

Nature Trails

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The bird in the box is a Slaty Antshrike, deciding whether to make its cross-water flight back to Barro Colorado Island during our translocation experiment designed to figure out which species move on and off of BCI. Remarkably, some species will not traverse 100 m over open water.

Two species never flew more than 30 m. D. Robinson

Why Have so Many Birds Disappeared From a Tropical Island in Panama?

Dr. W. Douglas Robinson

Department of Fisheries and Wildlife

Oregon State University, Corvallis, Oregon

Friday, 10 December 2010, 7:30pm, Room 100 Willamette Hall, UO Campus

Dr. W. Douglas Robinson is Associate Professor of Fisheries and Wildlife at Oregon State University, Corvallis, Oregon. He joined the Department in 2002, after having spent four years as an Assistant Professor at Auburn University, Auburn, Alabama.

Robinson's hometown is Makanda, Illinois, just south of Carbondale. He lived in the country, right next to Giant City State Park (I looked this place up; it's beautiful), and spent a lot of time out in the forest while growing up. When he was in the third grade he and a friend had to draw something in class. They decided to draw birds. His friend went on to become an artist, Doug an ornithologist. He obtained both his BA and MS from Southern Illinois University in Carbondale. Both degrees were in zoology, the MS with emphasis in avian biology. He was the first in his family to go to college, and was quite naive. One of his strongest influences during this period was his best friend's father, who was a professor at SIU and who became his thesis advisor as well as a personal mentor. His PhD, in biology, from the University of Illinois, Urbana-Champaign, was awarded in 1998. His thesis advisor at UI had obtained funding for avian ecological research in Panama and wanted Robinson to become a graduate student in his group because of Doug's ability to recognize birds by their calls. He told me this talent is critical in the tropics because in those dense forests up to 95% of all identification is by sound, not sight.

An indicator of how far back Robinson's interest in birds goes is the section of his publications list entitled 'From the birdwatching days a long, long time ago.' Four of the 16 references in that section seem especially relevant given the season and the fact that the Lane County Audubon Society is co-sponsoring Robinson's lecture. They are: *The 1987 Illinois Christmas Bird Count*; *The 1988 Illinois Christmas Bird Count*; *The 1989 Illinois Christmas Bird Count*; and *The 1990 Illinois Christmas Bird Count*. Christmas Bird Counters, take note. Help may be at hand.

Robinson's research love continues to be avian ecology. Curiously, he is interested in both tropical and aridlands ecology, with projects in lush forests of Panama and desert regions of southeastern Oregon and northern Nevada.

His interest in tropical avian ecology stems from his graduate work. He has continued this line of research both in his own program and as part of collaborative efforts. Robinson is a co-investigator in the Life History-Physiology Nexus Project, funded by NSF's Integrated Research Challenges in Environmental Biology. This collaboration among evolutionary biologists, physiologists, immunologists, endocrinologists, and ecologists



has been looking at why the life histories of temperate and tropical birds differ, despite similar evolutionary histories. Some of their general findings: tropical birds tend to have smaller clutch sizes, longer incubation periods, spend considerably more time tending hatchlings, and have lower basal metabolic rates than do closely related temperate species. This work sheds light on how environmental conditions put limits on physiological capacities of organisms, and how energy gets allocated toward self-maintenance, survival, and reproduction.

Robinson became interested in aridlands ecology when he came to Oregon. The position he applied for at Oregon State University was for an aridlands avian ecologist. He made the short list and was invited to interview. His seminar topic was the work he'd been doing in Panama: all about tropical avian ecology, nothing about aridlands avian ecology. They hired him. Smart people. He has a healthy program going in south-central Oregon and northeastern Nevada – aridlands if ever there were any. His latest PhD student, Aaron Holmes, spent three summers at the Sheldon National Wildlife Refuge in Nevada. Robinson's program there focuses on the longer-term effects of fire, particularly prescribed fire, on plant and animal communities in sagebrush. Fire regimes have been altered through grazing and suppression so land managers need to know the effects of fire

management plans on biodiversity in sagebrush communities. Their results will help land managers determine how often to set fires so as to maintain healthy plant and animal communities. Robinson told me that cheatgrass (*Bromus tectorum*) has had a huge impact on the effect of fire on sagebrush. This weed increases the fuel load so rapidly that natural fires occur more frequently and sagebrush doesn't have a chance to recover.

Robinson will tell us about his ongoing work on Barro Colorado Island, arguably the most studied tropical island in the world. Created in 1918 when the Chagres River was dammed to make Gatun Lake in

the Panama Canal, Barro Colorado has been a research site for over seven decades. It has lost a troublingly large fraction of its bird communities; Robinson will present several potential reasons for this loss. He has seven videos to show us, and promises a challenging but thought-provoking talk. He has received awards for his teaching prowess, so we can expect great things.

Please join us at 7:30 pm, 10 December, in Room 100, Willamette Hall, on the University of Oregon campus, to hear Dr. W. Doug Robinson's lecture "Why Have so Many Birds Disappeared From a Tropical Island in Panama?" John Carter

President's Corner

Becoming Winter

by Tom Titus

All afternoon the overcast has strained against the rain. At the end of the day I run the rototiller into the back of the pickup and the sky finally gives way to the new storm. Rain flushes away the gray, replacing it with blackness that is uncorrupted by artificial lighting. In the darkness behind me the tilled earth sucks up the new moisture, which swells the seeds of annual rye beginning their transformation into a green winter carpet. Carefully I place two large bags of chanterelles behind the rototiller. Forgoing my usual dusk watch from the front porch, I drive to Martha and Jerry's, pavement glistening in the headlights. We eat warm bean soup by the outside fire while the downpour streams off the awning in runnels that find their way to all that is and will be green, flushing the unique scent of this valley into the river, downward toward Coho salmon that have turned their noses upstream. I feel satisfied, validated, maybe a little smug.

Really, I was just very lucky. This one day between big storms was a Saturday, the rain was two hours late, and storm systems typically don't consult my calendar as this one had. Darkness. Rain. In November these two things come to dominate the natural rhythms of our lives. Depending on who's counting and when, November could be our wettest month. From 1971 to 2000, the Eugene November average was 8.44 inches, slightly edging December with 8.29 inches. Because of the winter solstice, December owns the darkness category.

But these data are simply bean counting. They don't get to the heart of November, the immeasurable collective psychological impact of these 30 days between manic October and darkest December. Colorful hardwoods slowly disrobe,

standing stark naked along rivers and on hillsides, daring us to look, to appreciate their essential *treeness*. Mushrooms that had reached upward with stipes and caps bent on sex now tip flaccidly toward the ground, returning to the duff from which they so exuberantly burst. The first cold snap freezes warm weather garden crops; the tomatoes, squash, and beans become limp, slimy, black things that are barely recognizable as plants. No amount of fertilizing or watering or weeding or wishful thinking can change this course of events. Every November we cede any pretense of control to the larger cycles of the solar system and our bioregion.

In November I breathe a small sigh of relief and begin to slow down. Then I remember that any light is good light, put down my book, and pull on boots and rain jacket. There is still a lot to see. Hedgehog mushrooms, their gills covered by tiny stalactites, look like bits of pumpkin cheesecake tossed on the forest floor. An Oregon *Ensatina*, one of our lungless salamanders, has been released from its dry weather refuge deep within a rotten log and waddles with impunity across wet moss, its "armpits" flashing yellow against the dark green. In the valley, huge flocks of pintails and mallards swirl in ahead of the first cold northern storms, falling like windblown leaves onto flooded ryegrass fields. November reminds us to walk boldly into December, looking outward, gazing upward into the rain, knowing, really *knowing*, that all that we have depends on this gray wetness.

Perhaps more than anything else, November requires faith in the natural systems of which we are a part. Faith that seeds of frost-blackened plants are lying swollen and dormant in the Willamette Valley mud. Faith that fawn lily and camas have sent their probing roots deeply enough and set their bulbs below the frost line. Faith that laws governing our

solar system will once again transport us through the wet tunnel of winter into which we now enter and into the light of spring. Our faith in these natural systems has never been misplaced, but their very dependability can lead to a degree of complacency.

The winter holidays begin, celebrations of thankfulness and rebirth. As the long darkness sets in I look inward and wonder if I live my life in a manner worthy of the cyclical dependability of the biosphere. The answer is less important than the question, because just the asking moves us beyond

complacency, above the lingering idea that we are in some way destined to exploit the planet. Without doubt we are different from plants, salamanders, and ducks. This is biological reality. But our differences do not make us special; they do not confer upon us a license to take without giving. Maybe the time has come to abandon the notion that we deserve this life, on a strange blue planet hurtling through space, and replace it with awareness. Surely we exist in a state of astrophysical and biological grace.

Invasive!!

by Reida Kimmel

Walk around your neighborhood or take a drive, and you will see many non-native species of plants, often beautiful, often delicious, assuming a dominant role in the landscape. We all know they crowd out the native species, but these alien species are not playing entirely negative roles in our ecosystem. Think of ivy, a dainty ornamental gone rampant. But when it blooms in late summer and fall, it provides nectar for honeybees [another immigrant] and its berries are a rich source of winter food for birds, which spread the seeds far and wide, especially in moist mild areas like the Siuslaw River drainage. How could today's wildlife manage without that plague, blackberries? Hateful Scotch broom is a nitrogen fixer, and the newest demon on the scene, Japanese knotweed, *Polygonum cuspidatum*, has amazing potential as a medicinal plant. Invasive plants thrive in disturbed areas, and we unwittingly invite their spread. Then to combat the real and imagined threat posed by these new members of the ecosystem, we wage chemical warfare, often with limited success and certainly to the detriment of soil and water quality. Biological controls often work, but sometimes surprising things happen.

Here is the tale of the willow flycatcher. In the Southwest these birds have always bred in the cool shade of leafy willow thickets. But in the past half century or so, especially along the Colorado River and its tributaries, invasive tamarisk (*Tamarix ramosissima* Deneb) has come to dominate many thousands of acres of stream banks, while willow has drastically declined. Tamarisk has been accused of robbing other plants of water by sucking up and transpiring more liquid than other species. While this seems not to be the case, tamarisk does have unpleasant qualities. It stores salt. Its leaf droppings

make the surrounding soil saltier, and it is an oily plant, a fire hazard. The species provides little food for wildlife except for bees, which relish its nectar. Since the decline of the willows the flycatcher populations had plummeted, and so it seemed logical that eliminating tamarisk and restoring

willow groves would help flycatchers. So the invader was attacked with mechanical and chemical weapons. Tamarisk fought back, resprouting from sawn off trunks, resisting herbicides, and unfazed by grazing goats. In the nineteen-nineties, The U.S.D.A. introduced a biological control, an Asian leaf beetle, *Diorhabda elongata*, which performed wonderfully in many test situations. In a few years the beetle adapted to even the most southerly parts of the tamarisk range. In places it was introduced, elsewhere it just spread. And whole groves of tamarisk turned brown, summer after summer, the plants growing weaker each year and eventually dying. But it seems tamarisk decline only increased the threat to willow flycatcher populations, because lacking willows, the birds had learned to use the shrubby alien trees for nesting sites. What an irony! The Maricopa Audubon Society and the Center for Biological Diversity sued. This June the U.S. Department of Agriculture's Animal and Plant Health Inspection Service indefinitely suspended its *D. elongata* research and propagation program. For what it's worth! That little bug is here to stay. It has munched its way through more than eleven thousand acres of tamarisk already. And the willow flycatchers are still in deep trouble.

There's a lot to be learned from this little tale. Firstly, beware of what you introduce, be it vegetable or animal, and this means you the gardener as well as the government. Secondly, beware of complacency. Sure, plants like tamarisk will provide shelter and breeding sites for

flycatchers and doves, but these aliens do not provide the broad spectrum of food resources that the native species do, nor do they do willow's job of protecting and improving water supplies in that semi-arid land. Finally, when faced with the problem of an invasive species, do not go for the quick fix. Look for the causes of the invasion, usually land that is disturbed and degraded, and try to 'remove' the invasive by challenging it with native species. Our natives are not feeble. They can compete with the invaders, but perhaps they need help. Along the Colorado, willows are returning as the tamarisk dies off, but in Nevada another alien, Russian knapweed, (*Rhaponticum repens* (L.) Hidalgo), is replacing the declining tamarisk. If willow flycatchers are to be saved, it is necessary to undertake massive replanting of willows right now, and for their habitat, the riparian areas, to be protected from grazing livestock, especially in critical breeding areas like Arizona's Virgin River. The flycatchers, the tamarisk and the willows are the canaries in the coalmine, calling our attention to the very sick condition of the streams and rivers of the Southwest. We cannot ignore the problem in this age of warming and drought. To protect the birds, we must restore the riparian areas. The return of groves of willows will provide cleaner steadier flow in the streams and raise the water table. Both the tamarisk and the beetle are going to be part of the new ecology, but hopefully, as years pass, only a small part.

Garden or Purgatory by John Carter

Many of us are enraged by what our species is doing to the earth. We rail at the others, the ones we perceive as more greedy than we, the ones who take more than their share, the ones who consider it right that they have more – much, much more – than they need to survive.

I count myself among the enraged, even though on the larger scale I must admit I am one of the others. I am part of the problem.

We humans are conducting a grim experiment. We are testing this hypothesis: a multitude of life forms, each possessing a powerful drive to reproduce, co-existing on a single planet with the inanimate material and energy required to sustain them, will continue to co-exist unless or until an uncontrollable catastrophe occurs.

If true, life on earth will continue to thrive until the next asteroid hits or the sun dies. If false, other alternatives present themselves. Right now a

plausible alternative is that *H. sapiens* may have become too successful, in effect a slow-moving asteroid, responsible for the extinction of innumerable other species. As our collision with the earth reaches its climax we may follow the path of those other life forms, for the extinction of which we must bear full responsibility. Perhaps there will remain a few hardy species that will seed the next great flowering.

Should this be earth's path, then perhaps fifty to a hundred million years hence another self-aware, intelligent species will have evolved in such a way that it can live in harmony with all those other species that have co-evolved with it and that sustain and nurture it.

From here, that sounds like heaven. And as I reflect that those exalted creatures will be built of the same atoms that hold me together, that make us all, there is after all a chance that some part of us eventually will get to heaven.

Right now we humans are poised to cast ourselves out of the Garden. Another few steps and the gate will lock behind us. And if it clicks shut, if we so despoil our planet that its slide cannot be reversed, our last descendents will look back and wonder from which Tree we picked the fruit that so poisoned us. Some of them, before they too disappear, may ask from whence came that Tree. Did we will its seed into existence and then plant it? Or was it always there: is our self-destructiveness so deeply rooted in our very being that we could not stop ourselves from the behavior that doomed both us and them?

Considering that this experiment might go on for a very long time – hundreds of millions of years does qualify as a long time – engenders a certain passivity. You know: "Whatever. I can't do much in my brief time here." As one of my favorite bumper stickers asks: "Where are we? And why are we in this handbasket?" The rational conclusion of that humorous thought is that there's no point in trying very hard to change course because ultimately we're all doomed anyway. Why fight those urges? Take all you can get.

Yet, rational conclusions notwithstanding, I remain unconvinced that our biology indeed controls our destiny. Yes, we are innately selfish; yes, we have a monumental drive to procreate; yes, we want to eat too much; yes, our wars against each other now threaten the planet; yes, we are already responsible for the extinction of many other species; yes, yes, to all the evil in our nature. But

we have some good in us and there is the small chance that this good will win out. We might gain control of our base instincts before we reach earth's tipping point. Many of us are aware of our faults, know much of what is wrong with how we now live, know some of what we should do to get back

into harmony. We may have the potential to be the heaven of those species that passed out of memory eons ago. And if we do not succeed? Then either they will share our purgatory until some distant future or they will join us in the hell of absolute lifelessness on what was a beautiful Garden.

Out and About

"Out & about" is a periodical encouragement to Eugene Natural History Society members to get out and experience our magnificent Oregon



Face Rock Bandon Beach

December is the time to catch an amazing sunset on the Oregon coast.

Waves of storms combine with the low angle of the winter sun to produce sunsets that can't be beaten.

Want more information about this location? Contact Dave Stone at 541 683 6127.

CHRISTMAS BIRD COUNT

Please mark on your calendar Sunday, 2 January 2011 as the date for the 2010 Eugene Christmas Bird Count (ECBC). This will be the 69th ECBC and the 111th National Audubon Society's Christmas Bird Count. Dick Lamster will be the Coordinator again this year, supported by a Steering Committee of Herb Wisner, Dan Gleason, Barbara Gleason and Becky Uhler plus 26 great bird watchers as Team Leaders. Contact Dick at 541-343-8664 for more information. Call Barbara at 541-345-3974 if you would like to go with one of the Teams looking for birds during the day. Call Herb at 541-344-3634 if you would like to be a Feeder Watcher.

Events of Interest in the Community

Lane County Audubon Society

Friday, 10 December, 7:30 pm. "Why Have so Many Birds Disappeared From a Tropical Island in Panama?" by Dr. W. Douglas Robinson, Department of Fisheries and Wildlife, Oregon State University, Corvallis, Oregon. The LCAS and the Eugene Natural History Society are co-sponsoring this lecture.

WREN

For more on these activities call 541-683-6483 or email info@wewetlands.org.

Tuesday, 14 December, 9-10 am. Wetland Wander. Meet at Stewart Pond, a 150-acre natural area located east of the intersection of Bertelsen Rd. and Stewart Rd., north of W 11th Ave. Free! Binoculars provided.

Tuesday, 11 January, 9-10 am. Wetland Wander. Meet at Golden Gardens, a 146-acre natural area park located in Eugene's Bethel neighborhood, at the intersection of Golden Gardens St. and Jessen Dr., north of Barger Dr. The park was formerly a gravel pit, which provided material used in the construction of Belt Line Rd. and its overpasses. Free! Binoculars provided.

Nearby Nature

Call 541-687-9699, email info@nearbynature.org, or go to <http://www.nearbynature.org/programs/registration-forms>

Saturday, 11 December, 10 am-noon. Nearby Nature Quest: Twiggin' Out. Get to know trees...even without their leaves. Look for patterns in nature and make a tie-dyed snowflake to take home. Starts outside the Alton Baker Park Host Residence (between the dog run and community gardens). FREE for members, \$2/person or \$5/family for non-members. Pre-registration suggested: 541-687-9699. For a map, see www.nearbynature.org.

North American Butterfly Association, Eugene/Springfield Chapter

Monday, 6 December, 7:00 pm - refreshments; 7:30 pm – presentation. "Color Vision and Color Blindness in Admirals, Coppers and Metalmarks." Professor Gary Bernard from the University of Washington will talk about his research on the complex eyes of butterflies -- what they see and how they see it. We will learn about the structure of the butterfly eye and the many possible variations in specific species. Location: EWEB Training Center at 500 4th Ave., Eugene. FREE, all are welcome.

We welcome new members! To join ENHS, fill out the form below. You will receive *Nature Trails* through December of next year. Membership payments allow us to give modest honoraria to our speakers, as well as to pay for the publication and mailing of *Nature Trails*.

MEMBERSHIP FORM

Eugene Natural History Society

P.O. Box 3082, Eugene OR 97403

Name _____ <http://biology.uoregon.edu/enhs/>
Address _____
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ANNUAL DUES: Contributing 20.00
Family 15.00
Individual 10.00
Life Membership 300.00
Contribution _____

Annual dues for renewing members are payable in September. Memberships run from September to September. Generosity is encouraged and appreciated.

Make checks payable to: The Eugene Natural History Society

The following information is voluntary, but appreciated:

Would you like to: lead field trips teach informal classes work on committees?

What would you like to hear a talk on? _____

Do you have special experience in natural history: _____

INTERESTS

Archaeology Astronomy Bird Study Botany Conservation Geology History of Science
 Herpetology Meteorology Mosses & Lichens Mushrooms Nature Walks Wildflowers Zoology
 Other _____

Eugene Natural History Society
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Eugene, Oregon 97403

ENHS Schedule of Speakers and Topics for the rest of 2010-2011

- 10 Dec 2010** – W. Doug Robinson – Why have so many birds disappeared from a tropical island in Panama?
21 Jan 2011 – Dennis Jenkins – Paisley Caves
18 Feb 2011 – Lynne Houck – Salamander Courtship
18 Mar 2011 – Scott Bridgham – Climate Change/Terrestrial Ecosystems
15 Apr 2011 – Al St. John – Great Basin Reptiles
20 May 2011 – TBA (Robert Pyle will be unable to speak to us)

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