The Klamath Bird

Newsletter of the Klamath Bird Observatory, Summer 2007

Feathers Tell Us About Migration

John Alexander, KBO Executive Director

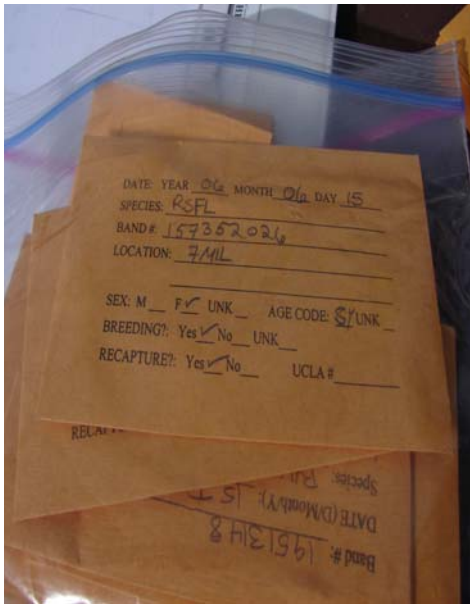
KBO Research Biologist Keith Larson is developing new partnerships to keep KBO on the forefront of international bird migration research. His research focuses on collecting and analyzing the stable isotopes that are found in bird feathers.

Stable isotopes occur naturally in the environment and their characteristics vary geographically. Stable isotopes are passed from water into both the plants and insects that birds eat. Then during annual molting cycles, these geographically-specific isotopes are imbedded in the birds' feathers. Many birds grow new feathers on both their breeding and wintering grounds. Feather samples collected from birds at ecological monitoring stations can therefore be analyzed to determine where migrant birds spend their summers and winters. This provides invaluable information about the areas and habitats that birds depend on throughout their life cycle.

Keith has been working under the lead of Dr. Keith Hobson of the Canadian Wildlife Service on several new isotope projects. This past winter, working with KBO interns Ian Ausprey and Cara Lovell, as well as partners from ProNatura Veracruz, Keith visited over 50 study sites throughout Mexico, where he collected stable isotopes from local water sources and from the feathers of House Sparrows and Inca Doves. These data are being used to develop a map that will describe the geographic distribution of stable isotopes in Mexico. This map will assist researchers in determining where birds captured during the breeding and migration seasons spent the winter.

In southern Oregon, Keith and Dr. Hobson have partnered with Wildlife Images Rehabilitation Center and with Pepper Trail from the US Fish and Wildlife Service's Forensics Laboratory to learn more about bird molt and isotopes. This aspect of Keith's research will help to determine feathers best tell us where a bird spends various parts of its life cycle.

KBO is excited to be involved in these important research efforts, as understanding the connectivity among birds' breeding, migration and wintering habitats is a critical part of their conservation. Keith will be entering a Ph.D. program, where he will focus on migration research. We look forward to tracking Keith's progress as he continues with migration research through these and other KBO collaborations. Such projects forward our mission to advance bird and habitat conservation through science, education and partnerships.



Collected and catalogued tail feathers awaiting analysis. Photo: KBO file

Inside this issue:

See page 6 for details about the migration of the brave little MacGillivray's Warbler. Photo: Jim Livaudais

Save the Date!

KBO Open House
Saturday
September 8
8 am to 2 pm

More information in the KBO calendar inside.

Science

President's Perch

Dick Ashford, KBO Board President

Dear Friends,

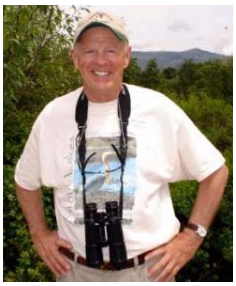
In reviewing this edition of the Klamath Bird, I was again reminded that, even though KBO is a small (friendly, personal) organization, our impact on bird conservation is pretty amazing. Our small group of scientists and educators is producing work that will have long-term, positive results for the future of our planet. Stable isotope research? Wow. This kind of science is at the cutting edge of bird migration study. Why is that important? Learning more about migration helps us to identify habitat and geographic areas that are essential to birds throughout the year. Combining this knowledge with our other work puts us in position to have a positive impact on bird populations throughout the western hemisphere. All this from your small (friendly, personal) bird observatory.

And that's not all! Not only are we working to help birds directly, we are also investing in the future of those who must serve as their future caretakers. Our outstanding work on Birding Trails, our field trips, and our classroom presentations combine to bring nature to children and children to nature. I believe our environmental education program for schoolchildren is the strongest in the region. By instilling a strong, science-based conservation ethic in our young people, we will help provide a new generation of scientists, educators and people who care. The birds need it and deserve it. Thank you for your continued support.

Cheers,

Dick

Dick Ashford
Board President



Tools for Decision Makers Developed

John Alexander, KBO Executive Director

Decision Support Tools (DSTs), originally used in the business sector, provide information about alternatives being considered by decision makers in order to better inform their decision making process. KBO is designing DSTs for land management agencies that use our scientific data to link management challenges with bird conservation objectives. This approach is part of a conservation planning strategy that was developed through a series of Partners in Flight workshops, during which agency partners articulated what they needed to better implement bird conservation measures.

KBO recently published a manuscript in the journal *Forest Ecology and Management* that addresses bird conservation plans and ecological monitoring of oak woodland fuels treatments. The paper demonstrates that bird monitoring serves as a tool for measuring the ecological effects of land management practices, such as fuels reduction treatments, and shows that monitoring can be used to evaluate the effectiveness of implementing bird conservation objectives. The DSTs that KBO is developing use monitoring data to evaluate the likelihood that a given management alternative will benefit birds of conservation concern.

As a result of our efforts, land managers from throughout the Klamath-Siskiyou Bioregion are considering our results as they design future management projects. For example, the Medford Bureau of Land Management (BLM) is retaining small diameter snags, as well as larger snags, as part of some fuels treatments, and has designed current fuels treatments in a manner that allows KBO to monitor the effectiveness of conservation actions. The Klamath National Forest is using information from our recent manuscript to design the size and configuration of fuels treatments to optimize benefits to oak woodland bird species of concern.

Decision Support Tools are an effective means for getting bird conservation objectives implemented. KBO will work with PRBO Conservation Science, Prescott College and the Partners in Flight Implementation and Science Committees to further evaluate the use of DSTs as conservation implementation tools during a full day symposium at the 4th International Partners in Flight Conference to be held in February 2008 in McAllen, Texas.

Manuscript Citation

Alexander, J.D., N.E. Seavy and P.E. Hosten. (2007). Using conservation plans and bird monitoring to evaluate ecological effects of management: An example of fuels reduction in southwest Oregon. *Forest Ecology and Management, 238*, 375 -383.

2007 Banding Program Interns

Bob Frey, KBO Biologist & Banding Program Leader

Banding Crew Lead Intern Ana Maria Gonzalez of Colombia trains KBO's current interns Photo: KBO file

KBO's long-term bird monitoring efforts are integrated with our banding training program. The program takes place at our monitoring sites, and trains interns in specialized methods of bird banding, exposing them to advanced-level ornithological topics and experiential learning. This year we have a diverse group of interns from throughout the Western Hemisphere.

Ana Maria Gonzalez of Colombia and Chris Samuels of Jamaica, interned with KBO in 2006 and have returned as field crew leaders to assist with training and fieldwork coordination. Marcelo Araya Salas of Costa Rica is combining science and education interests during his KBO-National Park Service Park Flight Program internship. Molly Schreiner is a recent graduate of Puget Sound University in Washington. Hernan Arias Moreno is a graduate of Universidad del Tolima, Colombia. Erin Francke is a graduate of Tecnologico de Monterrey, Mexico. Mauricio Ugarte Lewis graduated from Universidad Nacional San Agustin de Arequipa in Peru. Daniel Paradis is a recent graduate of Boise State University. Finally, Bill Trione, a 2006 banding intern, has returned to help coordinate Black Tern surveys in the Klamath Basin.

KBO is dedicated to providing a professional-level learning experience to biologists from throughout the Americas who are interested in the highly-specialized methods of bird banding. KBO would be unable to complete the great amount of bird monitoring or maintain the highest levels of data accuracy without the hard work of our interns. We welcome this terrific group who are volunteering their time and energy to contribute to bird conservation efforts. KBO is both grateful and fortunate to work with these dedicated individuals.

KBO Surveys Insects, Too!

Christine Roy, KBO Field Intern

KBO Field Intern Christine Roy samples insects Photo: KBO file

In the Applegate Valley, KBO interns survey and map birds, but they also sample insects. Insects are a vital nutritional requirement for many species, especially songbirds, whose young feast on a diet composed entirely of insects. When birds are selecting breeding habitat, they take into account suitable nesting locations, but also abundance and availability of food, which includes insects. A juvenile songbird will continue to be fed after fledging and will then forage for insects until berry season arrives, unless it is an insectivore, such as the Pacific-Slope Flycatcher.

To systematically determine the abundance of insects in study areas, KBO interns use a sweep net (butterfly net) to "sweep" vegetation for insect collection and identification. The information collected is being used by biologists to assess the effects of fuels thinning on insect abundance, to better understand how habitat change affects songbirds.

As an interesting side note, spiders play a dual purpose for many birds. Spiders serve both as a food source as well as an important source of nesting material. Many species uses spider webs to build nests.

Meet KBO's 2007 Field Interns

KBO is fortunate to have two Field Interns working on spot mapping and reproduction surveys in the Applegate Valley as part of a study assessing the effects of riparian habitat fuels reduction. Christine Roy, who worked on this crew in 2006, has returned as a Senior Intern Field Crew Lead, just a week after graduating from Paul Smith's College in New York. She is working along side Amanda Cornell, also a recent graduate, coming to KBO from the University of California, Santa Barbara.

Education

New Teaching Tools Available in Modoc County, California

Ashley Dayer, KBO Education & Outreach Director

Educators in Modoc County are now able to teach about the amazing diversity of birds and their habitats in the Modoc region. KBO, in partnership with The River Center, has developed Basin and Range Birding Trail Forest Education Kits for educators in Modoc County, funded by a Modoc County Forest Education Title III grant. The kits are available at no cost to educators for use in the classroom and on field trips from the River Center.

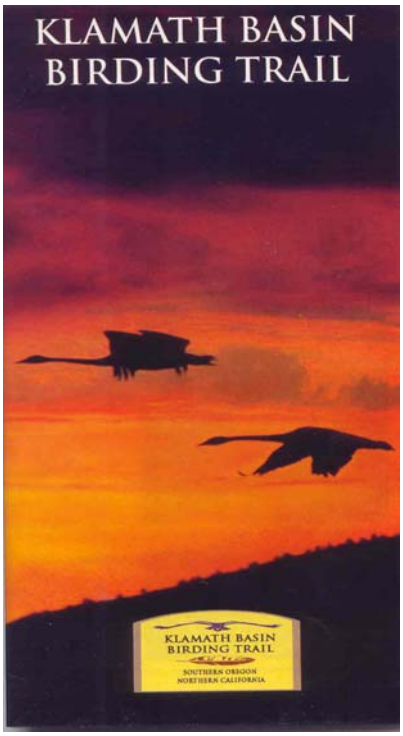
The purpose of the kits is to provide science education resources that will encourage the study and conservation of local birds and habitats. The kit has been specially designed for Modoc County and its unique population of birds. With birds and forest habitat as the teaching tool, the focus is on bird anatomy as it relates to function and adaptation, birds' relationship to their habitat (including other animals), and bird conservation. The kits enhance teachers' abilities to satisfy curriculum goals set by California Science Standards. The curriculum is complete with all the resources necessary for teaching about birds, so that a given lesson plan contains all of the equipment and material required for that plan. Activities include, among others, Bird Olympics, Migration Obstacle Course, and Birding Economics. The curriculum is available online at www.KlamathBird.org/Education/BRBT.

Likely School student takes part in a pilot of the Bird Experts ID lesson
Photo: E. Burris, KBO

The Basin and Range Birding Trail (BRBT) network is being constructed as part of the same project as the education kits. This trail network is within Lake County (Oregon) and Modoc County (California) and when complete, will feature 19 birding sites in Oregon and 17 in California. It will link with the Klamath Basin Birding Trail (KBBT, see related story p. 5), which is also near the Oregon/California state line. Modoc County community members expect they will benefit from increased birding-related tourism resulting from the development of the trail.

Klamath Bird Observatory educators demonstrated the Basin and Range Birding Trail Forest Education Kits to Modoc County teachers during school visits and field trips in May and will do so again in September. The kits will also be demonstrated to community members and tourists at Wings Over the Warners, September 15-16, 2007.

Klamath Basin Birding Trail Brochure Now Available—For Free!



Just about everything a resident or visitor would want to know about bird watching in the Klamath Basin is contained in a free, colorful brochure published by the Klamath Basin Birding Trail Working Group. This 48-page publication includes descriptions and maps of all 47 birding sites present along the 300 mile trail. The brochure includes directions to the various birding sites, services and facilities available at each site, and details of KBO's research and education efforts within the Klamath Basin. Appropriate for beginner through advanced birders, one section addresses frequently asked questions about birding in the Klamath Basin; these include various topics such as the timing of bird migrations, where to see owls and hummingbirds, and when and where to see dancing grebes. A checklist of over 350 bird species, along with the seasonal abundance and likelihood of observing each type of bird, is found in the back of the brochure.

The brochure was published with funding from Klamath County under the PL 106-393 "Secure Rural Schools and Community Self-Determination Act of 2000".

The publication is available free of charge from the Travel Klamath office at 205 Riverside Drive in Klamath Falls or at the Klamath Bird Observatory in Ashland. The Klamath Basin Birding Trail also maintains a web site at www.klamathbirdingtrails.com

Klamath Region Teachers Learn to Use Bird Education Tools

Ashley Dayer, KBO Education & Outreach Director

Bonanza School students inspect a sample of prey items for grebes collected in Upper Klamath Lake Photo: L. Lyons, OSU Extension

This past spring, students and teachers in the Klamath Falls region studied the amazing diversity of birds and their rich Klamath Basin habitat. This schoolyard education program, provided by KBO, demonstrated our newly-developed Klamath Basin Birding Trail (KBBT) Forest Education Kits for teaching about regional birds and habitat. Six of the classes that participated in this program then enjoyed all-day field trips at KBBT sites during May and June.

KBO developed the education kits in partnership with Klamath Wingwatchers, Inc., on behalf of teachers in the Klamath Basin (see related story about education kits for the Modoc region above). The kits are distributed through the OSU Extension Service Klamath County, and are available at no charge for use in the classroom and on field trips. They enhance teachers' abilities to meet science curriculum goals set by Oregon Department of Education. As with the kits for the Modoc region, these kits use birds and forest habitat to teach about science concepts and explore birds' relationship to their habitat.

With support from Cow Creek Umpqua Indian Foundation, through a grant to Klamath Wingwatchers, KBO educators demonstrated the kits to 23 classes, reaching more than 500 students. Using binoculars and field guides, the common robin feeding in their schoolyard was transformed into the fascinating American Robin. The students learned to distinguish the more darkly colored male from the female. They watched with delight as the robin tilted its head, sighting the movement of a worm, pulled it from the ground and devoured it. Students also measured their own "wingspan", comparing their 4' to the 9' of the White Pelican.

Classes that participated in the demonstration were entered into a contest to win a free field trip, by using a Field Journal activity from the kit. Six lucky classes spent an entire day at sites along the KBBT. Activities for these students included binocular and field guide use, observing the breeding behavior of grebes, sampling bird prey in the wetlands, and a wildlife scavenger hunt. Students who attended the field trip at the Sevenmile Guard Station site had the opportunity to observe KBO scientists in action as they captured songbirds, banded them, collected data, and released them.

Bird Bio: Cassin's Vireo

Amanda Cornell, KBO Field Intern

(Information from Birds of Oregon edited by D.B. Marshall, M.G. Hunter, & A.L. Contreras; The Sibley Guide to Bird Life and Behavior by D.A. Sibley.)

The Cassin's Vireo (*Vireo cassinii*) is one of three vireo species that were once lumped together as the "Solitary Vireo." It is a small, greenish-gray bird that can be distinguished from other vireos by its white eye rings and lores, which look like a pair of "spectacles" across the top of the beak. The Cassin's Vireo diet consists largely of insects gleaned from forest foliage. These birds normally breed in conifer/mixed conifer hardwood forests from British Columbia to California and Nevada; they spend their winters between southern Arizona and Guatemala.

Cassin's Vireo sitting on her nest Photo: J. Stephens, KBO

The Cassin's Vireo, known as the "question and answer bird", has a distinctive, two-part, four-note song, which makes it easy to identify and track in the field. He is the only bird who sounds like he is asking himself a question, then answering himself, too. Male Cassin's Vireos are also known for singing from their nests, a habit which is appreciated by KBO field interns who are trying to document nesting habits for a study about how prescribed burning within riparian areas affects bird nesting success.

Although populations of Cassin's Vireo are widespread, they are unevenly distributed throughout the forest; the birds tend to prefer warm, dry forests and usually stay away from cool and open areas. Perhaps the biggest threat to Cassin's Vireo is their nests being heavily parasitized by Brown-Headed Cowbirds. This parasitism reduces the number of eggs a female vireo lays, decreases the hatching rate of vireo eggs, and increases the rate of starvation of vireo nestlings through competition with the larger cowbird nestlings. However, despite the pressures of nest parasitism, Cassin's Vireo populations have remained stable, and some have actually increased in recent years.

KBO Calendar—Join KBO for Summer & Fall Events

***August 4*: KBO Birdwalk to Mount Ashland**
Explore the highest peak of the Siskiyous. Drive to nearly the top of the 7532 foot Mt. Ashland and visit birding sites at a variety of elevations. Meet at 8am at Northwest Nature Shop (Ashland). Leader: Frank Lospalluto. To register, call 541-482-3241.

***August 11:* KBO Birdwalk to Applegate Lake**
Hike the Applegate Lake Trails of the Rogue-Siskiyou National Forest and view summer songbird species. Meet at 8am at Wild Birds Unlimited (Medford). Leader: KBO Staff. To register, call 541-770-1104.

***Sept 1:* KBO Birdwalk to Bear Creek Greenway Hotspots.**
View fall migrants along the Bear Creek Greenway. Meet at 8am at Northwest Nature Shop (Ashland). Leader: KBO Staff. To register, call 541-482-3241.

***Sept 8:* KBO Open House**
Join KBO at our Willow Wind Headquarters in Ashland. Visit our ecological monitoring station & observe scientists mistnetting and banding songbirds. Go birding with KBO staff and board members. Learn about KBO's recent science and education successes in advancing conservation. Children can take part in kids' activities. Snacks provided. Invite your family and friends! 8am to 2pm. For more information, call 541-201-0866.

***Sept 16:* Bird Banding on the Klamath Basin Birding Trail**
Join Klamath Basin Audubon Society on a visit to KBO's ecological monitoring station at Sevenmile Guard Station (US Forest Service) and observe scientists mistnetting and banding songbirds. Then visit nearby birding trail sites. Meet at Sevenmile Guard Station at 9am. For more information, call 541-201-0866.

***Sept 29:* Nuts & Bolts of Bird Research**
Visit KBO's ecological monitoring station at North Mountain Park and observe scientists mistnetting and banding songbirds. Then participate in hands-on activities to learn more about research and conservation. 8:30am-11:30am. To register, call 541-488-6606.

***October 6:* KBO Birdwalk to Touvelle and Denman Wildlife Areas**
View the final fall migrants and returning winter bird species. Meet at 8am at Northwest Nature Shop (Ashland). Leader: Vince Zauskey. To register, call 541-482-3241.

***October 13:* KBO Birdwalk to Agate Lake**
Meet at 8am at Wild Birds Unlimited (Medford). Leader: KBO Staff. To register, call 541-770-1104.

NOTE: School and community groups are invited to schedule a visit to a KBO Banding Station, a classroom visit, or a KBO presentation. Email KBO@klamathbird.org or call 201-0866, ext 3.

Trivia Corner—Q&A

Emily Molter, KBO Wildlife Education Specialist

Approximately how far does a MacGillivray's Warbler migrate from its breeding grounds in Oregon to the northernmost area of its wintering grounds?

A. 500 miles
B. 1,500 miles
C. 15,000 miles

The MacGillivray's Warbler, about the size of a large thumb (4-6in), migrates approximately 1,500 miles from its breeding ground in Oregon to its wintering ground in northern Mexico. This little bird is a Neotropical migratory bird because its breeding grounds are in temperate regions and wintering grounds in the tropics. According to KBO's banding data, an adult male MacGillivray's Warbler captured in 2001 at the Williamson River ecological monitoring station north of Chiloquin was recaptured again in 2002, 2003, 2005, and 2006. This tells us that during that time, this little bird likely migrated over 15,000 miles, and it lived at least 6 years. That is quite a journey for a bird that weighs 10.4 grams (about the same as two nickels!) Our data also tells us that this individual bird bred and molted at Williamson River during the summer. This summer, as the birds are nesting, remember there are some things you can do to help our fine-feathered friends, including keeping cats indoors, providing safe nest boxes, not approaching nests, and providing water for bathing and drinking.

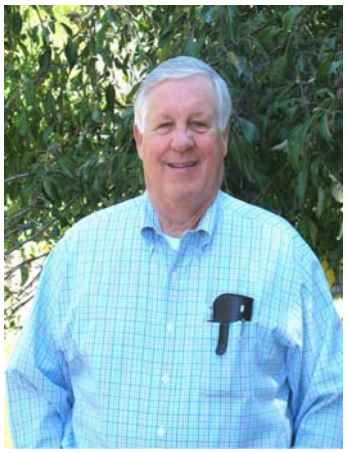
Answer: B. 1,500 miles

Partnerships

New Board Member Welcomed

Ashley Dayer, Education & Outreach Director

KBO is proud to announce the addition of Marshall Malden to our Board of Directors. Marshall was raised in Oregon, and returned in 2001, when he moved his business from Phoenix, Arizona to Ashland. The business, Hakatai Enterprises, Inc., imports and distributes glass mosaic tile. Marshall brings to KBO extensive international, marketing, and business management experience. Locally, Marshall is also involved with the Ashland Rotary Club where he leads several community service projects.



Marshall Malden Photo: KBO file

Marshall was introduced to KBO through fellow Rotarian, John Alexander. With an interest in local habitat conservation, Marshall soon became a KBO member and donor. He enjoyed visits to KBO's ecological monitoring stations to observe mistnetting and bird banding, and his hawk trip with KBO to Klamath Basin was his first visit to enjoy this Klamath-Siskiyou Bioregion birding hotspot.

An outdoor enthusiast, Marshall has enjoyed observing birds for years. Rather than simply listing sited species, interesting observations of bird behavior and memories of birds in unique natural settings stand out to him. Marshall portrays a particularly memorable birding event while floating the Grand Canyon. While relaxing on his raft, he viewed a Peregrine Falcon speed through the air, grab a White-throated Swift on the fly and swoop away with the Swift in its talons. Viewing the feat of speed and predator-prey relationship was thrilling for him.

Marshall looks forward to contributing his ideas related to expanding KBO's visibility and profile in the Klamath-Siskiyou Bioregion. He has also pledged support to fundraising and marketing. We are thrilled to have Marshall on our board!

Membership & Contributions

Your contributions help KBO advance bird and habitat conservation. Additionally, we are able to leverage dollars from matching grants and demonstrate public support when applying for new grants. Check out www.KlamathBird.org/donate to see how you can contribute through an in-kind donation, endowment donation, or planned giving.

Name _____

Address _____

City _____ State _____ Zip Code _____

Telephone _____Email_____

Please select one and make your tax-deductible donation payable to: Klamath Bird Observatory or "KBO"

_____ Regular Annual Membership $35 _____ Student Membership $15

_____ Supporting Membership $100 or more _____

_____ Lifetime Membership One-time donation of $1,000 or more

□ Please contact me with more information regarding planned giving or endowment donations.

Send to KBO, PO Box 758, Ashland, OR 97520

PO Box 758
Ashland, OR 97520

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Bob Frey—*Biologist*

Keith Larson—*Biologist*

Emily Molter—*Wildlife Education Specialist (AmeriCorps)*

Jaime Stephens, MS—*Biologist*

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Contribute to the conservation of birds and habitat.

Become a member and your tax-deductible contribution will support KBO's research and education programs. KBO is a 501(c)3 nonprofit organization.
http://www.klamathbird.org/Join/signup.html