

The Klamath Bird



Newsletter of the Klamath Bird Observatory, Spring 2006

Science, Education, and Partnerships

KBO Leads Effort to Monitor Avian Flu in Migrants

C. John Ralph, KBO Research Advisor

Given the anticipation that avian flu will spread along migratory waterfowl flyways from where it currently occurs in Asia, Europe, and Africa, monitoring for avian flu has begun throughout the United States. Along with several partners, KBO has swung into action, taking samples from birds captured at our own mist-netting stations to test for avian flu and leading in the coordination of sampling at other locations nationally.

History of Avian Flu

In 1996, a strain of avian flu (H5N1) was detected in domestic geese in China, and in 1997, an avian flu outbreak occurred in poultry in Hong Kong, causing limited human infections. From 2003-2004, avian flu outbreaks in poultry spread throughout Asia with a handful of human infections in each country. The first large-scale outbreak of avian flu in wild birds occurred in 2005 in Central China at a lake where migratory waterfowl congregate and has now spread to Russia, the Middle East, Africa, and Europe. While over 100 reported cases of human death have occurred from avian flu in the past eight years, in its current form, the virus does not transmit easily from birds to humans or spread readily among humans.

Role of KBO in Monitoring

KBO is playing an important role nationally, with a few key partners, to move the government's present approach to this disease from strictly focusing on "early-warning" and studying waterfowl to learning how the disease spreads between all species of birds, including many susceptible species of landbirds that we routinely capture. While a large portion of current concern centers on waterbirds, other strains of avian influenzas circulate among the many species of landbirds, not just waterfowl. Constant effort mist-netting is the only way



to rapidly capture and test many species of landbirds. By studying the variety of naturally occurring influenzas we will better understand how these viruses change over time, and, therefore, better predict how the H5N1 strain might increase its transmissibility to and among humans and thereby trigger a human pandemic. Further, monitoring landbirds is essential because the pattern of movement of songbirds puts them in more frequent contact with humans.

Through leadership of the Landbird Migration Monitoring Network of the Americas (LaMMNA), KBO and the U.S. Forest Service Redwood Sciences Laboratory have mobilized hundreds of landbird mist-netting stations across the country. LaMMNA, which formed in the past few years, is now in full gear helping to coordinate avian flu sampling. A close collaborator in this effort is the Institute for Bird Populations, which is taking the lead during its annual summer mist-netting efforts. LaMMNA, with support from the Bureau of Land Management, is taking the lead for landbird sampling during spring and fall migration seasons.

While use of monitoring networks is cost-effective, we are urgently seeking start-up funding for this important effort to track existing avian influenzas and the nearly-certain introduction of H5N1 and its spread through the Americas. Funding is needed as efforts during the spring and summer 2006 field season are critical for obtaining "pre-invasion" or "early-invasion" data. We must acquire sampling kits and employ additional personnel to coordinate the various stations.

Likely Outcome of These Efforts

Avian flu monitoring will enable us to determine and predict the effects of the disease on bird populations, both during and after the course of any outbreak that might occur. Furthermore, these efforts will document the occurrence and distribution of avian flu and contribute to our understanding of the global ecology of avian influenzas. Our work also has an additional

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Science

Monitoring Trends in Landbirds: What's Next?

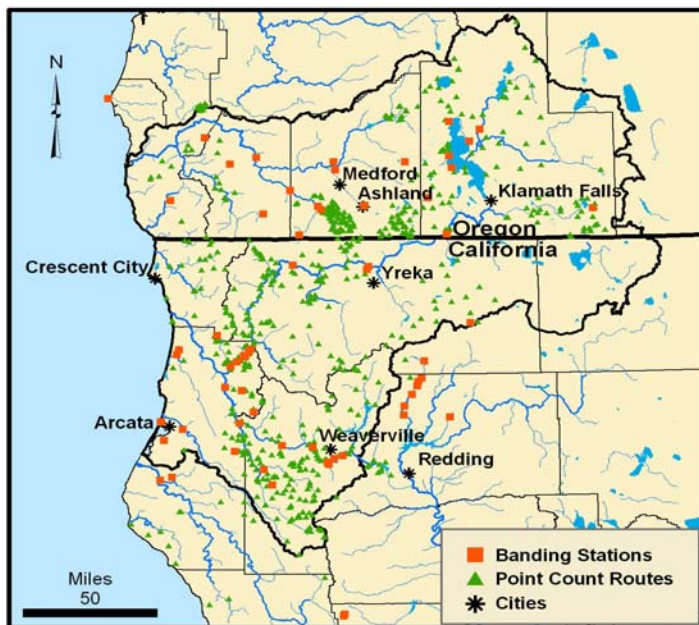
Keith Larson, KBO Biologist

The 2005 banding season was the tenth year of operation for many of KBO's banding stations. What is so special about ten years? It marks a point at which many scientists feel they can begin analyzing their data as a long-term dataset. Monitoring songbirds using the same methods at stations for at least ten years, and ideally longer, increases the quality of our insights into the health of various populations.

During the late 1980's many people became concerned by the plight of our migratory songbirds in North America. This was a direct result of analysis conducted on 20 years of data from the largest songbird monitoring program in North America, the Breeding Bird Survey (BBS). This program consists of thousands of 50 km census routes where observers count all birds seen and heard along the back roads of southern Canada and the lower 48 United States. The results appeared bleak for many of our songbirds. The analysis showed continent-wide declines for many migrants and resulted in a call to arms for biologists, land managers, and concerned citizens who formed the Partners In Flight International Bird Conservation Program. Today we realize that many of these continent-wide declines are complex because population trends can vary regionally. While in one region a species is declining in numbers, in other areas the same species might be increasing in numbers.

The Klamath-Siskiyou Demographic Monitoring Network, established by KBO and the U.S. Forest Service Redwood Sciences Laboratory, has established dozens of banding stations to track population trends of both local breeders and migrants in southern Oregon and northern California. Recently we submitted our first long-term analysis to a scientific journal. This study summarized population trends for several species of songbirds from banding data at two locations on the Klamath and Rogue Rivers. As expected, some species showed declines, and others were stable. An important part of this analysis was comparing our results from banding data to the results from the BBS's census method. If the results from both methods were similar, we could feel confident that we are correctly detecting population trends.

As it turns out some of the trends were similar, and others were not. These differences might exist because utilizing capture rate data from only two stations may be inadequate for detection of population trends. It could also be that each method monitors different populations. Fortunately, as our dataset gets larger (both in the number of monitoring stations and the total years operated), our analyses get stronger. In addition, we have been using new



Klamath Demographic Monitoring Network banding stations (in orange) track bird population trends through data from bird captures, which can be compared with bird count data from Breeding Bird Survey point count routes (in green).

techniques whereby we collect feathers from individual birds banded that allow us to identify source populations and their latitude of origin (i.e. the natal origin for young birds and the breeding/molting grounds for adults).

Look for coming articles presenting these results and join KBO at a banding station to see this data collection in progress. Each month KBO ends its Saturday Ashland bird walk with a visit to the Willow Wind Banding Station. Additionally this summer, KBO will be hosting member events at the Willow Wind Banding Station (July 15th) and Upper Klamath Falls Banding Stations (dates TBA).

KBO Monitors Avian Flu, cont.

aspect of uniqueness. In addition to collecting the standard cloacal (the sole posterior opening in birds) swab samples, those involved in this effort are collecting feather samples for testing. With these feathers, we will have the ability to use the DNA to genetically map migratory patterns of birds and correlate these patterns with virus presence, distribution, and epidemiology. UCLA's Center for Tropical Research is coordinating the analysis of both cloacal swab and feather samples.

For more information on our effort, visit the LaMMNA website (www.KlamathBird.org/lammna).

Rare or Unusual Bird Encounters: Migrant Off Course

Bob Frey, KBO Biologist

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

The Hooded Warbler (*Wilsonia citrina*) is one of the most striking Neotropical migratory birds in North America. It is a tiny wood warbler of brilliant yellow with the adult male sporting the jet-black hood that gives the species its name. The “Hoodie” nests primarily in the eastern U.S. from New England and the Great Lakes south to the Gulf Coast and Atlantic Seaboard. It is considered a vagrant species west of the Rocky Mountains with scattered records of occurrence, and just a few (nine) records within the state of Oregon.

One of those Oregon records was an individual mist netted, banded, and released on September 14th, 1998. The same bird was recaptured seven days later and released. Both captures occurred at KBO’s long-term monitoring station at the Odessa Marsh Campground, within the Winema-Fremont National Forest, in Klamath County. KBO biologists determined this Hooded Warbler to be a hatching-year (hatched earlier that same year) male. It has not been recaptured or encountered since.

Vagrancy in wood warblers is likely the result of losing their bearings during migration. Migration is a very hazardous part of these birds’ annual cycle when they face great distances, uncertain habitat and food resources, inclement weather, and physical obstacles that cause high

mortality and occasional disorientation. The Hooded Warbler, for example, winters throughout the Caribbean Basin and must take great flights over vast areas of water without stopping, with migration coinciding with hurricane season. In addition, adults and young songbirds migrate separately, leaving the youngsters to make their inaugural migration without the benefit of someone showing the way.



A Hooded Warbler after being banded by KBO biologists in Central America, where we would expect to typically find this warbler. photo-KBO file

How our “Hoodie” got to Oregon will likely remain a mystery ... but it is exciting to imagine the amazing journeys (and occasional wrong turns) these little creatures attempt each Spring and Fall.

Beyond Counting Birds Training Workshop

Keith Larson, KBO Biologist

Northwest banders gathered recently to share the latest research and monitoring techniques for landbirds at the joint meeting of the Society of Northwestern Vertebrate Biology and the Washington Chapter of The Wildlife Society in Olympia, Washington.



Keith Larson & Bob Frey train workshop participants how to assess the molt limit on an American Robin. photo-Jaime Stephens/KBO

This Oregon and Washington Partners in Flight workshop hosted by KBO began with a day-long series of talks. The topics for the talks included the Landbird Migration Monitoring Network of the Americas, the North America Banding Council,

advances in the study of molt and the evolution of different molt strategies, the use of genetic markers and stable isotopes to identify the breeding and wintering areas of migrant birds, the challenges and approaches to monitoring vital rates of sagebrush community birds, Spotted Owl demographics, and the effects of landscapes and climate change in bird populations.

A banding demonstration was held on the second day of the workshop at McClane Creek Experimental Forest, southwest of Olympia. KBO’s Bob Frey presented techniques for using molt to reveal the age of birds captured during mist netting operations. After birds were captured and aged, Borja Mila from the Center of Tropical Research at the University of California Los Angeles demonstrated techniques to collect samples from captured birds to monitor for avian influenza.

Thanks to the efforts of all the organizers and presenters at this workshop, bird banders departed Olympia equipped with a new set of tools for monitoring the health of landbird populations.

Education

KBO Education Program: Migrating to Schools

Amy Nelson, KBO Educator; Ashley Dayer, KBO Education & Outreach Director

Race through the Fun with Migration obstacle course, grab worms (rubber bands) with your bird beak (tweezers or clothespin), see a hummingbird through binoculars for the first time, or watch biologists place tiny metal bird bands on the legs of a chickadee. Students from throughout the Klamath-Siskiyou Bioregion of southern Oregon and northern California are having these exciting experiences and many more through KBO's K-12 program. This spring the program is in full swing, introducing students to birds, their amazing adaptations, and science and field research. Classroom visits are paired with field visits to the KBO Banding Station at our Willow Wind Community Learning Center headquarters in Ashland. After being introduced to birds and bird research through games and hands-on activities in the classroom,



KBO Biologist Bob Frey & Educator Amy Nelson explain bird research to students visiting KBO's Banding Station, photo-Judith McBride

students visit the banding station to view wild birds up close and see the work that ornithologists are doing first-hand. KBO educators offer this program free to local school districts, helping teachers enhance their lessons and meet Oregon State Educational Standards, particularly those related to Science Inquiry. From March to May, KBO will reach over 400 students, ages 6-17, with this program.

KBO, in cooperation with Southern Oregon Univer-

sity's Masters in Environmental Education Program, also sponsors a class at the Willow Wind Community Learning Center's (Ashland School District) part-time alternative education program for home-schooled children. During this semester-long course, these students engage in an intensive study of birds including bird evolution and adaptations, relationships between birds and their habitats, and conservation issues. These young scientists heighten their bird identification skills through study and observation. Their culminating project for the semester is the compilation of a mini field guide to the commonly seen birds in the Ashland area, complete with pictures and species descriptions.

KBO's education programming also offers after-school enrichment. KBO is participating in the Pathways program offered at Walker Elementary School in Ashland. KBO educators are leading a class entitled "School Yard Birds," which introduces students to bird identification, migration, and adaptations and familiarizes them with many of the birds in their own schoolyards. Students have the opportunity to birdwatch in the Ecotone, a naturalized bird-friendly area on the school grounds, and learn about the tools ornithologists use to study birds.

In partnership with Klamath National Forest, KBO is taking its education program on the road to Happy Camp, California. During a field day at River Park, 100 5th and 6th grade students will visit KBO's Birds Station and learn about the local bird life and birdwatching. Following lunch, the students will transform themselves into birds on migration and run through the Fun with Migration obstacle course, experiencing first-hand the challenges of the birds they were watching.

If you would like to schedule an education program with KBO, contact KBO@KlamathBird.org.

Summer Camps

Ashley Dayer, KBO Education & Outreach Director

In between taking swimming lessons, licking ice cream cones, and going on summer vacations, children will be participating in KBO's inaugural year of summer camps. KBO's camps will be offered through Southern Oregon University's Youth Programs. As part of Academy, a residential camp for academically-talented students, KBO will be offering two Birds courses for 5th & 6th graders and 7th & 8th graders from throughout the Pacific Northwest. Local 9 through 13 year olds participating in Kids College will have the opportunity to take "Wildlife Biology" with KBO educators. During the course of a week, campers will ex-

plore of the skills of an ornithologist with hands-on activities, field study, and a visit to the KBO banding station. Parents and children can sign up for a Hot Class! "Birds and Bird Biologists", a Family Day at KBO's Willow Wind Community Learning Center. During this morning at Klamath Bird Observatory, families will enhance their ability to appreciate the birds in their own backyards for years to come. Dates of the camps are: Academy-June 26th-30th; Kids College-August 7th-11th; Hot Class! August 26th. For more information on these courses or to register, visit www.sou.edu/ecp/youth

Tips for Bird Appreciation: Spring Migration Watching

Nathaniel Seavy, KBO Research Associate

With spring arriving, many birds that have spent the winter to the south of Oregon are now moving northward again. When these birds passed through our region last fall heading south for the winter, there were many young birds that had just fledged and were making the trip for the first time. This first journey and the subsequent winter is a period of high mortality for most species. As a result, fewer birds will be making the return trip this spring.

Some of the migrating birds will settle to breed in the Klamath-Siskiyou Bioregion. Others will continue their migration beyond our region, settling farther to the north. Thus, spring provides a chance to glimpse some birds that are not found here in either the summer or winter, but pass through only on their way to other places. The highlights of spring migration tend to be shorebirds and warblers.

Shorebirds: Interest from birders in shorebirds can be attributed to the accessibility of the birds in open areas, intrigue about their long-distance migratory feats, and the challenge of positively identifying each species. Most of the spring shorebird migration in the Klamath-Siskiyou Bioregion occurs during April and May. During this migration, any number of difficult to identify species are possibly seen. So,



Semipalmated Plover, photo-Ashley Dayer

Bird Bio: Ruby-crowned Kinglet

Bob Frey, KBO Biologist

In the vast boreal forests of Alaska and Canada, follow a subtle and melodic song and you'll find one of North America's smallest birds—the Ruby-crowned Kinglet. It is one of the many bird species that undertakes the great spring migration to the boreal regions to breed and nest. This species flies from wintering areas located within the southern one-third of the United States through Central America to Honduras. South of the United States border, it is known as "Reyezuelo de Rojo" ("Little King of Red"). Here in southern Oregon, we see these little kings (and queens) from late winter until their big flight northward or to higher elevations in our own region.

One of the world's six kinglet species (two of which are found in North America), this diminutive olive and pale-yellow songbird can be recognized by its nearly constant wing flicking, incomplete white eye-ring, and tiny bill. In courtship, or when agitated, the male flashes his regal ruby-red crown (female lacks this crown), which is otherwise hidden by olive-green feathers. Both male and female build a nest of moss and cobwebs, and together raise the young. Kinglets hop and twitter amongst the leaves and

grab your bird book and head to the nearest wetland or estuary to see what you can find. In the Ashland and Medford area, good places to start looking are along the edge of shallow ponds or larger bodies of water.

Songbirds: Many of the migratory warblers begin to appear in the Klamath-Siskiyou Bioregion in early May. Most of these species, such as Yellow Warblers and Wilson's Warblers, breed here as well as farther to the north. Thus, the birds you spot early in the season are a mix of those which will remain in our area and others which will continue north to breed. There are a few species, such as the Townsend's Warbler, that only pause in our region as they continue north to breed.



Yellow Warbler, photo-Don Baccus

Finding migrating warblers can be difficult, as they spread out instead of travelling in flocks. However, if the weather conditions are right for birders, but poor for flying, their northward movement can be slowed. They may temporarily "stack up" in the Klamath-Siskiyou Bioregion. If we have two or three days of bad weather during late April or early May, check your favorite birding spots, especially along rivers or creeks, to find large numbers of migrants.

(Information from *Birds of Oregon* edited by D.B. Marshall, M.G. Hunter, & A.L. Contreras; *North American Breeding Bird Survey, Results and Analysis, 1966-2004* by J.R. Sauer, J. E. Hines, & J. Fallon; *The Sibley Guide to Bird Life and Behavior* by D.A. Sibley)



Ruby-crowned Kinglet in the hands of a biologist at a KBO Banding Station. photo-KBO file

crevices of branches of conifer trees searching for their favorite foods—insects, larvae, and spiders.

Although considered common in most of its range, study of population trends for the Ruby-crowned Kinglet reveal a mix of results. Breeding Bird Survey data during the period 1966-2005 show it declining in numbers annually at a rate of 0.9 % across North America. Within Oregon, during the same period of time, it has declined 1.7 % annually. Populations of eastern North America have shown increases in recent years.

From 1996 through 2005 KBO biologists have captured and banded 1,605 Ruby-crowned Kinglets during monitoring efforts in the Klamath-Siskiyou Bioregion.

KBO Calendar—Join KBO for Spring & Summer Events

May 13th—International Migratory Bird Day at North Mountain Park, 8am-noon, Ashland, OR. Includes KBO-led Banding Demonstration & KBO Bird Walks.

May 13th—International Migratory Bird Day at Veterans' Park, 9am-3pm, Klamath Falls, OR. Includes KBO-led Banding Demonstration & KBO's *Fun with Migration* for kids.

May 13th—International Migratory Bird Day at Shasta Valley Wildlife Area, 8am-4pm, Montague, CA. Includes KBO Bird Walk.

May 20th—International Migratory Bird Day at Tule Lake NWR, Siskiyou County, CA. Includes KBO's *Fun with Migration* for kids.

June 3rd—"Fuels Reduction & Wildlife Habitat" (offered through Tree School South) with KBO's Ashley Dayer, Rogue River, OR. To register, call 776-7371.

June 3rd & 4th—Birding by Ear Workshop (hosted by Rogue Valley Audubon Society) with field trips by KBO's John Alexander, Ashland, OR. Cost for two day workshop \$50. To register, birdievicster@msn.com

June 10th—KBO Bird Walk in Medford, OR. Meet at 8am at Wild Birds Unlimited. To register, call 770-1104.

June 17th—KBO Bird Walk & Banding Station Visit in Ashland, OR. Meet at 8am at Northwest Nature Shop. To register, call 482-3241.

June 24th—"Birds of the Cascade-Siskiyou Monument" (offered through Siskiyou Field Institute) with KBO's John Alexander. To register, call 592-3777.

June 26th thru July 1st—"Birds" Camp (offered through SOU Academy residential camp), Ashland, OR. To register, visit www.sou.edu/ecp/youth

July 7th thru 9th—Oregon Country Fair, Veneta, OR. Includes KBO information booth.

July 15th—KBO and Rogue Valley Audubon Society Member Event at KBO's Willow Wind Banding Station, 7:30am-11:30am, Ashland, OR. Look for an invitation coming soon.

July 15th—KBO Bird Walk & Banding Station Visit in Ashland, OR. Meet at 8am at Northwest Nature Shop. To register, call 482-3241.

August 7th thru 11th—"Wildlife Biology" KBO Camp (offered through SOU Kids College), Ashland, OR. To register, visit www.sou.edu/ecp/youth

August 26th—"Birds and Biologists" KBO Family Day (offered through SOU Hot Classes!), Ashland, OR. To register, visit www.sou.edu/ecp/youth

NOTE: School and community groups are invited to schedule a visit to the KBO Banding Station, a classroom visit, or KBO presentation. Contact KBO@klamathbird.org.

Trivia Corner— Q&A

Ashley Dayer, KBO Education & Outreach Director

By how much does a bird's daily food intake increase in preparation for its spring migration?

- A. 1%
- B. 10%
- C. 40%
- D. 80%

Answer: C. 40%

As spring approaches, birds begin to fuel up for migration. This increase in daily food intake may be by as much as 40%. The food is transferred into much-needed fat stores. Given the amount of energy necessary for the flying long distances during migration, birds may increase their fat load to 15-50% of their overall body weight. However, this fat is often not enough to sustain a bird for the entire duration of its migration. Migratory stopover sites act as important "refueling" stations for migratory birds.

Some of KBO's Banding Stations are located at such important stopover sites and, thus, capture migrants feeding in the area. The value of the habitat as a stop-over site can be assessed by measuring how much weight a bird gains in a day at such a location. Although it is very difficult to take multiple measures of an individual wild bird's weight in a given day, KBO's bird banding data allows for estimates of changes in a bird species' weight over the course of the day at a given Banding Station site. KBO has begun to conduct such analyses with Golden-crowned Sparrow data.

Partnerships

Klamath Falls Partnership Takes Flight

Lindsey Lyons, OSU Extension Watershed & Natural Resource Educator

Beginning in winter 2005, through KBO's new partnership with Oregon State University (OSU) Extension in Klamath Falls, a gap between the Ashland-based KBO and the bird-loving community of Klamath Falls was bridged. Using OSU Extension as headquarters, KBO's Intern Jennifer Bruce assisted me with bird-based education and outreach, including curriculum development, classroom programs, Winter Wings Festival (Klamath Falls, OR) planning, and International Migratory Bird Day event planning throughout Klamath County.

Together, during Jennifer's service, we created new bird migration curriculum. In presentations to grades 2-12, we used classroom activities, power point presentations about bird banding, and even a hands-on obstacle course to demonstrate the difficulties birds face during their extensive migration journeys. Reaching over 250 students in December and January, we identified a need for much more education and outreach in the area.

Jennifer also worked with the Klamath Wingwatchers Inc. to complete development of four site-based educational kits for use by teachers of Klamath County. The kits contain sets of binoculars, stopwatches, clipboards, *Birds of Oregon Field Guides*, *Noxious Weeds of Klamath County Field Guides*, and the USFWS series of books on fish, birds, wildflowers, and night creatures of the Klamath Basin. In addition, each kit contains a site-specific teacher manual that

was developed by KBO with 8-10 educational activity lesson plans, background materials, and worksheets for students. These kits will be available for loan, free of charge, through OSU Extension Service.

Additionally, Jennifer and I have taken a lead role in the coordination of the Klamath Falls International Migratory Bird Day event to be held May 13, 2006. Working to recruit educational displays, vendors, activities for youth, donation of prizes (over \$575.00 of donated materials thus far), and creating publicity for the event, we have accomplished what promises to be the best IMBD event in Klamath County history.



New Klamath Basin Birding Trail educational kits created by KBO and OSU Extension Service for Klamath Wingwatchers Inc. photo-OSU Ext.

Thanks for the opportunity to be a part of KBO. I am looking forward to great things ahead as we continue to strengthen our partnership. For more information about this partnership, Klamath County Bird curriculum, or International Migratory Bird Day, contact Lindsey Lyons at (541) 883-7131.

KBO Wish List

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

Sponsorship Opportunities

\$500—one month stipend for one intern, Bird Banding or Education/Outreach

\$60—one mistnet for bird banding research

Donations

- frequent flyer miles for international interns' travel & staff conference travel
- double-wide trailer for office space and housing at a KBO field station
- small pick-up truck or minivan for fieldwork
- bicycle with big basket for staff in-town errands
- outboard engine (25-50 hp) for Black Tern surveys
- boat trailer for 17' boat
- digital camera & memory card

Willow Wind Barn-Raising

Ashley Dayer, KBO Education & Outreach Director

An exciting project is underway at the site of KBO's headquarters—Willow Wind Community Learning Center—where KBO's partner the Ashland School District's home-schooling program is also found.

Above the fields and wetlands where KBO conducts research and leads education programs, sits the historic Willow Wind Barn. Currently, this barn is not in use. Family and friends of Willow Wind, including KBO, are spearheading a capital campaign to renovate the 1890's barn on the property into a multi-use assembly hall, which will be available to the entire Rogue Valley. The capital campaign goal is to raise \$500,000 to fully renovate the barn, remodel the interior and restore the beautiful timber frame construction. KBO is especially excited about this project as it will greatly expand our opportunities for environmental education on the site. If you are interested in learning more about or contributing to this project, contact Judith Anne McBride (541-488-2684) of the Willow Wind Community Learning Center.

Membership/Contribution Form:
 Please mail renewals and contributions to:
 PO Box 758 Ashland, OR 97520

Name: _____
 Address: _____
 City: _____ State: _____ Zip Code: _____
 Telephone: _____ Email: _____
 New Member? _____ Renewing Member? _____
 Contribution Amount _____

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