

We've got connections

Keystone predators of the Extension

By Patricia Masters

Soft drumming calls rise from the ravines and reverberate through the twilight. The hunt is about to begin. Soon, Lesser Nighthawks—wing patches flashing white—flit across the dim sky in search of insect prey. Darting above the chaparral, their primal dance enralls us on spring evenings as we stroll the Extension's upper trails.

Yet the Lesser Nighthawk is one of an increasingly rare cohort—birds and animals of the coastal sage scrub and maritime chaparral. These habitats, reduced to small isolated patches by urban development in coastal southern California, are hard to find. Torrey Pines State Natural Reserve is one of the few remaining patches, and its 168-acre Extension, on the flanks of Los Peñasquitos Lagoon, is its most remote area.

As part of our continuing series on the Extension, we take a look at the surprisingly wide (and wild!) range of animals that make a living here thanks to *connectivity*—connections between these wild places that promote the greater dispersal (and survival) of species.

When conservation biologists evaluate the health and stability of wildlife in a natural area, they focus on carnivores. Large- to medium-sized carnivores are especially sensitive to habitat fragmentation because they need big home ranges. When those ranges occur within the boundaries of a city, as at Torrey Pines State Natural Reserve,

the health and balance of the entire faunal community can be in trouble. How are we doing at the Reserve and the Extension?

Many answers and recommendations came out of a 1997 study by Kevin

“The pressing question is the degree of connectivity between Torrey Pines State Reserve and other natural areas—which corridors are still functional and what types of animals move through them.”

Kevin Crooks

at Colorado State University, Fort Collins. Kevin surveyed the abundance and distribution of large- to medium-size mammals within Torrey Pines State Reserve. His study spanned a two-year period from 1995 to 1997 as part of a larger report on habitat fragmentation in southern California. In particular, he was interested in the balance between keystone predators and mesopredators.

Keystone predators are mountain lions, coyotes, and bobcats.

Smaller predators (mesopredators) include fox, striped skunk, raccoon, and opossum. Domestic dogs and cats, too, are classified as mesopredators.

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Dr. Lloyd Glenn Ingles © California Academy of Sciences

Clockwise from top, California Quail, Coyote, Wrentit



past

present

future



President's Message

Closing the Reserve?

The next few months may provide some answers

The distress felt by all of us in the Torrey Pines Association has been palpable during the last few weeks of late May...and well into June. As we go to press, the outcome of California's budget battle is very much in doubt. Yet one thing seems almost certain: the state parks are in deep trouble and Torrey Pines State Natural Reserve might not remain open past Labor Day (September 7). Without 50% of parks' support from the General Fund, or a new source within the state budget, the Reserve will most likely go into "mothballs" in terms of law enforcement and maintenance. The Lodge will close. The restrooms will close. The parking lots will close.

A Reserve is a sanctuary, and must be treated like a museum. Without rangers, Torrey Pines will be subject to misuse, and—at worst—criminal mischief. Who knows what will happen? The situation is unprecedented.

Is there a solution? For awhile the California State Parks Foundation championed the novel idea of a State Parks Access Pass. By paying an additional \$15 annually on non-commercial license fees, Californians would receive free day-use access to the entire state park system. This is potentially a great, great deal for those of us who use our state parks. Tens of millions of Californians annually rely on state parks for outdoor recreation and vacations, and the numbers are growing rapidly. Times are tough economically, so a high-value, low-cost vacation or day trip (often in your own "back yard") has become very appealing.

The Access Pass is a dedicated funding source for a state park system that was long ago trimmed (in my opinion) of wasteful spending and/or pork barrel projects. The money would be used to "keep us where we are" in terms

of park operations, which is already fairly minimal in terms of staffing and maintenance (hence the importance of support organizations such as Torrey Pines Association). But to many, the Pass is another tax. It failed a vote in the Assembly in late June. It might be enacted via a "work around," but the Governor will probably veto it.

In short, we can't pin our hopes on this. To learn more about this almost-daily soap opera, go to www.calparks.org.

Our best bet is to have the state legislature recognize that "saving" \$143 million of the state's General Fund by closing parks is offset by the estimated \$4.2 billion in annual positive economic impacts that state parks have on local, regional, and statewide economies. The old phrase, "penny wise, pound foolish" comes to mind. The state must make this investment, and find its budget cuts elsewhere.

If the Access Pass or other state funds are not part of a solution for the Reserve, then TPA as a supporting organization will need to help close the budget deficit for the Reserve. We will search for ways to attach "added value" to our membership levels. We will explore other private sector sources of support for the Reserve. Our predecessors in years past weren't afraid of challenges (i.e. fundraising to save the Extension!), nor should we be. ✂

—Peter Jensen



Herb Knufken

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Editor: Peter Jensen, TPA

Art Director: Karin H. Wilson, Wild Woman Design, Del Mar

Contributors: Kevin Crooks, Robert Horstmann, Peter Jensen, Herb Knufken, Patricia Masters, Barbara McCabe, Charles Smith, Karin H. Wilson

Torrey Pines Association

P.O. Box 345
La Jolla, California 92038
www.torreypines.org

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TPA Board meetings: last Thursday of every month at 6:30 p.m. at the Lodge.



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JOIN THE PARTY WHEN
TORREY PINES
EXTENSION CELEBRATES
ITS 35TH BIRTHDAY!

It's been 35 years since the successful conclusion of a grassroots fundraising campaign in 1974 that saved this land from development, and led to the Extension's incorporation into the State Reserve.

To celebrate this historic conservation victory, the Torrey Pines Association (TPA) and Torrey Pines Docent Society (TPDS) will host an

Extension birthday party

on the grounds of Del Mar Heights Elementary School
Saturday, Aug. 22, 2009, 9 a.m. to 12 noon

The school, which is located at 13555 Boquita Drive in the Del Mar Heights neighborhood of San Diego, overlooks the 168-acre Extension, a pristine landscape of rugged ridges, smooth sandstone domes, and deep ravines that is home to some spectacular specimens of native Torrey pine trees and at least 20 other species of rare and endangered native plants not found in the main Reserve.

Residents of the surrounding community (and all of San Diego) are invited to take part in the celebration honoring the vision and dedication of the community activists who

successfully campaigned for the preservation of this land on the north side of the Los Peñasquitos Lagoon.

Activities will include...

Scavenger hunt, art activities, a photo contest for children in grades K-6, owl pellet dissections, and live animals.

Exhibits by Project Wildlife, Sky Hunters and the California Native Plant Society will introduce residents to some of the animals and plants found in the Extension. Representatives from Backyard Habitat will demonstrate landscaping techniques residents can use to attract birds, butterflies, beneficial insects and small animals into their gardens. Exhibits illustrating techniques for reducing water use, controlling runoff, composting and mulching will also be featured. A free raffle for donated landscaping and irrigation equipment will be held. Awards will be presented to residential landscapes in the vicinity of the Extension that best exemplify habitat-friendly design.

For details and updates, go to www.torreypines.org.



Charles Smith

World Environment Day at Torrey Pines



Jason Yano



Takeda San Diego, a pharmaceutical research and design firm, donated 100 employees to help with TPSNR's native plant restoration project along Carmel Valley Road on the morning of June 4th, World Environment Day. According to Keith P. Wilson, TSD President and chief science officer, "We are pleased to add Takeda's support to the efforts underway to help preserve one of San Diego's environmental treasures." Thank you, TSD volunteers! ✂

Peregrine falcons double their success in 2009

The Guy Fleming Trail resonated with the calls of Peregrine falcons in early June as four new fledglings took to the skies. When two falcons fledged last year, 2008 marked the first documented nesting of Peregrines on the sea cliff in recent memory of Docents and other birders. This year the quartet quickly claimed the highest branches on Torrey pine snags above the trail—ever alert for a parent bird bringing in a meal. Lucky hikers saw them chase and swoop overhead. In July they typically disperse to make their own way in the world.

The fierce and graceful Peregrines! Another natural wonder in this treasure called Torrey Pines State Reserve. ✂



Lesser Nighthawks hunt after sundown in the Extension. Their cryptic plumage disguises them among the pebbles. Ground-nesting species like Nighthawks and California Quail are especially vulnerable to roaming housecats and unleashed dogs. It is a treat to see and hear them on the coast because loss of sage scrub habitat has made them rare.

The Spotted Towhee, a year-round resident, is one of 36 bird species identified in the Extension, thanks to observations by Will Cox and compilation by Kathy Estey, both docents at TPSNR. Other colorful visitors to watch for in the spring: Ash-Throated Flycatcher, Ruby-Crowned Kinglet, and Orange-Crowned Warbler.

Although still rich with wildlife, the Extension is a "victim" of mesopredator release

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Because large predators require tens to hundreds of square kilometers for their home ranges, Kevin also looked at functioning wildlife corridors—the natural routes that connect the Reserve to suitable habitats outside its boundaries.

“Where functional movement corridors are not retained across the urban landscape, many wildlife populations, especially large carnivores, will eventually disappear.”

Community effects: housecats, coyotes and mesopredator release

The disappearance of top predators (mountain lions, coyotes, bobcats) from native habitat patches can affect the entire community. Large carnivores prey on and compete with smaller carnivores. In doing so, the large predators also can affect the relative abundance of prey species.

For example, the decline of coyotes in an area may lead to the increase of small predators such as gray foxes, raccoons, striped skunks, opossums, and domestic cats. Whereas coyotes prey primarily on rabbits and

rodents, the smaller carnivores tend to prefer birds and other small vertebrates. Thus, the disappearance of large predators from an area can result in “mesopredator release”—an increase in smaller carnivores that in turn puts greater pressure on birds and reptiles, many endangered.

So what does this mean for the Reserve? Kevin’s surveys focused on the carnivores in various parts of the Reserve and the Extension.

Tracking the carnivores

Field biologists rely on tracks, scat, and questionnaires (where human neighbors are available). Kevin’s track and scat surveys revealed similar trends. Coyotes (283 total scats) were by far the most abundant, followed by bobcat (67), and fox (48). Tracking data confirmed coyotes (281) and bobcats (46). Evidence of mesopredator visitations was also abundant: skunks (122), opossum (27), raccoon (24), fox (21), domestic dog (71), and domestic cat (5). His surveys, however, turned up no evidence of mountain lion visitations.

Bobcats: Although bobcats were found most frequently in the Main Reserve and along the eastern edge of the Lagoon, occasional visitations were documented in the Extension.

Coyotes: The Extension population appeared to be divided into two groups—one at the north end and the other along the Red Ridge Trail to the south.



Herb Knutken



Robert Horstmann



Robert Horstmann



Robert Horstmann

California Quail, Western Fence Lizard, and Great Horned Owl are native to the Extension.

Smaller carnivores: Mesopredators tend to be associated with degraded habitats and were more prevalent in the Extension and Los Peñasquitos Lagoon. *Foxes* were most abundant in the Extension, Crest Canyon, and around the golf course. *Striped skunks* were widely distributed, but were most common in the Lagoon and the Extension. *Raccoons and opossums* were found in the Lagoon, Extension, and golf course areas with few visitations to the Main Reserve. *Domestic dogs* were found in the Extension, Crest Canyon, and the Lagoon. *Domestic cats* only visited the urban edge of the Extension.

Sensitivity to habitat fragmentation

The results of Kevin's carnivore surveys fit well with biologists' expectations. Mountain lions, bobcats, and spotted skunks are most sensitive to fragmentation and are lost from small habitat patches. On the other hand, fox, opossum, raccoon, striped skunk, and domestic cat populations increased in a small fragment such as the Extension.

Of special interest to the Extension is the correlation between coyote abundance, fragment size, and the occurrence of mesopredator release. Coyotes help control cat numbers (as distressing as this may sound to housecat owners) through predation, as shown by cat hair in coyote scats. Extrapolating from homeowners' questionnaire responses and other data, local cats may be killing hundreds of prey each year, many of which are native birds and lizards.

The decline of coyotes in an area may lead to the increase of small predators such as gray foxes, raccoons, striped skunks, opossums, and domestic cats.

Wildlife corridors

Keeping the Reserve safe for wildlife means maintaining linkages that allow large carnivores to cross barriers such as roadways and developments. These linkages are called wildlife corridors and they must fulfill several needs in order to function. First, the corridor must link two or more patches of isolated habitat. Second, the corridor must conduct animals to areas of suitable habitat without excessive risk of mortality. Third, its design must allow individuals of the species of interest to move through it with sufficient frequency to maintain demographic and genetic exchange. See aerial photo next page.

Kevin found three functional corridors consistently in use by deer, bobcat, and coyote during the period of his survey: Sorrento Valley, Portofino, and Pacific Coast Highway.

The Portofino Corridor begins at the southeast corner of the Extension, goes across Portofino Road and Carmel Valley Road, and ends at Los Peñasquitos Lagoon. Coyotes, foxes, and occasionally bobcats use this corridor, although there is no evidence that mule deer and mountain lion do.

Cassin's Kingbirds are now a common year-round resident because they nest high in large non-native trees, which are supplanting sage scrub habitat in residential developments around the Extension.



Herb Knutken

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Dr. Lloyd Glenn Ingles © California Academy of Sciences

We've got connections

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As recommended by the 1997 Wildlife Management Plan for the Reserve, the Portofino Corridor (see map below) is the best linkage from the Extension to larger natural areas, and it is imperative to maintain and enhance this functional corridor.

The open space link at the northeast junction of Portofino and Carmel Valley roads should be protected. Any widening of Carmel Valley Road should incorporate a structural wildlife corridor to allow interchange between Los Peñasquitos Lagoon and the Extension.

Other things we can do

Keep housecats in the house. Populations of ground-nesting birds such as the Lesser Nighthawk and the California Quail can be devastated by housecats.

Appreciate the role of the large carnivores in the balance of nature. These beautiful animals

are now refugees in what was once their home range. If pets are not allowed to wander in the Extension, they will stay safe and so will the wildlife.

Remember that removal of wildlife and soil, off-trail hiking, mountain bike riding, trampling sensitive vegetation, dogs running unleashed, and introduction of exotic seeds to feed the birds are all undesirable activities in the Extension.

For more information...

The text of the Wildlife Management Plan for Torrey Pines State Reserve is available on the TPA web site at www.torreypines.org/1_current/current.html. 🦋



Kevin Crooks

Kevin Crooks inspecting a track station (above). Bobcat with prey and two coyotes (below right) caught by remotely triggered cameras.



The Portofino Corridor connects the southeastern tip of the Extension with the lagoon. Wildlife must cross both Carmel Valley Road and Portofino to move between the Extension and larger patches of the Reserve. Red lines = Reserve boundaries.



Kevin Crooks



*Sizzle in the Drizzle -
Friends of Torrey Pines
Rally (and rake)
for the Reserve*

With Torrey Pines State Natural Reserve and State Beach – and 218 other state parks – facing closure at the end of the summer, this high-spirited group gathered along

Carmel Valley Road on June 20th to urge the Legislature to keep parks open. Waving SOS Parks signs and chanting “Save our Parks!” our message to Sacramento urged the adoption of the State Parks Access Pass, which would fund parks through a surcharge on the vehicle license fee.

Many people asked, What would park closures mean? Not only losing public access to wonderful natural, cultural, and historic resources, but loss of revenues from park visitors. A recent report by California State University, Sacramento found that park users, on average, spent \$57.63 per visit. Across the system, this amounts to a more than \$4.2 billion in positive economic impacts – impacts that would be lost if state parks are closed.

Also, no regular ranger or park employee presence will lead to increases in vandalism, poaching, and other illegal activities. Historic structures such as the Lodge will be threatened. At the State Beach, loss of lifeguards will mean loss of life!

Over 200 signatures gathered on petitions and postcards were express mailed to Sacramento. Media coverage resulted in statewide publicity for keeping Torrey Pines open.

Demonstrating their support, dozens of volunteers joined the work party to restore native plants along the lagoon. ✂



PHOTOS BY HERB KNUFKEN



Who we are...
www.torrey pines.org

The Torrey Pines Association was founded in 1950 to encourage public interest in, and support for, the preservation of the rare Torrey pine trees and their native habitat at Torrey Pines State Reserve.

Since then it has played an active role in:

- achieving State Reserve/Preserve status
- assisting in the acquisition of additional acres of native trees
- funding educational exhibits
- publishing informational and educational materials
- managing memorial funds
- renovating the Fleming house for use as an on-site ranger's residence
- monitoring the overall welfare of the site

We invite you to join with us in our ongoing efforts to preserve and protect the rare Torrey pines and their scenic refuge by becoming a member.

Please visit our web site or contact us by mail for more information on membership levels. We also encourage contributions to the Torrey Pines Reserve Endowment Fund. Donations will help protect and preserve the Reserve—a lasting legacy! Contact endow@torrey pines.org.

TPA *Journal*

past

present

future

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Torrey Pines Association
P.O. Box 345
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Karin H. Wilson



SIO Communications

Ellen Revelle and Al Gore at the Roger Revelle Centennial, SIO, in March

Another great lady named Ellen

A remarkable and generous woman, Ellen Clark Revelle died last May but left a legacy of philanthropy and activism similar in many ways to her great aunt, Ellen Browning Scripps. Torrey Pines State Reserve owes its existence to the foresight and generosity of Ellen Browning Scripps, who bequeathed her holdings on these bluffs to the City of San Diego to

preserve the trees and the region's scenic beauty.

Ellen Revelle also treasured this Reserve and was a Life Member of the Torrey Pines Association. With a generous donation in 1994, she underwrote the publication of TPA's iconic book, "Torrey Pines: Landscape and Legacy." Both the Association and the Reserve have lost a great friend. ✂

Planned Giving - Your Legacy at Torrey Pines

We certainly live in interesting times ... the possible closure of state parks due to budget shortfalls, the uncertainty of General Fund support in future budget years, the growing backlog of deferred maintenance in state park facilities. There is, however, a solution for Torrey Pines State Natural Reserve. Several years ago, the TPA and the Torrey Pines Docent Society funded an endowment, designed to provide support for this unique and scenic habitat in perpetuity. Although the endowment will have to grow

many-fold in order to match state support for the Reserve, that goal is achievable through the dedication and generosity of our donors.

TPA Life Member Jewell LeGrand bequeathed nearly \$300,000 to this dream. Another Life Member, who wishes to remain anonymous, has named the Torrey Pines Reserve Endowment as a beneficiary of his retirement plan. These are people who cared deeply about the natural wonders of Torrey Pines and its rare plant and animal communities. Their desire to

help preserve this island of wilderness may inspire others to consider a planned gift.

There are many different ways to make an estate gift. Please contact us at endow@torrey pines.org if you would like to discuss options that might work for you.

— Patricia Masters

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