The Klamath Bird

Newsletter of the Klamath Bird Observatory, Fall 2005

Science, Education, and Partnerships



A Commitment to Education and Training

Bob Frey, KBO Biologist

The Klamath Bird Observatory's Education and Training Programs approach the sharing of bird conservation from many perspectives. Through ongoing public presentations, K-12 classroom education, bird walks, and bird banding demonstrations, our programs reach thousands of individuals each year. We share our information with an even larger audience through a variety of media, including peer-reviewed publications, symposia presentations, and educational materials. Finally, our training programs present opportunities for biologists to receive highly technical information and specialized skills and promote the use of standard bird monitoring methods throughout the Americas.

KBO's Training Programs take several approaches, including professional training workshops and student internships. Our professional training opportunities target partners and collaborators through landowner workshops (Work in the Watershed, page 4), biologist training workshops (Training Partners, page 7), and consulting on research methodologies (Trout and Birds, page 6), to name a few.

In addition to providing training for partners and collaborators, we offer student internships for beginning ornithologists to gain skills in field research methods such as mist netting and bird banding. As the Banding and Intern Program Leader, I am intimately familiar with KBO's student internship program. I am responsible for the selection, training, and supervision of approximately 10 interns each year.



International Intern Viviana Cadena (Colombia) banding a Northern Flicker, 2004

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During the course of an internship, student volunteers employ a variety of bird monitoring methods, the most complex being the use of mist nets to capture and band songbirds. Interns are trained to the safe and ethical standards of the North American Banding Council (NABC, at http://www.nabanding.net) and are given the opportunity to attain NABC Bander Certification. Experiential training is supplemented by extensive study of relevant manuals and scientific article discussions. Interns are also encouraged to design and carry out their own research projects with support from KBO staff biologists. For a first hand account of the intern experience, see page 2.

KBO actively recruits from outside the US in order to provide training opportunities that may not exist, or may be prohibitively difficult and expensive, in many parts of the world. In cooperation with Southern Oregon University's International Program, KBO has hosted interns from Argentina, Australia, Canada, Colombia, Costa Rica, Hungary, New Zealand, The Netherlands, Trinidad & Tobago, and the United Kingdom. Many of these individuals have taken the specialized skills and knowledge mastered during internships with KBO and applied them to new challenges in their profes-

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Science

A Commitment to Education and Training, continued from page 1

sional careers. Several are in or have completed graduate-level studies in ornithology, zoology, or wildlife sciences (see page 3). Others have moved on to biologist positions with private companies, NGOs, and government agencies. One of our former interns has begun a bird-monitoring program in her homeland of Trinidad & Tobago while completing a Master of Science degree (see page 3). The internship program is rewarding in several ways. By enabling young biologists from all over the world to acquire specialized bird monitoring skills, we are able to collect a tremendous amount of data for our long-term monitoring projects, while at the same time forming enriching and wonderful friendships and promising professional relationships each year.

"If you tell me, I will listen. If you show me, I will see. But if you let me experience, I will learn." - Chinese proverb, ca. 500 BC



Interns Sarah Faegre and James Melton banding a Coopers Hawk, 2004.

The Intern Experience

David Hodkinson, KBO Intern, 2005

From April to September 2005 I held an internship with the Klamath Bird Observatory, before beginning my degree in ecology at the University of Sheffield, U.K. While working with KBO, I had numerous opportunities to develop my field, ornithological, and banding skills.

Since this was my first visit to the area, I was especially interested in the opportunity to travel to KBO's various field sites throughout the Klamath-Siskiyou region. I was not disappointed with this experience; in fact I have decided to return in 2006 to travel more extensively.

One of the most memorable experiences of the summer was the KBO trip to attend the annual meeting of the Cooper Ornithological Society held at Humboldt State University in Arcata, California. This event provided an excellent opportunity to see many inspirational presentations, including five by KBO staff members, and a chance to brush shoulders with many of the top names in North American ornithological research.

In addition to my regular duties, I was privileged to work with KBO staff on a research project using the data collected during previous years. The project I chose involved using wing length measurements to improve the sex determination of Song Sparrows (Melospiza melodia). Identifying male Song Sparrows from female Song Sparrows is a difficult task, since both sexes have identical plumage. The aim of my project was to determine the extent of overlap between the wing lengths of male and female individuals. Once the overlap zone is determined, it will be possible to classify any bird with a wing length shorter than the lower limit of the overlap zone as female, and those birds with wing lengths greater than the upper limit as males. This determination will allow KBO in future years to make an accurate sex determination of an additional 30% of the non-breeding Song Sparrow population. This will have substantial benefits during future analysis of this species by KBO biologists.

When September finally arrived, I returned to my home in Nottingham, UK with a heavy heart, having spent the summer in the company of so many wonderful people, each contributing to an unforgettable experience. Thank you so much to everyone at the Klamath Bird Observatory. I look forward to continuing working with you all in the future.

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Science

KBO Interns Seek Higher Degrees

After interning with KBO, many interns return to school in pursuit of master's or doctorate degrees. Katherine Miller worked with KBO in 2002, and Daveka Boodram was an intern in 2002 and 2003. Our internship program is an excellent way for KBO to contribute to conservation at the local, national, and international level. – John Alexander, Executive Director

Katherine Miller

It is a hot humid summer afternoon. I am on my knees in a grass flat hoping to spot an elusive female Botteri's Sparrow (Aimophila botterii) heading to her nest. I am working with this difficult-to-study bird for my Master's thesis because little is known about its biology.

Sometimes I wonder how I ended up in the field, chasing birds. I started working summer field jobs as a junior in college. One of those jobs was with the Klamath Bird Observatory. During my KBO internship, I became very familiar with bird biology and research techniques. As a result, I finished college Ornithology with an A, received good marks for my preparation of bird skins, landed a job with USGS conducting Burrowing Owl surveys, and am now a graduate student in Corpus Christi at Texas A & M University. The other day I discovered a bird skull on my study site and suddenly found myself explaining to a coworker how baby bird skulls form during their 1st year of life, giving bird banders a tool for determining the age of captured birds.

I was able to gain these skills and knowledge because of KBO's staff, who willingly teach numerous eager interns each year. KBO took a city girl with no field skills and



For nearly 10 years, the US Fish and Wildlife Service has provided housing for KBO interns at this cabin on the Upper Klamath Lake, Oregon.

turned her into a biologist. So many thanks to the KBO staff. May we always be willing to rise to the challenge of promoting bird and habitat conservation by sharing knowledge and teaching the art of science to those who can carry on such a tradition.

Daveka Boodram

I am from Trinidad and Tobago and interned at KBO for six months in 2002 and 2003. I enjoyed it so much the first time that I had to return for more. At the end of the 2003 field season, I returned to Trinidad to begin a journey I never expected.

I have used my experiences at KBO to make substantial contributions to bird conservation in Trinidad and Tobago. My efforts include operating the first MoSI bird monitoring station in Trinidad and Tobago. MoSI is a program to study over-winter ecology of migratory songbirds (http://www.birdpop.org/MoSI/MoSI.htm). I also established the first constant-effort mist-netting station in Trinidad and Tobago, which is still in operation. In addition, I have just agreed to help with a project studying the West Nile virus in birds in Tobago. Presently, I am a master's student at the University of the West Indies, working on developing a management plan for a threatened species of hummingbird called the White-tailed Sabrewing (Campylopterus ensipennis).

To date I have captured over 2000 birds and introduced 11 people from Trinidad and Tobago to bird monitoring techniques, including 4 students from the University of the West Indies. I have been the recipient of three small grants to help support my constant-effort station. My goals are to

train local people in bird monitoring techniques and eventually to have enough data to develop criteria to determine the age and sex of individuals of resident species in Trinidad and Tobago. At present I am the only local in Trinidad and Tobago banding birds.



Student Intern Daveka Boodram, 2002-03

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Education & Outreach

Work in the Watershed

Nat Seavy, KBO Research Associate

The Applegate River Watershed Council (ARWC) has developed a unique program designed to restore and sustain ecological structure and function in the Applegate Watershed in southern Oregon. This program includes stream habitat and water quality monitoring, watershed-based analysis and planning, and education and community outreach promoting conservation and stewardship practices that maintain a healthy watershed. Strong community participation, volunteer efforts, and partnerships with landowners, agencies, and interest groups are essential to this program.

Funding from Jackson County's Title II Program supports KBO's efforts to connect communities with science.

This past spring, the Klamath Bird Observatory had the opportunity to discuss some of our research results with the Applegate community at a workshop on oak woodland fuels treatments sponsored by ARWC. We discussed how we have cooperated with Medford Bureau of Land Management to compare plant communities and bird abundance in treated and untreated stands of oak woodland and chaparral in the Applegate Valley. These fuels treatments were small, 15-80 acres, and designed to reduce cover of flammable shrubs, maintain cover of hardwoods, enhance native herbaceous vegetation, and maintain structure in the plant community. Our data demonstrate that these small-scale

fuels treatments in oak woodlands did not reduce the abundance of several bird species representative of oak woodland and chaparral habitats. Indeed, two oak woodland species were more abundant, suggesting that these treatments en-

hanced habitat conditions as measured by the study of birds.

Our partnership with the Applegate Watershed River Council provides important opportunities to communicate the results of our research to the Applegate community. Furthermore, we are grateful for the support of both the Council, and the Applegate commu-



White-breasted Nuthatch, one of the species more abundant in treated stands. (photo by Don Baccus)

nity, for our research projects in this unique and biologically diverse region of Oregon. For more information on the Applegate River Watershed Council, visit their website: http://www.arwc.org/

Willow Wind Student Articles

Joe Madden, KBO Outreach and Education Intern (Southern Oregon University)

This fall, KBO Staff have been pleased to offer a class in Bird Biology to students at Willow Wind Community Learning Center (http://www.ashland.k12.or.us/SectionIndex.asp?SectionID=49), here in Ashland, Oregon at the site of KBO headquarters. On the following page appear articles submitted by some of these students. I wish we had room to publish all of the articles submitted by our thirteen Willow Wind students, as each of them expressed a lot of appreciation for and excitement about the class. Many students agreed that their favorite part of the class is visiting the banding station, where they get to see birds up close and even hold them in their hands before setting them free. Several students also mentioned that they have enjoyed the homework assignments, in which they get to know our local bird species better through researching them in field guides and on the internet. Others enjoy the bird walks that we take around the Willow Wind grounds to observe birds in their natural habitat. A couple of our students were enthralled by how KBO biologists can tell the age of a bird by looking through the translucent skin on the crown of its head to see how fully formed its skull is. The fascinating science and compelling narrative of bird migrations made for a popular topic of study, while, last but not least, several students cited amazing facts that they have learned about birds, such as that the Anna's Hummingbird can fly backwards, or that the Canada Goose flies at a height of 8,000 feet. It has been such a pleasure to teach these students, all of whom show so much curiosity, enthusiasm, and concern for birds. continued on page 5

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Education & Outreach

Willow Wind Student Articles (continued)

Bryce Shumway

In this class we have done many fun things, like catching cool birds in mist nets, banding them, releasing them, and writing study reports about them. I have learned lots of cool stuff about birds. Most birds have to migrate for food sources during winter and summer. Some birds eat seeds, others eat meat, and many eat bugs. My favorite part of class is getting to hold banded birds and having an opportunity to release them back into the wild.

Dillon McCord

I have really enjoyed the bird biology class so far. We have done a lot of fun, interesting things. My favorite was going down to the mist nets. We saw a lot of birds and I got to release one. I have learned about taxonomy, the classification of different types of life. We have also learned about migration, and about identifying birds by their appearance, call, and beak.

Rebekah L. Mortensen

The Klamath Bird Observatory is comprised of people that will do whatever they can for the birds, and who care about their surroundings. The folks at KBO have developed a class to teach the kids at Willow Wind what they know about the birds, but not only that, they teach us to care. In this class we had an opportunity to go down to KBO's banding station here on our campus. The biologists there showed so much care and gentleness in the way they handled the birds, from the moment the bird was caught in the net to the moment they let it go, alert to any pain, stress, or struggle the bird might have. The Klamath Bird Observatory has made us feel like we can make a difference in the world because of the difference they make. My experience at Willow Wind has definitely changed for the better since I've come to know most of the individuals at KBO; I'll always thank them for giving me the opportunity to become part of what they are part of.

Bird Bio: the Song Sparrow (information from The Birder's Handbook by P.R. Ehrlich, D.S. Dobkin,

information from <u>The Birder's Handbook</u>by P.R. Ehrlich, D.S. Dobkin, and D. Wheye, and from <u>The Sibley Guide to Bi</u>rds by D.A. Sibley)



Photo by Don Baccus

The Song Sparrow (Melospiza melodia) is a familiar bird year-round in our region. It has the conical, seed-crunching bill typical of sparrows, and can be identified by its brown cap, gray supercilium ("eyebrow"), brown streak extending behind the eye, and strong brown lateral throat stripe. Additionally, it has heavy brown striping along the sides of its white or gray breast. These brown streaks con-

verge on its chest, just below the throat, to form a messy breast-spot. The Song Sparrow generally eats seeds and sometimes berries, but supplements its diet with insects.

During the spring, male birds can be seen chasing females in a courtship dance, with head and neck held high and wings fluttering rapidly. Song Sparrows are generally monogamous, and some pairs will even stay together from one breeding season to the next. After choosing a mate, a female Song Sparrow will build a cup-shaped nest, usually on the ground or in low shrubs, and preferably in a densely vege-

tated riparian area. She lays a clutch of 3 or 4 pale blue or green eggs, patterned with reddish-brown markings. Song Sparrows are a frequent victim of cowbird parasitism, and have been known to recognize and chase off cowbirds. The female broods the eggs, and the pair collaborate in caring for the hatchlings. After about 9-12 days, the young fledge; at this point the male takes over their feeding so that the female can attend to a new clutch of eggs. (The pair may raise two, three, or even four clutches in a single season!) About 21-30 days after hatching, the young disperse to make their way on their own.

Mist-netting research conducted by KBO along the Rogue River indicates that resident populations of Song Sparrows have declined 6.4% annually during the past eight years. Oregon-Washington Partners in Flight classifies the Song Sparrow as a conservation focal species associated with riparian habitats; meanwhile, California PIF has found that Song Sparrow populations increase gradually following the restoration of degraded riparian habitat. Monitoring Song Sparrow populations is a good way to track the health of riparian habitats, and as PIF riparian restoration objectives are implemented, we expect Song Sparrow populations to benefit.

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Partnerships

Trout and Birds?

Karen Pope, UC Davis

Sport fishes such as brook and rainbow trout have been introduced to many formerly fishless lakes, resulting in recreational use of wilderness and national forests throughout the mountainous regions of the west. Recently, however, these non-native trout have been implicated in the decline of several amphibian and invertebrate species. The direct relationship between trout predator and tadpole or insect prey is fairly easy to document. Most larval amphibians and aquatic insects, however, metamorphose into terrestrial adult stages that become major prey items for birds, bats, snakes, and other terrestrial predators. Therefore the introduced fish could potentially lead to indirect effects on terrestrial wildlife, an issue rarely considered by resource managers or researchers.

In 2003, with support from the California Department of Fish and Game, National Science Foundation, The University of California, and the US Forest Service Redwood Sciences Laboratory, we initiated a collaborative study to assess whether trout predation of larval amphibians and aquatic invertebrates subsequently affects terrestrial predators. Our study sites include 16 lake basins in the Trinity Alps Wilderness of northern California, a historically fishless region that now supports trout in approximately 90% of the 100+ lakes more than 2 meters deep.

This project has benefited from expert advice and training that we have received from KBO staff. John Alexander (KBO Executive Director) and Nat Seavy (KBO Research Associate) helped adapt a double-observer point count technique for the study and have led the bird identification and point count trainings for the crew in both 2004 and 2005. They also helped design a time/area-constrained search technique that was incorporated into the project in 2005.

"...we have received expert advice and training from the KBO staff."

Each summer our crews spend two nights at each of the 16 lakes collecting data on trout density, aquatic and terrestrial insects, amphibians, birds, reptiles, and bats. Birds are sampled each morning by conducting 5-minute point counts around the perimeter of the lake and by mapping bird activity within 50 m of the lake shore, focusing on five focal bird species (Dark-eyed Junco, American Robin, Lincoln's Sparrow, Song Sparrow, and American Dipper).

As a part of this study, we removed trout from four of the lakes in the fall of 2003. We have started to see a distinct recovery of amphibians, such as the Cascades frog, and aquatic insects, such as mayflies and caddisflies. Field surveys and data analysis are continuing, so stay tuned to find out if we discover a connection between trout and birds. For additional information, please contact Karen Pope at kpope@ucdavis.edu.

KBO Wish List

You can contribute to conservation by supporting KBO through memberships, contributions, and donations. The following items and sponsorship opportunities are greatly needed. Thanks for your support!

Sponsorship Opportunities

\$1000- publication costs for a new brochure

\$600- one set of mist nets

\$500- one month intern stipend

\$100- fuel cost for traveling to one point count route

Donations

Outboard engine for a Boston Whaler

Frequent flyer miles for staff travel to meetings

Color laser printer

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Partnerships

Training Partners: Monitoring Techniques and Application

John Alexander, KBO Executive Director

The Klamath Bird Observatory is committed to promoting standardized bird monitoring techniques among our partners through training opportunities. Each year KBO engages our partners through 1) The Klamath Demographic Monitoring Network, 2) Oregon-Washington Partners in Flight training workshops, and 3) The North American Banding Council.

In partnership with the Forest Service Redwood Sciences Laboratory (RSL), we coordinate the Klamath Demographic Monitoring Network in southern Oregon and northern California. It is one of the world's densest networks of standardized bird monitoring stations. The Network's success is owed to the dedication of the cooperators, who include state and federal agency biologists, tribal members, private consultants, non-government organizations, industry representatives, and community members. Each year we offer, at no cost, training workshops in bird census and banding techniques as well as an advanced banding workshop. We also visit cooperators at their stations for one-onone training opportunities and encourage cooperators to visit each other's stations to foster collaboration. Individuals who now work outside of our Network often return to us to express how unique the training we provide is and how exceptional the quality of our Network data is.

For more than ten years, Barb Bresson, the Forest Service and Bureau of Land Management Avian Program Manager for Oregon and Washington, has held a one-week training workshop focusing on bird monitoring techniques. This Partners in Flight workshop originally focused on point count techniques; however, with the involvement of KBO and others, the scope has expanded. Workshop sessions cover topics that include advanced mist netting techniques, study design, data analysis, and the application of monitoring results to land management issues.

KBO and RSL are actively involved with the North American Banding Council (NABC). NABC's mission is to promote sound and ethical banding principles and techniques. Our training programs use NABC standards as a central theme, and the NABC Bander's Code of Ethics are at the heart of these efforts. Our trainees are taught to value safety, the importance of assessing their own work as well as that of others, and the need to collect accurate and complete

data. In addition, we certify dozens of trainees through NABC sanctioned sessions.

By promoting standardized bird monitoring techniques, we continue to forward bird and habitat conservation through excellent science, education, and partnerships.



Bob Altman (American Bird Conservancy) helps John Alexander (KBO Executive Director) instruct a banding session at the 2002 Partners in Flight Bird Monitoring Workshop, hosted by the Confederated Tribes of Warm Springs in Oregon.

Upcoming Events!

Please join us at the following events:

Saturday Dec 10th — Rogue Valley birder and KBO Board Member Dick Ashford will lead a walk to observe flocking sparrows and other winter visitors. We'll make stops at the feeders at North Mountain Park and the banding station at Willow Wind/KBO Headquarters. Meet at 9:00 am at the Northwest Nature Shop.

Saturday Feb 18, 2006 — John Alexander (KBO Executive Director) will discuss the advancement of bird and habitat conservation in the Americas through science, education, and partnerships at the Winter Wings Festival in Klamath Falls, Oregon (www.winterwingsfest.org).

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