



Volume 4, Issue 1 Summer 2004

A Publication Of The San Diego National Wildlife Refuge Complex

# NOTES FROM THE REFUGE



## *Around The Complex*

**Slader Buck**, Deputy Project Leader, San Diego NWR Complex

There are expressions that one seems to hear frequently. One is an old but often heard quote having to do with change. Paraphrased it goes something like: "The only thing that remains constant is change". This is certainly true in government and in the National Wildlife Refuge System in particular. And, for the next couple of years we are going to be seeing a lot of change within the San Diego NWR Complex.

The biggest change that we are going to be living with is an overall decrease in our operating budget. Although it may not seem like it we have been living in pretty good budget times. However, for the immediate future our Complex and many other refuges will have to do "less with less". Recognizing that that we have a **lot** of important work to do on the ground the question quickly becomes – how do we take care of our wildlife and the land? Basically, we will be making some hard decisions on what we must do and what we can wait on doing.

But, it's not all sobering news. One area that we believe will retain strong support is our volunteer programs. Our volunteers already do an amazing amount of important work. (see John Bradley's article in this newsletter). We are not going to look to volunteers to pick up the slack of what refuge staff should do, but we hope to be able to provide funding for special volunteer projects. This year we were fortunate to complete the Seal Beach Friends native plant garden and are looking forward to other volunteer projects.

And, of course, our Friends' Groups combined with the National Wildlife Refuge Association continue to advocate on behalf of the Refuge System. So, stay tuned and with your help, good things will happen on the "dirt." 

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# Conservation Biology News:

## THE TRILATERAL COMMITTEE FOR WILDLIFE AND ECOSYSTEM CONSERVATION AND



Photograph by Adam Paul

*Brian Collins, Wildlife Biologist  
Coastal Refuges*

The Trilateral Committee for Wildlife and Ecosystem Conservation is comprised of natural resource professionals from Canada, Mexico and the United States. It was established in 1996 to facilitate and enhance “cooperation and coordination among the wildlife agencies of the three nations in projects and programs for the conservation and management of wildlife, plants, biological diversity, and ecosystems of mutual interest.” The structure of the committee is based upon a series of working tables. Each table addresses specific issues and concerns and proposed action items, then produces a list of recommendations for approval by the Executive Table, which is composed of top-level agency representatives from the three countries. The various work tables include: Migratory Birds, Shared Species, Law Enforcement, Ecosystems Conservation, Convention on International Trade in Endangered Species and Wild Fauna and Flora, or CITES ([www.cites.org](http://www.cites.org)), and others.

Two members of FWS staff in southern California attended the recent annual meeting of the Trilateral Committee held in Calgary, Alberta, Canada in mid May. Annie Little, who works in the Contaminants Branch of the Carlsbad Fish and Wildlife Office, presented a proposal to initiate cross-border collaboration with Mexico to extend seabird restoration project work to islands in Baja California, Mexico. This collaboration would utilize portions of the “Montrose Settlement,” monies to redress injury to seabird populations due to the effects of DDT contamination in near shore waters in southern California. ([www.darcnw.noaa.gov/montrose.htm](http://www.darcnw.noaa.gov/montrose.htm))

I attended the meeting to represent the Light-footed Clapper Rail Captive Propagation Protocol Develop-

ment Program and repeated a request introduced last year for help in establishing cross border coordination for a U.S./Mexican census of the rail in Baja, as well as a request to import a limited number of fertile eggs to the U.S. from marshes in Mexico over a five year period. Dr. Ernesto Enkerlin of the Mexico delegation made recommendations to the U.S. delegation on how we might continue our efforts most effectively. The eggs would improve the biological diversity of rails being raised in the captive breeding program at Sweetwater Marsh NWR/Chula Vista Nature Center.

We also made a request to the Ecosystems Conservation Table to formally recognize and support efforts to develop more effective conservation coordination work between the FWS Carlsbad Field Office and Terra Peninsular, a Mexican non-profit organization. Several draft proposals to provide various types of technical support to conservation efforts in Mexico were prepared by staff from the Carlsbad FWS office. These were distributed to the table with a proposal to present specific collaborative project ideas for consideration by the Committee at the next Trilateral meeting.

We then provided preliminary informational materials on a series of projects and proposed collaborative efforts that the FWS Refuges office in San Diego has been either directly or indirectly involved with in partnership with National Estuarine Research Reserve staff and other conservation organizations at the Tijuana Estuary. Ideas include the development of “sister protected areas”, expansion of the National Estuarine Reserve System (NERRS) into Tijuana, watershed-based cross border planning, and establishing Ramsar ([www.ramsar.org](http://www.ramsar.org)) designation for certain wetlands in Baja and Alta California.

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# Fiesta del Rio: Where Nature and Nations Meet

## *Celebrating the Cultures of the Tijuana River Estuary*

Anne Marie Tipton  
Education Coordinator  
Tijuana Estuary

When three cities, two countries, and one people join together for a three-day cross border cultural celebration, you have a unique event. Fiesta del Río 2004 was the first annual celebration of the peoples, cultures, history, and environment of the San Diego/Northern Baja region surrounding the Tijuana River Estuary, an area that in the past has been home to Kumeyaay, Spanish and Californio cultures.

The Fiesta was first developed to commemorate the Portolá Expedition that camped in the Tijuana River Estuary on May 13, 1769, marking the Spanish expansion into what now comprises the San Diego/Tijuana metro area. The Fiesta celebrated the heritage, pride, and cultures of Mexico and the United States in a series of activities.



Actors present *Expedicion a la Alta California*

On Friday, May 14, Tijuana's Civic Plaza featured a community stage with Kumeyaay, Spanish, Californio and modern Ballet Folklorico performers as well as other activities for adults and children throughout the afternoon and evening.

The following day, Imperial Beach hosted a variety of entertainers at the Imperial Beach Plaza; tours of the Estuary provided by Old Town Trolley Tours, booths staffed by U.S. Fish and Wildlife, California State Parks, Friends of San Diego Wildlife Refuges, and art and handicraft from our Kumeyaay neighbors in Mexico, and other environmental agencies and event sponsors. In the Tijuana River Valley later in the afternoon, the County of San Diego hosted an old-fashioned BBQ and entertainment featuring trick horseback riders and fancy roping at the County's native plant garden and visitor center off of Hollister Street. Sempra Energy and the Southwest Wetlands Interpretive Association sponsored the Imperial Beach events.

On Sunday, May 16, 2004, the City of Tecate hosted dancing, the booths of community partners and day-long entertainment in the City's historic tree-lined plaza. Earlier in the week, a conference at Southwestern College was held in which experts from the fields of archeology, anthropology, biology, geography and other disciplines presented papers on topics relating to the Tijuana River Watershed, its



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There were discussions at both tables regarding the need for protection of wetlands in Baja California that have many of the same ecological constituents as those in southern California, but are not as threatened as those in the U.S. Our Mexican colleagues noted that a formal management plan for Bahia San Quintin is needed.

The potential for additional collaborations exist for a number of projects that could include a management plan for the San Quintin wetlands; a sister-protected area designation for wetlands (or other habitats) in two or more of the three countries; the potential for a Ramsar designation for the coastal wetlands in the Southern California Bight, as well as management of shared species such as protecting eelgrass beds in San Quintin for black brant or collaborating with Mexico on light-footed clapper rail management throughout its range.

These proposals would either continue programs already begun or develop new relationships with appropriate counterparts in Mexico to allow scientists and conservationists on both sides of the border to more effectively conserve our shared species. Projects such as GIS-based habitat mapping, planning for watershed management, development of sustainable economic models for at-risk communities of wildlife and people in Mexico, seabird restoration work, improved wildlife and harvest surveys, and other projects were discussed.

For more information on the Trilateral Committee and to view a draft summary of the recently completed 2004 meeting that includes action items and Table recommendations for 2004, please visit the following web site: <http://www.trilat.org>.

*The Sonoran Joint Venture*

In April of this year, southern California was included in another important wildlife conservation project, the Sonoran Joint Venture. This is an existing and very effective governmental/private partnership to conserve wildlife and habitat in the Southwestern United States and northwest Mexico. For more information, go to their website at [www.sonoranjv.org](http://www.sonoranjv.org) 

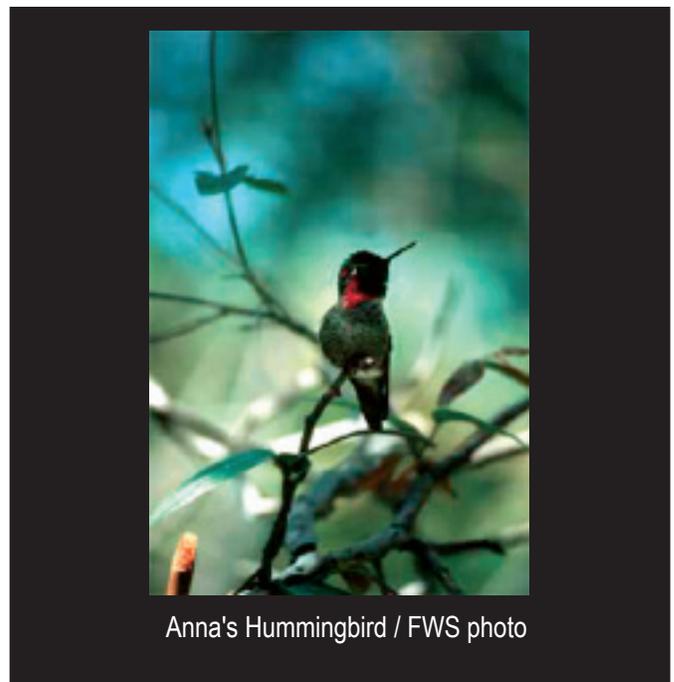
Fiesta del Rio *(cont. from page 3)*

peoples, possibilities, history and the immense challenges and opportunities for those who live along its borders.



*Event Partners and Sponsors Booths*

With a lot of help from our partners in the community, the three-day event was an unqualified success and planning has already begun for next year. 



Anna's Hummingbird / FWS photo

# "The Pack Test"

## Ensuring Wildland Firefighter Safety



### *What is the Pack Test?*

The Pack Test refers to work capacity tests used to qualify individuals for the three levels of wildland firefighting duty:

- Arduous
- Moderate
- Light

The Pack Test measures:

- Aerobic capacity
- Muscular strength
- Muscular endurance

All wildland firefighters must meet minimum levels of fitness requirements for the type of duties they are assigned:

**Arduous:** involves field work calling for above-average endurance and superior conditioning. All firefighters are required to perform arduous duty.

**Moderate:** involves field work requiring complete control of physical faculties and may include considerable walking, standing and lifting 25-50 lbs. Safety officers and fire behavior analysts are examples of moderate duty positions.

**Light:** involves mainly office-type work with occasional field activity. Examples include: staging area and helibase managers.

Testing wildland firefighters for work capacity is important for several reasons:

- Personal safety and health
- Coworkers safety
- Improved operations

### *About Arduous Work*

Wildland firefighting demands a high level of fitness to safely perform physically demanding work in difficult environments.

Firefighters, strike team leaders, line scouts, and others assigned arduous duty must be prepared to work in steep terrain, and in extreme temperatures, altitude, and smoke-while maintaining reserve work capacity to meet unforeseen emergencies.

Prior to reporting for work, applicants are strongly encouraged to train for arduous-level work capacity.

### *"Pack Test" Training*

Training for the Pack-Field-Walk test is important. Start training at least 4-6 weeks before you are scheduled to take the test. To be in shape for work duty, you may want to train in the footwear or boots you will wear on the job. Footwear should be ankle high and protect the ankles.

Begin training before you report for work. Start by walking. Train for the test level you will need to pass for the duties you will be required to perform.

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# Tractor Training:

Don L. Brubaker, Assistant Manager  
San Diego National Wildlife Refuge

## Knowing a tool of the trade

In the early 1900's, a person applying for a job in natural resources found on the application they had to demonstrate the ability to load, aim, and accurately fire a rifle from the back of a galloping horse. If practiced today this activity would undoubtedly make for some rather newsworthy events in refuge law enforcement. When the Refuge System was young, resource managers were made up of people who grew up on farms and cattle ranches, and were Jacks-of-all-trades. Indeed, the operation of anything from horses to farm machinery was a fact of growing up and a handy experience to have in refuge management. Today, resource managers and the men and women who work on our National Wildlife Refuges are more often from cities or urban environments where growing up on the seat of a tractor has been replaced by a seat in front of a computer.

Refuge management often involves the manipulation of the land to either protect resources or recover them. Farming is certainly a form of land manipulation, however, the tools used are applicable to refuge

management for resource protection, or recovery of land to a more natural condition. Members of the San Diego National Wildlife Refuge Complex Fire Engines, Wildland Urban Interface, and San Diego Rural Fire partnered to attend tractor operation and maintenance training. On 10 and 11 May, 2004 Marcos Orozco, instructor/operator of heavy equipment and collateral duty law enforcement officer (remember that Jack-of-all-trades thing?) out of the Salton Sea National Wildlife Refuge Complex, came to train and certify future tractor operators on San Diego National Wildlife Refuge.

Today, resource managers and the men and women who work on our National Wildlife Refuges are more often from cities or urban environments ...

The U.S. Fish and Wildlife Service has strict guidelines on the operation and use of specialized equipment as this machinery can be dangerous to the operator or those nearby if used improperly. Additionally, the expense to have a poorly operated and maintained piece of equipment could be, well, taxing to us all to say nothing towards the damage inflicted to the environment.

Training involved classroom and field familiarization with components and features of the John Deere 5310 used by the Refuge Complex and Rural Fire. Classroom instruction included safety, operation, and maintenance for the 5310. Indeed, the little 5310 can be fitted with up to 10 different implements ranging

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Marcos Orozco, Heavy Equipment Specialist, Salton Sea NWRC, watches Javier Saldivar, Firefighter, San Diego NWR place a boulder during tractor training and certification.

*Photo by Don L. Brubaker,*

# Habitat Heroes: The return of the natives

*Barbara Simon*

Opportunities for education and outreach programs are constantly coming our way from private as well as public sources, to say nothing of the many ideas generated at the national level of the Fish and Wildlife Service. Seldom, however, do these programs also come with funding for teachers, staff or materials.



Taking a tour of the site

Habitat Heroes, our curriculum devoted to teaching students about exotic plant species and how they impact our incredible biodiversity in San Diego, is an off-shoot of one program, sponsored by the National Wildlife Refuge Association (NWRA), that did come with such funds. Evan Hirshe, the President of the NWRA, approached us over two years ago with the idea that San Diego could develop a GIS exotic species mapping and restoration program at the elementary school level that would become a model for the nation. We invited many of our partners from elementary to junior college to help us develop a strategy and curriculum, and everyone was excited by the opportunity to put this mentor/volunteer based program on the ground at our south bay refuge. When funding fell through, Leslie Reynolds who was a former Director of Communications at San Diego State University and one of our great volunteers, refused to let the idea go and began to look for funding.

When the refuge complex was given funds specifically to be used for invasive species removal, restoration and education, Mendel Stewart, San Diego's Project Leader, gave the funds to the Habitat Heroes Program. And so far, it's a winner!

From January to June of this year, two hundred twenty Emory School elementary students in South San Diego had an unparalleled opportunity to contribute to and benefit from understanding the diverse habitat and species of the South San Diego Bay National Wildlife Refuge. This region has a higher degree of biodiversity than anywhere else in the continental United States, but is losing species faster than any other region.

Under the guidance of environmental educators, classroom teachers, U.S. Fish and Wildlife Service staff, volunteers and restoration experts, students mapped, removed exotic plant species and planted over 300 plants and seeded a one acre site in order to restore the area to native habitat.

Participants in Habitat Heroes learned about the many endangered and threatened animal and plant species that depend on a healthy watershed and intact native habitat to survive.



One of the many works of art/poetry/science that students created describing the refuge and their stewardship of it.



Explaining projects to parents

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## Tractor Training *(Cont. from page 6)*

from augers to mowers, and from scoops to sprayers. Fortunately, not all at once.

Field training and exercises included hands-on inspection and manipulation of components and features coupled with . . . oh, yeah, actual in-the-seat operation of the tractor! Through Marcos's tutelage, operators learned how to scoop-up, transport, and dump boulders and loose material. Additionally, as the 5310 is used for recovery activities for endangered Otay Tarplant (*Deinandra conjugens*), proper use and operation of the mowing attachment was exercised. No, Otay Tarplant is not mowed, the invasive exotic vegetation that chokes the species out is however.



Using the mowing attachment, the San Diego NWR's John Deere tractor helps recovery efforts for Otay Tarplant (*Deinandra conjugens*).  
*Photo by David Griffin*

Management of the natural resources within our National Wildlife Refuges includes people from a wide variety of backgrounds and life experiences. Through quality training and the sharing of experience among managers, equipment operators, biologists, and refuge officers the National Wildlife Refuge System will provide and maintain a fine cadre for the management and protection of the Nation's refuges. 

## Habitat Heroes *(Cont. from page 7)*

In the process, they identified what everyone can do every day to help keep our wetlands, rivers and oceans clean, and how native habitat can be conserved and restored. They will communicate the information gathered to the community through posters, flyers and their individual and classroom projects.



Showing sustainable building materials

Next year, over 600 students from one south bay school will participate in the program. Habitat Heroes is currently funded through the San Diego National Wildlife Refuge Complex and sponsored by the Endangered Habitats League, City of Imperial Beach, and Friends of San Diego Wildlife Refuges.

All of our partners support the HH program and are looking for funds to move it into even more of a community-based activity. Wildcoast International, in addition to classroom visits in order to teach students about the Pacific Green Sea Turtles that live in our bay, is working to partner with us on a much larger grant that will fund not only Habitat Heroes, but our South Bay Environmental Partnership. The Partnership currently involves Friends of San Diego Wildlife Refuges, Endangered Habitats League, Tijuana Estuary Education programs, Chula Vista Nature Center curricula, and our own Sweetwater Safari. Within this partnership, we hope to reach the very large Latino communities of the south bay, as well as our more traditional audiences, with our conservation message.

For now, we're concentrating on just one more year. In September, funding from the south bay schools will enable us to add an environmental art component to Habitat Heroes so that all students can contribute to making their National Wildlife Refuge truly viable for the many thousands of species that call it home. 

# SEAL BEACH FRIENDS NEVER CEASE TO AMAZE!

*John Bradley, Manager, San Diego National Wildlife Refuges*

The Friends of the Seal Beach NWR have been very busy helping their refuge manager but much of this assistance has occurred off the refuge.

A small cadre of Friends, with Tim Anderson at the helm and ably assisted by Lori de la Cuesta, Patti Smith, Ada Bosnjak, Karen Morey, Shirley and Mark Beaty, John Fitch, Rudy Vitmeier, Esther Cummings, and Doris Bryce, have been visiting local schools to teach kids about the important role of national wildlife refuges, and the Seal Beach refuge in particular, and how they can help protect our nation's natural heritage. The outreach endeavor grew out of their Centennial Caravan project and the post-September 11th security precautions that made public access on to the Seal Beach NWR more difficult.

Even though the popular monthly refuge tours were re-started as the Navy enhanced its security protocols to deal with the reality of political terrorism here at home, the Friends vamped up their off-refuge education outreach capabilities. They modified the video and educational materials they had created for last year's caravan journey up and down the Pacific Flyway; they invested in an additional costume for entertainment--the blue goose now keeps company with a shorebird sandpiper; and created another children's skit complete with honks and peeps.



Announcements were mailed out to schools and extra-curricular clubs all over the Los Angeles and Orange County metropolitan areas, letting teachers know of the Friends' availability and willingness to travel to their sites. The requests soon came, and to date the Friends have visited 22 schools, presented to groups at 14 separate public events, and reached 4,500 people of all ages. Among the schools visited were St. Francis Xavier Elementary in Burbank, Murdy Elementary in Garden Grove, McGaugh Elementary in Seal Beach, St Anthony's Elementary in El Segundo, Lynwood High School in Lynwood, and Orange Coast College in Costa Mesa.

One exciting event was the recent Water Festival of Orange County where the Orange County Water District and Disneyland support the transportation of more than 8,000 children to an outdoor venue equipped with as many as 40 outdoor classrooms. Led by their teachers and parent chaperones, classes of 30 children, attend up to five presentations to learn about a variety of subjects related to water. The SBNWR Friends taught children about the importance of native vegetation in supporting and sustaining wildlife populations and how national wildlife refuges protect wildlife through habitat management.

Finally, as part of their off-refuge education effort, the Friends have continued their national wildlife refuge outreach exhibit in libraries. This colorful exhibit boasts wildlife taxidermy, posters, brochures, and books featuring the resources and role of the

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**The Pack Test** (Cont. from page 5)

Start training for arduous and moderate duty without a pack. Gradually increase distance and begin carrying appropriate weight. Increase the weight until you can meet the requirement for arduous or moderate duty.

The chart below provides test criteria for arduous, moderate, and light duty performance:

Fitness Requirement	Test	Description
Arduous	Pack Test	3-mile hike with 45-pound pack in 45 min.
Moderate	Field Test	2-mile hike with 25-pound pack in 30 min.
Light	Walk Test	1-mile hike in 16 min.

Before you begin to train for testing or substantially increase your level of activity, consult your physician. This is especially important if you are over 40 and have been inactive; have a history of a heart condition, chest pain, loss of balance; or have joint or bone problem that could be made worse by a change in physical activity. 

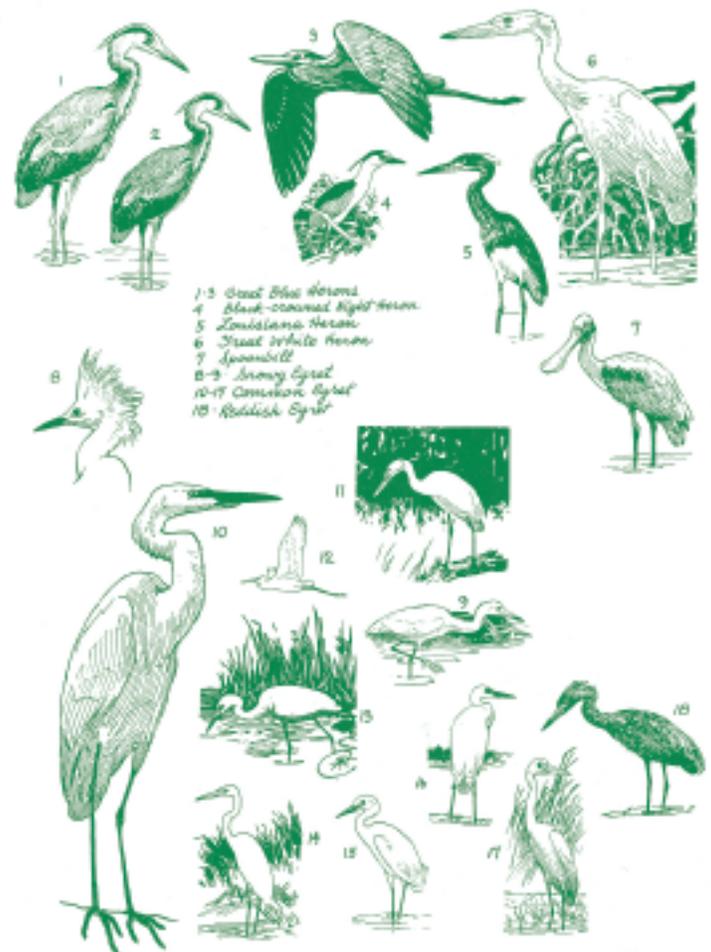
**FWS Conducts Wildland Firefighter Training**

During the last week of May, the San Diego National Wildlife Refuge Fire Management Staff conducted a basic firefighter course and fire line refresher with attendees from the Carlsbad field office, Salton Sea-Sonny Bono NWRC, San Diego NWRC and fire science students from Southwestern College. A total of 26 people attended and passed both sessions. At the end of the classroom training, the fire line fitness testing was administered with 31 people passing the physical fitness test.

For more information contact either Bill Molumby or Jim Mitchell at (619) 669-6651.

**SEAL BEACH FRIENDS** (Cont. from page 9)

refuge system in managing our nation's wildlife. The exhibit was the brainchild of Doris Bryce who developed the format and content, and worked with librarians to schedule and install the temporary exhibit in local libraries. It has proved to be another effective means of exposing the public to "America's best kept secret," and stimulating members of the public to visit their national wildlife refuges. Teachers and librarians in the Los Angeles and Orange County areas who are interested in scheduling a visit during the school year or installing the temporary refuge exhibit may do so by calling the Seal Beach NWR at (562) 598-1024 or going to the website [www.pelicanvan.org](http://www.pelicanvan.org) on the Internet. 



# Captive-breeding of Clapper Rails a Huge Success

*Barbara Coffin Moore*  
*Chula Vista Nature Center*

The Chula Vista Nature Center's captive-breeding project of Light-footed Clapper Rails is well into its fourth year. This sub-species of Clapper Rail is the most endangered water bird in Southern California, with the population estimated to be anywhere from 250 to 600 in salt marshes from Santa Barbara to San Quintin in Baja California.

By the end of the summer of 2003, 60 young captive-bred rails had been released at Point Magu, Seal Beach National Wildlife Refuge, Kendall-Frost Marsh in Mission Bay, and at the Sweetwater Marsh NWR.

This year, rails have been released at Agua Hedionda and Batiquitos Lagoons, both in Carlsbad, San Elijo Lagoon in Solana Beach and Seal Beach NWR. By the end of the season it is expected that the total released for all four years will be over 100 individuals.

Visitors often ask us why these birds are endangered. Loss of habitat is the answer. Over 90 percent of Southern California's coastal salt marshes have been lost to development. Freeways, industrial complexes, airports, amusement parks, naval facilities, shipyards, and even Horton Plaza are located on former salt marsh land.

I was asked recently, by some environmentally concerned visitors from South America, if destroyed salt marshes could be restored. Maybe if a salt marsh just had a lot of trash that could be removed, it would become healthier. But, to tear down an industrial complex and start over from scratch, trying to introduce salt marsh plants with all the micro-organisms they require to grow, would be almost impossible, as well as prohibitively expensive.

The best way to make sure that Light-footed Clapper Rails continue to survive and to thrive, is to make sure that we don't lose anymore of their precious salt marsh habitat. 

## The San Diego Refuges

**Tijuana Slough NWR**  
Imperial Beach, Ca  
619/575-2704

**Sweetwater Marsh NWR**  
Chula Vista, CA  
619/691-1262

**South San Diego Bay NWR**  
Chula Vista, CA  
619/575-2704 or  
619/691-1262

**San Diego NWR**  
Jamul, CA  
619/669-7295

**Seal Beach NWR**  
Seal Beach, CA  
562/598-1024



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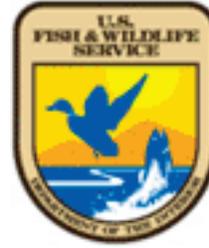
Photo credits: U.S. Fish and Wildlife Service, Don  
Brubaker, Adam Paul, Phil Roullard.

For information contact Barbara Simon, (619) 691-1262.

Visit us on the web at <http://sandiegorefuges.fws.gov>



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San Quentin, Mexico - read about it on page 2.

*Photo by Phil Roullard*

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