

Nature Trails

Published by the Eugene Natural History Society

Volume Forty-seven, Number Nine, December 2012



Craig on a sculpture of a crow by Tony Angell

**To Know the Crow and What They Know - Special
Contributions of Corvids to Our Understanding
of Animal Intelligence**

**Dr. David Craig, Professor of Biology,
Willamette University, Salem, Oregon**

**Friday, 14 December 2012, 7:30pm, Room 100
Willamette Hall, UO Campus**

David Craig's career at Willamette University epitomizes the ideal for a faculty member of a liberal arts institution: intense but balanced efforts in teaching, research and service. Craig is an Educator with a capital E. He teaches several courses, has created several courses, and has raised considerable sums of money for curriculum development in WU's Department of Biology, of which he has been Chair since 2008. Judging by his students' insightful comments on how deeply he cares about their development as thoughtful and contributing members of society, they don't give him the rave reviews because he's easy on them. As an advisor, every semester he has more than 40 students clamoring to crowd under his wing. He carries on a first-rate research program and melds it into his educational efforts by enticing his large flock of undergraduate advisees to take on independent research projects. The number of these projects he has shepherded through to completion is almost staggering. He and his students have several papers out in refereed journals, with several others in the works. Service, the third leg of the academic stool, does not get short shrift in Craig's set of priorities. His talk to us is not an exception to his ordinary schedule. He reaches out to the public often. A few other examples: he was the keynote speaker at the 2011 Annual Conference of the Guild of Natural Science Illustrators and at the 2012 Leavenworth Spring Bird Fest, and in November 2010 he gave an OMSI Science Pub talk.

Here's an indicator of the level of enthusiasm and originality Craig brings to undergraduate education, shamelessly plagiarized from a Willamette University publication: "Craig formed CORAX in 2001 as a way to encourage and reward dedicated undergraduate researchers. Craig's Outstanding Research Associates—the X in CORAX is a variable for behavior or ecology—enjoy their own laboratory next to Craig's office. On the door is a list detailing "the Pecking Order," with Craig himself ranking as the "Big Bird," along with the following statement: "A group of ravens is called an unkindness. It can also be a 'constable' or 'conspiracy,' depending on what they are doing at the time.... Those named below are a part of a constable for the CORAX lab. They are in charge of keeping the lab orderly. If they do not, they will be told to flock off...." Other rules of membership include the responsibility to grow the network of research colleagues and to participate first-hand in Craig's field research."

Craig and his students have been instrumental in reducing Caspian tern predation on juvenile salmon in the Columbia River. He and his students developed the 'terncoat', a miniature harness that holds a satellite-

tracking device on a tern's back but does not interfere with the bird's natural movements.

Except for doing his graduate work in Colorado Craig has been in the Pacific Northwest from the get-go. He grew up in Scappoose, Oregon, where his parents, both outdoor enthusiasts themselves, encouraged their children to play outdoors in the forest next to where they lived. His love of birds and fish extends back to his earliest memories, but the bird bug really got him at age seven when for Christmas he was given a field copy of Peterson's Guide to Western Birds. That book plus the family binoculars set him on the path he still trods. When he was a sophomore at Lewis and Clark College, in Portland, he came to realize that he might be able to make a career out of his bird-watching hobby. Several of his professors encouraged him to go for it. After getting his B.S. in Biology at Lewis and Clark (his first speaking gig was a commencement address at his graduation) he entered the University of Colorado's Department of Ecology, Population and Organismic Biology, where he got his Ph.D. in 1997. His Ph.D. dissertation is entitled *Role of Corvids as Nest Predators in the Colorado Front Range*. He then became a Postdoctoral Research Associate with Daniel Roby at Oregon State University, where he began his work on Caspian terns. He joined the faculty at Willamette University in 2000 as a replacement for someone on sabbatical leave. The administration evidently saw his potential because at the end of that year they offered him a permanent position. His own sabbatical with corvid researcher John Marzluff at the University of Washington will provide some of the material in his talk to us.

Craig intends to maintain his research interests in both terns and corvids, rather than becoming a specialist in either one. In fact, he says that being a naturalist at heart he will probably widen his focus instead of narrowing it. For instance, he has inadvertently become an expert on tree squirrels, in part because the eastern gray squirrel was first brought into Oregon in 1921 at the Capitol, right across the street from the WU campus.

In his presentation Craig will share a review of the scholarship around American Crows, Common Ravens, and Western Scrubjays, including the work he did with John Marzluff on crows' ability to recognize human faces. He'll talk about new research by one of his former students and now Marzluff's graduate student, Kaeli Swift. She is exploring crow funerals using brain scans of wild crows. Craig will also share new insights from Scrubjays about their response to dead of their kind and what it could mean for additional advances in our understanding of the evolution of culture.

Given Craig's talents as a presenter, his infectious enthusiasm and his fascinating subject material, we have an outstanding evening in store. Please join us at 7:30 pm on Friday, 14 December in room 100

Willamette Hall on the U of O campus to hear David Craig's talk "To Know the Crow and What They Know - Special Contributions of Corvids to Our Understanding of Animal Intelligence." John Carter

Marjorie Zane – Marge to us – was a long-standing and much loved member of the Eugene Natural History Society Board. She died on 11 November 2012 of natural causes. She was 95. It is fitting she be remembered here. What follows has been excerpted from several sources.

Marjorie was born in Philadelphia in 1917 to Dorothy and Nolan Zane. They moved to Oregon when she was 3. She was a graduate of University High School and the University of Oregon where her father, the noted Plein Air painter Nolan Zane, was an Architecture and Allied Arts faculty member.

During WWII Marge spent four years in learned to fly. In the 50s she returned to and other works of fiber art. She became Her wreaths and bouquets and prints of 60s she worked in the display department meaningful to her: she was appointed the Johnson Psychiatry Unit of Sacred heart

Marge, a respected amateur naturalist and the Confederated Tribes of the Grande Marge helped deepen the knowledge of cultural area.



Tucson, AZ working in an airplane factory and Eugene and produced hand-made lampshades known for her creations using natural materials. dried material still decorate many homes. In the of the Bon Marche. Her last job was the most art therapy/craft supervisor of the newly opened Hospital.

archeologist, endowed her remarkable finds to Ronde. Don Day, a tribal archeologist, said native occupation and history in the Kalapooya

Besides her work with ENHS Marge was an active skier, danced with the Eugene Folk Dancers, hiked with the Obsidians, gardened with the Master Gardeners of the Lane County Extension Service, and was a member of the Spencer Creek Grange and the Progressive Animal Welfare Society (PAWS) of Eugene.

Eve McConnaughey writes: "As a cat lover, I enjoyed and benefited from Marge's interest and knowledge of cat psychology, her devotion to her cats, and contribution to my cat's enjoyment."

Dave Wagner writes: "Marge was respected as being more than a watcher, but engaged with nature. On one of our flower walks 25+ years ago she saw a cloud of gnats hovering close to the trail. When she approached it, she noticed she could guide the gnat cloud this way and that by spreading her arms around it and walking slowly. With a smile on her face, she brought the gnat cloud close to me and "handed" it off to me by slipping behind me as I held my arms out as she had done. With her guidance we passed the gnat cloud from one to another. Thus, she became known as "the one who herds gnats.""

Herb Wisner writes: "I remember visiting Marge once many years ago at her home on Lorane Highway and seeing the stacks of things (organic and otherwise) in the enclosed back porch. I couldn't help but think that the fire that consumed practically all of her possessions must have hit her pretty hard in this particular category. While having a conversation with her about all the cyclamens that were growing in my yard she told me of the finding [her finding] that ants were the instrument of their spread."

Reida Kimmel writes: "Marge lived more utterly in the moment than any other person I have known. Each day, each hour, brought her something of interest and delight. She was a collector, not of common goods, but of tiny treasures, often other people's discards. Her capacious porch was full of honored possessions that would not fit into her tiny house: special old bottles, vases and bowls, dried plants and seedpods, and jars of things she found on her walks. Whenever I visited she would present me with a bundle of interesting seedpods, dried twigs ingeniously bound into a bouquet, or a plant to cultivate. Her little yard was a wonderful mix of native and exotic plants, and of course garden vegetables. I envied her early-blooming wildflowers and her bed of naturalized cyclamens. She loved the prolific self-seeding red kale I gave her. Marge always had some new find that excited her. She had an eye for the very miniscule, such as the tiny pink seeds of the mystery plant that later proved to be English ivy, which none of her friends, plant lovers though they were, had ever noticed before.

"When Marge no longer lived at home I started to bring her things I found on my walks: spring flowers, fall leaves, bird feathers, stones shells and fossils from the beach. In looking for things for Marge, I became far more sensitive to my own surroundings. Thank you Marge for this wonderful gift."

Marge Zane leaves behind a network of friends and extended family that will miss her exuberant spirit, her pithy wit and deep kindnesses.

ENHS Field Trip to John Day Fossil Beds

ENHS is excited to announce that our annual field trip will explore the John Day Fossil Beds National Monument in eastern Oregon. During the trip, which will be held 31 May through 3 June, we will stay at OMSI's Hancock Field Station in cabins with bunk beds. A communal bathroom is located in a separate building. Cost is \$150 per person for 3 night's room plus meals.

We plan to visit the three areas of the Fossil Beds (Painted Hills, Clarno and Sheep Rock) as well as the Thomas Condon Paleontology Center and Cant Ranch Historical Museum. There will be plenty of opportunities for hiking, studying geology and paleontology, taking photos and exploring on one's own. Check out www.nps.gov/joda for more information about the area.

To help us meet OMSI's requirements for final reservations, we have a deadline of 1 March for full payment for the trip, with no refunds after 15 March. Note that we will not consider a person as signed up for the trip until we receive full payment.

If you are interested in going on this trip, please contact Kim Wollter, 541-484-4477 or kwollter@comcast.net, if you have questions, and send payment to her at 3550 Mill St. Eugene, OR 97405.

This is a fabulous opportunity to visit some of the best and most beautiful geological formations in Oregon. We encourage you to join us.

Out and About

"Out & about" is a periodical encouragement to Eugene Natural History Society members to get out and experience our magnificent Oregon. Photos and descriptions provided by David Stone.



Black-crowned Night herons

When you head for the Klamath Basin this winter to see some of the largest wintering populations of Bald Eagles in the lower 48 states, check these guys out. They roost in large numbers in the trees near the outlet of Link River in downtown Klamath Falls. From downtown, cross the river and drive just past the Favel Museum to the parking lot for the Link River trail and look into the trees back across the river.

Flying Lessons **by Reida Kimmel**

As reliable as the strengthening spring sun, the barn swallows return to our farm in the third week of April. Some years it is warm, in other years they are met with squalls of sleet and dustings of wet snow. At first there are just a few, possibly males, though one cannot really tell because the sexes are identical. Then suddenly the barnyard is alive with swooping chattering shapes, moving too fast to count. It is such a happy time for most of us, but not for the cats. When they were just kittens, being allowed outside for the first time, Pascal and Alistair were mercilessly attacked by swallows, repeatedly. Beaten to the ground, harshly. One lesson was enough. "Cats do not go near the barn, roll on the gravel driveway near the barn, or heavens forefend, ever enter the building." That was five years ago, and even in winter the felines rarely set foot in the barn, though in the off-season they will walk beside it.

For many years we had three or four barn swallow nests, but in the past decades, the numbers have steadily increased. This year that cloud of birds built more than ten nests. I could not count them all because some were hidden in the back rafters. The horse and hay barn has always been the prime turf. Increasingly, population pressures have forced other pairs to build at the chicken house, the sheep pen, the storage shed, or any warm, sheltered spot in the vicinity of flies, midges and other livestock -induced insects. The good services of the swallows in pest control completely outweigh the annoyance of the bits of bird poop that descend onto the horses' backs. But poop there is; the barn walls and doors are painted with it. Mounds build up under the more obscure nests. I have to protect hay and straw bales with heavy cardboard covers. The babies are so clean in their nests. They stand up, twirl around, hang their tiny butts over the side of the nest, and shoot out the stream. Best not get in the way! We have noticed that our swallows do not mind my presence or the dogs, but if someone less familiar joins me, silence ensues. Parents go away or wait at a distance until the intruder departs. The baby swallows must get cues from the parents to be quiet and still.

Fledging time is the best, and we get to see it twice, and occasionally three times, because the mother swallows make a second family, and fledge it just before leaving us to travel south. The little guys and gals, still wearing their bright baby markings about their faces, start to learn to fly by hopping and flapping out of their nests to the nearest rafter, and back again. Or they just hang out on the rafter begging for more and more food, chattering all the time. It's lucky that most of the parents have assistants, probably older

siblings, to help supply insects. Soon the real flying commences. The fledglings fly back and forth in the alley between the stalls and the hay storage, or they flutter into the hay barn and fly around and around where there is no hot sun, no wind, and plenty of bales and beams to rest on. What cacophony! The next step is to venture into the wide world, which means the vegetable garden, and to learn to hunt. The fence is a nice place to rest between flights. But sometimes things just do not work out as planned. One afternoon Chuck exploded into peals of laughter. "Look at that!" What he saw was a tiny bird carrying a really big moth. It was heading bravely to the garden, so burdened it could hardly fly. The little swallow made it to the garden fence, but I think the moth escaped.

Fledging and learning to fly do not take long. Within a week the 'babes' are perched on roofs and branches with all the other swallows, discussing really serious matters, that is, when they are not on the wing, a cloud of swallows in pursuit of calories. Then suddenly, one day in September they are gone, until next year. May they find healthy food, warm sunshine and shelter in the far south. May many, one dare not hope all, return to us in April. My birthday present. I'm waiting.

Watching Leaves Fall **by John Carter**

Looking out our east window on a late November Oregon day, leaves are falling from the bigleaf maple (*Acer macrophyllum*). Most sashay down, dipping first to one side, then the other. A few take a spiral path. Once in a while one points its petiole straight down and traces an almost linear route to the ground. Brown, gold, big, little (for a bigleaf maple, little is still big), hurried, pokey, it's a ballet with no repetitive steps.

This beautiful show, so apparently simple and innocent, has underpinnings so complex it cannot be anticipated nor modeled. Each dancer is unique. No serrated edge is exactly matched by any other. No indentation, no size, no color, no pattern of senescence, no collection of fungi and bacteria, no number of stomata, nothing is the same on any two leaves even though the general pattern is distinctive enough that most of us can look at a leaf and say with certainty that it is or is not a maple leaf. As each leaf falls it interacts in its very own way with the molecules of nitrogen, oxygen, water, carbon dioxide, hydrogen, the atoms of helium, argon and neon, the traces of various oxides of nitrogen and sulfur, and all the other myriad components of our atmosphere – bacterial cells, fungal spores, viruses, pollen grains, soot, dust, ... the list is large. When the last of the weak cells rupture and its abscission layer finally gives up, each leaf would

answer gravity's command in its own way because of its unique shape and its unique location in the tree even if all the parts of the medium through which it is about to plunge were motionless. But we know those tiny bits never stand still. Minor differences in atmospheric pressure, which are simply differences in concentration of these gases from one place to another, lead to these gaseous molecules, which in sum we call air, rushing from one place to another, always heading from where they are relatively piled up to where their concentration is a bit lower. Is that fierce, chill wind on the beach really pushing you, or is it pulling you along on its mad rush to fill a distant vacuum?

My leaves must make their chaotic plunge, then, through an even more chaotic jumble of moving air. At the molecular level it becomes even more chaotic, because not all the tiny players move at the same rate or in the same direction when the wind blows. Chaos rules even – especially – on the molecular scale.

“Today the wind will be out of the southwest at 15 mph” is only the bare beginning of the whole story.

That leaf there, the big yellow one with brown spots, did you see it suddenly veer off to the north and then actually climb about twenty feet before it started falling again? And the one that was right next to it, the small, dark-brown one, why didn't it go up too? It just did this lazy spiral as it slanted down and got hung up in the Viburnum. Look, there goes a tan one from the far tree, on a straight diagonal path to the north, as if on an invisible slide. Ah! A gust of wind and suddenly the open space there, bordered by Douglas firs of various sizes, is full of a dozen leaves at once, each making up its own dance on its way to earth.

There will come a day, probably in early December, when the last act will end, with the final dancer making its pass on this vertical stage, and the curtain will be drawn for another year. But on this day the action continues; there goes one now, swooping like a Flicker!

Events of Interest in the Community

Lane County Audubon Society

Friday, 14 December. LCAS and ENHS are cosponsors of David Craig's presentation. See pp. 1 and 2 for details.

Sunday, 30 December. 2012 Eugene Christmas Bird Count. This will be the 71st Eugene Christmas Bird Count and the 113th National Audubon Society's Christmas Bird Count. Dick Lamster will be the Coordinator again this year supported by the Steering Committee of Dan Gleason, Barbara Gleason, Allison Mickel, and Herb Wisner, plus 27 great bird watchers as Team Leaders. For more information, contact Dick Lamster at 541-343-8664.

Mount Pisgah Arboretum

34901 Frank Parrish Rd., Eugene, 97405. Call Peg Douthit-Jackson at 541-747-1504, email mtpisgajp@efn.org, or look at <http://mountpisgaharboretum.org/> to find out about current Arboretum activities.

Nearby Nature

Go to <http://www.nearbynature.org/events> to view NN's calendar, or call 541-687-9699.

University of Oregon Museum of Natural and Cultural History, 1680 E. 15th Ave.

Saturday, 14 December, 5-8 pm. Wish Upon a Star: Eleventh Annual Winter Solstice Celebration. Music, performances, food, and crafts for the entire family. Free with a canned foods donation (but you can't stay to the end because you have to get to 100 Willamette Hall by 7:30 for David Craig's talk!).

Free Admission Wednesdays, 11 am – 5 pm.

Fridays, 1 pm and 3 pm, Guided Tours.

Ongoing Exhibits: 1) Out in Space Back in Time; 2) Tidewaters by Rich Bergeman; 3) Nick Sixkiller, The Man Behind the MIC; 4) Scientific at the Core; 5) Oregon: Where Past is Present

Native Plant Society of Oregon, Emerald Chapter

For information on current activities contact ngap@emeraldnpsoregon.org or look at <http://emerald.npsoregon.org/>

Monday, 17 December 7:30 pm. Holiday Social and Slide Show. Bring 10 to 12 slides (traditional or digital) and a snack to share if you wish. Location: EWEB Training Room, 500 E. 4th Avenue, Eugene. For more information call 541-349-9999.

WREN

For information about upcoming events call 541-338-7047 or email info@wewetlands.org. You can also go to their website: <http://www.wewetlands.org/>

Tuesday, 11 December, 9 – 10:30 am. Wetland Wander at Stewart Pond.

Cascades Raptor Center

Open for Visitors: Tuesday – Sunday. Winter Hours (November - March) 10 a.m. - 4 p.m. Handler Talks: Sat & Sun at 1 p.m.
Cascades Raptor Center is located in south Eugene on the side of Spencer Butte. Birds are on display in large, outdoor aviaries viewed by walking winding, hillside trails. These woodland, gravel paths have a moderate grade in some locations. Admission Fees (which help to feed the birds): Adults: \$7, Teens/Seniors: \$6, Children under 12: \$4. Free to members. If admission fees are a problem you can go to your local public library and check out a free family pass, good for up to \$25.

North American Butterfly Association – Eugene/Springfield Chapter

Monday, 10 December, 7 pm - refreshments; 7:30 – presentation. Bringing Back the Pollinators: What we can all do to protect these essential creatures. By Scott Hoffman Black, Executive Director of the Xerces Society for Invertebrate Conservation and Chair of the International Union for Conservation of Nature (IUCN) Butterfly Specialist Group. 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*. Our web address: <http://biology.uoregon.edu/enhs/>

MEMBERSHIP FORM

Name _____
Address _____
City _____ State & Zip _____ Phone _____
E-mail (if you want to receive announcements) _____
I (we) prefer electronic copies of NT rather than paper copies. ___ Yes ___ No
If yes, email address (if different from the one above): _____

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
P.O. Box 5494, Eugene OR 97405

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 _____

ENHS Schedule of Speakers and Topics for 2012-2013

- 14 Dec. 2012** – David Craig – To Know the Crow and What They Know - Special Contributions of Corvids to Our Understanding of Animal Intelligence
- 18 Jan. 2013** – Marge Helzer – Rimrock Draw Rock Shelter: Stones, Bones, and Seeds.
– What Artifacts Tell Us About Life 10,000 Years Ago
- 15 Feb. 2013** – Ray Lowe – Tidal Marsh Restoration on Bandon Marsh National Wildlife Refuge
- 15 Mar. 2013** – Gail Baker – A Plant Ecologist's Dream Trip: The Floral Diversity of Australia
- 19 Apr. 2013** – Josh Roering – Eel River Pleistocene Lake
- 17 May 2013** – Jason Dunham – Bull Trout

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Illustration by H. Douglas Pratt