



Audubon Society of Corvallis the **CHAT**

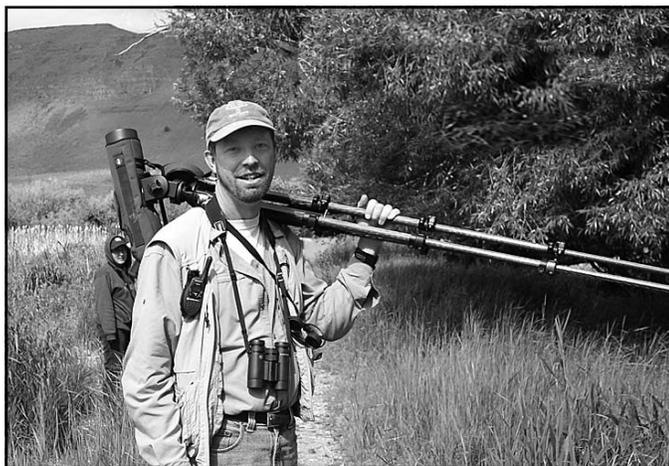
November 2008

VOL. 38

#3

General Meeting

Thursday, November 20, 7:30 – 9:00 pm
First Presbyterian Church



Beyond Just Birds: Putting it all Together

A presentation by Rich Hoyer

Our third speaker is another OSU graduate. Rich Hoyer grew up with ASC and the outdoors, showing early interest in reptiles, amphibians, and plants which he and his brother kept in cages in their bedroom. A temporary move to northern California when he was 14 led to the discovery of a Plain Titmouse and hooked him on birding.

He majored in German and Zoology at OSU and afterward worked on various bird surveys in western Oregon, California, Russia and Arizona. He finally settled in Tucson where he maintains a residence while leading birding and natural history tours throughout the Americas for WINGS.

While WINGS has always been a birding tour company, Rich has taken his tours a step further, offering combinations such as butterflies and birds, plants and birds, and even Shakespeare and birds.

Join us for a fun and insightful journey with Rich Hoyer.

Members' Night In December

Our traditional sharing of bird and travel photos will be featured during our meeting on December 18. To make things flow smoothly and include everyone, please send me your 10 (please only 10 each) favorite photos from 2008 by **Wednesday, 10 December**. I will put them together into a single PowerPoint show. Please be sure to include your name to avoid misspelling.

If you want to send super-high resolution pictures, please let me know and I'll arrange to get them from you on a thumb drive. Unless you have your own slide projector, we won't be able to show any film slides. I'm only digitally enabled. Questions: email me (dianaASC@gmail.com) or call 908-6166. Thank you!

Directions

The chapter meeting is in the meeting hall of the First Presbyterian Church (upstairs), 114 SW Eighth Street. The meeting is preceded by a social period with refreshments, which begins at 7 pm.

Diana Brin

Benton Prairie HCP, Part III

In previous CHAT articles, I've attempted to explain how Benton County is developing a multi-species take permit for listed or imperiled Willamette Valley prairie species. This could provide some better levels of protection from

See "Benton Prairie HCP, Part III" on the next page

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Benton Prarie HCP, Part III *continued from front page*

the habitat losses these species continue to experience, or else just provide, as a County Commissioner and county consultant described to me, a development planning tool.

I now have grave concerns. Supposedly independent of (but concurrent to) this HCP planning, the U.S. Fish and Wildlife Service (FWS) has released a recovery plan for five of these species, a plan which also includes relevant conservation measures for other state-listed or imperiled prairie species. The methods, strategies, and framework of each are in lock-step with the other, leaving little doubt that FWS will be ready and willing to rubber stamp “AP-PROVED” on the Benton HCP application.

Draft Recovery Plan for the Prairie Species of Western Oregon and Southwestern Washington

http://ecos.fws.gov/docs/recovery_plan/080922.pdf

Here are some problems with the approach taken:

FWS recovery planning for these species is contingent on funding, and projected funding levels are orders of magnitude higher than county estimates, even excluding the significant county costs of conservation land purchases. Stating up front that species recovery is optional should not be an option for FWS. So inadequate funding equates to inability to recover these species.

Only one approach for recovery is planned, relying on a single sole-source contractor for seed collection, propagation, outplanting, maintenance and monitoring of these species. That contractor is not directly named in the recovery plan, but only one non-governmental non-profit organization is listed as a cooperator in the recovery plan—Institute for Applied Ecology—the same contractor developing the county HCP. And that contractor has direct ties to the Oregon Dept. of Agriculture (ODA) rare plants program, which issues permits required for working with these species. ODA to date holds all permittee names, number of permits, and types of rare plant permits on file as proprietary public records.

There are other qualified experts capable of providing the services Benton County will need. And there is a danger having all these eggs in one basket. Millions of public (tax) dollars have already been spent on this project, and many millions are due to be spent to conserve these species. Wouldn't it be safer to allow 10 or 100 others with some expertise who want to conserve these species make a mistake that we all can learn from, rather than rely on a single expert entity which holds the monitoring results, the access to and the genomes of these species which are on the edge of extinction?

This is the privatization of science, done at public expense and when serving the public interest. Permits, genomes, propagation techniques and conservation re-

serves all need to be open to public scrutiny, available for public discourse, and where appropriate, distributed for the public good.

Benton County has delayed the planned fall release of the Prairie Species HCP until winter 2009.

<http://www.co.benton.or.us/parks/hcp/index.php>

A draft HCP is not yet available for public review, a few copies are in circulation. Please contact me for more information

Jim Fairchild

Corvallis Christmas Bird Count **Tuesday, December 16, 2008**

Everybody is invited to join us for the 48th Corvallis Christmas Bird Count (CBC) on Tuesday, December 16th. The count is an all-day event open to anyone wishing to participate. This is an excellent opportunity for novice bird watchers to join with seasoned veterans and learn more about identifying and finding the local birds. Half-day participants and home feeder-watchers are also welcome. Participants aged 19 and older need to pay a fee of \$5.00 to cover National Audubon's costs of printing the results, however, feeder watching is free. Team leaders for each section will make arrangements with the rest of their group for a meeting place and time (usually between 7:00 and 7:30 a.m.) the morning of the count. Participants should bring cold- and wet-weather gear, binoculars and snacks for the day. A notepad and pencil, field guides and a thermos with something hot are always good ideas as well.

If you are interested in participating or would like further information, please contact me at 541-752-4313 or e-mail me at marciafcutler@comcast.net

Marcia Cutler

Paper or Plastic?

An Answer from the Chemical Industry

Many people believe that single-use paper bags are more environmentally friendly than those ubiquitous plastic bags. *Chemical & Engineering News*, the weekly newsmagazine of the American Chemical Society, presents a different view in its August 18, 2008, issue. After Oakland, California, banned the use of plastic bags in stores grossing \$1 million or more annually, a group of plastics manufacturers sued and won. The California Superior Court stated, “Substantial evidence... supports at least a fair argument that single-use paper bags are more environmentally damaging than single-use plastic bags.”

Part of the evidence pertains to the cost of manufacture. An industry study concluded that manufacturing 1000 paper bags requires more than three times as much energy and nearly seventeen times as much water as manufacturing 1000 plastic bags. Plastic bags generate nearly five times the weight of solid waste in landfills as do plastic bags. An Australian study points out that manufacturing paper bags

generates about twice as much in greenhouse gases as does equivalent plastics manufacture.

All of this, of course, begs the question of the environmental cost of littering. Plastic bags are everywhere, and their accumulation in the world's oceans harms wildlife in countless ways. An obvious resolution to the question is to use neither paper nor plastic, but to focus upon multiple-use cloth bags. Fortunately, Corvallis Audubon offers such bags at a modest cost. We encourage you to pick up one or two at the next chapter meeting.

Chris Mathews

Mid-Valley Nature Group

Post your observations

Share your field observations of plants, birds, mammals, insects, mushrooms, aquatic life and other natural features in the Mid-Willamette Valley. We've created a new Google group: "Mid-Valley Nature."

<http://groups.google.com/group/mid-valley-nature>

This group allows you to post and receive emails from other nature lovers. It works similar to Mid-Valley Birding and Oregon Birders On-Line (OBOL).

- Anybody can visit the Mid-Valley Nature Google Group Web site to look at the postings and discussions without joining.
- You have to join in order to post observations, comments or questions. To join, you must first have a Google account and then you can join the group to post or receive emails. Some of you already have Google accounts and can simply join this new Google group.
- Google accounts are free, and you will create a user profile. You can do this without creating a Google email account—just use your preferred email address. To create a Google account, go to Google.com and click on "Sign in" at the upper right of the page. Then click on "create an account now" in the lower right.
- After you have started a Google account, you can join the Mid-Valley Nature Google group.
- Mid-Valley Nature group members have several options with viewing postings. You can get each posting as an email as they come, choose between daily digest options, or receive no email and use the group web page to post and read discussions.

Have a look at the group Web site for more information. We've posted some observations to get an idea of how the discussions work.

Don Boucher and Lisa Millbank

Field Trip Schedule

Monthly Year-Round Saturday Field Trips

Note the new meeting place for all future local Saturday and full-day trips! The Benton Center is at 757 NW Polk Avenue.

Nov 8: Meet at the Benton Center at 7:30 am

Dec 13: Meet at the Benton Center at 7:30 am

Our Saturday morning local field trip meets the second Saturday of every month at the Benton Center (757 NW Polk Avenue, Corvallis) at 7:30 am. This field trip is especially interesting for beginner birders and birders new to Oregon's mid-valley area. We spend a lot of time identifying local birds by sight and song. We visit the valley national wildlife refuges—Finley, Baskett Slough, and Ankeny, as well as other birding areas throughout the year. Contact Rich Armstrong at richarmstrong@comcast.net or call 541-753-1978 with questions.

Midvalley birding discussion list

A free subscription email list posts local bird sightings and birding information. I post where the field trip will be going two days before the field trip date on this list. To subscribe, go to www.midvalleybirding.org and follow the instructions.

Spring 2009 Weekend Field Trips

Mar 20-22: Bandon Coast

April 17-19: Klamath Basin

May 1-3: Rogue Valley

May 28-31: Malheur NWR

June 12-14: Summer Lake/Ft Rock/Fremont NFS

Fred Ramsey leads all the spring weekend trips. Fred has been leading these field trips for ASC for over 35 years. He is an amazing field trip guide, sharing his knowledge about finding birds in their habitat and pointing out wild flowers, butterflies, mammals, and reptiles. The field trips fill up early in the fall. Sign-up sheets are available at the general meeting or email Paula Vanderheul with your requests. vanderp@peak.org

Please note:

- The Rogue Valley and Malheur trips require deposits by February 28, 2009.
- The Rogue Valley deposit is \$40 for the play. The trip date will be announced in future issues of the Chat after the Oregon Shakespeare Festival schedule has been posted.
- The Malheur deposit is \$50. Each deposit must be made payable to Fred Ramsey at 3550 NW Glen Ridge Pl. Corvallis OR 97330.

Rich Armstrong

Hesthavn News

November 22 work party and open house

The work party will be from 9 am to 1 pm. Join us for any of the time you may have available. We have invasive false brome to remove from the property. Bring gloves, water, and lunch. We have shovels and other garden tools.

Open house visitation is on the same day. We could use a couple of volunteers to greet the public during the hours of 10 am to 1 pm. If you are interested or have questions, please contact Paula Vanderheul.

Recent Events

The October 25 open house provided beautiful fall colors and warm weather for around 40 curious visitors.

On October 9 the center hosted an after-school program for 11 girls who studied the active beehive, museum specimens, the acorn granary exhibit, and learned how to focus binoculars on a Pileated Woodpecker outside the center.

On October 23 a group of 30 OSU students collected stream samplings for their class.

On October 26 the family fall discovery tour of Oak Creek with 15 explorers had a wonderful time finding interesting forest and creek critters.

Adopt a piece of Hesthavn!

Want to promote a culture of conservation action and create some lasting bonds with Hesthavn? How about adopting a plot of land at Hesthavn for your community service project? Hesthavn is offering you, your family, your school classroom, your scout troop, etc., responsibility for a patch of Hesthavn—removing invasives, planting natives, watering, nurturing, visiting over the years and witnessing the changes you made. This fall we have six plot areas already cleared of invasive plant species for ground preparation for fall planting of seeds. Or pick an area that needs clearing to start your experience of removing invasive false brome, reed canary grass, and brambles. Contact me for details. Paula Vanderheul, vanderp@peak.org, 541-752-0470.

You can get map directions to Hesthavn Nature Center which is located at 8590 NW Oak Creek Drive from ASC website at www.audubon.corvallis.or.us. The nature trail is open to the public every day of the week for visiting.

A volunteer email bulletin board that publishes work party dates and other events as they happen at Hesthavn Nature Center is available at www.corvallisaudubon.org/mailman/listinfo/hesthavn-news. The website has information on how to subscribe to the Hesthavn-news bulletin board.

Paula Vanderheul

South Texas Birding Trip

February 28 - March 8, 2009

The Corvallis Audubon trip to the Rio Grande Valley is set for February 28 - March 8, 2009! We are partnering with the Travis Audubon Society of Austin and they will provide trip leaders familiar with the area. The trip starts and ends in Austin, in part because it is so much cheaper to fly into there than the Rio Grande Valley. The first day we drive to the central Texas coast for a boat trip to see Whooping Cranes and many other wetland and coastal species. Then to the semi-tropical Lower Rio Grande Valley for seven days of birding from ocean beaches to dry scrub and everything in between. Over 500 species of birds have been recorded in the Lower Rio Grande Valley of Texas, many that can be seen nowhere else in the United States. What a place to flesh out your life list! For a virtual tour go to the Texas Parks and Wildlife Birding Trail site www.tpwd.state.tx.us/huntwild/wild/wildlife_trails/coastal/lower/ and click on the interactive maps. Total costs, including airfare, vans and gas, lodging, all food, and tour fees, will be about \$1250 for a double and \$1600 for a single, plus or minus \$200 (depending on your air reservations, room upgrades and what you order at restaurants). If you are interested in joining us, contact Gail Andrews, 745-5323, gailandrews@peak.org.

Gail Andrews

Field Notes

25 September – 22 October 2008

The period began with the season's first real rainstorm, but ended with a prolonged dry period characterized by clear skies, cool mornings and warm afternoons. A few days saw fog in the valleys, but those were the days to head up slope, enjoy the sun and search for rosy-finches. Ducks began arriving in big numbers and the last of some of our breeding songbirds headed for their winter homes. Interesting rarities that appeared were an Emperor Goose, a Long-eared Owl at E. E. Wilson, and a few Gray-crowned Rosy-Finches on top of Marys Peak.

Abbreviations and Locations: m.ob. = many observers. Observer names are noted in parentheses after their reports. Observations without a name (or with WDR) are the editor's. ASC indicates observations made by Audubon Society of Corvallis field trips. EEW = E. E. Wilson Wildlife Area north of Corvallis. ANWR = Ankeny National Wildlife Refuge in Marion County. FNWR = Finley National Wildlife Refuge, and includes Cabell, Cheadle, and McFadden marshes. STP = sewage treatment ponds; Philomath STP are off of Bellfountain Drive south of Philomath. Knoll Terrace STP are off of Elliot Circle in Corvallis. Stewart Lake is at Hewlett-Packard in Corvallis. Toketie Marsh is the remedial wetland for Coffin Butte landfill north of Corvallis, just off of Highway 99W. The Bellfountain Wetland along Bellfountain Drive south of Philomath is also sometimes called the Evergreen Mitigation Bank. The Diamond Hill Road wetland is in Linn County.

The most exciting discovery of the period was an **Emperor Goose** at Stewart Lake, 22-23 Oct (J. Simmons, J. Anderson, m.ob.; see photos). The bird was a juvenile molting into adult plumage and was apparently



Photo by Nanette Armstrong



Photo by Neil Lidstrom

An Emperor Goose at Hewlett-Packard's Stewart Lake, 22-23 Oct, delighted birders

the first since about 1990 in Benton County. It associated with **Cackling Geese** and grazed on the lawn at HP. A lone adult white-phase **Snow Goose** was with other geese in fields near Philomath STP, 14 Oct.

Just as large flocks of **Mallards**, **Northern Pintails**, **Green-winged Teal**, and **American Wigeon** were arriving at local marshes, the last **Blue-winged** and **Cinnamon Teal** were departing. A Blue-winged was last seen at Philomath STP, 1 Oct, and 2 Cinnamon Teal were last detected there, 5 Oct. **Northern Shoveler** numbers built to a maximum of 474 at Philomath STP, 22 Oct.

Canvasbacks returned 11 Oct, when 11 (of course!) were at Philomath STP. **Ring-necked Ducks** peaked at 102 at Cabell Marsh, 15 Oct, and 144 at Stewart Lake, 10 Oct (J. Simmons). As many as 3 **Greater Scaup** were at Philomath STP beginning 15 Oct. A female was at Stewart Lake, 16 Oct (J. Simmons). **Lesser Scaup** were still uncommon during the period, with a maximum of 23 at Philomath

STP on 16 Oct.

Stopping by 19-20 Oct at Philomath STP, 3 **Surf Scoters** were a nice sight to see. The first **Bufflehead** to return was one on 12 Oct at Philomath STP. **Ruddy Duck** numbers climbed throughout the month, peaking at 81 on 21 Oct at Philomath STP. Ruddies are rare to uncommon away from that site. A count of 27 **Hooded Mergansers** at Knoll Terrace STP, 22 Oct, was a very nice local concentration (R. Armstrong).

Grebes were present in small numbers. Six **Pied-billed Grebes** visited Stewart Lake, 8, 10 and 13 Oct (J. Simmons). A single **Horned Grebe** was at Philomath STP, 10 Oct. Up to 4 **Eared Grebes** were there throughout the period. Two **Western Grebes** were at the confluence of the Marys and Willamette Rivers, 7 Oct (D. Boucher, L. Millbank). Three were at Philomath STP, 18 Oct.

The last report of the **American White Pelicans** at Cabell Marsh was of 2 on 3 Oct.

Turkey Vultures made their last big push south out of our area; 37 at FNWR, 7 Oct, was the last large group. At least four **Red-shouldered Hawks** frequented various parts of FNWR throughout the period (m.ob.). The first **Rough-legged Hawk** of the fall was reported from FNWR, 14 Oct (M. Monroe). Five reports of **Merlins** were received, about the average number for this time of year. A **Peregrine Falcon** was seen flying over the OSU Horse Farms, 22 Oct (C. Miller).

American Coots were only about 40% as numerous as they were this time last year at Philomath STP. The maximum count was 386 on 21 Oct. More than 450 were on private property near the Corvallis airport, 14 Oct. A **Semipalmated Plover** and a **Lesser Yellowlegs** at EEW, 7 Oct, were getting tardy (J. Geier). A bit of shorebird habitat finally appeared at Cabell Marsh during the period. It attracted 79 **Least Sandpipers**, 12 Oct, and up to 18 **Long-billed Dowitchers**. The first **Dunlin** of the fall were 2 at Cabell Marsh, 6 Oct. Two **Bonaparte's Gulls** stopped by Philomath STP, 18 and 22 Oct. An adult **California Gull** was there 22 Oct.

A dove with white wing patches, appearing similar to a possible White-winged Dove was seen briefly at FNWR, 5 Oct (S. Carpenter). The time of year would be right for this vagrant species, but one hopes for a better look at a potential first for the area. A **Long-eared Owl** was calling from EEW, 10 Oct (J. Geier); the species is infamous for having occurred there in the 1990s, but has been very difficult to detect lately.

The last report of **Vaux's Swift** was of one over Philomath STP, 10 Oct. **Anna's Hummingbirds** began appearing in some rural locations, where they are unusual, late in the period (P. Vanderheul, J. Geier).

A late **Western Wood-pewee** was at FNWR, 7 Oct. The last **Violet-green Swallow** of the fall departed Cabell Marsh, 15 Oct. Four **Barn Swallows** at Philomath STP, 11 Oct, were the last reported.

A **Steller's Jay** visited Stewart Lake, 22 Sep, and was a local rarity as it was just the second there this year (J. Simmons). A **Townsend's Solitaire** was still on Marys Peak, 26 Sep. **Varied Thrushes** began to appear on the valley floor regularly during the period, but were still not common yet. With the abundance of apples this autumn, the thrushes should find plenty of food to tide them over this winter. **Cedar Waxwings** were present by the hundreds the first two weeks of Oct, but declined noticeably after that time, although several flocks were still being noted in town (m.ob.).

see "Field Notes" on page 22

Field Notes, continued from page 21

Two subspecies of **Yellow-rumped Warbler** occur in our region. So far this fall, **Myrtles** have out-numbered **Audubon's** by 10 to 1. **Townsend's Warblers** arrived in Corvallis at feeders about 20 Oct (R. Armstrong, P. Vanderheul). The last **Black-throated Gray Warblers** of the year were 2 at Cabell, 8 Oct. The last **Hermit Warbler** was seen on Marys Peak, 29 Sep. A **Common Yellowthroat** was still at Cabell Marsh, 15 Oct. The last **Wilson's Warbler** was at Cabell Marsh, 1 Oct, about 10 days later than usual.

A tardy **Western Tanager**, 6 Oct, was at Cabell Marsh. Although not yet considered to be full species, but relegated to subspecies status until additional genetic studies are done, four different types of fox sparrows occur in our area. **Sooty Fox Sparrow** is the subspecies that we typically encounter. They arrived in good numbers during the period and were quite common by the end of October. The other three subspecies are all very rare in our area, so occurrences of two of those were interesting to folks who like subspecies or distinctive races of birds. A **Thick-billed Fox Sparrow** was foraging and singing regularly near Cabell Marsh, 8-15 Oct. Two **Slate-colored Fox Sparrows** were on Marys Peak, 21 Oct. No reports yet of the eastern subspecies, the Red Fox Sparrow.

Single **Swamp Sparrows** were at FNWR, 10 and 22 Oct. **White-throated Sparrows** appeared at feeders in Corvallis by 19 Oct (R. Schwiebert).



*Photo by Cheryl Whelchel
One of several Gray-crowned
Rosy-Finches enjoyed the
sunshine on top of Marys Peak
in late October*

Always a treat, **Gray-crowned Rosy-Finches** arrived on Marys Peak, 21 Oct, when 6 were there. The number dropped to one before rising later in the week, but several local birders got good looks (see photo) at these adorable birds. **Pine Siskins** began appearing at bird feeders near the end of the period and small flocks were passing overhead most days suggesting the next few weeks may bring more to our area (m.ob.).

Next issue

Please send your reports for the next issue by 20 November.
W. Douglas Robinson
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The Envelope, Please

You saw the envelope in this newsletter. You know it is end-of-year donation time. We know that these are difficult economic times and that many of you have given generously already this year. If you are considering additional charitable donations for tax purposes or as holiday gifts, please think about the Audubon Society of Corvallis.

The bottom line is that, like most non-profits, membership dues help with basic operations such as mailing the newsletter and room rent for meetings, as well as some of our activities. There are additional opportunities for outreach and habitat restoration that are in need of funding. Consider what your donation could support:

- \$10: Tree at Hesthavn or art supplies for classes
- \$50: Printing 100 Birding Corvallis brochures
- \$100: Gas for volunteer to check Bluebird Trail nest boxes
- \$250: Scholarship for scout or other community project
- \$500: Drip irrigation system for Hesthavn

With the talented and dedicated volunteer force working for ASC, your financial contribution goes a long way. If you would like to fund a specific project or item, please contact any board member.

Thanks to all of you for donating so freely of your time and money in the past. It is your involvement that makes ASC such a vibrant organization. Be assured that when you mail a check in the enclosed envelope, that money will be used to further enhance the outstanding conservation, restoration and education programs coordinated so ably by our membership.

The Board of ASC

Member Input Requested

Who would you like to see on the general meeting schedule?

As the new ASC year gets underway, I would like to hear from you, our readers! What topics would you like to hear presented at our general meetings? Do you prefer more birding travelogues, panel discussions on environmental issues that especially affect birds, birding tips, studies on a favorite bird? Please send your comments to me at dianaASC@gmail.com I look forward to hearing from you!

Diana Brin

Coast Field Trip Report

About 14 Corvallis Audubon people made an all-day trip to the coast. There was no rain, but it was a windy and cool day. We began at Boiler Bay. Cheryl Welchel looked way out and saw one sooty shearwater and one white-bellied shearwater which she thinks was probably a Buller's. There were all three loons, mostly Common. all three cormorants, all three scoters, mostly White-winged, four Rhinoceros Auklets, quite a few Common Murres, a few Western Grebes, Brown Pelicans everywhere, and about 10 Red-

breasted Mergansers. We then went to Depoe Bay where we saw about 50 Black Turnstones, about 50 Surfbirds, and six very cooperative Black Oystercatchers. At the Newport jetties we found a flock of close Golden-crowned and Ruby-crowned Kinglets with both chickadees in the trees. On the water were many Common Loons in various plumages and many Surf Scoters. The bird of the trip was Lapland Longspur! We had one that literally wandered around three feet in front of our entire group—see Cheryl’s pictures on her website. Unfortunately there were not many gulls at the gull puddle, but a Peregrine Falcon flew over. Behind the science center there were no ducks, but tons of Mew Gulls and some California and Ring-billed. As we stopped along the Yaquina Estuary, we saw adult Bald Eagles, about six Horned Grebes that I misidentified a few times as Red-necked, but we finally agreed they were Horned, Bufflehead, Greater Scaup, and American Wigeon. It was, all in all, a pretty good day.

Rich Armstrong

Molecular Genetics Reorders Bird Classification

Ever since the development of rapid methods for DNA base sequence determination, some three decades ago, biologists have been using gene sequence analysis to classify organisms, supplementing and supplanting the traditional morphological classification criteria. The rationale is that evolutionary relationships are based upon the number of mutations that occurred as one species gave rise to another. So, if the gene encoding hemoglobin, for example, is 98 percent identical in DNA base sequence when we compare species A with species B, but only 92 percent identical when A is compared with C, we conclude that A is more closely related to B than to C.

The problem with developing classification schemes based upon analysis of a single gene is that genes evolve at different rates. Thus, a classification based upon analyses of hemoglobin gene sequences might be quite different from a classification based upon sequences of the gene that encodes the muscle protein myosin, for example, or the digestive enzyme trypsin.

These considerations have given rise to the field of *phylogenomics*, in which organisms are compared in terms of base sequence variations over a large number of genes. In a recent article in *Science* (Volume 320, pp. 1763-1768, 27 June, 2008), Shannon Hackett, of the Field Museum in Chicago, and a team of 17 coauthors applied phylogenomic analysis to birds, and they made some unexpected discoveries. Their approach involved analyses of DNA sequences from 32,000 base pairs of DNA in 19 different genes, from each of 171 bird species, representing most families.

Their analyses agreed with traditional classification

schemes in showing that a class containing flightless kiwis and ostriches, plus flighted tinamous, split off from the main branch early in bird evolution, and that shortly thereafter a class including ducks and chickens similarly separated from the main branch. Moreover, their analyses refuted the theory, popular in some circles, that all modern birds evolved from shorebirds.

But there were surprises, including a robust evolutionary relationship between parrots and songbirds, with falcons closely related as well. Surprisingly, grebes were found to be less closely related to loons than to flamingos. Even more unexpectedly, phylogenomics showed that hummingbirds evolved from nightjars (nighthawks and poorwills). An earlier molecular classification, which placed New World vultures with storks, was concluded to be incorrect, and vultures, in the new phylogeny, are found to be related to accipiters, as suggested by classical schemes. The new phylogeny also sheds light on evolutionary aspects of bird behavior, relations between flightless and flighted birds, and between diurnal and nocturnal species.

Since bird guides are organized along the lines of traditional classification, results of the Hackett study suggest that new bird guides must be written. Identification criteria may remain the same for birders, but how long before we see publication of a “Molecular Sibley” or a “Phylogenomic Kaufman”?

Chris Mathews

Thank you!

A special thank you goes out to Schmidt’s Garden Center for donating 12 suet cages and 12 suet cakes for the Fall Discovery Tour Family program held on October 26 at Hesthavn Nature Center. The children were delighted with the suet and cages!

Paula Vanderheul

Scope Donation

Scope For Sale: We are selling our spotting scope and donating 100% of the proceeds to Hesthavn Nature Fund. It is an Eagle Optics Raven 78S scope that is 3 years old, gently used, and works perfectly. Includes: 20x60 zoom lens and tripod that works but has a bad leg. Asking \$275, but will listen to offers. Call 753-1978.

Rich and Nanette Armstrong

Contributors to the Chat

Diana Brin, Chris Mathews, Marcia Cutler, Paula Vanderheul, Don Boucher, Lisa Millbank, Douglas Robinson, Rich and Nanette Armstrong, Jim Fairchild, Gail Andrews.

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the **CHAT**

*Renew your membership before the date on the
mailing label to avoid missing issues of the Chat.*

Calendar

Nov 8: Second Saturday field trip, 7:30 am
Nov 13: Board meeting
Nov 20: General meeting, 7:30 pm
Nov 20: Field notes submission deadline for Dec. Chat
Nov 22: Hesthavn work party/open house
Nov 27: Article submission deadline for Dec. Chat



*Lisa Millbank and Don Boucher saw this American Pipit
on Bruce Rd. at Finley NWR on Oct. 11*

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