SELECTED ABSTRACTS of PAPERS, POSTERS, and WORKSHOPS

†‡ ALEXANDER, JOHN D. and °C. JOHN RALPH. **The Klamath Demographic Monitoring Network.** †Klamath Bird Observatory, P.O. Box 758, Ashland OR 97520; ‡jda@klamathbird.org; °USDA Redwood Sciences Laboratory, USDA Forest Service, 1700 Bayview Drive, Arcata CA 95521. **[Paper]**

Together, the Klamath Bird Observatory (KBO) and USDA Forest Service Redwood Sciences Laboratory coordinate one of the world's most concentrated networks of standardized bird monitoring stations. This network, made up of partners from northern California and southern Oregon, spans the Klamath Siskiyou Ecoregion. It has been designed to support the long- and short-term objectives of Partners in Flight (PIF) and the North American Bird Conservation Initiative (NABCI) Coordinated Bird Monitoring Program, which includes monitoring long-term population trends, identifying habitat relationships, and developing a migration monitoring network. Through many standardized bird-monitoring projects, we are taking a scientific approach to integrating bird conservation plans with land management programs throughout our region. Data from the Network are used to identify conservation needs and monitoring the effectiveness of local restoration and regional conservation efforts. KBO uses data from the Network to demonstrate the use of bird monitoring to track ecological change as it relates to riparian restoration and fire management. In 2004, the Network received three national awards: U.S. Forest Service and Ducks Unlimited Taking Wing Award, the U.S. Fish and Wildlife Service Partners in Flight Leadership Award, and the Joint Fire Sciences Program Best Scientist-Manager partnership.

[1]BARTON, GINA, ‡[1]SHERRY E. HUDSON, and [2]NELLI THORNGATE. **Migratory patterns during spring and fall at a long-term bird banding station in California.** [1]San Francisco Bay Bird Observatory, P.O. Box 247, Alviso, CA 95002; [2]Big Sur Ornithology Laboratory of the Ventana Wilderness Society, HC 67, Box 99, Monterey, CA 93940. ‡shudson@sfbbo.org. **[Paper]**

In order to explore seasonal patterns and population trends, we examined bird banding data from 1988–2003 for five migratory species occurring in riparian habitat in the south San Francisco Bay Area during spring (Mar–May) and fall (Aug–Oct). Two of the most abundant migratory species, Wilson's Warbler and Swainson's Thrush, occurred in greater numbers during spring migration than during the fall, whereas Pacific-slope Flycatcher, Willow Flycatcher, and Yellow Warbler occurred in higher numbers during fall. These results suggest that different migration routes exist for certain species between spring and fall seasons. Migrating Pacific-slope Flycatchers declined during the 15-yr period at our study site, a trend also seen in Breeding Bird Survey data from California, the Western BBS region, and the region comprising California, Oregon, Washington, and British Columbia during the same time period. Understanding why species use different migration routes during the spring and fall, along with what life-history parameters are linked to population declines, will help us determine the best way to conserve habitat and resources during this crucial period in their life history cycle. We urge others with migratory bird data to work together in an effort to understand this important stage in a bird's life history, and ultimately to conserve crucial habitat and resources for migratory birds.

DeSANTE, DAVID F., DANIELLE R. KASCHUBE, M PHILIP NOTT, NICOLE MICHEL, and ‡PETER PYLE. **The MAPS program: Achieving success in monitoring, research, and management.** The Institute for Bird Populations, P.O. Box 1346, Pt. Reyes Sta., CA 94956. ‡ppyle@birdpop.org **[Paper]**

The Monitoring Avian Productivity and Survivorship (MAPS) Program is a cooperative network of about 500 constant-effort mist netting and banding stations operated each year across the United States and southern Canada. MAPS currently provides indices of adult population size and post-fledging productivity and estimates of apparent adult survival for over 100 species of land birds. By ageing individuals as second-year or after-second-year, MAPS will be able to provide additional information on recruitment and survival of young birds and relative amounts of immigration. Here we present examples, at both local and regional spatial scales, of how MAPS is achieving the monitoring, research, and management objectives upon which it is organized. We show geographic differences and temporal variation in both productivity and survival of Wilson's Warblers in the Alaska Region, and show relationships between temporal variation in productivity and global climate cycles (El Niño/Southern Oscillation and North Atlantic Oscillation) for both the Alaska and Pacific Northwest (Washington and Oregon) Regions. We show how MAPS is achieving its management objectives by (1) identifying the proximate demographic cause(s) of population declines in the landbirds of Cape Cod National Seashore (MA); (2) aiding the formulation of management strategies for reversing declines of landbirds on Big Oak National Wildlife Refuge (IN) and on Pacific Northwest national forests (WA and OR); and (3) evaluating the effectiveness of conservation strategies implemented to reverse declines of landbirds on Fort Hood (TX).

FREY, ROBERT. **North American banding council bander certification session.** Sponsored by the Klamath Bird Observatory 12-13 Sep 2004. Klamath Bird Observatory, P.O. Box 758, Ashland, OR 97520 bif@klamathbird.org **[Workshop]**

The Klamath Bird Observatory (KBO) will present a North American Banding Council (NABC) landbird bander certification session at the Bander and Trainer levels for up to 10 candidates 12-13 Sep 2004. The session will consist of field and laboratory skills and knowledge examination at KBO's Rocky Point Field Station. KBO's field station sits on the west side of Upper Klamath Lake, an area recognized for its world renowned birding.

The mission of the NABC is to promote sound and ethical bird banding principles and techniques. The purpose of bander certification is to determine whether the candidate can safely, efficiently, and accurately complete all tasks required for certification. The Bander level of certification indicates that the successful candidate has achieved a level of competence in capturing birds, identifying, sexing and aging them, handling and banding them, taking appropriate measurements, keeping appropriate records, and supervising the work of others conducting the same tasks. The candidate should be familiar with the NABC *Banders' Study Guide*, the NABC *Passerine Guide*, the CWS/ USGS *Bird Banding Manual,* and the first 40 pages of Peter Pyle's *Indentification Guide to North American Birds, Part I*, practice the Bander's Code of Ethics, and have intensive "hands-on" training and experience in performing the above tasks. The Trainer level of certification indicates that the successful candidate has achieved a level of competence in instruction of the above skills.

FREY, ROBERT and JOHN ALEXANDER. **Bird banding techniques workshop**. Klamath Bird Observatory, Ashland, OR. **[Workshop]**

Several topics and techniques will be presented for banders, concurrent to the active banding demonstration at Klamath Bird Observatory's (KBO) Willow Wind banding station. Demonstration tables will be set proximate to the banding station for participants to select the time they want to spend at each. Demonstrations by the Klamath Bird Observatory and our partners will include: **Mist netting at the Klamath Bird Observatory's Willow Wind banding station** – KBO and Redwood Sciences Laboratory, USDA Forest

Service Intern Students will operate this constant-effort station following the Klamath Demographic Monitoring Network protocol. Some may find our techniques of mist net set up and processing innovative. Our "hit and run" banding operations that cover 26 stations throughout northern California and southern Oregon have inspired us to streamline field kits while being prepared for any banding situation. Demonstrations of the 'body grasp" net extraction method, net set up using adjustable connectors, and net repair will be on going; **A presentation of the Tabular Pyle** – C. John Ralph of the Redwood Sciences Laboratory, USDA Forest Service will demonstrate how this new method of summarizing Peter Pyle's *Identification Guide to North American Birds, Part I* (1997) into a tabular guide has proven to be extremely useful for both novice and experienced banders. The format allows quick and accurate assessment by a bander as to their ability to distinguish species, age, and sex criteria; **Ageing raptors using molt and plumage patterns** – Buzz Hall of the Golden Gate Raptor Observatory will present and discuss raptor ageing techniques based on molt limits and retained contour feathers using raptor study skins; **The Bander's Merit Badge** – Pablo Herrera of Forest Service Redwood Sciences Laboratory, USDA Forest Service will present this checklist system that is based, in large part, on the North American Banding Council (NABC) requirements for Bander level certification. Banding trainees are encouraged to undertake the certification by providing them with clear objectives to achieve certification. At the end of successful completion, the trainee is awarded a patch, or "merit badge"; **Bird first aid for banders** – Bob Frey of the Klamath Bird Observatory will present treatment for bird injuries related to mist netting and banding. Topics will including capture-related stress, wing strain, broken leg, and laceration; **Trapping and tracking Great Gray Owls: Radio transmitters and trapping equipment** – Steven Godwin of the Bureau of Land Management, Medford District will display and discuss Great Gray Owl traps, radio transmitter backpack harnesses and tracking antenna and receiver used in an on-going study. Illustration and demonstration of trap set up and putting on backpack harnesses will be included; **Songbird Telemetry**– Jim Tietz—As transmitter batteries become increasingly lighter weight, songbird telemetry is gaining in popularity. One attachment method currently employed by many researchers is the harness technique that was first described by Rappole and Tipton (1991; *J.Field Ornithol.* 62:335-337). In order to reduce time and stress during handling, I present here a technique that uses a pre-fitted elastic harness that simply stretches over the bird's legs.

GARCIA, DAWN and JAIME ACKER. **Results of an on-going Barred Owl (*Strix Varia*) study on Bainbridge Island, Washington**. (DG: 11715 Kirk Avenue NE Bainbridge Island, WA 98110 Drmel @sprintmail.com) **[Paper]**

The first credible detection of the Barred Owl *(Strix varia)* on Bainbridge Island was in 1993, with an earlier potential detection heard in 1989. In 1995/ 1996 Acker identified two established pairs of Barred Owls. He began inventorying owls on the island in 1997 using playback calls, and noted that the Barred Owl population was increasing; consistent with the trend in the Pacific Northwest. In 2000, we co-authored a proposal to determine home range of adult pairs and dispersal of juvenile owls, using color bands. We attracted birds to taped calls at dusk and used a variety of capture methods including mist nets, dho-gaza nets, and bal-chatri traps. Additionally, we banded nestlings if nest trees were located. In 2001, the National Council on Air and Stream Improvement (NCASI) donated slightly used transmitters previously fitted on Spotted Owls. We began installing tail-mounted transmitters on certain owls and have determined home ranges of two female territory holders. The adjacent home ranges of the females are approximately 233 ha (0.75 mi x 1.2 mi) and 518 ha (2 sq mi) with some overlapping area occurring between the two. We have determined dispersal movements of three juvenile birds, at least one which currently holds a territory on the island. We have also documented nest locations, nest tree characteristics, prey taken by Barred Owls, and some molt characteristics. Acker documented a decrease in the response of Western Screech-Owls *(Otus kennicottii)* to playback tapes since the beginning of his monitoring. We have evidence that Barred Owls

will prey on screech owls and other small owls. Are Barred Owls causing a decline in small owl populations? We also speculate as to how many Barred Owl pairs can exist on the island, particularly with development pressure on owl habitat.

GODWIN, STEVEN A. **Great Gray Owl habitat use and seasonal movement analysis via radio-telemetry, vegetation measurement, and genetic analysis.** Bureau of Land Management, 3040 Biddle Road, Medford, OR, 97504. Steve_Godwin @or.blm.gov. **[Paper]**

Our objectives are to: analyze habitat selection and preference of the species; evaluate Great Gray Owl response to current forest management activities; analyze landscape composition within home-ranges to provide for management recommendations at the site and landscape level; ascertain breeding range size; ascertain home-range size; assess gene flow between breeding populations in Idaho, Oregon, and California. Owls were captured at known breeding locations. Backpack style radio-transmitters were attached. DNA samples (blood or feathers) were collected. Owls were located through triangulation five times per two-week period. Times of locations were rotated through three nocturnal periods. Our preliminary results show minimal movement by owls during the breeding season. Larger movements were documented during non-breeding season. Owls were located in a wide variety of habitats. Little study has occurred on Great Gray Owls in this southerly portion of its range. This study will help us understand what habitat types are preferred by Great Gray Owls. The genetic analysis portion of this study will help us understand the extent to which movement occurs between known populations of Great Gray Owls.

‡GRIFFITHS, JESSICA, SARAH STOCK, and NELLI THORNGATE. **Productivity and abundance of riparian focal species relative to habitat restoration in central coastal California.** Big Sur Ornithology Laboratory of the Ventana Wilderness Society, HC 67, Box 99, Monterey, CA 93940, ‡jessicagriffiths @ventanaws.org. **[Paper]**

The Monterey Peninsula Water Management District (MPWMD) initiated multiple watershed restoration projects in 1984 to restore critical riparian habitat and hydrologic function that had been compromised by two dams followed by 80 years of intensive floodplain development. Since 2003 we have been conducting avian monitoring to evaluate the efficacy of the MPWMD's habitat restoration efforts. Over two breeding seasons we studied productivity and abundance of California Partners in Flight riparian focal species at five sites undergoing different degrees of restoration. The results of the present study were derived from data collected using the Monitoring Avian Productivity and Survivorship protocol during 2003 and 2004 breeding seasons. Bird populations responded differently to varying degrees of restoration. Bird productivity and abundance were higher at sites where restoration efforts created a diverse understory and where small (3 to 6 m) willow species mixed with larger mature cottonwoods or alders composed the major vegetative cover. Productivity and abundance were lower at sites where restoration resulted in a monoculture of small willow trees with negligible understory. Areas with a mature canopy of large (>6 m in height) willows, alders, and cottonwoods varied in their productivity and abundance. The results of this study substantiate the need for long-term avian monitoring in restoration areas to evaluate different restoration techniques effectively and to develop future restoration plans that create healthy and structurally diverse riparian areas.

HAMILTON, BILL. **Evaluating the content of Tricolored Blackbird *(Agelaius tricolor)* colonies.** University of California, Department of Environmental Science and Policy, Davis, CA 95616, wjhamilton@ucdavis.edu. **[Paper]**

Behavioral studies of individually identifiable birds may enhance the accurate estimation of colony size. At colonies comprised of thousands of individuals, typical for breeding Tricolored Blackbirds *(Agelaius tricolor)*, this need is difficult to satisfy because birds cannot be captured at colonies without disruption. This may account for the dearth of behavioral studies of tricolors (none since 1970) and the plethora (over 100 since 1970)

of Red-winged Blackbird *(A. phoeniceus)* behavioral studies. I resolved this limitation for tricolors by observing a relatively small (4,000) tricolor colony and banding at bait several km from the colony before its settlement. Observations of color-banded birds showed that the number of males present when nestlings were being provisioned did not identify the number of females or nests reliably because unmated males hold territories in the same space where other males are provisioning nestlings. The most reliable estimates are made by establishing transects when colonies are active, then making more extensive counts of nests after the breeding season. Post-season estimates ranged from close verification of breeding season estimates to wildly differing totals. A colony nesting in a wheat silage field was estimated at 105,000 birds during the breeding season, but a post-season estimate located only 22,000 nests. The reason for this particular discrepancy was that nests were placed only in patchily distributed mallow weeds, not wheat, a relationship identified by the post-season survey. To determine accurately the abundance and habitat relationships of Tricolored Blackbirds, a combination of banding, field observations during the breeding season, and post breeding nest and habitat analysis is needed.

[1]HEWITT, ROBERT W., [1]GRETCHEN A. O'BRIEN, ‡[2]PABLO A. HERRERA. **Riparian bird monitoring for gravel operators in Humboldt County, California, 1996-2003.** [1]LBJ Enterprises, 1707 E Street Eureka, CA 95501, LBJent@humboldt1.com. [2]USFS Redwood Sciences Laboratory, 1700 Bayview, Arcata, CA, 95521, ‡paherrera@fs.fed.us. **[Poster]**

For the past nine years LBJ Enterprises has conducted bird monitoring at 24 gravel bar extraction sites on the Eel and Mad rivers in Humboldt County, CA. Monitoring methods include annual point counts, area searches, constant-effort mist netting, and Relevé vegetation surveys following Ralph et al.(1993 Monitoring landbirds, USDA For. Serv., PSW-GTR-144). This monitoring was started as a voluntary program by the gravel operators to address potential biological impacts as a result of their activities. In that time, the Snowy Plover *(Charadrius alexandrinus)* and the Willow Flycatcher (*Empidonax traillii*), have been confirmed as breeding on some of these gravel bars. We present our lower Eel River gravel preliminary monitoring results from point count surveys and our Constant-Effort Mist Netting Station. We compared the annual variation of mean number of detections for the five most abundant migrant and resident species. The mean detections showed consistent decreases in 1998 and 1999, possibly due to the strong *El Niño* weather events in the preceding winters. We also examined Cormack-Jolly-Seber models of adult survivorship for the Song Sparrow and Swainson's Thrush at our Constant-Effort Mist Netting Station. Of the five models tested, the constant survival and recapture rate model had the highest degree of statistical support for both species. However, the second-best-supported model indicated a negative effect for Song Sparrow survival in 1998 and 1999 Migrant species showed higher annual variation than resident species when examined using regression. The opposite result was predicted when examined by modeling. However, both approaches provide information about declines in 1998 and 1999 for some species.

HULL, BUZZ and A. M. FISH. **A study of juvenile Red-tailed Hawk (*Buteo jamaicensis*) movement through the Marin Headlands, California, in autumn and winter.** Golden Gate Raptor Observatory, Building 1064 Fort Cronkhite, Sausalito, CA 94965.
bhull@ parksconservancy.org. **[Paper]**

Fall and winter raptor banding was initiated in 1983 in the Marin Headlands and formal fall migration counts of raptors were started in 1986. Both efforts have continued each year since then from mid-Aug to Mid-Dec. Bimodal distribution of juvenile Red-tailed Hawks (*Buteo jamaicensis*) counts have been recorded each year by the counting team with the first peak occurring in September and the second in early November. There is a significant difference in the pattern of band recoveries between the juvenile Red-tails banded in the two periods of peak activity. Within the same fall and winter that they were banded, a greater proportion of the juvenile Red-tails banded in the first peak-period in Septem-

ber were reported to the north of the banding site. A significantly greater proportion of those banded in Oct, Nov, and Dec were reported to the south of the banding site during the winter of banding. These results suggest that the juvenile Red-tail movement during the September peak may consist partly of post-fledging dispersers, and that more of the later birds are migrating.

[1]‡JONGSOMJIT, DENNIS, [1]THOMAS GARDALI, [1]GEOFF GEUPEL, §STEPHANIE JONES, and §PAULA J. GOUSE. **Building a nestling aging guide: A call to researchers**. [1]PRBO Conservation Science, 4990 Shoreline Highway, Stinson Beach, CA 94970; ‡djongsomjit @prbo.org. §U.S. Fish & Wildlife Service, P.O. Box 25486, DFC, Denver, CO 80225. **[Poster]**

We are building a nestling aging guide of descriptive statistics and photographs, and we encourage the participation of researchers to make this guide as useful and comprehensive as possible. The ability to age nestlings when a nest is found is desirable due to emerging methods (such as survival-time analysis) for evaluating nest success that require knowing the age of the nest at finding. These new methods offer several improvements over the popular Mayfield method, which requires several assumptions be met: a constant probability of nest-failure within a nesting period (laying, incubation, or nestling), an equal probability of failure among nests, and independence of outcome among nests. Additionally, these new methods allow researchers to analyze the effect of covariates on daily nest survivorship. For example, researchers can look at temporal variation in nest survival or at the effects of vegetation or landscape characteristics—analyses that are clumsy at best using Mayfield estimates. These sorts of insights should make the most of nest monitoring data to inform managers on how best to enhance songbird reproductive success. An aging guide is also useful for those interested in the life history of a species, to help gauge the proper time to band nestlings, and to help estimate more precise fledging dates. In order to facilitate this process, we present guidelines, suggested protocols, and data-forms for researchers who band nestlings and are interested in contributing data to this project or who want to create a similar guide for their study species. We present these guidelines using examples from Song Sparrows measured from our study plots in the Point Reyes National Seashore, California.

LARSON, KEITH. **Band manager workshop**. Klamath Bird Observatory, P.O. Box 758, Ashland, OR 97520. **[Workshop]**

This two-hour workshop covers the basic fundamentals of Band Manager, the computer program used throughout the USA and Canada for banders to report banding data to the Bird Banding Offices. This workshop is designed to be an introduction to the program for first-time Band Manager users, or a refresher course for those who have used the program before. During this workshop, Keith Larson will walk participants through the steps of entering and verifying banding data and producing schedule reports using a pre-prepared data set. He will offer tips and tricks designed to streamline your Band Manager experience and will be available for questions after the demonstration.

PITKIN, MELISSA. **Mist-netting with the public—Encouraging public participation in mist-netting demonstrations**. Klamath Bird Observatory, P.O. Box 758, Ashland, OR 97520 mp@klamathbird.org **[Paper]**

Involving the public (students, community members, and wildlife managers) directly with scientific monitoring and research is critical to teaching people about the importance of science-based conservation and for building support for wildlife monitoring and research. In-the-field activities provide participants firsthand experiences with birds up close and in the hand. Simple guidelines for how to safely involve the public in mist-netting demonstrations are outlined along with recommendations for creating interpretive tools and selecting appropriate sites. Constant-effort mist netting and MAPS programs should encourage public involvement whenever possible. This unique experience will benefit birds and habitat conservation.

MICHEL, NICOLE. **MAPSPROG workshop**. The Institute for Bird Populations, P.O. Box 1346, Pt. Reyes Sta., CA 94956. **[Workshop]**

This one-hour workshop covers the basic fundamentals of MAPSPROG, the data input/import, verification/editing, and error-tracking program for MAPS (Monitoring Avian Productivity and Survivorship) banding, effort, breeding status, and habitat data. This workshop is designed to be an introduction to the program for first-time MAPSPROG users, or a refresher course for those who have used the program before. During this workshop, Nicole Michel will walk through the steps of entering and verifying banding and effort data (and perhaps breeding status, depending on time) using a pre-prepared data set. She will offer tips and tricks designed to streamline your MAPSPROG experience and will be available for questions after the demonstration.

POLLINGER, JOHN, S.M. CLEGG, I. LOVETTE, M. KIMURA, K. RUEGG, B. MILA, T.B. SMITH. **Linking breeding and overwintering areas for five Neotropical migrant passerines using genetic markers.** Center for Tropical Research, UCLA Conservation Genetics Resource Center, 621 Charles Young Drive South, Los Angeles, CA 90095. jpolling@ucla.edu and bmila@ucla.edu **[Paper]**

Assessing levels of connectivity between breeding populations and overwintering locations for small migratory songbirds has proved difficult via traditional marking and tracking approaches. Here we briefly assess the utility of molecular genetic approaches to provide information on population connectivity in five widespread Neotropical migrant passerines: Common Yellowthroat, Nashville Warbler, Wilson's Warbler, Yellow-breasted Chat and Swainson's Thrush. The approach used to determine the geographic scale that breeding and wintering sites may be linked involved (1) the assessment of levels of mitochondrial DNA phylogeographic structure across the breeding range of each species, (2) the identification of diagnostic restriction sites that defined different geographic populations and (3) the use of this information to assign individuals caught at overwintering sites to a breeding area. Broadly congruent phylogeographic patterns were evident, with well supported 'eastern' and 'western' lineages identified in all five species. Overwintering individuals were diagnosed as being of eastern or western breeding origin. Limited mixing of breeding lineages at overwintering sites was evident for Wilson's Warbler; for all other species, overwintering locations comprised individuals belonging to a single lineage. Resolution of finer scale geographic structure on the breeding grounds was not possible using mt DNA; therefore, overwintering individuals could not be assigned to smaller geographic breeding areas. Greater resolution may be possible when molecular genetic techniques are combined with other sources of information on geographic origin.

POLLINGER, JOHN, BORJA MILA, and TOM SMITH. **Genetics, migration, and bird conservation.** Thomas Center for Tropical Research, UCLA Conservation Genetics Resource Center, 621 Charles Young Drive South, Los Angeles, CA 90095. jpolling@ucla.edu and bmila@ucla.edu **[Workshop]**

Assessing levels of connectivity and population structure between breeding populations and overwintering locations has proved difficult via traditional marking and tracking approaches, especially for small migratory songbirds. Genetic characterization and isotope tracking studies can provide significant insight for both migratory and resident species. The UCLA Conservation Genetics Resource Center (CGRC), and the Center for Tropical Research (CTR) at UCLA have applied a variety of genetic approaches and isotope tracking methods to the study and conservation of migratory birds. We will briefly discuss the range of genetic tools available (e.g., microsatellites, sequences, AFLPs), their potential information content and appropriate application, and provide specific examples of their application to studies of migratory bird connectivity and population structure. We will also discuss suitable samples for genetic and isotope studies, emphasizing blood and feather

samples. Finally, we will conduct an open discussion where participants can discuss and get advice on specific studies of interest for (1) genetic and isotope study design, (2) suitable sample selection, collection and storage, (3) selection and application of genetic and isotope tracking tools, and (4) analysis of results.

PYLE, PETER. **Great trans-Pacific migrations: From albatrosses to turtles and sharks to pipits.** The Institute for Bird Populations, P.O. Box 1346, Point Reyes Station, CA 94956-1346; ppyle@birdpop.org. **[Special Evening Presentation]**

The Pacific Ocean covers over 69 million square miles of, for the most part, hostile territory for migrant animals. There is no place to land and little to eat. Yet many species need to navigate these waters to take advantage of seasonal food resources or protected areas to raise their young. Through the advent of state-of-the art satellite-tag technology, we are discovering some amazing things about how far these animals travel and the methods they use to get there. Whereas north-to-south migrations are considered the norm, there is a strong, heretofore unrecognized east-to-west component to Pacific migrations. We will travel from Siberia to Baja California, the Gulf of the Farallones to Hawaii, and Indonesia to Point Reyes, in quest of some of these great trans-Pacific migratory pathways.

PYLE, PETER. **Feather molt workshop**. The Institute for Bird Populations, P.O. Box 1346, Pt. Reyes Sta., CA 94956-1346; ppyle@birdpop.org **[Workshop]**

Participants will be trained in a synthesis of methods pertaining to 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 (second-year / after second-year) using molt limits, which allows for the calculation of juvenile recruitment and survival as used by MAPS programs and other population studies. The workshop will consist of presentations, study of specimens, field mist netting, banding, and assessing live birds at two different locations. The accurate identification, ageing, and sexing of North American near-passerines and passerines generally is complicated by a high degree of variation in size, plumage, and molt patterns found within each species, subspecies, and age/sex class. Biologists use various techniques for accurate ageing, sexing, and identification of birds in the hand and the field. The understanding of these concepts is crucial to accurate data collection and analysis. In this training workshop, participants will receive instruction on advanced bird identification, ageing, and sexing methods.

†ROBILLARD, KEITH A., and ‡MICHAEL T. MURPHY. **Influence of age, weather, and body size on reproduction of Tree Swallows in the Willamette Valley, Oregon**. †Department of Biology, Portland State University, Portland, OR 97201; keithr89@hotmail.com. ‡1719 Southwest 10th Street #246, Portland, OR 97201; goshawk 2004@yahoo.com. **[Paper]**

We studied the reproductive ecology of Tree Swallows in a climatically mild portion of their range in the Willamette Valley, OR. We tested the hypotheses that age effects would be pronounced (due to lack of climatic stress), and that weather and body size would have little influence on reproduction. For the main breeding period (3 May – 6 Jun), older females produced larger clutches, but there were no differences in timing of breeding or fledging success in comparisons of age classes. Poor weather caused a decrease in clutch size. Interruptions in laying were also associated with lower maximum daily temperatures, and incubation length was related inversely to temperature during incubation. We found no relationship between body mass and wing chord vs the reproductive traits reported here. However, we found consistent inverse relationships between measures of productivity and tarsus length. Thus, for this population, age effects are similar to what has been described in eastern portions of the range. Weather had little effect on reproduction except during egg-laying and incubation, but body size appeared to influence reproductive success, a finding not reported elsewhere.

SABIN, LAURA BETH. **Using year-round mist-netting to gather baseline data of avian use along the lower Colorado River on typical and restored habitat.** Bureau of Reclamation, P.O. Box 61470, Boulder City, NV 89006; lsabin@ lc.usbr. gov **[Poster]**

The Bureau of Reclamation, Lower Colorado Region, has initiated an avian monitoring program along the Lower Colorado River (LCR) to gather baseline data on avian use of typical and restored habitats. A major component of this monitoring program is year round mist-netting. The data obtained through year-round mist netting will serve the following purposes: (1) to monitor avian population and trends along the LCR watershed; (2) to determine differences in bird activity between restored and typical habitat; and (3) to use avian monitoring data in development of future restoration sites. Since 2000, Reclamation has initiated two MAPS (Monitoring Avian Productivity and Survivorship) stations during the breeding season, one in typical habitat and one in restored habitat. Since 2002, Reclamation has initiated two winter and fall migration mist-netting stations; in two separate restoration-sites. Data collected from these stations will include the following: avian abundance, species composition, fat levels, pectoral muscle mass, productivity index, survivorship, age and sex ratios, over-winter site persistence and annual return rate. The HERO site (non-restored) yielded 0.41 birds per net-hour encompassing 24 species, and the CIBO site (restored) yielded 0.84 b/nh encompassing 27 species in the breeding season of 2003. The CIBO site yielded 0.43 b/nh enco-mpassing 22 species in the winter of 2003–2004. The PRAT site (restored) yielded 0.39 b/nh encompassing 17 species in the winter of 2003–2004. Reclamation is expected to add a third winter mist-netting station in typical habitat and add additional MAPS station in restored and typical habitat for continual avian monitoring along the LCR.

†‡SAKAI, WALTER H., †ANDRES AGUILAR, †ANN DUSEBOUT, †SARA ENGELSEN, †JAN GOERRISSEN, †ANASTASIA GONCHARKO, †GIL HOFTMAN, †LAUREN MATSUI, †JAY PARK, and †FRANCINE STROMAN. **Are black mist nets really better than other-colored mist nets?** †Life Sciences Department, Santa Monica College, 1900 Pico Boulevard, Santa Monica, CA 90405-1628; ‡sakai_walter@smc.edu. **[Paper]**

If there is a central dogma to bird banding, it might be that black mist nets catch more birds that other-colored mist nets. We found that most papers do not even mention the color mists that were used We found that bird band manuals and the MAPS protocol "suggests" that banders use black. Yet we found nothing in the literature to support the notion that black mist nets capture more birds than other colors. To test this assumption, students at Santa Monica College tested the effectiveness of black, blue, brown, gray, and white mist nets in the high desert of southern California in the spring of 1994, and black, brown, green, and white mist nets in a chaparral habitat in southern California in the fall of 2003. We found that black mist nets did capture more birds than other-colored mist nets, but the differences were not always statistically significant We found that while some birds were caught more successfully in black mist nets, the rule did not hold true for all birds.

††‡TIETZ, JAMES R., and †MATTHEW D. JOHNSON. **Stopover-habitat ecology of the Swainson's Thrush in northwestern California.** Humboldt State University, Department of Wildlife, 1 Harpst Street, Arcata, CA 95521; jrt24@humboldt.edu. **[Paper]**

The importance of conserving stopover-habitat to protect declining migratory songbirds has only recently been given attention in eastern North America, and as of yet, remains under-studied in the West. Prior research has shown the importance of fruit in the diet of many fall-migrant songbirds but has not yet been able to correlate resource abundance with habitat selection. This information is critical for land managers who make decisions about habitat conservation. We used radio telemetry to study the stopover ecology of the Swainson's Thrush, a typical yet declining species, during its fall migration in the Lanphere Dunes Unit of the Humboldt Bay National Wildlife Refuge in northwestern California. Radio telemetry provides unbiased information on songbird behavior with no

apparent side effects and provides a more direct method to study habitat selection than simply mist-netting. Birds receiving transmitters (n=22) were triangulated by three trackers with handheld radio-receivers six days per week. Positions obtained for an individual were used to describe its stopover home-range using the fixed kernel method in GIS ArcView. The mean home-range size during stopover was 25,163 sq m. Compositional analysis was used to determine that beach pine is selected significantly more than broadleaf and spruce. Huckleberry fruit abundance was determined to be significantly greater at occupied sites than random sites during the first year, but not during the second year when fruit abundance was more localized. These results indicate that correlating fruit abundance with forest type may provide useful information in the conservation of stopover-habitat.

TOMOSY, MONICA, Chief, Bird-Banding Laboratory. **New perspectives from the Bird Banding Laboratory**. U.S. Geological Survey, Patuxent Wildlife Research Center, 12100 Beech Forest Rd., Laurel, MD 20708 mtomosy@usgs.gov. **[Paper]**

It is traditional for the Chief of the Banding Lab to bring information on new programs at the lab to the regional bird-banding meetings. With the new chief of the lab now in place, it will be interesting to hear her perspectives on this highly successful program—*C.J.Ralph*

WHEELER, SARAH. **West Nile Virus antibodies in wild birds collected in the Coachella Valley, California.** Center for Vector Borne Diseases, School of Veterinary Medicine, University of California at Davis, c/o Coachella Valley Mosquito and Vector Control District, 43-420 Trader Place, Indio, CA 92241 sswheeler@ucdavis.edu. **[Paper]**

Prevalence of antibodies (seroprevalence) to mosquito-borne arboviruses (arthropod borne viruses) have been monitored in bird populations of the Coachella Valley since 1996. Seroprevalence data were used to track the occurrence of infection in time and space and to determine which bird species were important as maintenance hosts. Against this historical backdrop of virus surveillance, our program monitored the introduction, spread, and amplification of West Nile virus (WNV) within avian populations during 2003. Overall, 3,455 birds comprising 63 species were collected at nine locations throughout Coachella Valley, of which 33, 7, and 2, respectively, were antibody-positive for West Nile, St. Louis encephalitis (SLE) and Western equine encephalomyelitis (WEE) viruses, respectively. Virus activity appeared to be restricted to wetlands and agricultural habitats near the Salton Sea and did not disperse to suburban areas in the upper valley. Nearly all birds seropositive for WNV were resident species in the orders Columbiformes and Galliformes, taxa known to survive infection. Passeriform species previously positive for WEE and SLE were negative for WNV, most likely because they frequently do not survive WN infection to produce antibody. Spring/fall migrants and winter residents were negative throughout. WN virus has over-wintered successfully and has amplified over the spring of 2004. We are continuing to monitor WNV seroprevalence as the virus establishes in the Valley.