: Don Albright
Wildlife Survey Committee: Barry Martin 484-4007

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 (call me to discuss)
____ Hikes
____ Indian Culture **9/95**
____ 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.

Canyon News

Friends of Los Peñasquitos Canyon Preserve, Inc.

November/December 1995
Volume 9 No. 6

Enjoy Cool Weather and Fall Colors

With the cool weather of autumn at hand any time is a good time to visit the Preserve. Fall colors are starting to appear, particularly where there is a lot of poison oak (!)and where there are large numbers of sycamores (Lopez Canyon and west end of Peñasquitos Canyon). Don't miss our California holly trees (Toyon) as they set their red fruit. You'll see them on our north-facing slopes in Peñasquitos Canyon and in some of the finger canyons on both the north and south sides of the canyon.You'll see many birds enjoying them.

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

Volunteer Opportunities
If you'd like to help with conservation or other activities call Mike Kelly at 566-6489. The Friends have ongoing animal surveys, stream surveys, invasive weed removal projects, seed collection and planting programs to name a few. We also need help with organizational aspects of our work.

November

Rancho Santa Maria De Los Peñasquitos Adobe Ranch Tour
Saturday, Nov. 4 , 11 a.m. and noon (45 min. each), led by docents from the SD Archaeological Society. Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, then first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch. See San Diego's oldest residence, an historic adobe, settler and Indian artifacts. **Thomas Guide p. 1189.**

Intermediate Tracking Walk
Sunday, Nov. 5, 8 a.m. (3 hours). This walk will be led by the Friends' Tracking Team. A **prerequisite** is having taken the Friends beginning tracking class. **Note:** A ***minimum*** of 2 intermediate tracking walks is required in order to take the next advanced class. Meet in the west end parking-staging area off the south side of Sorrento Valley Blvd. in Sorrento Valley, 1/2 mile east of its intersection with Vista Sorrento Parkway in Sorrento Valley. From the east take Mira Mesa Blvd. west to Camino Santa Fe. Right on Camino Santa Fe to second light. Left on Sorrento Valley Blvd and all the way to the bottom of the hill. The bike shop is on the right. From the west, I-5 or 805 to Sorrento Valley. Take Sorrento Valley Blvd. east through the business district. Last building on the left houses the bike shop. Call Lindsey at 276-8735 if you have any questions. **Thomas Guide p. 1208.**

Help Needed! Work Party To Save Historic Site Sunday, Dec. 3, 9 a.m.

Historic structures at the adobe ranch house in Peñasquitos Canyon Preserve are threatened by winter flooding exacerbated by stream channel blockages by downed vegetation. Join the Friends and the S.D. County Archaeological Society in removing dead trees and brush from the creek to save this historic area. To help, call Mike Kelly at 566-6489. Several pickup trucks are especially needed.

Full Moon Hike at West End
Monday, Nov. 6, 7:30–9 p.m.The full moon will provide the occasion for a night of signing, dancing, drumming and story telling in the Native American tradition. Led by Will Bowen, PhD. Meet in the parking lot by La Cantina Mountain Bike Shop on the north side of Sorrento Valley Boulevard in Sorrento Valley, 1/2 mile east of its intersection with Vista Sorrento Parkway in Sorrento Valley. From the east take Mira Mesa Blvd. west to Camino Santa Fe. Right on Camino Santa Fe to second light. Left on Sorrento Valley Blvd and all the way to the bottom of the hill. The bike shop is on the right. From the west, I-5 or 805 to Sorrento Valley. Take Sorrento Valley Blvd. east through the business district. Last building on the left houses the bike shop. Bring a flashlight and dress warm. **Thomas Guide p. 1208.**

Tamarisk Bash in Anza-Borrego
Saturday, Nov. 11, 9 am. Join the Friends and the California Native Plant Society in eradicating this invasive weed from Fish Creek (Split Canyon) in Anza Borrego

➡ next page for more

Highlights Inside

All Out!

Save Carmel Mountain (8a)

Tues., Oct. 31st, 2 pm
City Council Chambers, 12th floor
City Administration Building
202 C St., San Diego

Your help is needed to save San Diego's last coastal mesa from development. On Tuesday, Oct. 31, the San Diego City Council will be voting on a plan that will allow — if approved — development in Neighborhood 8a (Carmel Mountain) of Carmel Valley. This is the coastal mesa that stretches east and south above the intersection of I-5 and Carmel Valley Road.

Although only 400 acres, it's home to unique habitats such as southern martime chaparral and endangered and rare species of plants and animals. It's also a vital nexus of wildlife corridors, of linkages, between Torrey Pines Lagoon, Torrey Pines State Park and Peñasquitos Canyon Preserve to larger open-space parks to the east and north. It is also Carmel Valley's last opportunity to have an open-space park in the

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(Calendar cont'd)

State Park. Some folks will be coming up Friday afternoon late and camping at the Fish Creek Campground. You're welcome to stay over to Sunday and explore the area (Elephant Tree Preserve is nearby). Beautiful spot to camp and work in. No experience needed! For details call Mike Kelly at 566-6489.

Nature Walk at East End
Saturday, Nov. 11, 8 a.m. (1-1/2 hours). Join naturalist Les Braund for a general nature walk in the east end of Peñasquitos Canyon Preserve. Good chance to see fall colors. Learn about bio-diversity,visit an historic grave site and a mitigation project. Meet at the parking-staging area off Black Mountain Road. Take the Mercy Exit off I-15 west to Black Mountain Road. Cross the intersection and enter the parking for the Preserve opposite this intersection. **Thomas Guide p. 1189.**

Tracking/Nature Walk at Ranch House
Saturday, Nov. 11, 11 a.m. (2 hours). Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, then first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch. Learn how to track animals and discover the natural environment they live in. Hike will include an overview of the animal surveys being conducted in Peñasquitos Canyon Preserve. Led by Chris Bader. **Thomas Guide p. 1189.**

Geology Walk
Sunday, Nov. 12, 9 a.m - noon. Join Geologist Don Albright for a walk through time, including the Preserve's waterfall. Meet at Caminito Propico and Calle Cristobal in Mira Mesa. From the west take Sorrento Valley Blvd. east. It becomes Calle Cristobal as it passes Camino Santa Fe. The next street is Propico. From the east, take Mira Mesa Blvd. to Camino Santa Fe. Right on C. Santa Fe, then right on Calle Cristobal to Propico. Park in cul-de-sac on south side of Cristobal. Park legally. Steep trail. Bring water, sun protection. **Thomas Guide p. 1208.**

Rancho Santa Maria De Los Peñasquitos Adobe Ranch Tour
Saturday, Nov. 18, 11 a.m. and noon (45 min. each), led by docents from the SD Archaeological Society. See Nov. 4 listing for details. **Thomas Guide p. 1189.**

Medicinal Plant Walk
Saturday, Nov. 18, 4-5:30 pm. Learn about plants our Indian and settler ancestors (and people today) used for medicinal purposes. Meet in the parking lot by La Cantina Mountain Bike Shop on the north side of Sorrento Valley Boulevard in Sorrento Valley, 1/2 mile east of its intersection with Vista Sorrento Parkway in Sorrento Valley. From the east take Mira Mesa Blvd. west to Camino Santa Fe. Right on Camino Santa Fe to second light. Left on Sorrento Valley Blvd and all the way to the bottom of the hill. The bike shop is on the right. From the west, I-5 or 805 to Sorrento Valley. Take Sorrento Valley Blvd. east through the business district. Last building on the left houses the bike shop. Led by Will Bowen, Ph.D. **Thomas Guide p. 1208.**

Bird Walk at Ranch House
Sunday, Nov. 19, 7:30 am, (1-1/2 hours). Meet at the adobe Ranch House in Peñasquitos Canyon Preserve. Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first legal U-turn at the light at Adolphia & Park Village Drive, come back down Black Mountain Road, right into Canyonside Park; go past ballfields to Preserve sign and new parking lot. Bring bird book and binoculars. Led by Brian Swanson. **Thomas Guide p. 1189.**

Mystery Tree / Native American Walk
Sunday, Nov. 19, 8:30 a.m. (1-1/2 hours). 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. Meet at the parking-staging area off Black Mountain Road. Take the Mercy Exit off I-15 west to Black Mountain Road. Cross the intersection and enter the parking for the Preserve opposite this intersection. Led by Chris Bader. **Thomas Guide p. 1189.**

Tamarisk Bash in Peñasquitos Canyon's West End
Sunday, Nov. 19, 1 pm. Join the Friends for what we expect to be the last (it's been 4 years!) work party needed to eradicate this invasive bush from the Preserve. Meet in back of the Post Office in Sorrento Valley. Take Sorrento Valley Blvd. from the east or west to Sorrento Valley Court, a small cul-de-sac off the north side of the Boulevard. Go to the end and take a right into the parking behind the buildings and proceed up to the Post Office parking. Wear good boots, old clothes, gloves and bring water. We'll provide sodas and snacks. Call Mike Kelly to RSVP and for more details. **Thomas Guide p. 1208.**

Sensing and Divining Walk
Friday, Nov. 24, 3-5 pm. Learn to appreciate and enhance the senses, our natural livingness and intuitive capabilities. 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. Led by Will Bowen, Ph.D. **Thomas Guide p. 1208.**

Friends' Business Meeting at Ranch
Tuesday, Nov. 28, 7 p.m. Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, then first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch. The Friends' Board of Directors meets to plan out the day to day activities and campaigns of the Friends organization. Members are welcome.

December

Habitat Nature Walk - West End
Saturday, Dec. 2, 11 am (3-4 hours). Join Mike Kelly for a 6-mile roundtrip to the waterfall and back. See fall colors and pass through a variety of habitats: chaparral, riparian, grassland, coastal sage scrub, gabbro and discuss the ecology of each, including plants and animals. Do a loop, crossing the stream at the waterfall and come back on the little visited northwest quadrant. Bring lunch and water. Meet in the west end parking-staging area on the south side of Sorrento Valley Boulevard in Sorrento Valley, 1/2 mile east of its intersection with Vista Sorrento Parkway in Sorrento Valley. From the west, take I-5 or 805 to Sorrento Valley. Take Sorrento Valley Blvd. east through the business district. From the east Take Mira Mesa Blvd. to Camino Santa Fe. Right on Camino Santa Fe and go to its intersection with Sorrento Valley Blvd. Left on the latter and all the way to the bottom of the hill. Parking lot is on the south side. **Thomas Guide p. 1208.**

Rancho Santa Maria De Los Peñasquitos Adobe Ranch Tour
Saturday, Dec. 2 , 11 a.m. and noon (45 min. each), led by docents from the SD Archaeological Society. Take Mercy Exit off I-15 west to Black Mountain Rd. Right on Black Mountain, then first U-turn, right into Canyonside Park past ballfields to Preserve sign and new parking lot. Walk up path to ranch. See San Diego's oldest residence, an historic adobe, settler and Indian artifacts. **Thomas Guide p. 1189.**

Intermediate Tracking Walk
Sunday, Dec. 3, 8 a.m. (3 hours). This walk will be led by the Friends' Tracking Team. A **prerequisite** is having taken the Friends beginning tracking class. **Note:** A ***minimum*** of 2 intermediate tracking walks is required in order to take the next advanced class. Meet in the west end parking-staging area off the south side of Sorrento Valley Blvd. in Sorrento Valley, 1/2 mile east of its intersection with Vista Sorrento Parkway in Sorrento Valley. From

➡ next page for more

(Calendar cont'd)

the east take Mira Mesa Blvd. west to Camino Santa Fe. Right on Camino Santa Fe to second light. Left on Sorrento Valley Blvd and all the way to the bottom of the hill. The bike shop is on the right. From the west, I-5 or 805 to Sorrento Valley. Take Sorrento Valley Blvd. east through the business district. Last building on the left houses the bike shop. Call Lindsey at 276-8735 if you have any questions. **Thomas Guide p. 1208.**

Full Moon Hike at West End
Wednesday, Dec. 6, 7:30–9 p.m.The full moon will provide the occasion for a night of singing, dancing, drumming and story telling in the Native American tradition. Led by Will Bowen, PhD. Meet in the parking lot by La Cantina Mountain Bike Shop on the north side of Sorrento Valley Boulevard in Sorrento Valley, 1/2 mile east of its intersection with Vista Sorrento Parkway in Sorrento Valley. From the east take Mira Mesa Blvd. west to Camino Santa Fe. Right on Camino Santa Fe to second light. Left on Sorrento Valley Blvd and all the way to the bottom of the hill. The bike shop is on the right. From the west, I-5 or 805 to Sorrento Valley. Take Sorrento Valley Blvd. east through the business district. Last building on the left houses the bike shop. Bring a flashlight and dress warm. **Thomas Guide p. 1208.**

Geology Walk
Sunday, Dec. 10, 9 a.m - noon. Join Geologist Don Albright for a walk through time, including the Preserve's waterfall. Meet at Caminito Propico and Calle Cristobal in Mira Mesa. From the west take Sorrento Valley Blvd. east. It becomes Calle Cristobal as it passes Camino Santa Fe. The next street is Propico. From the east, take Mira Mesa Blvd. to Camino Santa Fe. Right on C. Santa Fe, then right on Calle Cristobal to Propico. Park in culde-sac on south side of Cristobal. Park legally. Steep trail. Bring water, sun protection. **Thomas Guide p. 1208.**

Mystery Tree / Native American Walk
Sunday, Dec. 10, 10 a.m. (1-1/2 hours). 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. Meet at the parking-staging area off Black Mountain Road. Take the Mercy Exit off I-15 west to Black Mountain Road. Cross the intersection and enter the parking for the Preserve opposite this intersection. Led by Vicky Ausen. **Thomas Guide p. 1189.**

Rancho Santa Maria De Los Peñasquitos Adobe Ranch Tour
Saturday, Dec. 16, 11 a.m. and noon (45 min. each), led by docents from the SD Archaeological Society. See Dec. 2 listing for details. **Thomas Guide p. 1189.**

Nature Walk at East End
Saturday, Dec. 16, 8 a.m. (1-1/2 hours). Join naturalist Les Braund for a general nature walk in the east end of Peñasquitos Canyon Preserve. Good chance to see fall colors and Christmas plants, including California holly (Toyon) and mistletoe. Learn about bio-diversity,visit an historic grave site and a mitigation project. Meet at the parking-staging area off Black Mountain Road. Take the Mercy Exit off I-15 west to Black Mountain Road. Cross the intersection and enter the parking for the Preserve opposite this intersection. **Thomas Guide p. 1189.**

Medicinal Plant Walk
Saturday, Dec. 16, 3-4:30 pm. Learn about plants our Indian and settler ancestors (and people today) used for medicinal purposes. Meet in the parking lot by La Cantina Mountain Bike Shop on the north side of Sorrento Valley Boulevard in Sorrento Valley, 1/2 mile east of its intersection with Vista Sorrento Parkway in Sorrento Valley. From the east take Mira Mesa Blvd. west to Camino Santa Fe. Right on Camino Santa Fe to second light. Left on Sorrento Valley Blvd and all the way to the bottom of the hill. The bike shop is on the right. From the west, I-5 or 805 to Sorrento Valley. Take Sorrento Valley Blvd. east through the business district. Last building on the left houses the bike shop. Led by Will Bowen, Ph.D. **Thomas Guide p. 1208.**

Bird Walk at Ranch House
Sunday, Dec. 17, 8 am, (1-1/2 hours). Meet at the adobe Ranch House in Peñasquitos Canyon Preserve. Mercy Exit off I-15 west to Black Mountain Road. Right on Black Mountain Road, make first legal U-turn at the light at Adolphia & Park Village Drive, come back down Black Mountain Road, right into Canyonside Park; go past ballfields to Preserve sign and new parking lot. Bring bird book and binoculars. Led by Brian Swanson.

Tamarisk Bash in Sabre Springs
Sunday, Dec. 17, 1 pm. Join the Friends to help eradicate this invasive bush from the upstream drainage of Peñasquitos Canyon Preserve. Meet at Springbrook and Sabre Springs Parkway in Sabre Springs. Take I-15 to the Poway Road exit. Go east on Poway Road to the first light, Sabre Springs Parkway. Take a right (south) and proceed to the barricades at Springbrook. Wear good boots, old clothes, including longsleeve shirt, gloves and bring water. We'll provide sodas and snacks. Call Mike Kelly to RSVP and for more details. **Thomas Guide p. 1189.**

Winter Solstice Dawn(!) and Dusk Walk and Viewing
Friday, Dec. 22, 5:30 am for the dawn viewing and 3:30 pm for the dusk viewing. Join cultural anthropologist Will Bowen, PhD to greet the rising sun of the winter solstice. Learn about the importance of solstice rites in ancient cultures. Meet in the parking lot by La Cantina Mountain Bike Shop on the north side of Sorrento Valley Boulevard in Sorrento Valley, 1/2 mile east of its intersection with Vista Sorrento Parkway in Sorrento Valley. From the east take Mira Mesa Blvd. west to Camino Santa Fe. Right on Camino Santa Fe to second light. Left on Sorrento Valley Blvd and all the way to the bottom of the hill. The bike shop is on the right. From the west, I-5 or 805 to Sorrento Valley. Take Sorrento Valley Blvd. east through the business district. Last building on the left houses the bike shop. **Thomas Guide p. 1208.**

Habitat Nature Walk - East End
Saturday, Dec. 23, 11 am (3-4 hours). Join Mike Kelly for a 6-mile roundtrip to the waterfall and back. We'll see fall colors and pass through a variety of habitats: chaparral, riparian, grassland, coastal sage scrub, and discuss the ecology of each, including its plants and animals. You'll do a loop, crossing the stream at the waterfall and come back on the opposite side. If time permits there will be a side trip to the newly acquired land swap land and Walden Pond. Bring lunch and water. Meet in the main parking-staging area off Black Mountain Road. Take the Mercy Exit off I-15 west to Black Mountain Road. Cross the intersection and enter the parking for the Preserve opposite this intersection. **Thomas Guide p. 1189.**

New Years Eve Hike
Sunday, Dec. 31, 3-5 pm. Join cultural anthropologist Will Bowen, PhD reflect on and release the past year, and prepare for the coming new year. Meet in the parking lot by La Cantina Mountain Bike Shop on the north side of Sorrento Valley Boulevard in Sorrento Valley, 1/2 mile east of its intersection with Vista Sorrento Parkway in Sorrento Valley. From the east take Mira Mesa Blvd. west to Camino Santa Fe. Right on Camino Santa Fe to second light. Left on Sorrento Valley Blvd and all the way to the bottom of the hill. The bike shop is on the right. From the west, I-5 or 805 to Sorrento Valley. Take Sorrento Valley Blvd. east through the business district. Last building on the left houses the bike shop. **Thomas Guide p. 1208.**

(Carmel Mountain cont'd)

community. Neighborhood 8a is the only part of Carmel Valley not already developed or with approved development plans for it. In a rush of development in the last year, the San Diego City Council has approved millions of square feet of additional commercial development and many thousands of future homes in Carmel Valley's Neighborhood 10 and Sorrento Hills.

At the Council hearing Pardee Corp., the owner of the largest parcels in 8a, and the City Manager will be pushing the so-called "Manager's Compromise." This ill-named "compromise" is opposed by the Solana Beach School District, the Parks and Recreation Council, the Carmel Valley and Torrey Pines Planning Groups, all of the major environmental organizations and many others. From an environmental point of view it protects too little of the sensitive habitats and allows development up on the heart of the mesa top. Most of those opposed to this plan are not opposed to all development in 8a. They simply want it concentrated in the biologically least sensitive parts of the plan area.

Only a large turnout of concerned citizens can stop this project and save San Diego's last coastal mesa top. With your help we can save this precious species for the plants and wildlife that live there now and as a wonderful open space park for the public to visit. Join us Oct. 31st. If you need more information, or want to confirm that the meeting hasn't been postponed, call Lee or Ann Harvey at 481-4169 or Mike Kelly at 566-6489.

Besides coming to the hearing, please write or FAX (533-4045) the Mayor and City Councilmembers c/o City Clerk, 202 'C' St, M.S. 2, San Diego, CA 92101. You only have to send one copy to the Clerk's office and ask, in a cover note, that it be circulated to the entire City Council. Ask them to DENY the Neighborhood 8A Compromise Plan, and allow the applicants to develop only in full compliance with the City's Resource Protection Ordinance or the "Biologically Preferred" alternative in the EIR. This would ensure saving at least two-thirds of the mesa, with the most sensitive resources.

Trackers' Corner

Poachers Beware!

"Join the Los Peñasquitos Canyon Tracking Team! Find adventure! Test your stalking skills! Protect your preserve!" No, that's not exactly the motto, but it certainly became appropriate in September when members of the tracking team found themselves involved in a serious adventure.

The Friends received word from Cliff, a member who lives on the canyon rim, that there had been one or more individuals in a pickup truck, with dogs in Los Peñasquitos Canyon Preserve late at night on a number of occasions. The dogs were obviously out chasing wildlife and were being commanded by the men. Poachers were suspected.

Mike Kelly, president of the Friends' Organization, happened to be surveying the west end one evening about 10:45 p.m. when he saw a white pickup truck enter the Preserve through the old SDG&E gate off Sorrento Valley Boulevard. The truck proceeded east on the utility road on the south side of the canyon. For two hours Mike observed them from spots along the rim as they made their way to the waterfall area. Like Cliff, he heard the dogs baying and an individual calling out commands to the dogs.

Saturday, September 2, Lani and Lindsey from the Friends' Tracking Team and Mike coordinated a "resident alert," going from door-to-door in the neighborhood close to where the suspected poachers had been seen. They spoke to as many residents as possible, informing them of the potential threat, and also distributed written information and pertinent phone numbers. One resident couple told them that they had heard gunshots recently and that once in the past they had discovered a bullet hole in an upstairs window.

That same Saturday night, members of the tracking team silently investigated the canyon and, by coincidence or luck, spotted the suspected poachers. There were two trucks that evening. Thanks to previous training from Barry Martin, instructor and mentor for the team, they were able to secretly gather the information necessary to identify these poachers. The matter is now in the hands of the authorities who, it is hoped, will do all they can to prevent further endangering of the wildlife in our canyon.

What an adventure. If you are interested in learning more about the Los Peñasquitos Canyon Tracking Team and the classes and activities we offer, please call Barry Martin at 484-4007.

Volunteer Thank Yous

Invasive weed removal

Despite the Indian summer heat, many people helped further eradicate a series of invasive weeds threatening the Preserve's biodiversity. They included: Cindy Burrascano, Trinity Gabriel, Mike Kelly, Robb Hutsel, Mel Howe, Carey Barton, and Holly Boessow. Species worked on included Tamarisk, Arundo, German Ivy, Eucalyptus, Fennel, Canary Island Palms

Stream survey volunteers

Helping out on the vegetation survey, the chemical water quality testing and/or the benthic organism surveys were: Tarja Jacobsen, Liz Rozycki, Linda Pardy, Lisa Grey, Chris Bader, Carey Barton, Holly Boessow, Cindy Burrascano, Trinity Gabriel, Reneene Mowry, Paul Micheletti, Melanie Howe, Mike Kelly, Sue Pease and her kids, Will Bowen, and Brian Swanson.

Flood threat to Adobe Ranch survey

Mike Kelly and Don Albright of the Friends and Fred Buchanan of the S.D. County Archaeological Society surveyed stream channels for blockages that are contributing to flooding of historic out buildings in the ranch house historic district. See Dec. 3 work party to help reduce this threat.

Vernal Pools: Looking Back, Looking Forward / Part 1

Will Bowen, PhD

Introduction

It's now November. The vernal pools, the small puddles and large ponds of standing spring rain water, which harbored such a beautiful habitat last spring, have dried up. Now, instead of the colorful wildflowers and the humid teeming life of a miniature aquatic village, all you might find at a vernal pool would be a splinter of dried-up grasses and cracked soils.

You could easily think that what you were looking at wasn't important at all and pass it over as insignificant. Indeed, this has sometimes happened. But come back after the rains and your eyes would be bugged out in wide wonder. Then, I bet that you would acknowledge that this was an outstanding and important habitat!

This past season, I visited the many vernal pool locations adjacent to our canyon on numerous occasions. My investigations began early last year and ran well into late July. During my near weekly visits I had an enormous amount of fun, learned a great deal, and had many insights and impressions . . . some of which I would like to share with you.

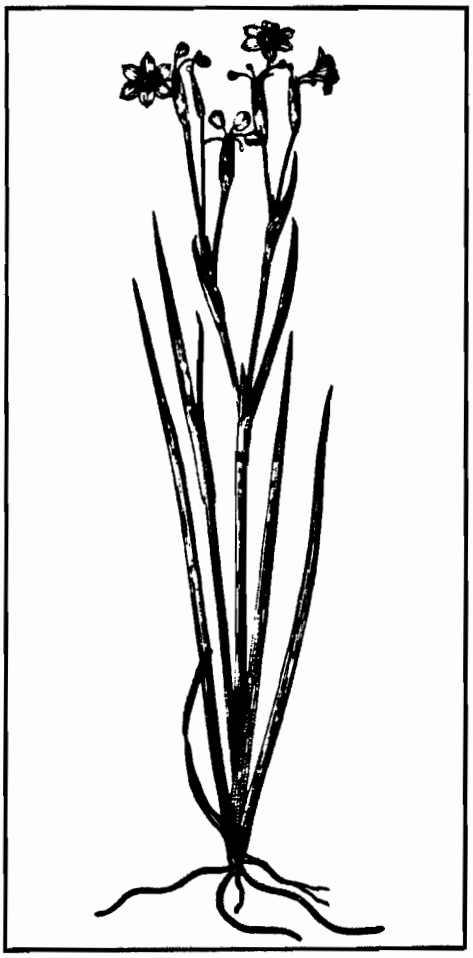
Keeping an image alive

In addition to my sharing, I have a deeper purpose for writing at this time. First, I hope to keep the image of the vernal pools alive in your minds over the fall and winter months. This is important because this is the time of year when the vernal pool complexes are most likely to be damaged or destroyed, owing to their dormancy and lack of a colorful presence. It's important that we remain vigilant.

Vernal pools were first pointed out to me in the winter by Dave Hogan and they did not seem like much of anything at all to me at that time. It took seeing them in the spring when they were in full flower to be able to really see them in the winter! My second deep purpose in writing is to kindle your interest and prepare you for the coming rounds of vernal activity which will soon be upon us. If you do not already know about vernal pools, I think you'll find that they are incredibly interesting and well worth your attention. If you are already "sort of" interested in the pools, I want to encourage you to delve deeper and step up your participation because the rewards are great. The Friends will have many vernal pool hikes this coming spring and I encourage you to go on them as often as you can.

A demanding occupation

I must warn you that studying vernal pools is a demanding occupation. You need pinpoint observation skills and a fine eye for detail. Frequent returns are necessary because this is a micro-habitat which is pressured by continual change. The march of time, the amount of sunlight, the volume of standing water are all vectors which snap the life forms of the vernal pool into action and shape their movement. Even the passive, delicately-soft, wide-eyed tadpole has to "get a-going" if it is to grow up into a full-blown frog or toad at the vernal pools.



Blue-eyed grass (Sisyrinchium bellum), found in association with many vernal pool complexes in San Diego

Studying vernal pools will cultivate your powers of perception, sensing and thought. In fact, I would venture to say there may be no finer natural way to develop your sensory and thinking skills. One really has to look, listen, hear, and remember to know the pools. You have to be there to catch that buzz of a dragonfly whizzing past your head, or the croak of a toad, the fragrant waft of Mesa mint, or the jump and jitter of the knock-kneed cricket.

Often it gets down to getting down on your hands and knees for an eye to eye inspection of a baby toadlette or a tadpole. You may just have to creep on all fours in order to bow to a tiny flower or to sniff and see if the Downingia really has an odor. Just as often you are a bit dizzy and reeling with the humidity, the fragrances, and all the colors which are expressed here with such exuberance.

Furthermore, even though your physical ear might defy you, your inner ear may soon be humming along to some secret exotic music which plays regularly at the vernal pools. Knowing vernal pools means you must possess a prodigious memory and exquisite powers of comparison. This is because the process of "succession," or the metamorphose from one community to the next,which is rapidly unfolding at the pools, will challenge you to remember your last visit and compare your findings to current conditions.

Why, you might think you understand something, or smugly make a studied conclusion, only to return the next week and find that you were incorrect — or correct only for last week! One week the pools are empty, the next they teem with Fairy Shrimp or tadpoles, and the next the Golden Skimmers are darting all about. Things happen that fast and go away equally fast. Each visit is a bold new adventure and a cherished lasting image that very

(Vernal Pools cont'd)

few have had the pleasure to witness.

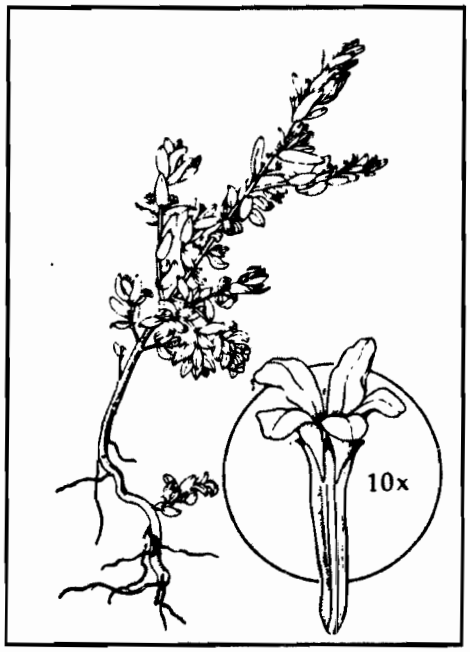
Basically, it all boils down to these exquisite color combinations and delicate forms of life just bursting with the pinnacle of livingness . . . but, you can only catch them at the right moment or from the right angle and then they are gone. Poof! What I am proposing, is that, if you are very attentive, you just might catch a glimpse of the divine, because I swear it passes momentarily through this physical reality at the vernal pools in the spring.

How to identify a vernal pool

Descriptively speaking, vernal pools are formed when shallow depressions in the soil, usually ringed by a series of mounds of soil with a clump of plants, collectively known as "mima mounds," fill with rainwater during the rainy season. The water is held in a pool because the land is relatively flat and the mounds may form a circle, thus preventing water from running off; the clay pan in the soil under the pool won't permit the water to seep away under ground. Only later, when it gets really hot and dry, will the pool water wisp away through evaporation into the atmosphere.

In the standing water of the pool, which is like a tiny lake, in rapid-fire succession, that is, one right after the other, plants begin to bud and species begin their dance of birth and offspring rearing. Spike Rush (*Eleocharis montevidensis*) and Coyote Thistle (*Eryngium aristulatum ssp. parishii*) pop up, many tiny water plants, such as Water Starwort (*Callitriche marginata* or *longipedumculata)* or Yerba Fango (*Elatine brachysperma*) abound, both floating and submerged, while Water Fleas (*Daphnia magna*), tadpoles (*Pseudacris regilla* and *Schaphiopus hammondi*), and Fairy Shrimp (*Branchinecta sandiensis*) swim about, the latter by waving their wispy legs. The soil is rich, moist, and darkened to a deep red and black by the moisture from the rains. All the plants on the mima mounds and in thesurrounding areas begin to turn a verdant green.

Later in the drying phase of the vernal pool cycle, life in the pool takes on an entirely different character, even as the soils dry and crack. The fragrant Mesa Mint (*Pogogne abramsii*), whose Latin name means "bearded lady", the tri-colored Downingia (*Downingia cuspidata)*, Woolly Marbles (*Psilocarphus brevissimus var. brevissimus*), the beautiful and delicate purple-flowered Orcutt's Brodiae (*Brodiaea orcuttii*), and the late-blooming Loose-strife (*Lythrum hyssopifolia*) take over in the mud flats of the pools. Crickets replace tadpoles and toadlettes, theretofore hopping about and singing with their violin wings. As the drying months wane on so the colors fade from deep red, black, and green to yellow, beige, and finally gray.



Loose-strife (*Lythrum hyssopifolia*)

Types of pools

Although we class the vernal pool as a type of habitat, there are in actuality several different kinds of vernal pools in our area. Although they all share some common characteristics, they may vary by shape, size, depth, and species present.

Thus, our vernal pools range from small circular pools, with Chamise (*Adenostoma fasciculatum*) and Black Sage (*Salvia mellifera*) encrusted mima mounds, sporting Spadefoot Toad and Chorus Frog, as at Calle Cristobal, to the large duck ponds and pristine pools of Del Mar Mesa, to the rut-like irregular pools of Carmel Mountain, to the elliptical pool complex of Sorrento Hills.

Likewise, vernal pools can be rather bare, with only a few tiny aquatic plants such as Water Starwort and Pillwort (*Pilularia americana*), or they can beoked with Spike Rush, Yard Rush (*Juncus tenuis*), and Coyote Thistle, or limited to Mesa Mint and Downingia, or Mesa Mint and Woolly Marbles, or lined with Loose-strife and pocked with Orcutt's Brodiaea.

On top of the natural variations, we have pools suffering from human disturbances, to pools completely made and seeded by people through mitigation projects!

History of vernal pools

It's still something of a mystery as to the exact cause and origin of vernal pools. What we do know is that the vernal pools have a deep history, dating back to about one million years ago. At that time the seas were much higher. As glaciers formed, the oceans retreated westward leaving huge terraces and deep channels in their wake. As the flows of water dwindled from rivers to streams, coastal canyons formed with surrounding mesa tops. On the mesa tops, clay deposits began to develop. In this clay, perhaps a half million years ago, the vernal pools first began.

Before the birth of the vernal pools the climate was much more humid and moist than now. It rained a great deal and there were immense stands of pine and conifer forests. All that remains of the vast presence of these forests is the red Linda Vista soils we so often see on the mesas, cliffs, and bluffs. This red soil is what underlies the gray clays of the vernal pools proper.

Slowly the climate became more arid and Mediterranean. It became much drier with only rain in the winter months. The trees of the forests all died off, save for where there was sufficient water, along the canyon streams. Chapparal and coastal sage scrub vegetation began to carpet the canyon walls and mesa tops. In a few isolated pockets within the coastal sage scrub, where the land was flat and the soil possessed a bed rock or clay pan, vernal pools evolved.

Under these conditions, where the potential evapo-transpiration exceeded rainfall, where the climate alternated between humid wet and dry, and where

➨ next page for more

there was a high water stress, here developed a set of the highly specialize plants and other species which could deal with extremes of inundation and drying, which could rapidly grow and develop, and which could even thrive.

Hydrology of vernal pools

At the vernal pools, the land is flat and the soil is basically impermeable. Rainwater pools, and does not sink or run off. Neither is there much underground flow of water. Water will only very slowly evaporate out of the pools and top layers of soil as the temperature warms. Even in years when there is not enough rain and hence not enough water to pond, there can still be plants at the vernal pools — albeit fewer in species and numbers. Under these conditions, deeper held water can be drawn up by plants or by the capillary forces of evaporation.

On the other hand, when rain is excessive, the overflow of water merely goes from one pool to the next or expands within the complex without running off down into a canyon or into a stream. Hence,vernal pools are adapted to survive and continue under a range of climatic conditions.

At the Del Mar Mesa vernal pools, for instance, the land only gently slopes and that upward to the northeast. A clay pan prevents water from seeping down. Down into the ground, at about three feet, water is held year round. Hence, one could dig at the vernal pools in the driest days of summer and find moisture. You would probably also find some sleeping Spadefoot Toads, as this is where they down to avoid the heat. From this underground source, water is drawn up to support plants during a year with little rainfall. Conversely, in times of torrential rains, excess water will flow frompool to pool, but only after some 143,000 gallons of rain water have accumulated.

Expanding clay soils of the vernal pool

Technically speaking, our vernal pools are situated in a "Redding Soil Complex." The surface soil of the vernal pool proper is a gray- colored clay. Deeper down the ground turns back to the red soil of the Linda Vista Formation.

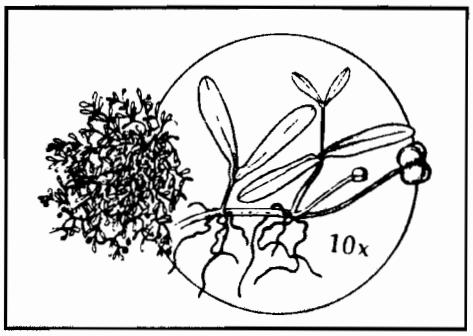
The gray color of the clay soils is due to a buildup of organic material and because there is not enough oxygen in the upper soils to impart the characteristic red color of the Linda Vista soil.

The clay layer of the pools consists of two sub-layers. The upper loamy clay layer averages a thickness of about several inches to a foot. The lower clay layer is about two feet thick. Both types of clay expand with water but the lower layer is many times more expandable than the upper.

The lower layer swells up with water and seals the bottom of the pool at about 3 feet deep. Contrary to popular belief, the seal process at the pools depends entirely on swelling clays and not on bedrock hardpan.

The clay soils of the vernal pool are calcium-rich. The top clay layer is classified as "smectite," or "Fuller's Earth," or more properly "montmorillonite." "Smectites" possesses an expanding crystalline structure. The bottom layer of clay is composed of the calcium and magnesium-rich "vermiculite". "Vermiculite" soils are also expanding clays and are capable of linear expansion up to 20 timesthe original thickness. This is much greater than the montmorillonite. Hence, as you go down from the pool water into the clay, the soil gets tighter and tighter because it expands more.

The clay soils of the vernal pool also possess the characteristic of cracking along sheer faces when they dry. This is why we see the deep fissures, up to three inches deep, in the centers of the pools starting in July. The vernal pools are interspaced among raised mima mounds. No one knows for certain what causes the mima mounds. One theory holds that the pools are hollowed out by wind erosion. This seems improbable because even on a very windy day nott much dust is churned up at the vernal pools. A more probable theory holds that gophers bring up soil which accumulates over time to form a mound. You can see this for yourself, especially at the Calle Cristobal vernal pools. If you will look you can observe many gopher holes and small piles of red soil which over time could easily build up to form a mound.



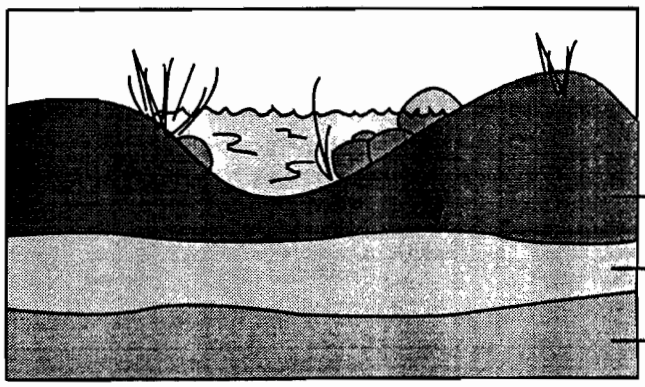
Wallow starwort (*Callitriche marginata*)

Succession and the annual cycle

The vernal pools are subject to an annual cycle of flooding and drying. All species must be able to tolerate these conditions and be able to get down to their business in a hurry. In fact, lifecycles will speed up if conditions begin to change faster than normal. For instance, if the water warms or dries sooner than normal, tadpoles will grow faster than they normally do.

Scientists have identified four distinct phases in the life cycle of the vernal pool. These phases are: "wetting", "aquatic", "drying", and "drought." Each of these phases interlocks with the proc of "succession" underway at the pools. Each phase has its own unique community or biological matrix of species and provides conditions

➨ p. 9 for more



Profile of a vernal pool

Mima mounds — probably formed by gophers — allow water to be trapped in shallow pools

Subsoil with high clay content prevents normal draining of water out of pool

Hardpan, impermeable to water

New President Expected in '97

New Officers Elected

Les Braund, Outgoing Secretary

Friday, Oct. 20, the Friends' annual meeting took place at the Canyonside Recreation Center. As is our custom, nominations for President, Vice-president, Secretary and Treasurer were taken. Mike Kelly was renominated for president, Chris Bader for Vice-president, Vicky Ausen for Secretary and Brian Swanson for Treasurer. No other nominations were made and the nominees were unanimously elected. Mike Kelly explained to the gathering that in nominating Chris Bader for Vice-president, he and others expected that Chris would be nominated to be president at next year's meeting. Mike is looking forward to stepping down as president.

Vicky Ausen is a Co-leader of Girl Scout Troop 1060 in Mira Mesa, a member of the Mira Mesa Town Council, Reflections Chairman in Challenger Jr. High's PTSA and a painting contractor by trade. She has been a member of the Friends for about 3 years and on the Board of Directors the past year.

Chris Bader is a high school math teacher in El Cajon, enjoys Tai Chi, and is a former professional golfer. He leads the tracking and mystery tree walks for the Friends, is a member of the Friends' Tracking Team and has been a member about 1-1/2 years; and a member of the Board of Directors for about a year.

Brian Swanson is well known to veteran members, having led our Bird Walks for 4-5 years. He's been a member for many years and on the Board of Directors for over 5 years. He's also the current president of the Canyoneers of the Natural History Museum, a highly respected group of docents that lead nature walks all over San Diego County.

The outgoing officers all remain as active members of the Friends Board of Directors.

Turtle presentation was great

The program for our annual meeting consisted of a talk by Jeff Lovich, PhD on the challenges facing the turtles of the world, both sea going and terrestrial. Lovich is the co-author of the new Smithsonian Press book *Turtles of the United States and Canada.* He showed knock-out slides of turtles from all over the world and gave a great talk on the habitats turtles live in. He explained why so many are endangered or soon to be and what can be done about it. The discussion was so long and spirited that the building supervisors had to evict us all! Members of the local Turtle and Tortoise Society were kind enough to bring living examples of the Western Pond Turtle and the invasive Red-eared Slider Turtle to the meeting which will help the Friends' wildlife survey and stream survey efforts. Several good contacts were also made with Western Pond Turtle experts who attended the meeting and are interested in helping with the Friends' turtle project.

Newsletter Submissions

Since we have no paid staffers *Canyon News* depends on our readers for articles. Our articles run the gamut from news about the canyon to poems to animal observations to hard science about a species or habitat and letters. If you would like to submit something for the newsletter here's how to do it.

Ideally we would like to receive your article on a computer disk accompanied by a printout. We can accept either Macintosh or IBM disks, 5-1/4 or 3-1/2 inch. The word processing program you use isn't important.

Stream Testing Underway

Mike Kelly

Our 1995 stream testing and survey program has been underway for two months now. The names of the many volunteers helping out on the surveys are listed in our "Volunteer Thank Yous" on p. 4 of this newsletter.

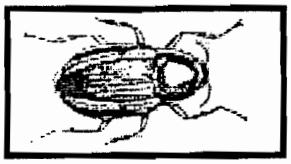
In September three teams spread out one Sunday morning to do a plant and animal survey of Peñasquitos Creek from the Poway and San Diego City limit line west to the I-15 bridge, the easternmost border (currently) of the Preserve. This complements last year's 7 mile survey of the creek from I-15 west to the I-5 and I-805 merge.

That same month volunteer teams went through a Friends' sponsored water testing training class for chemical testing of the creek waters. They then began a continuing testing program of different sites on the main creek, springs entering the creek and tributaries coming in from side canyons.

In October, volunteers underwent another training provided by the Friends in how to do a benthic organism survey. These are the macroinvertebrates (bugs, larvae, worms, snails, mussels, crayfish, etc.) that inhabit stream bottoms. It was great fun identifying these tiny critters,. More benthic testing will take place in coming weeks. The composition of these organisms in a stream tells a lot about the quality or the water and problems it may be facing.

After establishing benchmarks, we will be doing periodic testing, particularly after the first heavy rain of the year, at the end of the spring and during the drier summer months.

This testing will also allow us to have a benchmark comparison when unusual events occur, such as the gasoline leak into a creek that feeds into Peñasquitos Creek two years ago. To take part call me at 566-6489.



Riffle Beetle: Order Coleoptera. 1/4", oval body covered with tiny hairs, 6 legs, antennae. Walks slowly underwater. Does not swim on surface. Part of stream survey

From the Ranger

Volunteer Retreat

Senior Ranger Bill Lawrence

Any volunteer in Peñasquitos Canyon Preserve is invited to participate in an educational retreat scheduled for Nov. 18 and 19. This includes members of the Volunteer Patrol, the Friends and Docents of the S.D. County Archaeological Society in the Preserve.

The retreat will take place at Heise County Park near Julian. This is a spectacular setting for the retreat, in an area in the mountains nestled among the pines in the forest outside Julian.

Attendees are welcome to stay overnight the 17th and/or 18th in the cabin or to camp nearby. Alternatively, people can just drive up Saturday morning of the 18th for the day's activities.

The day will consist of field orienteering (map and compass), several lecture/slideshows and updates on park activities. A potluck will end the day. Call me at 538-2480 to confirm your participation.

In Memoriam

The Friends received a very generous donation from June Munnecke in memory of her late husband Victor Munnecke.
Mr. Munnecke enjoyed visiting the Preserve for many years.

Welcome New Members

Since March of this year the following list of folks have joined the Friends. We hope you're enjoying our activities and our newsletter. We, in turn, enjoy your support of our many conservation and other activities to protect the diversity of plants and wildlife in the Preserve and to make it an enjoyable place to visit. Call to let us know (566-6489, Mike) of any suggestions for improvements you might have.

Maureen Abare
Julie Adamik
Norman Anderson
Camille Armstrong
Jude Barnes
Helen Bates
Leona Biro
Koelle Bodhi
Deanna Brigham
Mr. & Mrs. David Carey
Nancy Carson
Michael Conaway
Eddie Crabtree
Wendy Dallas
George & Jan Daniels
Rick Eisenbart
Lisa Embree
Brad Fidel
Skip Forsht
Liz Gabrych
Vic Gerardi
Lloyd Green
Mike & Heather Guest
James Hannan
Douglas & Felicia Hansen
Chip & Nancy Hatch
Paula Lynn Hedrick
Jane Hess
Patty Heyden
Leo & Patricia Holland
Mark Holmes
Beverly Ingram
Charlie Jancic
Holly C. Jarratt
R. Jope
Debbie Kamers
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Cheryl Mason
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Monica Myers
Kathleen E. Nacey
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Josh Oliver
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Linda Pardy
Juliet Phillips
Bob Posik
John Quintero
Betty Rose
Clay Rubano
F. Lee Smith
Ron Spiewak
Judy Stafford
Dixie Stansell
Pamela Stubbs
Gail Summers
Tim Swift
Celia Taylor
Eric Thode
Tony Witinski
Emmet Wrixon-Becher

(Vernal Pools cont'd)

for the community of the next phase to develop. "Succession" refers to the growth and maturity of these communities. The growth of each community involves a series of steps, stages, or metamorphoses. Each stage creates a different community of cies with only some remaining from the former community. Succession seems to be a response to changing conditions. It offers more forms of life a chance to survive. For instance, plants will face s competition for pollinators if they develop and bloom at different stages of the vernal pool process. As each phase reaches its climax or maturation, conditions unfold which will be unfavorable for the growth of that phases own young, but favorable for the young of the community to follow. Overalluccession provides some measure of stability and homeostasis even under drastically changing conditions.

(Vernal Pools cont'd in next issue)

Friends of Los Peñasquitos Canyon Preserve, Inc.
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Friends' Directory

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President: Mike Kelly 566-6489
Vice-President: Chris Bader 593-1381
Treasurer: Brian Swanson 695-2209
Secretary: Vicky Ausen 271-9040

Other Members of the Board of Directors
Don Albright, Les Braund, Trinity Gabriel, Tom Hopp, Barry Martin, Alan Pepper, Ph.D., Brian Swanson,

Walks and Committees Leaders
Bird Walks & Gnatcatcher Survey: Brian Swanson 695-2209
Conservation Chair: Alan Pepper, Ph.D. 586-7123
Geology Walk Leader: Don Albright 443-7982
Hike Committee: Trinity Gabriel 672-0229
Medicinal Plant & Night Walks: Will Bowen 452-7091
Nature Walk: Les Braund 566-3958
Newsletter: Mike Kelly, Carla Scott, Vicky Ausen
Tracking & Mystery Tree Walks: Chris Bader
Vernal Pool, Fire Ecology & other walks: Mike Kelly
Wetlands Restoration Committee: Don Albright
Wildlife Survey Committee: Barry Martin (484-4007), Chris Bader, Rick Botta, John Fisher, Tarja Jacobsen, Lee Kirchhevel, Lindsey Kirchhevel, Erik Noreke, Lani Noreke, Susan Potts.

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 (call me to discuss)
____ Hikes
____ Indian Culture **11/95**
____ Educational Workshops
____ School, Family, Youth Programs
____ Environment (Plants, birds, mammals, geology)

Other: _____

Name(s) _____

Address _____

City State Zip _____

Home Phone _____

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