

# FLIGHT LOG

NEWSLETTER OF THE CALIFORNIA PARTNERS IN FLIGHT  
WORKING TOGETHER FOR THE CONSERVATION OF SONGBIRD POPULATIONS

## The Conservation and Reinvestment Act Landmark Legislation for California's Wildlife

Bob Garrison  
Interpretive Services Coordinator  
California Department of Fish and Game

With your help, California's wildlife and wild places may receive an important infusion of funding thanks to federal legislation now working its way through Congress. If passed, the Conservation and Reinvestment Act (CARA, H.R. 701), will reinvest \$3 billion annually from federal outer continental shelf oil and gas revenues back into natural and cultural resources conservation throughout the nation. The legislation is divided into eight program areas:

1. State Coastal Impact Assistance and Conservation (\$1 billion)
2. Land and Water Conservation Fund Revitalization (\$900 million)
3. State-level Wildlife Conservation and Restoration Fund (\$350 million)
4. Urban Parks and Recreation Recovery (\$125 million)
5. Historic Preservation Fund (\$100 million)
6. Federal and Indian Lands Restoration (\$200 million)
7. Conservation Easements and Species Recovery (federal) (\$150 million)
8. Payment In-lieu of Taxes and Refuge Revenue Sharing (\$200 million)

It is estimated that California will receive over \$320 million annually for wildlife and habitat conservation and outdoor recreation activities from CARA. Most of these funds will come from three program areas:

State Coastal Impact Assistance and Conservation – creates a coastal conservation fund for coastal states and eligible local governments to mitigate the various impacts of outer continental shelf activities and for the conservation of coastal ecosystems. California's coastal ecosystems are the most biologically rich and productive habitats in the state, and also the most threatened from pollution, exotic species, coastal development and over harvest. These program funds will support state and local projects to conserve, restore and enhance marine and coastal habitats and the species living there.

Land and Water Conservation Fund Revitalization

See CARA page 2.

## Building long-term solutions

### New Steps in Adaptive Conservation Planning

Geoff Geupel  
Cal PIF Chair  
Point Reyes Bird Observatory

In California, conservation of wildlife and habitat is moving at an extremely rapid pace and serving as a model for efforts elsewhere in the western United States. Projections of huge increases in this state's human population, and associated habitat losses, pressure us to maintain and conserve all remaining healthy bird populations and their habitats. California Partners in Flight (Cal PIF), in collaboration with a wide range of new and traditional partners, has an opportunity to ensure this happens with science-based information.

A science-based, collaborative approach to adaptive management is PIF's foundation for terrestrial bird conservation in the West. Cal PIF's highly successful Riparian Bird Conservation Plan serves as an excellent model for this approach.

Following the same design, Cal PIF is currently developing five additional conservation plans, covering more than 40 bird species and every major bird habitat type in California. The new plans extend to oak woodland, cis-montane shrub (coastal scrub and chaparral), the Sierra Nevada region, mixed conifer, and grassland. Current versions of each may be found at the Cal PIF Conservation Plan website ([www.prbo.org/cpif/Consplan](http://www.prbo.org/cpif/Consplan)).

Even while these plans are under development, new on the ground bird conservation projects in California's oak woodland and coastal scrub habitats are starting, thanks to support from National Fish & Wildlife Foundation and the Packard Foundation. Beyond state boundaries, similar efforts are under way in sagebrush and aspen habitats.

This progress was evident at the October 1999 Cal PIF meetings in Monterey. There, speakers presented overviews of projects throughout the state.

This issue of Flight Log presents summaries from some of the talks given. For example, Rodney Siegel describes the effort to establish a series of Important

## Inside:

Sierra Nevada  
IBA's

Benefiting  
nongame birds  
with game  
management

The Central  
Coastal  
Riparian  
Conservation  
Project

Monitoring  
restoration  
along the  
Sacramento  
River

Exploring the  
rivers of  
Monterey and  
San Benito  
counties

Central Valley  
orchard  
growers  
conserving  
birds

Protecting  
seabirds in  
Mexico



See ACP's page 2.

*CARA: continued from page 1*

– increases allocations to the Land and Water Conservation Fund for the planning, development and/or acquisition of open space, parks, wildlife refuges and wildlife conservation lands. The total fund will be equally split between federal and state agencies. The state share will be distributed for state and local projects. The acquisition portion of this program contains provisions and safeguards to protect the rights of private land owners.

State-level Wildlife Conservation and Restoration Fund – provides funds to state wildlife agencies for “non-game” conservation, education and recreation programs. Activities approved for funding include species and resource management, monitoring and enhancement; habitat acquisition; wildlife-associated recreation which includes building viewing towers, trails, and photo blinds; and wildlife-associated education which includes classroom programs, building education labs and outdoor classrooms, and providing educational services on public lands. Current language limits spending on recreation projects to ten percent of the state allocation. All funds in this category require a 25 percent state match.

#### **CURRENT STATUS OF CARA**

On November 10, 1999, the U. S. House Resources Committee voted 37 to 12 in favor of this landmark legislation. Chairman Don Young (R-Alaska) stated, “Today, we are taking a major step toward approving a truly historic bill which will guide our nation’s conservation, recreation and wildlife programs for decades to come.” The bipartisan support for this legislation within the Congress reflects the grassroots efforts of thousands of conservation and outdoor recreation organizations and businesses across the country. Governor Gray Davis has joined 49 of the 50 Governors in support of this legislation.

The Senate Energy and Natural Resources Committee is currently crafting its version of CARA. Once the legislation passes out of the Senate committee, a conference committee made up of representatives from the House and Senate will combine both versions in preparation for a full congressional vote next year.

While this landmark legislation cleared a crucial step with its passage from the House Resource Committee, the legislation still faces opposition within Congress. Private land owner advocates are concerned about federal agencies possibly purchasing more private lands,

while some conservation groups fear using funds from off-shore oil and gas leases could lead to increased drilling. When confronted with these issues, Chairman Young stated, “When Congressman (George) Miller and I began negotiations with the (House) Members ... we had one basic concept in mind – to work on a bipartisan basis to create and improve existing programs for the benefit of our wildlife, lands and coastal communities. With this as our primary goal, we took the best provisions of our two bills and asked Congressman Richard Pombo to work with us to ensure that effective and meaningful property rights protections were also included.” Congressman Young concluded, “No one got everything they wanted, but we all had our say and the end result is this legislation – which now has bipartisan, national, state, and local support.”

#### **HOW YOU CAN HELP**

- Stay informed on the progress of this bill as it passes through Congress. Regularly visit the Department of Fish and Game’s CARA web page at ([www.dfg.ca.gov/cara/](http://www.dfg.ca.gov/cara/)) to track its progress.

- Share this information with other individuals and groups that are interested in conserving California’s wildlife and wild places. Public employees cannot advocate a position for or against pending legislation, but can provide information on the outcomes of that legislation so that individuals can decide for themselves whether to support it.

- As a private citizen, review the full language of the bill and share your views with your congressional representatives. If you support the legislation, ask your representative to co-sponsor the bill. Your representatives are interested in your views on this legislation and welcome your comments.

- Keep the CARA committee informed of any constituent groups or individuals that would be interested in receiving updates on the legislation or that would be interested in suggesting how the funds should be allocated. The committee is currently building a database of CARA contacts so pass along the names, addresses, phone numbers and email addresses of your contacts to Bob Garrison.

- Finally, how would you invest \$160 million a year for wildlife conservation, education and recreation if the legislation passes? Fill out the survey form on the CARA web page.

*Contact: Bob Garrison, Dept. of Fish & Game, Phone (916) 323-7215. Email: [bgarriso@dfg.ca.gov](mailto:bgarriso@dfg.ca.gov).*

*ACP's: continued from page 1*

Bird Areas (IBAs) in the Sierra Nevada. Bob Allen presents results from a study of the benefits of game bird management for non-game birds. Sandy Scoggin provides an overview of the Central Coastal Riparian Project, in which she has mobilized scores of volunteers and partners. Chris Tenney outlines future data collection efforts along the rivers of Monterey and San Benito Counties. Finally, Anne King describes an ongoing col-

laborative effort with Central Valley orchard growers to benefit local breeding birds.

These projects exemplify Cal PIF's goals: data collection and science-based recommendations that guide land managers and political decision-makers. With continued individual efforts and broad collaboration, we can look forward to future successes in bird conservation in California

*Geoff Geupel may be reached at (415) 868-1221 ext. 30 or email: [ggeupel@prbo.org](mailto:ggeupel@prbo.org).*

# Science and Management of Sierra Meadows

Rodney Siegel  
The Institute for Bird Populations

The Institute for Bird Populations (IBP) is spearheading efforts to establish a Sierra Meadows Important Bird Area (IBA), comprising 150-200 of the most critically important montane meadows throughout the Sierra Nevada mountains of California.

Montane meadows play a crucial role in the ecology of numerous landbird species, but are threatened throughout much of the Sierra by management practices that can alter meadow hydrology and vegetation. We have developed a rapid assessment protocol (see below) to quantify avian diversity and abundance at each meadow, and to assess vegetation, hydrology, and use-impacts.

We plan to survey at least 500 of the most promising meadows (based on existing GIS and other data) on public and private lands throughout the Sierra, and to jointly nominate the true hotspots among them for IBA status. Criteria for nomination will include abundance and diversity of breeding birds and dispersing juveniles, presence of meadow-dependent species of management concern (particularly Willow Flycatcher and Great Gray Owl), and geographic remoteness from other IBA meadows. With funding from the National Fish and Wildlife Foundation and other sources, we have surveyed 110 meadows to date, distributed throughout Yosemite, Sequoia and Kings Canyon National Parks, Sierra National Forest, and Sequoia National Forest.

Personnel at each park and forest have agreed to work with us to develop new, meadow-specific management prescriptions for each IBA meadow. Management prescriptions will address livestock grazing, water management, forestry practices, recreational use and any other activities that may affect habitat quality for meadow-dependent birds. By focusing efforts on just a handful of the most crucial meadows, land managers will be able to make substantial gains in safeguarding Sierra bird populations, while still keeping conflicts with other resource uses to a bare minimum.

The project has been explicitly endorsed by Audubon-California and the Western Working Group of Partners in Flight and successfully incorporates three important aspects of safeguarding Sierra bird populations:

**1) Inventory:** Baseline information on bird communities and meadow condition is extremely valuable to land managers at parks and forests throughout the Sierra. Surprisingly scant data exist on meadows or their avian communities, and much of the available information is inaccurate.

**2) Research:** Our meadow surveys will provide valuable insight into the effects of land management practices on meadow bird communities. Sierra-wide sample sizes will allow us to test correlations between bird communities, vegetation characteristics, and the management practices that affect those characteristics. These correlations will ultimately help in the formulation of future management prescriptions, throughout the Sierra and beyond.

**3) Conservation:** The IBA system, along with the management prescriptions we will produce in collabo-

ration with the appropriate land managers, establishes a clear mechanism whereby our inventory and research findings can be translated into specific conservation actions at specific locations. While the Sierra Meadows IBA project is thus both a biological inventory and a large-scale research endeavor on the effects of land management practices on meadow avifauna, the end result will be a new and critically needed network of nature reserves throughout the entire Sierra Nevada.

In the summer of 2000 we will extend our efforts to Stanislaus National Forest and, funding permitting, complete all our meadow survey work in the southern Sierra. We hope to begin surveying meadows in the northern Sierra in summer 2001.

## A RAPID ASSESSMENT PROTOCOL FOR SIERRA MEADOWS

Researchers can choose from a wide variety of avian survey techniques when formulating rapid area assessment protocols. Clearly, there exists no single best rapid assessment protocol; rather, methods must be tailored to suit the particular study objectives. As part of our efforts to establish a Sierra Meadows IBA, IBP developed a rapid assessment protocol for montane meadows. We designed our protocol to produce information for answering 3 fundamental questions:

1) How do the relative abundance and diversity of breeding birds at a given meadow compare with other meadows?

2) How do the relative abundance and diversity of dispersing birds at a given meadow compare with other meadows?

3) Which habitat characteristics of meadows are most important in driving #1 and #2?

At the same time, our protocol needed to be rapid enough to allow a small crew to survey 100 meadows or more in a single breeding season. Additionally, equipment needs had to be kept as light as possible, as many of the meadows can only be reached by a full day of hiking.

### THE PROTOCOL:

Our field crew works in pairs, visiting each meadow twice during the breeding season. The first visit, conducted during the height of breeding (mid-May to late June, with lower elevation sites visited earlier than higher elevation sites), is intended to produce indices of the relative abundance and species richness of breeding birds at each meadow. One of the observers conducts a series of five-minute point counts, beginning within ten minutes of local sunrise. As many points as possible are systematically packed into the meadow interior, such that points are at least 150 meters apart.

When the point counts are completed, the observer then begins an area search, freely canvassing the meadow the way a recreational birder would, and deliberately seeking any species that may have been missed during the point counts. Time devoted to the area search depends on meadow size, but ranges from 30 minutes to two hours.

While the first observer conducts the bird surveys, the second observer maps and describes willow thickets or other woody vegetation within the meadow, produces a detailed vegetation description of up to 30 meter-square

By focusing efforts on just a handful of the most crucial meadows, land managers will be able to make substantial gains in safeguarding Sierra bird populations, while still keeping conflicts with other resource uses to a bare minimum.

quadrats placed systematically throughout the meadow, assess hydrologic functioning, and documents any evidence of meadow impacts associated with livestock grazing, forestry, recreation, or other management activities.

The second visit occurs in the latter portion of the breeding season (between mid-July and the end of August) and is intended primarily to measure the extent to which each meadow is utilized by post-breeding, dispersing birds. Again, higher elevation meadows are visited later in the season than lower meadows. Decreased singing activity as the season progresses means that point counts are no longer a reliable means of surveying birds.

Therefore, the protocol devotes the second visit to a single day of mist netting. The crew operates six 12-m mist nets for six hours, beginning at local sunrise. In-hand ageing allows us to produce separate indices of the abundance and species richness of dispersing adults and juveniles at each meadow. Constant-effort mist-netting data from Monitoring Avian Productivity and Survivorship (MAPS) stations throughout the Sierra will allow us to standardize meadow mist-netting results by seasonal timing and elevation. Finally, vegetation, hydrology, and use-impact surveys are repeated during the second visit, because meadow condition can change dramatically over the course of a summer.

Contact Rodney Siegel at (415) 663-2051 or email [rsiegel@birdpop.org](mailto:rsiegel@birdpop.org).

## Nongame Birds Making Use of Game Management Areas

Bob Allen  
Humboldt State University and  
California Department of Fish & Game

Many land managers have long thought that game bird management prescriptions may also benefit non-target species, but often the only supporting evidence is anecdotal. The California Department of Fish and Game initiated a study to investigate what effects, if any, upland game bird management prescriptions on state wildlife areas have on non-game birds that use grasslands for nesting.

We placed study plots on four state wildlife areas and one ecological reserve in the northern San Joaquin Valley for the 1999 field season (this was preceded by a smaller pilot study in 1998). We determined non-game bird species richness, density, and nesting success for three grassland managements: unmanaged grasslands, upland waterfowl nesting habitat, and pheasant management habitat.

In the first year of this two year study, we found the highest non-game species richness and density in pheasant areas. On a ten hectare (24.7 acre) plot, we found an average of 7.3 species that had an average of 70 territories and produced roughly 5 times as many non-game fledglings as an average unmanaged grassland plot and 3 times as many as on the upland waterfowl habitat. Although many species benefited from pheasant management, the bulk of the territories were Song Sparrows and Red-winged Blackbirds. In contrast with pheasant areas, unmanaged grasslands had impressive numbers of Western Meadowlarks with high nesting success (approximately 72%) and a relatively high average number of

fledglings (3.3).

Our data show that gamebird managements can benefit non-target species. Due in part to this study, these state wildlife areas are working to improve gamebird management plans for even greater benefits for non-game species.

In other words, the once "non-target" species are rapidly being integrated into a multi-species focus where they are one of many "target" species. We are doing this by reducing aspects of gamebird management detrimental to non-game species (e.g. mowing during the breeding season, disking potential nesting vegetation) and also by identifying and expanding aspects of vegetation that increase non-game numbers and nesting success.

For more information, contact Bob Allen at [rwallen3@hotmail.com](mailto:rwallen3@hotmail.com).

## Central Coast Riparian Bird Conservation Project

Sandy Scoggin  
Point Reyes Bird Observatory  
Coastal Watershed Council

Nineteen-ninety nine was the fledgling year for a new project to improve songbird conservation efforts along the Central Coast of California. Following a model established by the Point Reyes Bird Observatory (PRBO) and their partners, we initiated the Central Coast Riparian Bird Conservation Project. It combines strong science with effective partnerships, active land management and an innovative education program.

The Coastal Watershed Council (CWC) and PRBO, in collaboration with a the Big Sur Ornithological Laboratory, are establishing a program on the central coast to evaluate the health of riparian songbirds and habitats, determine effects of current management practices on riparian songbirds, test solutions to these problems, provide recommendations to public and private land managers, and educate the public, university students, and school children.

Our partners and cooperators include: California Native Plant Society; City of Santa Cruz Parks and Recreation Department; National Park Service; San Lorenzo River Institute; San Lorenzo Valley High School's Watershed Academy; Santa Cruz Bird Club; Santa Cruz County; Santa Cruz Land Trust; Trust for Public Land; the University of California's Big Creek Reserve; the University of California at Santa Cruz's Environmental Studies Internship Program and GIS Lab; and the Ventana Wildlands Project.

Many of the existing partnerships were established through the coordination of an impressive volunteer/student bird census program organized by PRBO in the spring of 1999. Methods used this year will be continued and the project expanded. Results will be used to update the Riparian Habitat Joint Venture's Riparian Bird Conservation Plan (RBCP), complete the Central Coast regional objectives section of the RBCP, guide new and existing restoration and acquisition projects, and guide changes in land management on public and private lands.

Collaboration is the key to effective conservation

Species once ignored by game management plans are rapidly becoming integrated into plans with a multi-species focus

efforts. There are many different organizations and agencies throughout the region working towards habitat evaluation, preservation, restoration, and acquisition. As these independent efforts join together into collaborative projects, the strength and effectiveness of conservation on the central coast is magnified.

*Sandy Scoggin may be contacted by phone: (831) 458-2487 or email: sscoggin@prbo.org.*

## Monitoring Restoration in the Central Valley

Stacy Small  
Point Reyes Bird Observatory

Since 1993, the Point Reyes Bird Observatory (PRBO) has monitored riparian restoration sites along 100 river miles of the Sacramento River for The Nature Conservancy and US Fish and Wildlife Service. After the recent invitation of our partners, we now participate more actively in the restoration planning process. We provide site-specific restoration and management recommendations for improving bird habitat quality through both horticultural and physical process-based methods.

These recommendations, presented within an adaptive management framework, are based upon several years of PRBO bird and vegetation data and guidelines put forth in the RHJV Riparian Bird Conservation Plan. Recommendations focus upon improving habitat conditions for nesting riparian bird species through such means as increasing understory structure, cultivating a native forb/herb layer, controlling exotic plant species, and timing management activities such as mowing, grazing, and orchard removal so as to avoid impacts to nesting birds during the breeding season.

Through this process, we have identified three tools for the implementation of the conservation plan:

**1) Monitoring**, to fill data gaps identified in the plan and to test the efficacy of recommendations put forth in the plan

**2) Direct involvement** in restoration planning, through meetings with restoration experts, written site-specific recommendations, and implementation planning in the field

**3) Education**, to increase "bird literacy" among managers and the general public, through workshops, site visits, and written materials

Of course, a myriad of factors may hinder implementation of even the simplest recommendations. These constraints may be ecological, agricultural, economic, and/or political. Often such considerations ultimately determine which recommendations may be feasibly implemented.

Accomplishing sound restoration goals requires an approach that mixes both the visionary and the practical. While we don't have all of the answers as to what it will take to return the bird communities of the Sacramento River to a healthy state, we remind ourselves that restoration is an experimental process and take encouragement from the high level of interest shown by managers and the general public around the Sacramento River Valley as word has spread about our project.

Finally, we would like to stress that long-term demographic monitoring (that may extend well beyond the



*The Salinas River.  
-Chris Tenney*

designated time frame of a given restoration project) is required to accurately assess the impact of riparian restoration efforts on avian populations.

*For more information, contact Stacy Small at (415) 868-1221 x. 25 or via email: ssmall@prbo.org.*

## Big Sur Ornithology Lab Plans Major Inventory of Monterey and San Benito County Rivers

Chris Tenney  
Big Sur Ornithological Laboratory

At the October PIF meeting in Big Sur, the Big Sur Ornithology Lab (BSOL) presented a plan for a major inventory of birds and riparian habitat on the Salinas River (see picture) beginning in the spring of 2000. The Pajaro, San Benito, and ten other rivers will also be inventoried, but less intensively. The goals of the project are to:

**1) Collect and analyze data** on riparian habitat and birds

**2) Inform, educate and collaborate** with land managers, the public, growers, and other private landowners to ensure the long-term protection of riparian habitat

**3) Promote restoration and habitat enhancement** projects in partnership with agencies and landowners along central coast rivers. Like other California rivers, habitat along the Salinas River has been decimated by agricultural clearing, livestock grazing, and reservoir and levee construction.

Of the fourteen riparian obligate species identified by the state Riparian Bird Conservation Plan (RBCP), ten breed regularly in Monterey County. The other four species are former breeders whose populations have been locally extirpated largely due to human habitat disruption. However, occasional documented reports of the Bell's Vireo and Willow Flycatcher in Monterey County raise hopes that determined conservation efforts may allow breeding populations to be reestablished.

Inventory methods will be standardized to those recommended by the RBCP, and will include area searches, 5-minute point counts, vegetation assessment, and, in the year 2001, demographic monitoring at selected critical sites. Throughout the project, BSOL will meet regularly

**Ways to  
improve habi-  
tat for nesting  
riparian birds:**

**Increase under-  
story structure**

**Cultivate a  
native forb/herb  
layer**

**Control exotic  
plant species**

**Time man-  
agement activ-  
ities to avoid  
impacts to nest-  
ing birds during  
the breeding sea-  
son.**

with Sandy Scoggin of PRBO and the Coastal Watershed Council (CWC) to begin work on a riparian habitat conservation plan for the Central Coast Bioregion. CWC is concurrently conducting similar census work just north of Monterey County, in Santa Cruz and San Mateo counties.

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## Working with Prune Growers in the Sacramento Valley

Anne King  
EDAW, Inc.

In 1995, The Nature Conservancy initiated the Biological Prune Systems (BPS) Program with funding from the Environmental Protection Agency. The program aims to reduce the amount of chemical applications by prune growers in the Sacramento Valley by eliminating dormant sprays of Diazanone and reducing use of synthetic nitrogen.

To facilitate these objectives, BPS encouraged growers to plant cover crops and shrubs that harbor beneficial insects. As part of the monitoring portion of the program, the Point Reyes Bird Observatory (PRBO) conducts bird censusing in BPS orchards.

In general, results have been rather anecdotal due to the small size of most plots and the limited funds for bird monitoring. However, PRBO has documented use of orchards with cover crops by species such as Lazuli Bunting and Lark Sparrow, which were not observed in conventional orchards. Other observations have highlighted the potential of agricultural areas to provide habitat for landbirds through relatively simple practices, such as leaving piles of pruned branches on orchard borders. Perhaps the most significant results have come from the opportunity to participate in various grower workshops and share recommendations on how to make orchards and other agricultural land more "bird-friendly".

Farmers in the Sacramento Valley are becoming increasingly aware that enhancing the value of their land for wildlife can be in their best interest, as well as the

birds'. State and federal funding sources for planting cover crops and filter strips, changing irrigation and drainage systems, and other improvements many farmers are anxious to make, are beginning to emphasize the improvement of wildlife habitat as part of the projects they fund.

This year, the Prune Board assumed responsibility for administration of the BPS Program, a very exciting transition. This should further attract growers to participate in the program. In turn, it will further increase the number of farmers that consider the welfare of landbirds when making land management decisions.

*Anne King may be reached via email at [KingA@edaw.com](mailto:KingA@edaw.com).*

## Protecting migratory seabirds in the northwest Mexico islands

Anna Weinstein  
Island Conservation & Ecology Group

Over 230 islands and offshore rocks in northwest Mexico and the California Channel Islands are critically important for the conservation of Pacific migratory seabirds. Thirty-three species of seabirds breed on these islands, which historically supported colonies comprised of tens of thousands to millions of individuals of Black, Least, and Ashy Storm-Petrels, the Baja endemic Black-vented and Townsend's Shearwaters, and many others. The islands also host a wide taxonomic range of endemic plants, reptiles, mammals and insects.

Due to their tremendous ecological importance, most of the northwest Mexico islands are within Mexico's system of protected areas. Until recently, the islands were protected by their remoteness and aridity. In the past 50 years, however, the islands have been increasingly used by commercial fishermen, the Mexican Navy and tourists. The biggest threat to the islands and migratory seabirds is introduced predators and herbivores brought by these human visitors. The rate of these invasions is increasing with use of the islands.

Because island species and ecosystems did not evolve with abundant predators and herbivores, such introduc-

**Lazuli Buntings and Lark Sparrows are using the cover crops in BPS orchards while remaining absent from conventional orchards**

## Natividad Island

Natividad Island (1000 ha) is located five km offshore approximately halfway down the Baja peninsula. The island is the largest breeding area for the Baja endemic Black-vented Shearwater, a nocturnal hole-nesting seabird. Between 50,000-75,000 pairs of Shearwaters nest on the island every year, comprising ~90% of the world population of this species. About 400 people live on the south end of the island, nearly all associated with the island's abalone mariculture cooperative. The island had cats, dogs and sheep introduced in the last 50 years which killed hundreds of shearwaters a year. Black-vented Shearwaters have a relatively low fecundity (~60% of pairs fledge a maximum of one chick per year) and were being decimated by this rate of predation.

In 1997-1998, ICEG biologist Brad Keitt lived on Natividad Island and conducted a study of the natural

history of this little-known shearwater. In addition to conducting the study, Brad worked with the Vizcaino Biosphere Reserve, the abalone cooperative, and the school to conduct an informal community education program to build support for eradicating introduced mammals and preventing other damaging human impacts to the shearwater colony. Brad and others took field trips to the colony with school children and their parents, gave slide shows and explained the global importance of their island home to the conservation of the shearwater. These efforts were a success: by late 1998, the local community and the Reserve supported the removal of introduced mammals from the island, and by summer 1999 ICEG team members, and volunteers from the local community, had removed nearly all of the damaging introduced mammals. In a gesture that bodes well for the future conservation of the shearwater colony, school children on the island adopted the Black-vented Shearwater as their mascot.

tions can be catastrophic. Cats and rats prey directly on ground-nesting seabirds, and goats, sheep and burros trample vegetation and cause soil erosion. Rabbits compete for burros with hole-nesting seabirds such as the Black-vented Shearwater. Introduced mammals have caused over 90% of the more than 20 recorded extinctions of endemic species and subspecies from these islands. Introduced mammals have eradicated or reduced colonies of seabirds; one species, the Guadalupe Storm-petrel, was driven extinct by introduced cats. Currently, eight of the 33 breeding seabirds in the region - all ground-nesting - are highly threatened by introduced mammals.

Fortunately, these islands and their seabird breeding colonies can be restored by removing introduced exotic mammals and minimizing other human impacts. In the 1980's the Mexican government and private agencies began taking steps to remove introduced mammals from the islands. By 1994, Jesus Ramirez at the Instituto de Ecologia, UNAM, removed rats and mice from Rasa Island (60 ha). It is now free of introduced mammals. In 1995-1997, C. Juarez, also of the Instituto de Ecologia, removed cats from Isabela Island (98 ha) (rats are still present).

But more action was urgently needed. In response, ecologists at University of California - Santa Cruz formed the Island Conservation & Ecology Group (ICEG), with a mission to provide Mexican groups with technical and financial assistance needed to protect and restore islands. ICEG is now a binational organization comprised of ecologists, field personnel and program directors in the U.S. and Mexico. ICEG protects islands through direct action (i.e. removing introduced mammals), capacity building (training workers and managers in island conservation techniques and principles), community education (building community support for island conservation), and applied research (seabird conservation and plant community recovery).

ICEG's first project, in collaboration with the Vizcaíno Biosphere Reserve and a local fishing cooperative, was to remove cats and rats from Asuncion (92 ha) & San Roque (38 ha) islands in the Baja California Pacific. These islands held significant breeding colonies of Cassin's Auklet and Xantus' Murrelet, but they were extirpated by the cats and rats. After removing cats and rats, ICEG installed seabird vocalization playback systems to attract hole-nesting seabirds back to their historical breeding grounds.

So far, ICEG and its partners have removed all introduced mammals from 12 islands in the Baja California Pacific and Gulf of California and are in the process of doing so on five additional islands. This action protects 55 extant colonies of 21 species of migratory seabirds and 5 endemic subspecies of landbirds, and protects over 60 endemic plants and animals from the threat of extinction. In spring 2000, in collaboration with INE and the Mexican Navy, ICEG will start removing introduced mammals from Clarion (28 km<sup>2</sup>) and Socorro (132 km<sup>2</sup>) islands in the Revillagigedo Archipelago. These islands have at least 50 endemic species and subspecies including the two of the most endangered birds in Mexico, the Townsend's Shearwater and the Socorro Mockingbird.

Finally, ICEG and its partners are working to ensure long-term protection of these islands through education programs and policy changes designed to prevent the

reintroduction of exotic species, and through building technical, education and financial capacity in Mexico for island conservation.

For more information on the Island Conservation & Ecology Group, and to learn how you can help protect the northwest Mexico islands, contact ICEG at:

Island Conservation & Ecology Group / Grupo de Conservación y Ecología de Islas PO Box 141 Davenport, CA 94105 (831) 469-8651 <http://islandconservation.org>. Email: [tershy@islandconservation.org](mailto:tershy@islandconservation.org)

Contact the author via email at: [annaw@islandconservation.org](mailto:annaw@islandconservation.org).

## A Big Welcome from the Central Valley Habitat Joint Venture

The Central Valley Habitat Joint Venture, established in 1988, is a component of the North American Waterfowl Management Plan, working to protect, restore, and enhance wetlands and promote wildlife-friendly agricultural practices in the Central Valley.

The Joint Venture hosted a North American Waterfowl Management Plan Monitoring and Evaluation Workshop Dec 2-4 in Willows, CA which was attended by 40 Joint Venture representatives from Canada and the United States. The workshop focused on sharing information about evaluation techniques, from both a joint venture and national/international perspective.

## Announcements

### Cal Partners in Flight Conference & Riparian Field Workshop

June 21-25, Kern River Valley, CA. Will include field workshops, bird conservation planning, birding field trips, breakout sessions, bird banding, social hours and more! Visit [http://frontpage.light-speed.net/KRP/pif\\_meeting.htm](http://frontpage.light-speed.net/KRP/pif_meeting.htm) or contact Bob Barnes at (760) 378-3044 or [bbarnes@light-speed.net](mailto:bbarnes@light-speed.net).

### Western Field Ornithologists 25th Annual Meeting

July 5-9, Kern River Valley, CA. Field trips, plenary and poster sessions, and annual dinner. Visit [http://frontpage.light-speed.net/KRP/WFO\\_meeting.htm](http://frontpage.light-speed.net/KRP/WFO_meeting.htm) or contact Bob Barnes at (760) 378-3044 or [bbarnes@light-speed.net](mailto:bbarnes@light-speed.net).

### PRBO's Monitoring of Neotropical Landbirds Training Course

April 10-13 2000. Participants will receive intensive instruction on basic avian ecology, bird identification, and study design. Visit [www.prbo.org](http://www.prbo.org) or contact: Mike Lynes at (415) 868-0655 or [mlynes@prbo.org](mailto:mlynes@prbo.org).

### Subscribe to the California Partners in Flight Listserver

Cal PIF has created a listserver, an electronic mailing list, to facilitate communication among participants. To subscribe, send an email message with "Subscribe" in the subject line and the message section to [CPIF-REQUEST@maphost.dfg.ca.gov](mailto:CPIF-REQUEST@maphost.dfg.ca.gov). Anyone may post to the listserver by sending their message to [CPIF@maphost.dfg.ca.gov](mailto:CPIF@maphost.dfg.ca.gov).

National Partners In Flight Home Page:

[www.pwrc.nbs.gov/pif](http://www.pwrc.nbs.gov/pif)

Point Reyes Bird Observatory:

[www.prbo.org](http://www.prbo.org)

USDA Forest Service, Redwood Sciences Laboratory  
(also home of the Monitoring & Working Group and International Working Group pages):  
[www.rsl.psw.fs.fed.us/pif/index.html](http://www.rsl.psw.fs.fed.us/pif/index.html)

[www.prbo.org/PRBOjournals.html](http://www.prbo.org/PRBOjournals.html)

The Information Center for the Environment (ICE):

[ice.ucdavis.edu](http://ice.ucdavis.edu)

Institute for Bird Populations:

[ourworld.comserve.com/home-pages/birdbanding](http://ourworld.comserve.com/home-pages/birdbanding)

La Tangara Online:

[www.rsl.psw.fs.fed.us/pif/news.html](http://www.rsl.psw.fs.fed.us/pif/news.html)

California Partners in Flight:

[www.birdwar.com/pif](http://www.birdwar.com/pif)

Audubon-California:

[www.audubon-california.org](http://www.audubon-california.org)

California Dept. of Fish & Game:

[www.dfg.ca.gov](http://www.dfg.ca.gov)

Flight Log Online:

**PARTNERS  
ON THE  
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This is a cooperative publication of the Point Reyes Bird Observatory, National Audubon Society-California, and the California Department of Fish and Game to support and promote the Partners In Flight Initiative in California. The Newsletter is published twice a year; your letters, articles, and ideas are needed to help it succeed. **Events to announce?** We would be happy to include them in the next issue. Please contact Mike Lynes at (415) 868-1221 ext. 49 or at [mlynes@prbo.org](mailto:mlynes@prbo.org).

To receive *Flight Log*, contact the California Dept. of Fish & Game at (916) 653-2458, or *Flight Log* Editor at the above email address.

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Look for an electronic version of this newsletter, with additional announcements and articles, at the PRBO website: <http://www.prbo.org>

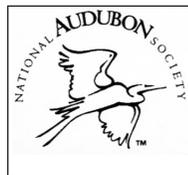


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