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FLIGHT LOG

NEWSLETTER OF CALIFORNIA PARTNERS IN FLIGHT

WORKING TOGETHER FOR THE CONSERVATION OF SONGBIRD POPULATIONS

INSIDE:

Demographic Monitoring Presentations from the last Cal PIF meeting:

- ***Using Molecular Genetic Techniques to Answer Pressing Conservation Questions*** ***pg. 2***
- ***Multi-Scale Migration Monitoring Networks for Landbirds in California*** ***pg. 3***
- ***Using MAPS to Identify Management Strategies for Reversing Population Declines in Landbirds*** ***pg. 3***
- ***Nest Monitoring: A Practical Tool for Understanding Bird Population Dynamics*** ***pg.4***

Also in this issue:

- ***Announcements of Upcoming Meetings and Related Events pg 6&7***

"The broad range of participants and caliber of discussions and products are testament to Cal PIFs highly successful approach of conservation through collaboration, science, and outreach."

California's Bird Conservation Plans Completed

In October 2000, draft versions of three new California Partners in Flight Bird Conservation Plans (BCPs) — addressing Oak Woodlands, Coastal Scrub and Chaparral, and Grassland habitats were released. These plans are available for downloading and review at the Point Reyes Bird Observatory website at http://www.prbo.org/CPIF/Consplans.html. Also available at this site are recently updated versions of the Riparian and Sierra Nevada BCPs, and an outline of the developing Coniferous Forests BCP.

Plans available at www.prbo.org/CPIF/Consplans.html

Each plan is a highly collaborative effort to address the primary threats to habitats and associated avifauna in California. Utilizing the latest scientific information available on representative bird speci es, specific recommendations are offered for habitat protection and management that help landowners and managers to support healthy bird populations.

Cal PIF Meetings at the Kern River Preserve

The spectacular Kern River Valley was the site of a California Partners in Flight (Cal PIF) meeting hosted by California Audubon and the Point Reyes Bird Observatory. From June 21-23, participants representing 26 different government, non-profit and private organizations gathered to address bird conservation in California. Events and outcomes of this meeting are highlighted throughout this issue. The broad range of participants and caliber of discussions and products are testament to Cal PIFs highly successful approach of conservation through collaboration, science, and outreach.

Morning field sessions visited restoration and research in the riparian areas surrounding the Kern River Preserve. Areas visited included several hundred acres with active research and restoration projects funded and carried out by multiple agencies and organizations.[1] Featured in this issue are summaries of the presentations given during a special session on demographic monitoring.

Products were developed in various sessions that will help guide conservation efforts across the state. Evaluating the 42 focal species for the Cal PIF Grassland, Coniferous Forests, Oak Woodlands, and Coastal Scrub/Chaparral Conservation Plans, participants developed a matrix that outlines how adequately each of these spe-

(Continued on page 2)

(Continued from page 1)

cies are covered by a variety of demographic monitoring methods throughout the state.

The Friday afternoon session focused on the Coniferous Forest Bird Conservation Plan (BCP). The group developed multi-species recommendations in an interactive workshop. Species account authors presented information about focal species including Olive-sided Flycatcher, Dark-eyed Junco, Brown Creeper, Golden-crowned Kinglet and Pileated Woodpecker. Bob Altman of the American Bird Conservancy presented an overview of the Oregon/Washington's BCPs, which serves as an excellent model for the developing California Coniferous Forests BCP.

We would like to continue to invite broad participation in the process of reviewing and implementing all of Cal PIF's Conservation Plans. These multi-species and science-based plans include detailed habitat descriptions and species accounts for birds that are representative of California's various habitats (available at www.prbo.org/CPIF/Consplans.html).

To these various ends, a meeting of National Partners in Flight will occur in Monterey, California in March 2002 (see *Announcements*) to bring together these various monitoring and research themes and others, including education, conservation planning, land management, and international programs. This nexus of programs and people will foster a whole new spirit of Partners in Flight for the future.

South Fork Kern River

DEDE RANKIN-GILMAN

[1] Partners for Fish and Wildlife Program (US Fish & Wildlife Service); National Fish & Wildlife Foundation; Natural Resource Conservation Service (USDA); Wildlife Conservation Board (State of California); California Department of Fish & Game; U.S. Army Corps of Engineers; U.S. Forest Service (Sequoia National Forest); several private foundations; Bureau of Land Management (BLM's Kelso Creek Riparian Management Area and Audubon-California's 156-acre Kelso Creek Sanctuary); Audubon-California; and The Nature Conservancy.

Neotropical Migrant Songbird Project:

Using Molecular Genetic Techniques to Answer Pressing Conservation Questions

Sonya Clegg
Center for Tropical Research (CTR)
Department of Biology
San Francisco State University

The apparent decline of some populations of migratory songbirds over the last 25 years is a conservation issue of great concern. Debate about the causes of declines continues, with a central problem being the inability to relate specific breeding populations with populations on the wintering grounds and thereby identify population specific trends. Returns from large scale banding studies have been too sparse to address this problem.

At the CTR, we are applying molecular genetic techniques to this question. Recent advances allow DNA to be obtained non-destructively via feathers or blood samples. Molecular techniques are being used to assess genetic structure on breeding grounds, find genetic tags that can be used to identify breeding population units and then screen for these tags in individuals caught on the wintering grounds.

Wilson's Warbler

IAN TAIT

We are using two types of variable genetic markers for this work – mitochondrial DNA and microsatellite DNA. To date, results using mitochondrial DNA from Wilson's Warbler, Macgillivray's Warbler and Swainson's Thrush show genetic structure can be detected on a continental scale. A much finer scaled resolution of genetic patterns will require the use of other genetic markers, such as the microsatellites that are currently being developed for this project.

The strength of the genetic approach is that it does not require recapture of the same individuals on both wintering and breeding grounds, rather groups of related birds can be sampled to provide population level information. This kind of information, in combination with demographic information, such as productivity and survivorship, will go a long way towards identifying causes of declines in neotropical migratory songbirds.

For more information about this project, contact the author at sclegg@sfsu.edu

Migration Monitoring of Landbirds in California: Piecing the Puzzle Together

by C. John Ralph
Redwood Sciences Laboratory

The phenomenon of bird migration is often misconstrued as a mass wave of migrants scattered indiscriminately throughout the landscape. We are finding that this is an unlikely scenario. The habitat use of birds during migration, as well as throughout the rest of the non-breeding season, is highly complex. Only by combining the data from multiple stations throughout a region have we begun to understand the patterns and complexities of migration.

The present concentration of songbird monitoring and research programs during the breeding season, while critical, does not give us a complete picture of the processes that shape songbird populations. Although breeding season information is very important, we also need to be implementing monitoring and research efforts that include the rest of the year.

The objectives of a migration monitoring program include determining population size, demographic factors, stopover biology, and specific life-history characteristics. The primary methods involved include constant-effort mist netting, censuses (both area search and migration counts), foraging studies, and special techniques that are just in the developmental stage (e.g. radar, acoustics), and species specific monitoring.

The Klamath Demographic Monitoring Network, which encompasses the land area from Coos Bay and Crater Lake in Oregon down to the Russian River in California, has been developing over the past dozen years, and now consists of about 55 mist-netting stations and more than 7,500 point count stations. By pooling the data collected throughout this network we can determine routes of birds, identify population trends and habitat associations, and estimate productivity from age ratios for both residents and migrants. Such a network allows us to answer questions at the local and broad scale, and encourages collaboration among biologists throughout a large region.

"Only by combining the data from multiple stations throughout a region have we begun to understand the patterns and complexities of migration."

Other efforts could be implemented at a variety of levels to help meet PIFs bird conservation goals, including creating data centers, additional cooperative networks, and workshops to foster communication and collaboration. On a local scale, individuals can contribute to the effort by running monitoring stations or participating in censuses. New and developing stations benefit tremendously from the efforts of even one or two dedicated individuals. By starting or joining a regional network, such as the Klamath Demographic Monitoring Network, such stations can be much more effective by adding to the broader scale of investigation and understanding.

Similar opportunities are currently developing at the international scale. Canada, for example, has organized its monitoring stations into an effective network. Following this model, North America could potentially work with cooperators in Mexico and Central America, as part of a Partners in Flight program.

By matching our monitoring efforts to that of the life-cycle for the birds we study, we will continue to further our goal of understanding and enhancing bird populations.

For more information on the Klamath Demographic Monitoring Network, contact the author at cjralph@humboldt1.com.

Using MAPS (Monitoring Avian Productivity and Survivorship) Data to Identify Management Strategies for Reversing Population Declines in Landbirds

David F. DeSante and M. Philip Nott
The Institute for Bird Populations

A successful integrated avian monitoring strategy should be able to: (1) identify proximate demographic cause(s) of population change; (2) aid identification of management actions to reverse population declines; and (3) evaluate the effectiveness of those actions in an adaptive management framework. Monitoring vital rates (productivity and survivorship) is a critically important component of integrated avian monitoring, because environmental stressors and management actions affect vital rates directly and without substantial time lags. Moreover, data on vital rates provide crucial information about the health of populations and the stage of the life cycle at which population change is affected, and can yield a clear index of habitat quality.

We identify the proximate demographic cause(s) of population change by modeling spatial variation in productivity and survivorship as a function of spatial variation in population trends. We provide examples at two spatial scales using data from MAPS and the North American Breeding Bird Survey (BBS). At the larger scale, we found that low survivorship of adults was the proximate demographic cause of the 1992-1998 population decline for Gray Catbird in the BBS physiographic strata where they are declining, thereby indicating that management strategies to reverse declines in catbirds by attempting to increase their productivity will be unsuccessful. At the smaller scale, we found that low produc-

(Continued on page 4)

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tivity was the cause of the 1994-1999 population declines of Carolina Chickadee, Ovenbird, and Field Sparrow on Department of Defense installations in either the eastern or western Midwest, while both low productivity and low adult survival were causes for declines in Gray Catbird and Yellow-breasted Chat on those installations. Finally, we found that appropriately scaled, landscape-level habitat data could be included in GIS-based models of productivity to describe relationships between habitat characteristics and productivity for species for which low productivity is driving the population decline.

This approach will allow formulation of management actions designed to reverse declines by altering habitat characteristics from those associated with low productivity to those associated with high productivity. The importance of this approach is that integrated monitoring and adaptive management can lead to the successful reversal of population declines even before the ultimate mechanism of the decline (e.g., forest fragmentation causing increased nest predation) is completely understood.

For more information on the MAPS program, contact the author at ddesante@birdpop.org

Nest monitoring: A practical tool for understanding bird population dynamics

Stacy L. Small
Point Reyes Bird Observatory
University of Missouri-Columbia

Used in conjunction with other research methods, nest monitoring can lead to powerful inferences regarding bird population dynamics. For instance, source-sink modeling can inform us as to whether a population is sustaining itself or even expanding ("source") or whether it is sustained due to immigration from other populations ("sink"). Assessing whether a population is a source or a sink requires life history data such as nest success, clutch size, number of nesting attempts and number of young fledged (all data obtained from nest monitoring), in addition to survival values obtained from long-term mist-netting data.

Lack of life history data is a weak link in current efforts to determine source-sink status of local bird populations. Even in the case of species for which we do have nest data, one must take into account the fact that life history traits can vary geographically and by habitat. Although nest data is accumulating rapidly for certain California species, and for many species at a national scale, for no species in California do we have the necessary life history data across bioregions to do precise, comparative source-sink analyses throughout the species' breeding range. This dilemma could be fairly easily remedied with systematic nest monitoring coverage for CPIF focal species across a subset of habitats and geographic boundaries.

"Used in conjunction with other research methods, nest monitoring can lead to powerful inferences regarding bird population dynamics."

In regions where intensive effort and moderate funding have been invested, CPIF members already have impressive nest sample sizes for some focal species, including Song Sparrow (n=3,057), Least Bell's Vireo (n=1,000+), Black-headed Grosbeak (n=267), Common Yellowthroat (n=255), and Swainson's Thrush (n=129). These rough figures, representing the (under)reported California sample size, will surely grow as data from the 2000 field season comes in and more on the ground projects are launched.

Standardized protocols for monitoring nests and associated vegetation have been intensively reviewed and are available from the University of Montana's BBIRD Program. Other resources available for establishing a nest monitoring program in your area include published protocols and methods papers available at both the BBIRD and PRBO websites and a veritable battalion of skilled and enthusiastic field biologists.

Conducted simultaneously with local mist-netting operations and habitat assessments, 3-10 years worth of nest data could be enormously revealing of our focal species' population dynamics as they relate to local habitat conditions and other environmental factors.

For information about the BBIRD program, visit http://pica.wru.umt.edu/bbird/.

For more information regarding availability of nest data for CalPIF focal species: see page 5 of this issue for a subset of nest sample sizes for CalPIF focal species or visit http://www.prbo.org/CPIF/nests.htm for the complete table.

To submit your project's nest sample sizes to California Partners In Flight, please contact the author at ssmall@prbo.org.

Swainsons Thrush nests

IAN TAIT

Nest Data for California Partners in Flight Focal Species

Researchers throughout California have contributed data to this and other CalPIF projects that compile statewide information. By pooling data from across the state we can better understand California's bird populations, identify gaps in current research and monitoring, and more effectively guide conservation through research, monitoring, restoration and habitat protection. Nest samples are broken down by California Biodiversity Council bioregions (RAC 1998).

The table below represents available/reported nest data for a subset of the focal species from CalPIF's Bird Conservation Plans for Riparian, Grassland, Oak Woodlands, Coastal Scrub and Chaparral, and Coniferous Forests.

To view the complete table, please visit http://www.prbo.org/CPIF/nests.htm

To submit your project's nest sample sizes to California Partners In Flight, please contact Stacy Small at ssmall@prbo.org.

California nest sample size for select CPIF focal species

By species & bioregion (1992-1999)

Species	Region									
	Klam	Bay/Delta	C. Coast	S. Coast	Sac V	SJ V	Mod	Sier	Moja	C Des
Ash-throated Flycatcher		15			29	6				
Black-chinned Hummingbird		32			11			25		
Black-headed Grosbeak	12	96			126	1		36		
Blue Grosbeak		44			31	8		1		
Brown Creeper		4		10				12		
Common Yellowthroat		84			17	148				
Dark-eyed Junco				56			20	59		
Dusky Flycatcher	130							61		
European Starling		26			27	1		2		
Hutton's Vireo		28			2					
Lark Sparrow		1			15					
Lazuli Bunting		16			113	1		15		
Song Sparrow	4	2467			35	166	45	9		
Spotted Towhee	2	51		3	90	4		55		
Swainson's Thrush	24	105								
Tri-colored Blackbird					2400					
Warbling Vireo	2	69					14	24		
Western Bluebird		8		21	23			1		
Wilson's Warbler		102		5			9			
Yellow Warbler	7	1			11		23	5		

Bioregion Codes:
Klam=Klamath, **Bay/Delta**=San Francisco Bay/Sacramento-San Joaquin River Delta, **C. Coast**=Central Coast, **S. Coast**=South Coast, **Sac V.=**Sacramento Valley, **SJ V**=San Joaquin Valley, **Mod**=Modoc, **Sier**=Sierra, **Moja**=Mojave, **C Des**=Colorado Desert

Announcements

MARK YOUR CALENDARS!
Riparian Habitat and Floodplains Conference
March 12 - 15, 2001
Radisson Hotel
Sacramento, California

This conference integrates California riparian and floodplain restoration, research, conservation, partnerships, education, policy, and biota, bringing together a wide variety of experts and interests. Building on successful previous Riparian Conferences, scientists, policy-makers, and the public will come together to address fundamental challenges facing California's vanishing riparian forests.

This conference is co-sponsored by California Partners in Flight's Riparian Habitat Joint Venture and the Western Section of The Wildlife Society. Plenary Sessions, Concurrent Technical Sessions, and Workshops will take place March 12-14. Half day and full day field trips will take place March 15. A Conference Proceedings will be published.

Cosumnes River
PRBO

Papers will be in the following major theme areas:

- ***Conservation and Restoration of Riparian and Floodplain Habitat***
  - Managing Multiple Uses to Maintain Riparian Health
  - Multiple Species Conservation
  - Integrated Floodplain Management
- ***Research and Technology in Restoration and Monitoring of Riparian and Floodplain Habitat***
  - Recent Advances in Monitoring, Restoration, and Bioengineering
  - Riparian Biota Associations and Multiple Species Conservation
  - Riparian Disturbance Factors
- ***Policy and Programs in Riparian and Floodplain Management***
  - Bioregional Planning and Partnership Efforts
  - Environmental Ethics, Outreach, and Education
  - New Policy Ideas for the Future

For program information, visit
http://www.tws-west.org/riparian
or contact: Diana Craig at dcraig01@fs.fed.us
or Lyann Comrack at lcomrack@dfg.ca.gov

2001 Annual Meeting of the Western Section of The Wildlife Society
February 22 - 24, 2001
Radisson Hotel
Sacramento, California

The theme of the conference is "Politics and Realities of Wildlife Conservation at the start of the 21st Century." The preliminary program, lodging information and an online registration form are now available at http://www.tws-west.org/. One session dedicated to CalPIF, will include presentations on each of the CalPIF Bird Conservation Plans.

CalPIF will be holding their next meeting in conjunction with this TWS meeting. Visit http://www.tws-west.org/ for the latest program and visit http://www.prbo.org/CPIF/Meetings/CPIFmeet.html for details on the CalPIF meeting.

For more information, please contact Barry Garrison, Program Chairperson, at 916-653-1738 or bagarris@dfg.ca.gov

Books for Honduras

The Western Working Group (WWG) of Partners in Flight has taken on a challenge to provide some much-needed reference books and field guides for our Mesoamerican partners to assist in their conservation efforts.

At the VI Neotropical Ornithological Congress (NOC) meeting in Monterey, Mexico in October 1999, the WWG partners helped match each western state (and Canada) with a country to which they will provide one or more copies of each book on a master list..

California and New Mexico are partnering to provide these resources for Honduras. The fundraising effort in California is looking for donations from agencies and individuals. We are also soliciting creative ideas and individuals who would like to help raise funds.

If you or your agency can help, or for more information, please contact Sandy Scoggin at sscoggin@prbo.org or 415/868-1221 ext.. 16.

Subscribe to the CalPIF listserver:
Find instructions on how to subscribe at
http://www.prbo.org /CPIF/Meetings/CPIFmeet.html

Announcements

National Partners in Flight Conference—Monterey 2002
March 20-24, 2002
Asilomar Conference Center

Under the tentative title of "Partners in Flight: Integration and Implementation of Bird Conservation in North America," a conference of National Partners in Flight (PIF) will take place in early 2002 that will address accomplishments and directions for international, national and state efforts towards bird conservation.

Sessions will cover a broad variety of topics including status and directions for PIF monitoring, research, education, land management, funding, and national and international initiatives.

More information will soon be posted at http://www.prbo.org/PIF/NPIF2002.html

PRBO's
Landbird Monitoring Training Course
April 2-6 and June 4-8, 2001
Advanced Course
April 9-13 and June 11-15, 2001

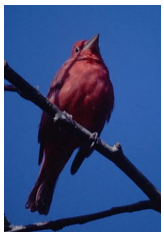
General Course: Participants will be trained in nationally standardized monitoring techniques for Neotropical migrants and field identification of songbirds by sight and sound. Techniques include constant effort mist-netting, nest monitoring, area searching, spot-mapping, point count censusing, and habitat assessment. Participants will be trained to design, establish, and implement a standardized integrated monitoring program. Lectures include topics such as objectives, study design, data management, and statistical analysis. The course emphasizes intensive "hands-on" field techniques and exercises.

Advanced Course: Participants will be trained in a synthesis of methods of identification, ageing and sexing of landbirds in the hand and in the field. The course will focus on ageing passerines and other landbirds to SY/ASY using molt limits, which allows for the calculation of juvenile recruitment and survival as used by MAPS programs and other population studies. In addition to intensive "hands-on" field techniques and exercises, the course will include lectures and the examination of study specimens used to instruct participants in identification techniques. Peter Pyle, Point Reyes Bird Observatory (PRBO) Fellow Biologist, and the author of *The Identification Guide to North American Passserines* will instruct the course.

For more information about this course or to find information on PRBO's Advanced Landbird Monitoring Course, visit http://www.prbo.org or contact Moe Flannery at 415/868-0655 or mflannery@prbo.org.

The First Verified Summer Tanager Nesting In San Diego County

By Paul Jorgensen
California State Parks



Summer Tanager
RICH STALLCUP

After years of tantalizing breeding season encounters, Summer Tanagers are finally confirmed breeders in San Diego County at Anza-Borrego Desert State Park. Although exciting, this is not a great surprise since the species breeds in nearby Imperial, Riverside, San Bernardino and Kern Counties, and is seen regularly in San Diego County riparian woodlands.

On June 23, 2000, a nest was located at the Park's north boundary. A male accompanied his mate as she carried food into a nest high in the canopy. The nest was relatively thin and dark and was attached at the trunk near the top of a spindly 50-foot tall cottonwood. Male and female gave the "chit-up" call frequently but did not sing.

Later that day, another nest was found. The first two Summer Tanagers confirmed for San Diego County came within 4 hours of each other. Since that day, five more pairs have been found for a total of seven pairs found on park land along roughly 2.5 miles of San Felipe Creek. The nesting density at San Felipe Creek is calculated at 7 pairs/24 hectares of suitable habitat, (or 12 pairs/40 ha.). In comparison, other reports suggest nation-wide densities most commonly ranging from 6-12 pair/40 ha.

Three cheers to the Anza Borrego Foundation, California State Parks and others who helped purchase 1700 acres of San Felipe Valley. Summer Tanagers are Neotropical migrants and California Species of Special Concern. In the southwest, they are riparian obligates — that is, they are only found where there is sufficient riparian habitat. As a measure of the high quality of this new purchase, all seven Summer Tanager pairs discovered along the creek are within this magnificent addition to the state park system.

PARTNERS ON THE WORLD WIDE WEB

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

North American Bird Conservation Initiative www.bsc.eoc.org/nabci.html

American Bird Conservancy www.abcbirds.org

La Tangara Online: www.rsl.psw.fs.fed.us/ pif/news.html

National Partners In Flight Home Page: www.pwrc.nbs.gov/pif

Point Reyes Bird Observatory: www.prbo.org

Flight Log Online: www.prbo.org/PRBOJournals.html

The Information Center for the Environment (ICE): ice.ucdavis.edu

Institute for Bird Populations: www.birdpop.org

California Partners in Flight: www.birdware.com/pif

Audubon-California: www.audubon-california.org

California Dept. of Fish & Game: www.dfg.ca.gov

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Look for an electronic version of this newsletter and Partners in Flight news, announcements, and links at the PRBO website at http://www.prbo.org