



# Oregon State University

## Department of Fisheries and Wildlife

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*News and Views // Summer 2016*

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### **A MESSAGE FROM THE (NEW) DEPARTMENT HEAD**

Dear FW friends and family. Welcome to summer. It's wonderful to connect with you all!

As the new Department Head of Fisheries and Wildlife, I am very happy to introduce myself to those of you who have not met me during my 15 years in F&W at OSU. I am a marine fisheries ecologist and quantitative conservation biologist, with research emphases on large marine vertebrates and long-lived fishes (mostly!). I am a Pacific North westerner from birth, did my graduate work in North Carolina but made it back to the PNW with my husband, Scott, in 1998. I have passions for nature, fishing, teaching and singing. I also love watching my son, Dylan, grow up and follow his talents of nature photography and soccer.

It is an exciting time to lead the department. We have several new faculty, excellent professors and instructors, fantastic students, post-docs and research assistants, and the best staff I could hope for. We have grown tremendously with our online programs, winning university and regional awards and adding new courses and programs. The Marine Studies Initiative will provide opportunities to build new interdisciplinary teaching and research programs that connect us to our coastal communities and resources. And new leadership in the College and University promises change and the chance to influence program development and policies across OSU.

Students are why we are here – past, present and future – and I deeply appreciate the dedication of our staff and faculty to student success, and the support of our alumni, emeritus faculty and friends to enhance opportunities for students through scholarships and donations. We hope to provide more experiential learning in our curriculum to give our students hands-on skills and promote their appreciation for nature here in the Willamette Valley, at the coast, across the mountains, and around the world. As a conservation biologist who has worked in many parts of the U.S., Europe and Latin America, I recognize the value that a diversity of experiences, cultures and beliefs can bring to our efforts to save the planet and am working with individual faculty and our Diversity Committee on a number of initiatives that will grow our FW family, including recognition of the time committed to those activities.

My door is always open and I love to meet and chat with alumni and friends. Please let me know if you will be passing through Corvallis and have time for a visit to Nash Hall.

All my best,

**Selina**

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P.S. A print version of this newsletter is available. Just email [fw.news@oregonstate.edu](mailto:fw.news@oregonstate.edu) with your request and mailing address. You can also get in touch with us by visiting our website at [fw.oregonstate.edu](http://fw.oregonstate.edu).

## A MESSAGE FROM THE EDITOR

Greetings! Jim Hall has entrusted me with the editorship of News and Views. When Jim was the editor, I really looked forward to the latest issue. It was like reading the “Annual Seasonal Letter” from friends and family. That is the standard you should expect from me. We have a lot to tell you! So much so, that we have decided that we should expand News & Views to new issues. We hope that you have a lot to tell us.

There will be one big change. We have decided to produce two issues per year. One in the summer and one during the winter. The two issues will follow the rhythms of academic life. In This issue we celebrate the honors that have been awarded to our undergraduates, graduate students, faculty and alumni.

Ideally, the issue that we will send out during the late fall, will highlight what our former graduates have been doing. Our alumni are the pride of our program. Much of our department’s reputation is a reflection of your careers. We want to know about your promotions, awards, key publications and important reports. If you are shy, get your fellow workers to brag about your good work. Hearing about your activities gives us all hope that a sustainable world is possible.

As the late Fall issue will be sent during the holiday season, treat this like the holiday card. It’s time to reconnect with former classmates, and the faculty. Where are you working? What do you do for hobbies? Send family pictures. Do you have pictures of people when you attended OSU? Our department has many graduates who serve Native American natural resource organizations as well as Native Americans who serve with natural resource agencies whether they are tribal or not. I would like to have this Fall’s issue highlight some of your achievements and work. Drop us a line and let us know how you are doing.

Reminiscences can be inspirational, funny, and even embarrassing. Ratting out on a buddy is a sanctified part of our professional culture. As examples our department has the infamous “Road Kill Award”. Colorado State has the “Toothless Saw Award”. Utah State has the “Headless Axe Award”. OR AFS has the “Broken Oar Award”. Keep it tasteful, but remember these are important teaching moments. It may prevent someone else from a horrible mistake. How horrible, like when Stan Gregory learned that immunity from Poison Oak can be lost. He will never twirl a sprig of it with his lips again. Neither will anyone attending his class. Such stories can protect others from candidacies for “The Darwin Award.

We have recruited new faculty! These three have at least one thing in common: they engage with the indigenous people at their research sites. This is the human dimensions aspect we needed to add to our program. Before we can help we need to understand what people value. Many indigenous peoples derive a system of values through constant revision of frequent, detailed, observations of natural history. They are interested in those facets of ecological interaction that confer survival benefits. This grasp of natural history has been dubbed Traditional Ecological Knowledge (TEK). Much of this information is phenological, tracking seasonal changes. The seasonal calendars are orally transmitted, but think of it this way, the farmer’s almanac is a collection of traditional ecological knowledge that is preserved for future generation in written form. Access Wikipedia for an interesting discussion of this TEK.

The data they acquire may be less precise than that gathered using sensitive tools used by highly technical societies, but may be more accurate as the quantity and quality of observations are higher. Hmmmnn. How did I get side tracked? The basic point is talking that talking to your constituents is a good thing!

- **Hiram**  
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## MEET THE NEW FACULTY

### Kelly Biedenweg

My great grandfather farmed California’s Berkeley hills and every generation since grew up in the Central Valley. As a child I loved visiting my grandparents’ cabin in the Sierra Nevada and wanted to be a wildlife biologist early on. Then I spent my senior year of high school in Brazil and was blown away by the opportunity to see the world through an entirely different cultural lens. I spent almost fifteen years working abroad to continue exploring that sensation.

### University and Peace Corps

My academic training began with a B.S. in marine ecology from Western Washington University. Intending to save the world, I then served as a natural resource volunteer for Peace Corps Honduras. This was a defining experience for my career in the human dimensions of natural resource management. Upon completion of service, I received graduate degrees from two interdisciplinary programs in New Hampshire and Florida focused on humans in the environment. My master’s thesis evaluated environmental



attitudes and behaviors around Honduran protected areas. I used a stratified sampling procedure to explore whether individuals who had participated in a leadership training program for various time periods were more likely to adopt environmental attitudes, behaviors, and community leadership roles. This was my forest foray into what is now called Conservation Psychology.

For my doctoral program, I was invited to be part of an exciting NSF IGERT Working Forests in the Tropics program. This interdisciplinary program was based in the Amazon and the Maya Forest of Central America and required (and supported!) fellows to develop proficiency in both natural and social science methods, dissertation projects with in-country collaborators, facilitation and conflict resolution skills, and products that were appropriate for the diverse stakeholders who participated in and could benefit from our research. My dissertation explored the social dimensions of community forestry in the Bolivian Amazon. Specifically, I analyzed how support agencies (NGO's and government) select the immigrant communities with which they work and how the personal relationships between the extension agents and community members resulted in attitudinal and behavioral trends toward communal resource management. A politically-motivated massacre involving members of my research communities required me to leave early and, to be honest, probably led to my current 5-year status in the PNW.

#### **Since Then**

After my graduate degrees, I moved to the Puget Sound and worked with the Quinault Indian Nation, The Nature Conservancy, The US Forest Service PNW Research Station, and several state and county agencies to incorporate human values into resource management. I received a 3-year NSF Science, Education and Engineering for Sustainability Postdoctoral Fellowship to explore quantitative

and spatial metrics of human values that could be integrated into resource management planning. I initially housed this research program within the Natural Capital Project's marine team, but moved to program to the University of Washington's Puget Sound Institute in order to work directly with the state ecosystem recovery agency, the Puget Sound Partnership. With them, I led a study to develop holistic human wellbeing indicators that were relevant to the broad Puget Sound population. In summer 2015, 15 of these indicators were adopted by the Leadership Council and will now be monitored biennially to evaluate changes as a result of changing (or not) environmental conditions and to promote strategy development that explicitly acknowledges diverse social trade offs. I currently lead the monitoring program for these data, a position parallel to leads for ecological health indicators (e.g., acreage of eelgrass beds and marine water quality).

#### **Teaching**

Teaching and advising allow me to be creative in a substantively different way than research. My primary goal is to facilitate opportunities to learn while doing and empower students to make connections to their future careers. Human dimensions courses (including FW289 Communication Skills and FW 340 Multicultural Perspectives) are perfect environments for practicing social skills based on the best available social science. In FW 340, for example, we role-play a decision to expand Olympic National Park boundaries, learning to identify with the different values and stances of our assigned stakeholder based on research that has elucidated those values. In FW289 each student learns to effectively facilitate a small group discussion, something we all do on a regular basis with our colleagues. Because students often don't acknowledge the need for understanding these "soft skills" (although you do...anyone who has worked in the field of management does...), it is critical to offer these experiential activities to build their appreciation for such topics.

#### **Off-hours**

I'm a typical North westerner who loves being outdoors (especially cycling trips) and renovating my home. I also do pottery – a pastime I picked up while writing my dissertation.

#### **Taal Levi**

I have no idea how I ended up being a professor of wildlife research. Really, it doesn't make much sense. I did not come from a remotely academic family. My father was an immigrant from Morocco and my mother from Israel.



Nobody in my family had gone to college, and Los Angeles isn't exactly the place to learn to love wildlife. Although I always had a love of animals, if I think carefully, the path toward wildlife ecology probably all started with Spanish. My best friend growing up was Mexican, and his mom was my Spanish teacher in elementary school. Years later I would find myself studying physics at UC Berkeley, where the ability to speak Spanish got me involved with two nonprofit organizations, one working in southern Mexico and the other working with refugees in the San Francisco Bay Area. I started traveling around Central America at barely 18, and some time spent in tropical forests sparked an interest in issues like tropical ecology and conservation, sustainable development, and wildlife management, but at the time I was still committed to becoming a physicist.

While at Berkeley, I became fairly obsessed with natural history and backpacking, which led me to study abroad in a Tropical Ecology and Conservation field program in Costa Rica. I spent the summer busing and hitchhiking to Costa Rica before attending the field course that would convince me that I wanted to be a tropical wild-man, exploring natural history, ecology, conservation biology, and particularly ethnobotany, rather than living in a lab studying physics. I returned to Berkeley, and in my fourth year, nearly finished with the physics requirements, and I decided that I really needed to major in biology....and so it began.

I had not planned to go to graduate school, and for many years I had not considered becoming a biologist, but my interest in ethnobotany led me to contact Glenn Shepard, an Anthropologist who has long studied shamanism (among other things) in Amazonia. Glenn introduced me to Douglas Yu and Carlos Peres, tropical ecologists who were looking for someone to spend a year with an isolated Amazonian group, the Matsigenka, in order to assess the sustainability of subsistence hunting within Manu National Park, Peru. Although my academic record and backpacking experience played a role, Doug really ended up hiring me because I had just come back from bow hunting feral

goats on a backpacking trip in Hawaii (from which we made goat pizza – an accomplishment in the backcountry). Since we were to work with bow hunters, it must have seemed like fate. After several months, and with initial tutoring from Glenn Shepard, I was able to learn the Matsigenka language, and people warmed up to the idea of taking me, a clumsy giant who can't save himself from large herds of white-lipped peccaries, on hunting trips.

After a year in Peru, I moved to Oregon and camped out on an Oak Savannah restoration project near Cottage Grove where everyone was tanning hides and eating roadkill. Maybe I had lots of time to think while camping through a wet Oregon winter, but I was suddenly developing ideas about how to produce useful mathematical models to understand the impact of subsistence hunting in tropical forests. I started looking for graduate programs where I could learn to apply mathematical modeling to wildlife ecology and conservation. I was awarded a NSF graduate research fellowship, which I took to UC Santa Cruz. In a similarly indecisive fashion to my undergraduate years, I worked closely with faculty in three departments, including Chris Wilmers, a quantitative wildlife ecologist, Marc Mangel, an applied mathematician and fisheries scientist, and Marm Kilpatrick, a disease ecologist, and I continued to collaborate with Carlos, Doug, and Glenn in the Amazon. The result was a non-traditional dissertation with a mix of tropical conservation biology and anthropology, temperate wildlife ecology, disease ecology, and some fisheries management. In particular, working with Marc Mangel's lab made me fall in love with salmon, and I quickly found myself becoming interested in the interface between fisheries and wildlife, and particularly salmon and bears. So naturally, I moved to Alaska with my partner, Jenn.

Jenn found a volunteer job as the caretaker of a bald eagle preserve 20 miles from the town of Haines, Alaska. We lived in a small dry cabin on the Chilkat River, which was an amazing place to write my dissertation. Alaska is where all of my disparate interdisciplinary interests started to align. I was applying intuition about mammalian seed dispersal in the tropics to brown bears as seed dispersers, and I was again working closely with indigenous people. While writing my dissertation, I received a NSF postdoctoral fellowship to support work on the community ecology of Lyme disease and other tick-borne pathogens, and in particular to disentangle whether predation on the small mammal reservoir hosts can suppress disease. This is when musical chairs began because I had committed to work with Richard Ostfeld in New York at the Cary Institute of Ecosystem Studies, and with Robert Holt at the University of Florida, but I had ongoing work in the Amazon and Alaska

that I wanted to maintain...and Jenn was pregnant! So, I split time between New York, where our daughter was born, Florida, Brazil and Alaska before finally moving to Oregon for good.

### **Department of Fisheries and Wildlife**

Now at OSU, I am trying to maintain research in Brazil with two graduate students, one working with aquatic fish-eating jaguars in the Pantanal and the other working on landscape epidemiology and disease surveillance in a fragmented Amazonian landscape. I have two other graduate students working in Alaska on the ecology of bears as seed dispersers, and the role of small mammals as secondary seed dispersers. However, the lab is transitioning to a focus on wildlife ecology in Oregon, where one student is conducting multispecies carnivore surveys with camera traps on a massive spatial scale in southern Oregon, another is trying to determine why Pacific martens are apparently restricted to a narrow strip of habitat on the Oregon dunes, and a third is working with a suite of carnivores as part of a large collaborative project at Starkey Experimental Forest and Range.

Our lab is also transitioning into what I like to call “next-generation natural history”, by which I mean that we use fancy new molecular methods to better understand the natural world and how it works, not necessarily in a hypothesis-driven framework. For example, we are currently using high-throughput sequencing to conduct molecular diet analyses for bats in agricultural landscapes, Pacific martens in coastal Oregon, wolves in southeast Alaska, and a suite of ungulates and carnivores in eastern Oregon. We are also developing and testing methods to use the concentration of DNA in water samples to quantify the abundance of salmon, eulachon, and other species in aquatic systems. All of this molecular work would not be possible without Jenn, who brings over a decade of experience working in genetics labs, including several pharmaceutical companies and academic labs at UCSF and UC Santa Cruz, to her new position running our fledgling wildlife genetics and environmental DNA lab.

Jenn and I love living in Corvallis and being a part of such a collaborative and collegial department. We live on four acres outside of town with a small goat herd, a few dozen chickens, our best doggie friend Quark, and our little girl Addelou. Most of our free time is spent trying to make our land productive enough that we never have to go to the grocery store. Thanks to all for making us feel so welcome here.

### **Johnny Armstrong**



As I look back on my career path, I can't help but notice that it resembles the life cycle of a salmon. I was born near a tributary of the Rogue River in Southern Oregon. I spent much of my youth catching frogs, butterflies, and fish. Just like a salmon fry, I headed downstream once I'd grown up a bit. I jumped watersheds and ended up on the lower Willamette River, at Lewis and Clark College. Some of my most vivid memories from college were of struggling to stay awake in morning classes, not because I was bored, but because I'd snuck in a sunrise fishing session. Luckily I did much better in school than I did fishing for Spring Chinook under the Sellwood Bridge.

After college I made like a smolt and headed to the Salish Sea, starting graduate school at the University of Washington. I worked with the Alaska Salmon Program, which conducts research in the Bristol Bay region. My first field season I set out in a dry suit and began exploring tributary streams, hoping to find a compelling research topic. Shortly after sticking my head underwater, I was welcomed by a bold juvenile coho salmon that swam right up to my mask. As much as I wanted to focus on the curious coho and its colorful fins, I was distracted by the searing sensation on my face from the frigid water temperatures. I didn't know it at the time, but in that first snorkeling session I had found the topics that would consume my thoughts for the next several years. I went on to conduct a series of field studies exploring how coho salmon cope with the constraints of cold water. As I set out to answer ecological questions, I found that to get a satisfying answer, I often needed to integrate across different fields of biology and different scientific methods. My PhD research combined behavior, physiology, and landscape ecology, using observational field studies, in situ experiments, and simulation models.

In addition to reaching across fields, my experiences in graduate school taught me the value of reaching out to the public, through education and science communication. One of the most rewarding aspects of my fieldwork was getting to work with youth from the local communities. My field crew often included interns from the surrounding native villages, and each summer I would contribute field lectures to “Salmon Camp”, which taught salmon biology to kids from throughout the region. Kids in rural Alaska are often incredibly knowledgeable and passionate about adult salmon (which they fish for and eat), yet may have little interaction with the juveniles that rear all around them. In my field lectures, the class and I would sample streams with a stick seine and learn about the different fishes that rear in streams. I loved to gastric lavage the juvenile coho that we caught, because one of them would always cough up something cool like a leech or sockeye salmon fry, which was a big hit with the class. Though not always as fun as puking coho salmon with middle-schoolers, I also made sure to share the results of my fieldwork with the public, developing press releases and fielding questions from journalists.

Like a smolt leaving the estuary, once my educational rearing was complete I began to range a little more widely. I migrated halfway across the country to start a postdoc at the University of Wyoming funded by the Smith Fellows program. Though I'd moved inland, my research continued to focus on water temperature and salmon. I'm a fieldwork-junkie, but my postdoc research consisted mostly of data crunching and computer programming. I developed simulation models to explore the broader ecological effects of thermal heterogeneity, exploring how

water temperature mediates spawning phenology across watersheds and in turn influences the seasonal foraging opportunities for bears and other salmon-eaters. To treat my fieldwork withdrawals, I spent my free time honing a hobby that I'd developed during my time in Alaska: camera trapping. I love to track carnivores and then try to take their portrait using studio lighting and motion-activated cameras. During my postdoc I worked with a colleague at the University of Wyoming to develop a public exhibit, Wild Portraits, funded by the Berry Biodiversity Conservation Center. Images from the exhibit were featured in High Country News, Slate, and Outside Magazine.

As my postdoc was winding down, I again followed the salmon life-cycle: I homed my way back to Oregon to join the faculty at OSU and shortly afterward my wife and I welcomed our first child. I am thrilled to be back in my home state and to have the opportunity to revisit the rivers of my youth as a scientist. The decade that I have spent researching stream ecosystems in Alaska has given me a strong appreciation for how intact watersheds function and in turn support healthy populations of fish and wildlife. I am excited to apply this knowledge in Oregon and help contribute to basic and applied science in the region. Throughout my career I have been fortunate to have incredible mentors, particularly during my undergraduate education and PhD research. I appreciate the large role that these people played in my ability to succeed in science, and I will strive to provide the same quality of mentoring to students at OSU.

## ***THE TALE OF THE EULACHON*** ***BY HIRAM LI***

This is a story about a native fish that may be disappearing, and yet was once very abundant and as tales relate, may have given our state, its name. It is the candlefish, *Thaleichthys pacificus*, so named because in its dried state it could be lit and used as a candle. Its rendered fat was highly prized by the indigenous tribes of North America for salves, food and fuel. The tribes from northern California to southwestern Alaska caught the fish, rendered its fat and used the surplus to trade with tribes such as the Assiniboine from Lake Winnipeg and the Cree from Hudson Bay. These tribes canoed west carrying buffalo hides and dried meat. Tribes from the west hauled the Oolichan over the passes of western mountain ranges for the exchange along what is known as the Grease Trail. This once was once a great resource. Yet little is known about the causes. The Cowitz Tribe filed suit in federal courts to have this species listed as endangered eight years ago.

Taal and Johnny have been discussing joint research on this problem. Taal learned about this problem when he was in Alaska and has tracked fluctuations in migration of spawning Eulachon upstream. The significance of variation in production cycles is a topic that Taal has expertise. Johnny has actually fished for them in the Cowitz River when he was a boy. Taal has a presentation of proposed research that he would be willing to present to funding agencies interested to become research partners. Oolichan is one variant of the trade language for the candlefish and Oregon may have been a transmutation from this name. Let's hope that the Eulachon population does not tail off and become endangered. The tale I would like to celebrate is that populations of the candlefish will successfully rebound.

## FROM THE MAILBAG

### Bill Haglan Merry Point, VA

"I have pretty much fell off the radar with OSU since graduation in 1969. Following graduation, I spent two years in the U.S. Army and then sought employment in the field. I worked for Beak Environmental Consultants in Portland, OR for a number of years and then went to work for the Bureau of Land Management in Las Cruces, NM as a wildlife biologist. I moved to Central Montana, as a wildlife biologist, with the U.S. Fish and Wildlife Service at the Charles M. Russell NWR. I was the Refuge Biologist there, when Sally (Dan's wife) did her MS Field work there. After Montana, I transferred to the USFWS Washington Office in Refuges and then moved on to the supervisory wildlife biologist position at Chincoteague NWR in Virginia. I retired from there in 2006 and we moved to our home on John Creek near Chesapeake Bay on the Northern Neck of Virginia. For several years following retirement, I did contract consulting for a firm in the DC area that involved several projects with the USFWS in Alaska, Maryland, and New Jersey.

I had a great career and the opportunity to work with a number of unique species and to travel throughout the United States and two opportunities to travel to China to review Nature Reserve Management, the first with the USFWS touring coastal Nature Reserves in Northern China along the coast and later with the East-West Center, reviewing Nature Reserves in Yunnan Province.

OSU was a great time and the person I married following the Army was someone I met at the beginning of my junior year at OSU. I have enjoyed the News and Views through the years and it reminds (me) of the years spent at OSU. Maybe I will try to make it for the class of 1969 50th."

### Gonzalo Castillo

"Hi Hiram,

It was great to meet with you and Judy last week at Cliff Dahm's award celebration.

After years of working in a post-doctoral position in Japan and then as Head of Fisheries for the Northern Mariana Islands (Saipan), Todd Miller (B.S. 1995 OSU, M.S. 1998 Humboldt State University, and Ph.D. 2006 OSU) began working early this year at the U.S. Fish and Wildlife Service in Lodi, CA. There he joined Gonzalo Castillo who began

working for the USFWS in 2001 (B.S. 1986, University of Concepcion Chile, M.S. 1992 and Ph.D. 2000 OSU). While at OSU both worked under Dr. Hiram Li conducting trophic studies in estuarine and marine fishes and now plan to continue collaborating on monitoring and research in the San Francisco Estuary."

## FEATURES

### [Noah Strycker's Big Year](#)



The former FWL undergraduate beats the old record by about 2,000 observations during his Big Birding year. He is now the Seth Curry or the LeBron James of competitive birdwatching. It is a record to crow about! He spent 365 days searching for new birds on 41 countries distributed over seven continents, had a lot of fun, spent his life savings (worth it). He was in "beast mode." He is also an entrepreneur. He convinced Houghton Mifflin and Harcourt that he would write a fabulous book for them if they sponsored his trip. They were not buying a pig-in-a-poke. He is an Associate Editor of Birding Magazine and writes a birding blog, "Birding Without Borders" hosted by the Audubon Society. He capitalized on his skills and a record of productivity. He broke the record of 4,341 on September 16, 2015 in India, by spotting a bird named after another country, the Sri Lanka Frogmouth. By December 31st, He just exceeded 6,000 and a smidge (small flock). Congratulations Noah!

### **ECO-BLITZ and Ted Labbe** [ted.labbe@gmail.com](mailto:ted.labbe@gmail.com)

*Is an Ecoblitz the same as a pulse study?*

No. But they have the same objectives which is to conduct a survey to determine whether or not a particular site has

the potential for greater investment. The Pulse Study was conceived by the Stream Team. It was a visual estimate conducted by experts who specialized in different aspects of ecology. What were their tools? Pencils, Rite-in-the-Rain notebooks, and maybe a 35mm camera. There was no need for coordination as each member knew exactly what to do. Each person would head out for that portion of the watershed that influenced the ecological processes of interest. They would gather in the evenings to chat discuss what they found and to decide what to do for the next day, would others be interested in accompanying the person who struck gold? This is what happened in the Andrews LTER site and after Mt. Saint Helens blew her top. The Ecoblitz is a citizen science program was conceived by the Urban Ecosystem Research Consortium (UERC), which comprises approximately 200 governmental and nongovernmental organizations. The object is to ground truth segments of landscape they plan to either purchase, rehabilitate, or designate as open spaces for urban parks. The survey is designed by experts, but depends on enthusiastic volunteers who can follow directions. The tools are cell phones, custom APS, and the ability to exchange information in real time between headquarters.

#### *Who is Ted Labbe?*

Ted spent some time working in the Coop Fish Unit lab where he met Christian Torgerson who inspired him to go to graduate school become a fisheries ecologist who was proficient with geographical tools. He grew up in the Portland-Vancouver Metropolitan area which was interdispersed with open forests of white oaks. He has witnessed the disappearance of these forests and the fragmentation of park like spaces and after serving as three tribes in the Puget Sound region as a natural resource scientist. He decided to devote his live and career to two missions: The preservation and restoration of white oak forests and the recovery of camas fields. Many armed conflicts between the tribes and both pioneers in wagon trains and cattle drovers were over camas fields. The tribes initially allowed some grazing in these fields and came to realize that the pioneers were selfish and Camas fields were lost. Camas was a staple in the diet and a cultural icon. The tribes have never been compensated for these losses. The name of this mission of Ted's is kelipi camas: return of/to the camas.

#### *How do you conduct a blitz?*

USRC, like the Oregon Atlas, can use maps to interpret history, project into the future, and create strategies to protect the best that is still left. When an opportunity arises to purchase or designate an area of interest they recruit volunteers to ground truth the maps and provide the fine details that are need to establish its value. In the

age of the internet, volunteers need only to be enthusiastic and disciplined. They need not be expert field biologists. The cell phone is able to take photographs, to send data, to communicate in real time to seek further instruction or to clarify the assignment. Specially designed APS are downloaded so that assigned photographs and requested data can be sent to the computer at headquarters. What is slick is that the gps location of the volunteer is registered every time a photograph or data is sent to headquarters. This is important because volunteers are given a specific route in a specific area to cover. The gps location means that headquarters can keep the volunteer from straying and that the data received will be relevant. Volunteers are encouraged to send other information such as photographs and counts of other species if time is available. The reward is that volunteers receive APS of photographic IDs & field keys. Can we use this system to run field labs and independent studies? Can we use the internet to engage volunteers? USRC is planning other blitzes. Look them up on the internet. The flower blitz is coming soon!

### **Oregon Master Naturalist Online and Field Courses to be Offered at OSU**

The Oregon master naturalist program is an incredible opportunity to cultivate and hone your naturalist and outdoor interpretation skills. Whether you're a volunteer interpreter or steward in a natural area, a professional outdoor guide, a college student looking for an out-of-classroom experience, or simply an interested citizen, this course can offer you a chance to grow. The program has two parts: first, an online course and, second, an ecoregion course. The online course equips you with a broad knowledge of several aspects of Oregon's environment- natural history, geology, wildlife and plant ecology, river processes and hydrology, and the diversity of ecoregions across the state. The ecoregion course is a series of field-based classes in an ecoregion of interest (e.g. Willamette valley, coast, basin and range, etc.) with expert instructors who will give you a guided introduction into various naturalist skills such as wildlife tracking, plant identification, and interpretation of a variety of landscapes.



## FW IN THE NEWS

### [Study: Lovable pika will likely survive warming in Craters of Moon – Idaho Statesman: Rocky Barker](#) Feb. 29, 2016

A recent study by the National Park Service offers good news for one of the species that has become a measure of the threat to biodiversity posed by global warming.

The study shows that the American pika, that lovable little rock-dwelling lagomorph with a high-pitched alarm whistle, is likely to survive, even thrive, in several national parks and monuments, including Craters of the Moon. A relative of rabbits and hares, the pika usually lives in alpine environments with rock fields, like Idaho's Sawtooths and Yellowstone National Park.

But pikas have been thriving in Craters of the Moon, the high-desert Snake River Plain near Arco dominated by 2,000- to 15,000-year-old lava flows, caves and fissures. Pika numbers are projected to drop, but not wink out.

In most of the rest of their high-elevation range, pikas live only in talus – broken rock on steep mountainsides and at the bases of cliffs. In these piles of scree, the little creatures with thick fur coats find refuge from high temperatures of 77 to 85 degrees, which they can't tolerate.

Although it's not an alpine setting, Craters of the Moon National Monument and Preserve's lava structures were filled with pikas where the physical complexity of the lava structures provide thermal "microrefugia," cooler places that pikas like.

The new study, published in the journal *Global Change Biology*, used species distribution models for eight National Park Service areas in the Western United States and forecast pika distribution 30, 60 and 90 years into the future, based on expected climate change scenarios.

The Pikas in Peril research project, funded by the National Park Service, was launched in 2010 to determine how vulnerable the animals are to climate change in the eight national park units.

"If you look at the overall picture, the amount of suitable habitat will decline and temperatures will warm in most of these national parks," said **Donelle Schwalm**, an Oregon State University researcher who led the study. "But many of these sites have areas that are colder, higher and sometimes wetter than other areas, and pikas should do quite well there."

In Yellowstone, pikas are projected to go extinct as temperatures warm because of the loss of habitat and the loss of connectivity with other populations. Craters of the Moon has a high-desert climate, with average high temperatures during the summer around 80 degrees and average low temperatures in the winter in the teens. The key to the pika's projected survival is that its flat lava flows connect to the Pioneer Mountains, the southern edge of the northern Rockies. From there, the pikas have been biologically connected all the way to British Columbia, the northern edge of their habitat today.

### [Pygmy blue whale study reveals important nursing area 40km north of Farewell Spit](#) [Stuff.co.nz : Nina Hindmarsh](#) April 13, 2016

A pygmy blue whale foraging ground 40km north of Farewell Spit [New Zealand] may also be an important area for nursing blue whale mothers and their calves, a study has revealed.

During the research conducted in January and February by a team of international scientists and funded by National Geographic, five mother-calf pairs were sighted all within 8km of each other on the same day.

What is believed to be the very first aerial footage of a breastfeeding mother and her calf was also captured.

The survey, in collaboration with the [New Zealand] Department of Conservation, was led by marine mammal expert professor **Leigh Torres** of Oregon State University.

Torres said the sightings were "remarkable."

"We can't be sure about what this means yet but at least we can say that this population is reproducing and the region appears to be an important area for nursing," she said.

Little is known about the world's largest animal, and blue whale sightings are rare as they normally travel alone or in pairs.

Blue whales are an endangered species thought to inhabit all of the world's oceans, with an estimated population between 10,000 and 25,000.

The pygmy blue whale is a subspecies of the blue whale. It reaches 24m in length, and is smaller than the other subspecies.

The team on board the NIWA [National Institute of Water and Atmospheric Research] research vessel *Ikatere*, aimed

to determine more about a population of blue whales that Torres had discovered in 2014 feeding on a dense patch of krill in the region.

The area overlaps with an industrially active region with oil and gas activity, potential seabed mining, and dense vessel traffic.

All of these human activities have the potential to impact blue whales through habitat degradation, said Torres.

“The results from this survey, as well the 2014 and the upcoming 2017 surveys, will provide robust scientific evidence for environmental managers and stakeholders to develop effective and appropriate management plans to protect this blue whale population and their habitat,” she said. Essential data was collected on blue whale ecology, including details on their distribution, residency, abundance, behaviour, health and population parameters.

“We are beginning to understand how the whales move across this region and why,” Torres said. “For foraging, nursing and potentially mating opportunities. With this information, DOC can establish management protocols that will limit potentially harmful activities from interrupting their behaviours and surviving.”

Torres is completing a lengthy survey and she said it would take a few years to analyse the data.

Pygmy whales were distributed across the region differently than when they were studied in 2014, and this was likely due to the different oceanographic conditions across New Zealand during this summer with the strong El Nino that caused very high water temperatures, said Torres.

### [Study finds lack of diversity in Fisheries Scientists](#) [Phys.org : Mark Floyd](#)

April 14, 2016

Researchers who study fish put a high value on biodiversity in the field, yet a new study found a surprising lack of diversity among fisheries scientists themselves.

According to the 2010 United States Census, 51 percent of the people in the U.S. are women. That same year, a study of Ph.D. students in the biological sciences documented that 52 percent of the students pursuing doctorates were women – roughly the same percentage.

However, the new study by researchers at Oregon State University and the U.S. Forest Service found that roughly

even split soon disappears – in both federal government positions and in academic institutions. The researchers found that 74 percent of federal fisheries scientists or managers are men, as were 73 percent of the university assistant professors, 71 percent of associate professors and 85 percent of full professors.

The lack of diversity is even more pronounced when analyzed by race. In 2010, the U.S. population was 64 percent white, and participation in biological sciences Ph.D. programs was 69 percent white. Yet only roughly 10 percent of all fisheries science, manager and faculty positions were occupied by minorities.

“It is clear that the fisheries science culture is one dominated by white men,” said **Ivan Arismendi**, an Oregon State University research faculty scientist and lead author on the study. “There has been a lot of concern expressed in recent years about diversity, but the numbers don’t seem to reflect that concern. It is important to begin turning the process today because the hiring we’re doing now will last a generation.”

**Brooke Penaluna**, a research fish biologist with the U.S. Forest Service’s Pacific Northwest Research Station and co-author on the study, said the reasons for the disparity are not completely clear.

“We are graduating women on a 50-50 basis in the biological sciences, but the hiring rate is not keeping pace with the degree rate,” Penaluna said. “For some women, it may be the biological clock butting up against the timetable of career advancement. That doesn’t explain the disparity among minorities.

“We need to look more closely at possible institutional biases. Women, for example, have fewer professional publications and are not asked as often by senior-level scientists to publish. And some federal positions may be in geographic locations that are not attractive to all candidates. We need to create environments that are welcoming so people want to stay – and those conversations can be uncomfortable.”

The authors suggest diversity training and a diverse composition of search committees at both the federal and academic institution levels, as well as increasing the pool of female and minority candidates, and programs to insure their success and career advancement.

## ['Eve' and descendants shape global sperm whale population structure - OSU News & Research Communications : Mark Floyd](#)

May 3, 2016

NEWPORT, Ore. – Although sperm whales have not been driven to the brink of extinction as have some other whales, a new study has found a remarkable lack of diversity in the maternally inherited mitochondrial DNA within the species.

In fact, the mitochondrial DNA from more than a thousand sperm whales examined during the past 15 years came from a single “Eve” sperm whale tens of thousands of years ago, the researchers say. Results of the study are being published this week in the journal *Molecular Ecology*.

While the exact origins of this sperm whale “Eve” remain uncertain, the study shows the importance of her female descendants in shaping global population structure, according to Alana Alexander, a University of Kansas Biodiversity Institute researcher who conducted the study while a doctoral student at Oregon State University.

“Although the male sperm whale is more famous in literature and cinema through ‘Moby Dick’ and ‘In the Heart of the Sea,’ the patterns in mitochondrial DNA show that female sperm whales are shaping genetic differentiation by sticking close to home,” Alexander said.

Working in the genetic lab of **Scott Baker**, associate director of Oregon State’s Marine Mammal Institute, Alexander combined DNA information from 1,091 previously studied samples with 542 newly obtained DNA profiles from sperm whales. The new samples were part of a global sampling of sperm whale populations made possible by the Ocean Alliance’s “Voyage of the Odyssey,” a five-and-a-half year circumnavigation of the globe, including some of the most remote regions of the world.

The new sampling, including sperm whales from the previously un-sampled Indian Ocean, revealed global patterns of genetic differentiation and diversity.

“Sperm whales have been in the fossil record for some 20 million years,” said Baker, a co-author on the study, “so the obvious question is how one maternal lineage could be so successful that it sweeps through the global population and no other lineages survive? At this point, we can only speculate about the reasons for this success, but evolutionary advances in feeding preferences and social strategies are plausible explanations.”

The researchers say female sperm whales demonstrate strong fidelity to local areas, and both feeding habits and social structure are important to determine to better manage the species. “There is a real risk of long-term declines in response to current anthropogenic threats, despite the sperm whale’s large worldwide population,” the authors wrote.

“One concern is that this very strong local fidelity may slow expansion of the species following whaling,” said Baker, a professor of fisheries and wildlife who works at OSU’s Hatfield Marine Science Center in Newport, Oregon. “The Sri Lanka sperm whales, for example, don’t seem to mix with the Maldives whales, thus local anthropogenic threats could have a negative impact on local populations.”

The researchers note that while males are important for describing patterns in the nuclear DNA of sperm whales, ultimately the females shape the patterns within the species’ mitochondrial DNA.

“Although there is low mitochondrial DNA diversity there are strong patterns of differentiation, which implies that the global population structure in the sperm whale is shaped by females being ‘home-bodies’ – at the social group, regional and oceanic level,” Alexander said.

The study was funded by a Mamie Markham Award and a Lylian Brucefield Reynolds Award from the Hatfield Marine Science Center; a 2008-11 International Fulbright Science & Technology award to Alexander; and co-funded by the ASSURE program of the Department of Defense in partnership with the National Science Foundation REU Site program. Publication of the paper was supported in part by the Thomas G. Scott Publication Fund.

Other authors include Debbie Steel of OSU’s Marine Mammal Institute; **Kendra Hoekzema**, OSU Department of Fisheries and Wildlife; Sarah Mesnick, NOAA’s Southwest Fisheries Science Center; Daniel Engelhaupt, HDR Inc.; and Iain Kerr and Roger Payne, Ocean Alliance.

## [Thousands of cormorants abandon their nests - Oregon Public Broadcasting : Cassandra Profita](#)

May 20, 2016

Officials say thousands of cormorants abandoned their nests on East Sand Island in the Columbia River and they don’t know why. Reports indicate as many as 16,000 adult birds in the colony left their eggs behind to be eaten by predators including eagles, seagulls and crows.

The birds' mysterious departure comes after the latest wave of government-sanctioned cormorant shooting. It's part of a campaign to reduce the population of birds that are eating imperiled Columbia River salmon.

Amy Echols, a spokeswoman for the U.S. Army Corps of Engineers, said the contractors who monitor the birds for the Corps reported May 16 that the East Sand Island colony had been significantly disturbed.

"The disturbance resulted in nest abandonment and the loss of all the cormorants' eggs by avian predators like seagulls, eagles and crows," she said. "We don't know yet what the cause of the disturbance was."

Officials didn't see any evidence of a coyote or any other four-legged predator, but they did see 16 bald eagles on the island.

"Bald eagles are known to significantly startle and disperse nesting colonies," Echols said. "We don't know if that magnitude of bald eagles could have done this." **Eagles may not be responsible** Bald eagles have been blamed for decimating Caspian tern and cormorant colonies on the island in the past. But **Dan Roby**, a researcher with Oregon State University who has studied the tern and cormorant colonies for decades, said he doesn't think eagles could have flushed so many cormorants off their nests.

"I'm pretty confident that's not what caused the cormorants to abandon the colony," he said. "We've seen that number of eagles out there before. We've seen them killing cormorants on their nests, and it doesn't cause that kind of abandonment."

Roby said researchers on his team did an aerial survey of the island on Tuesday and saw a large group of cormorants on another part of the island. But the nesting area was completely abandoned.

"There were absolutely no cormorants anywhere in the colony," he said. "It's a real mystery for us. It actually amazes me that any kind of disturbance — even people going on the island if that's what happened — could cause all the birds to leave their nests with eggs and then gather on the shoreline as if they were afraid to go back to their nests. It's certainly unprecedented in all the years we were out there working on that cormorant colony."

#### **Biologists investigating**

Echols said about 4,000 birds have returned to the island, but not the nesting area. A team of biologists is investigating what caused the birds to flee their nests.

Federal agents have been shooting cormorants in the area and oiling cormorant eggs on the island as part of a long-term plan to shrink the cormorant colony and reduce how many threatened and endangered salmon the birds are eating. They reported killing 209 cormorants between May 12 and Wednesday.

Officials haven't attributed the disturbance of the cormorant colony to any shooting or egg oiling activity. Echols said the last time the agents were oiling eggs on the island was May 11. Agents were on the water shooting cormorants on May 16, she said, but they have now stopped all culling activities because the number of cormorants in the colony has dropped below the level where they're required to stop.

#### **Vocal critic**

Bob Sallinger with the Portland Audubon Society has been a vocal critic of the Corps' cormorant management plan. He said colony failure has been one of his chief concerns as federal agencies shrink the size of the cormorant population.

"When you do that, you make a population extremely vulnerable," he said. "Regardless of whether this abandonment was caused by eagles or their own activities, the fact is they've gone in there and deliberately decimated the population. Federal agencies have deliberately put the western population of cormorants at direct risk, and it needs to stop."

Echols said federal officials are monitoring the Columbia River estuary to see where all the cormorants have gone.

Roby said it's still early enough in their breeding season that the birds could still return to their nests and lay more eggs to avoid complete colony failure for the year.

#### **[Naming Celebration for Lamprey Creek honors fish's historical impact - Albany Democrat Herald](#)**

**[Nathan Bruttell](#)**

*May 22, 2016*

David Harrelson banged a drum Saturday afternoon alongside the trickling Lamprey Creek in a blessing ceremony honoring the creek and the fish it will forever be named after.

"There is an obligation between people and fish. In order to fulfill the obligation, we have to know these animals and find a place for them in our society," Harrelson, a tribal member of the Confederated Tribes of the Grand Ronde, said following the blessing. "This naming ceremony is immensely important, and so is respecting place and one's ancestors. I value this a great deal."

The 3-mile-long tributary of Oak Creek had no official name until last August, when it was christened Lamprey Creek by the U.S. Board of Geographic Names at the request of a group of local residents. On Saturday, the celebration — known as the Lamprey Creek Awakening — called attention to the Pacific lamprey, an eel-like migratory fish that was an important food source for Native Americans in the Northwest.

The ceremony at the closed Fire Station No. 5 also honored the researchers dedicated to restoring local lamprey, which is now in steep decline throughout the region.

“Today is a marvelous day,” said **Carl Schreck**, professor of Fisheries at Oregon State University. “We’re honoring a fish with the name. But I think more importantly, we’re recognizing forever that these animals are an important part of our environmental ecosystem. It elevates our ecological consciousness and recognizing how important it is to preserve ever cog in the wheel to have our ecological machine working.”

In addition to the ecological impact, Ward 8 City Councilor Frank Hann said the naming of Lamprey Creek provided a connection to the area’s past, present and future, and honored the “powerful impact culturally, spiritually and nutritionally for those who lived here for thousands of years.”

“(The lamprey) is the oldest fish to inhabit our city,” Hann said. “We’re very grateful for Lamprey Creek. And we’re grateful there are so many people in the area who care enough to protect it.”

Hann noted that the naming should also provide a significant help to the community’s safety.

“We had an accident (in the creek) recently,” Hann said. “Without a name, without a location on a map, it was difficult for the police and fire department to respond to the person in distress.”

Saturday’s ceremony also featured educational displays and demonstrations about Pacific lamprey at the Walnut Community Room, including the U.S. Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Oregon State University and local nonprofits.

“I’m honored to be here today to dedicate this creek,” said David Close, Oregon State University fisheries biologist and member of the Cayuse Nation. “All of the work the university has done here has been outstanding.”

## COOL STUFF

I have found that there are “hidden” talents within our department. We have had students that have rowed in the Olympics, won AAU contests in weight lifting, and are prize winning photographers, painters, and poets. Carl Bond regularly published his poems in refereed poetry journals. I must get snippets of music played by the bands of some of our faculty and from ODFW and get our “IT” people to help me post them on line. Bluegrass, Latin, and old timey. Fall issue? Have you hidden talents that need sunlight? [Contact Hiram to submit!](#)

### Jeremy Monroe and Freshwater Illustrated

Freshwater illustrated has released two new videos. We consider Jeremy Monroe as part of our fisheries and wildlife family. He is our unofficial official cinematographer. He participates in several of the department’s activities and his exquisite films capture both the science and the poetry of our profession. His film *Riverwebs* is an award winner. It is a poignant, and inspirational film about science, comradeship, community, streams, bravery and death. It is the story about the great stream biologist, Dr. Shigeru Nakano. If you haven’t seen it, you must. Copies of the DVD are still available.

### *The Lost Fish*

This is the story about the Pacific Lamprey and its significance to Native Americans as both a cultural symbol and a valuable resource. This is a topic that is near and dear to our department as we became known for our research on this species. Two members of the Confederated Tribes Of The Umatilla Reservation earned graduate degrees studying pacific lamprey: Dr. David Close (M.S. PhD.), and Gabe Sheoships (M.S.,) Stan Van Wattering (M.S.) also chose the Pacific Lamprey as a topic for his dissertation. He is now the Fisheries Biologist for the Confederated Tribes of The Siletz, where he directs programs to restore salmon and lamprey habitat and to recover their populations.

[WWW.THELOSTFISH.ORG](http://WWW.THELOSTFISH.ORG)

### [What You Take Away - A Colorado River Reflection](#)

“Dear river-friends and water-people,

I’m writing to share a new short film that we’ve just released on youth citizen science and water conservation issues in the Colorado River, produced in partnership with US Geological Survey, and in cooperation with Grand Canyon Youth and Grand Canyon National Park.

We hope this film can serve to raise awareness about the importance of getting young people out on rivers and involved in field biology, rising to the challenge of Western water conservation, and about a really neat program that's happening in the Grand Canyon. Coincidentally, the citizen science that is captured in the film contributed to a revealing study just published in *BioScience* on the effects of hydropower dams on aquatic insect communities and river and riparian food webs (see the USGS Press Release and our National Geographic - Freshwater blog post). I hope you'll help us share this story in your circles, and post/embed in your social media networks. We're posting on Facebook, Instagram, and Twitter, as well. Also, if you missed it, we've recently made our 2013 documentary, *The Lost Fish*, freely available online, and we're beginning to roll out our newest feature film, *Upriver*, on watershed restoration in the Northwest. Take a minute to watch the preview. Thanks for your help with sharing!"

Jeremy Monroe, Director - Freshwaters Illustrated

### Todd Pearsons Underwater Imagery

Todd received both his M.S. and Ph.D. degrees from OSU. He, Doug Markle, and fellow MS student Debra Bills showed that the chub from the Umpqua River deserved recognition as a separate species (*Oregonichthys kalawatseti*) from the Willamette River form, *Oregonichthys crameri*. His Ph.D. research examined the differences between physical factors vs. interactions that affected habitat selection of fishes in the John Day basin. He worked as the leader of the Yakima Basin Species Interaction Research Program for the Washington Department of Fish and Wildlife to examine how hatchery fishes would affect interactions among different fishes.

He found, contrary to the widely held notion, that the smallmouth bass were insignificant predators upon juvenile salmonids, his team found that the lower reaches of the Yakima River was a killing zone for smolts migrating through a gauntlet of smallmouth bass. He won many awards for leading his research team and now works as the Chief Fisheries Scientist for Grant County PUD.

He always loved natural history and he has taken to capturing their images in snapshots and on film. You can watch his film *Piscine Perspectives From Beneath The Water Surface* on YouTube. It was shown at three venues: Divine Nature Art American Fisheries Society Film Festival, 2015, America's Fish and Fisheries - Shared through the Camera Lens, Portland, Oregon, August 2015, and Upper Columbia River Science Conference 2016, Wenatchee

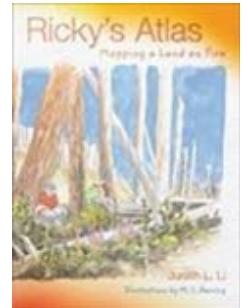
Washington. He plans to post more of his underwater videos on YouTube.

[fish.photoshelter.com/gallery/Todd-Pearsons-Gallery/G0000J269JWjXjFs/2](http://fish.photoshelter.com/gallery/Todd-Pearsons-Gallery/G0000J269JWjXjFs/2)

### Judith Li: Teaching Children about Natural History and Science

[Ricky's Atlas: Mapping a Land on Fire](#) by Judith L. Li [Published by OSU Press]

In this sequel to [Ellie's Log: Exploring the Forest Where the Great Tree Fell](#), Ricky Zamora brings his love of maps-making and his boundless curiosity to the arid landscapes east of the Cascade Mountains. He arrives during a wild thunderstorm and watches his family and their neighbors scramble to deal with a wildfire sparked by lightning. Joined by his friend Ellie, he sees how plants, animals, and people adjust to life with wildfires. Color pen-and-ink drawings by M. L. Herring accompany the text and vividly illustrate plants, animals, and events encountered in this exciting summer adventure. Ricky and Ellie's explorations, accompanied by their hand written notes, introduce readers to a very special landscape and history east of the mountains.

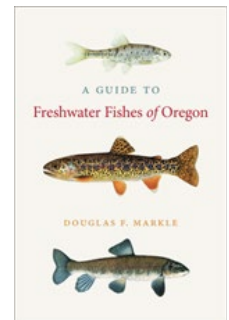


### Doug Markle's Book

"Dear ORAFS Members,

On behalf of the Oregon Chapter of the American Fisheries Society, I'm happy to announce the publication of fellow member [Dr. Douglas Markle's "A Guide to Freshwater Fishes of Oregon"](#).

I'm proud to report that your Oregon Chapter of the American Fisheries Society helped sponsor this important book." [Published by OSU Press]



Benjamin J. Clemens, Ph.D.  
President American Fisheries Society — Oregon Chapter

## **KUDOS!**

### **Student Scholarship Winners**

Each year, the generous donations of our alumni, friends, and faculty enable us to award over \$100,000 in scholarships to our students. Some are merit-based, others are need-based, and all provide valuable funds for tuition, books, research, or travel. Awards are given at our Spring Picnic – we would love to see you there in 2017!

### **2016–17 Fisheries and Wildlife Undergraduate Scholarships**

Eric Jacobs and Stephanie Schmidt – *Lindsay Ball Fisheries and Wildlife Scholarship*

Sarah Riutzel – *Carl and Lenora Bond Scholarship*

Megan Faber, Eric Jacobs, and Jerika Wallace – *Mike and Kay Brown Scholarship. Awarded jointly between FW and College of Forestry*

Tamara Cooke, Christina Travis, and Christine West – *Izma Bailey Conser Scholarship*

Rachel Lertora, Gabriel Sandoval, and Trenton Gianella – *Roland E. Dimick Memorial Scholarship*

Azita Roshani – *Fritzell Diversity Scholarship*

Ameyalli Manon-Ferguson – *Jim and Bonnie Hall Fisheries and Wildlife Diversity Scholarship*

Ben Nicholas – *Howard Horton Fisheries Management Scholarship*

Joshua Williams – *Lee Wallace Kuhn Memorial Scholarship*

Samantha Hooper and Mark Stevens – *Bob and Phyllis Mace Watchable Wildlife Scholarship*

Megan Faber and Brooke Graham – *Mentors Scholarship*

Christopher Pitts, Nicholas D'Amato, and Josiah Poole – *William B. and Jean Morse Scholarship*

Jacob Peterson – *Mikel Mapes Memorial Scholarship, awarded by the Multnomah Anglers and Hunters Club*

Lucy Carr – *Bill Schaffer Memorial Scholarship, awarded by the Multnomah Anglers and Hunters Club*

Katherine Low – *Chan Schenck Conservation Scholarship, awarded by the Multnomah Anglers and Hunters Club*

Stephanie Schmidt – *Milt Guymon Memorial Scholarship, awarded by the Multnomah Anglers and Hunters Club*

Julianna Masseloux – *Larry Cassidy Memorial Scholarship, awarded by the Multnomah Anglers and Hunters Club*

Justin Hansen – *Larry Cassidy Memorial Scholarship, awarded by the Multnomah Anglers and Hunters Club*

Jenna King – *Tamal Reece Memorial Scholarship*

Cory Mack and Mekayla Means-Brous – *Rogue Flyfishers Club*

Jacob Peterson and Tyler G. Johnson – *Southern Oregon Flyfishers Club Scholarship*

Travis Torgerson – *Santiam Fish and Game Association Scholarship*  
Kayla Jackson – *Phillip W. Schneider Scholarship*

Wendy Shoemaker and Brianna Houston – *Vivian Schriver Thompson Scholarship*

Lauren Coe and Joelle Hepler – *William Q. Wick Memorial Scholarship*

### **2016–17 Fisheries and Wildlife Graduate Scholarships**

Patricia Rincon Diaz – *M. A. Ali Graduate Chair Award in Fisheries Biology*

Brandon Chasco – *Neil Armantrout Graduate Fellowship*

Aimee Massey – *Robert Anthony Graduate Scholarship in Population Ecology*

Andrea Jara – *David J. Ashkenas Memorial Fellowship*

Matthew Ramirez – *Briggs Scholarship in Biogeography*

Alexandra Avila – *H. Richard Carlson Scholarship*

Kate Self – *Coombs-Simpson Memorial Fellowship*

Thaddaeus Buser – *Stan Gregory Stream Team Scholarship*

Crystal Herron – *Hugo Krueger Graduate Research Award in Fish Physiology*

Allyson Jackson & Andrew Olsen – *David B. and Georgia Leupold Marshall Wildlife Graduate Scholarship*

Peter Kappes – *Munson Wildlife Graduate Scholarship*

Brittany Schwartzkopf & Thaddaeus Buser – *Oregon Council Federation of Fly Fishers Scholarship*

Tyler Jackson & Samara Haver – *Thomas G. Scott Grant Scholarship for the Outstanding M.S. student in F&W*

Michelle Fournet & Angela Sremba – *Thomas G. Scott Grant Scholarship for the Outstanding Ph.D. student in F&W*

David Roon & Christina Murphy – *James Sedell Graduate Scholarship*

Angelica Munguia – *Charlie Taylor Memorial Fishin' Friends Graduate Award in Fisheries and Wildlife*

Lindsey Thurman – *Ted Thorgaard Student Research Fund*

Andrea Jara – *Charles E. Warren Award for Ecology and Sustainable Societies*

### **Awarded by Oregon State University**

Allyson Jackson – *Savery Outstanding Doctoral Student Award*

### **Faculty & Staff Achievements and Awards Promotions:**

Kathleen O'Malley (Associate Professor, Senior Research)

Kim Nelson (Senior FRA II)

Bill Hanshumaker (Senior Instructor II)

Cheryl Morgan (Senior FRA II)

Sharon Neiukirk (Senior FRA II)

### **Induction in the first cohort of Fellows of The American Fisheries Society at the 2015 Meeting:**

James D. Hall

David L.G. Noakes

Carl B. Schreck

Hiram W. Li

### **2016 Awards**

Department of Fisheries and Wildlife OSU Food Drive - Bumper Crop Award

### **2015 Awards**

The Fisheries and Wildlife Online Program won the Outstanding Credit Program Award from the University Professional and Continuing Education Association's West Region.

Jim Hall, Hiram Li, David Noakes, and Carl Schreck were named Fellows of the American Fisheries Society.

Guillermo Giannico received the 2015 College of Agricultural Sciences Excellence in Extension Education Award.

David Noakes was elected as a Fellow of the Linnaean Society.

## **LIVES WELL LIVED, CAREERS WORTH REMEMBERING**

### **Induction as a Fellow in The Linnaean Society: Congratulations to David Noakes!**



The Linnaean Society of London is the world's oldest active biological society. Founded in 1788, the Society takes its name from the Swedish naturalist Carl Linnaeus (1707–1778) whose botanical, zoological and library collections have been in its keeping since 1829. As it moves into its third century the Society continues to play a central role in the documentation of the world's flora and fauna – as Linnaeus himself did – recognizing the continuing importance of such work to biodiversity conservation.

Members are drawn from all walks of life, and represent the full range of professional scientists and amateurs alike with an interest in natural history. The Fellowship is international and includes world leaders in each branch of biology who use the Society's premises and publications to communicate new advances in their fields.

David, his Icelandic students and his colleagues in Iceland have shown that slight differences in form and function can induce polymorphisms that lead to specializations that induce partitioning of natural resources. Through natural selection, especially in terms of division of breeding habitats can diminish similarities in both genotype and enhance selection driving the phenotypes to diverge. The



evidence for Natural Resource Polymorphism is particularly strong in Icelandic lakes for Arctic Charr and sticklebacks. This suggests that sympatric speciation is possible.

Under his leadership the journal, *Environmental Biology of Fishes*, published papers that conveyed that “fishes are not only valuable commodities, but are valuable in their own right and for what they can reveal about larger issues in biology”. His editorship, was far from being dry and dusty. Who else would devote an article to the discussion and importance of fish images on Mimbres Pottery in each issue for years? This was a way that David could reinforce the idea that fishes were of such importance that a preliterate culture was compelled to use them as icons on their most precious art form. Another vital regular article was devoted to the dangers of invasive exotics. This was before the topic became popular. Most of all David reaches out to ichthyologists and fisheries biologists worldwide. He makes sure that biologists from third world countries know that they have an outlet and a voice through David's journal. I have met many of them who wander through Corvallis at David's invitation or at Society meetings where I would be introduced to a student from Thailand or a fisheries biologist from Africa. His Fellowship was well earned.

### **Distinguished Alumnus Award Winner**

Chuck Meslow will receive the Distinguished Alumnus Award from the Department of Fisheries, Wildlife, and Conservation Biology at the University of Minnesota this October. Chuck, his students and his Assistant Leader Bob Anthony have demonstrated that Old Growth Forests are ecologically different from those subjected to industrial harvest and that you must plan to conserve all facets of Old Growth Forests in order to prevent the loss of rare species.



### **Wayne Wurtsbaugh**

Wayne Wurtsbaugh is among the first to have been inducted as a Fellow of the American Society of

Limnology and Oceanography for exceptional contributions to the discipline. “We are extremely pleased to announce these Fellows, who have advanced the aquatic sciences via their exceptional contributions,” said Jim Elser, president of ASLO, which is comprised of more than 4,300 members from 58 countries.

Quinney College of Natural Resources dean Chris Luecke describes Wurtsbaugh, Professor in the Department of Watershed Sciences and the USU Ecology Center, as “one of our country's pre-eminent limnologists, making substantial contributions to our understanding of nutrient dynamics in lakes, the function of salt lakes and the complex interplay of physics, chemistry and biology in aquatic ecosystems. Utah State University is proud to have a scientist of Wayne's stature among our faculty,” Luecke said.

Wayne will also be remembered for his work in Bear Lake and how predation affects the diel vertical migration of sculpins and its prey, and how temperature patterns in the watersheds of the Sawtooth Mountains affects the production of sockeye and kokanee in Bear Lake. He became an Emeritus Professor in the Department of Watershed Sciences and the USU Ecology Professor in May. He received an M.S. in Fisheries at OSU, a Ph.D. and Post Doctoral work at U.C. Davis.

Wurtsbaugh says one of the challenges in his field is simply explaining what a “limnologist” is. Some years ago, he created “Have You Hugged a Limnologist Today?” bumper stickers to raise awareness. Wayne has been taking lessons in photography so he can take pictures (like the one shown) from the bear valley refuge.



### **Cliff Dahm has retired from the University of New Mexico**

In recognition of his illustrious career, various parties and special sessions were held at the 2016 Annual

Meeting of the Society for Freshwater Sciences (SFS) in Sacramento, California. This was a professional society that was very important to Cliff and he served SFS (formerly The North American Benthological Society) well in many different capacities. He was beloved by the membership because of his generous personality, his ability to organize and work for the larger community. Cliff was in Oceanography and the Stream Team recruited him to work as a Post Doctoral Fellow because of his skills and insights in examining the pathways of dissolved carbon through ecosystems. He became one of the central figures in the success and the reputation of the OSU Stream Team, not only because of his scientific acumen, but as a person who worked to break

down barriers of communication among co-workers. This increased collaboration and yielded new, vital ideas to test. Several speakers shared personal experiences of why working with cliff was so pleasurable. Oddly enough his skill at handball was a topic that was discussed by many speakers. Supposedly he was undefeated at handball. Come on, never lost, even with Bob Schoening around? I checked with a neutral party, Ken Rodnick, now a professor at Idaho State, who played a little handball confirmed the claim was true. Stan Gregory recounted the story when he and Cliff talked the Athletic Department to recognize handball as a club sport. It turns out that there were only two members on the team and they really didn't play any other club. They played against each other during Their fee time. They got varsity jackets and they even have the letters to prove it. Bob Schoening was a great handball player.

At UNM Cliff's research focused on the ecological interactions between streams that flooded during the monsoons of late spring and dessicated during the summer with the pockets of riparian forests called bosques. Among his findings was that allowing the natural pattern of flow allowed native species of trees and plants to become reestablished, while impeding the establishment of invasive species. The Bosque burned, but the wildfires were small and spotty. The native plants had adapted to this regime. Cliff helped to plan new policies for water use for the State of New Mexico. He served as a Rotating Director of the

Ecology Program at NSF and created the Integrated Graduate Education and Research Training (IGERT) program that he directed from UNM with NFS support. Each Graduate Fellow participated in a rotation (called externships rather than internships) with various agencies. The externs worked on programs of concern of each agency and incorporated research projects into their dissertations. The exchanges between the students and the agencies has been successful in generating interesting research papers because of the students were able to view research from management perspectives and the agency received the benefits of young scholars armed with the latest technical training and theoretical insights.

Cliff is not slowing down. He was selected as Lead Scientist for the Delta Science Program by the Delta Stewardship Council. He begins this appointment begins on Sept. 8. He served a previous term in a similar position 2008 to 2012 as the Lead Scientist of the CALFED Bay-Delta Science Program/Delta Stewardship Council. His mission is the recovery of natural processes that once made both the Sacramento-San Joaquin Delta wetlands and San Francisco Bay marshes so productive for both threatened and commercially important species. What is so remarkable about cliff is that he makes everything he does look so easy, like his kill shots in handball.



## IN MEMORIAM

I need to share sad news because Amy (wife of renown OSU fisheries oceanographer Bill Percy) died from a heart attack in June. Only blessing is that Amy's passing was fast as they were just finishing a pancake breakfast. Amy shared such joy for friends, flowers, music, sheep and so much more - we will miss her dearly.

I have visited Bill and found him surrounded by family and support. As I left a friend called in to join Bill at an evening fish in the pond - an activity they have shared since 1975.

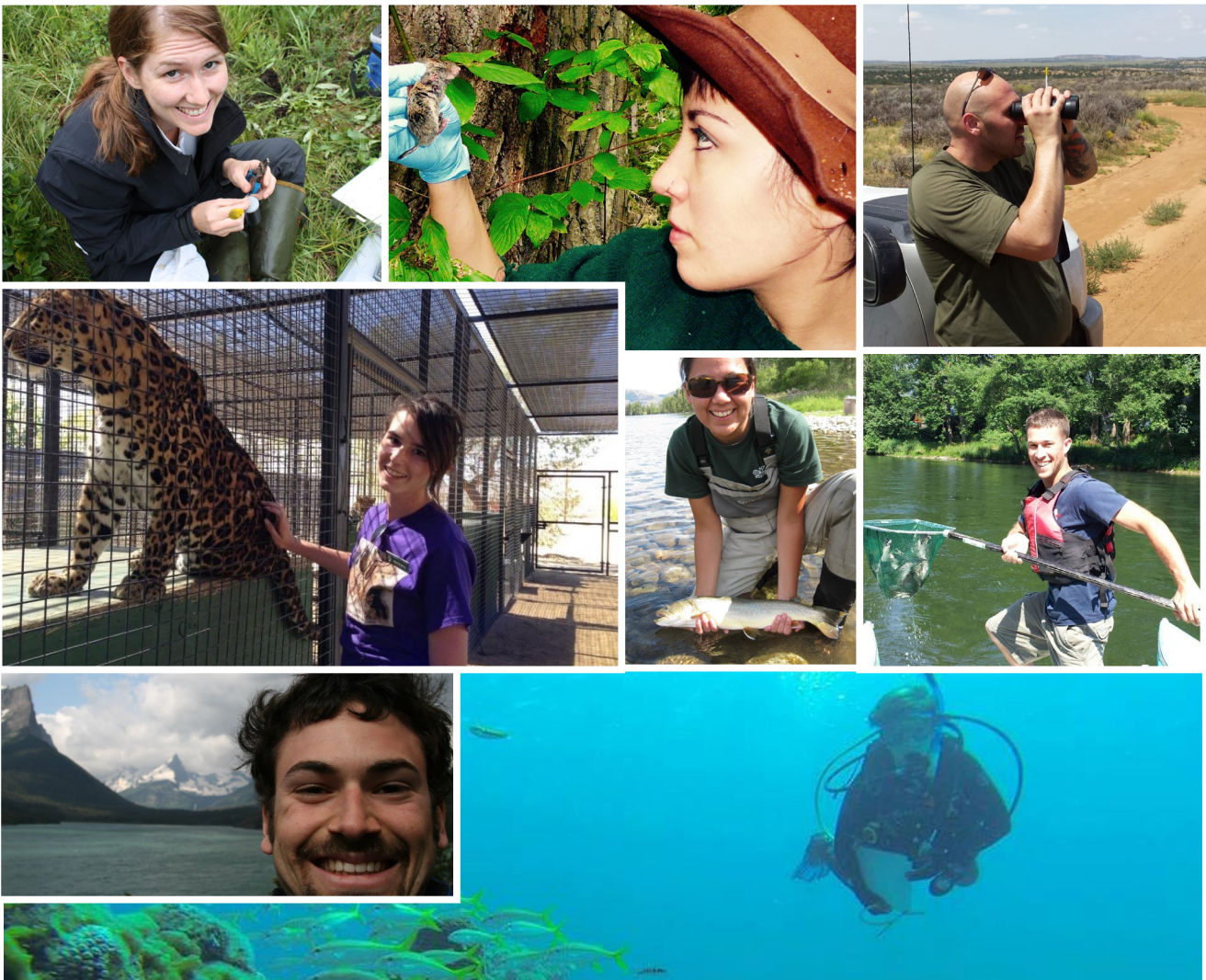
Sincerely,  
Michael Banks

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Our Department is growing every year! From bright and promising new faculty, to eager and ambitious undergrads - not to mention everyone in between! The Department of Fisheries and Wildlife at Oregon State University provides comprehensive research, education, and outreach programs related to conservation biology and the management of fish and wildlife resources. Our goal is to provide people with the knowledge needed to make wise decisions on issues of conservation, sustainable use, and ecosystem restoration. We accomplish this through a combination of undergraduate and graduate education, scholarly research, extension education, and public outreach. Each year we have the opportunity to award our students grants and scholarships in order to continue their education and research thanks to our generous donors. If you are interested in helping us support our students' successes, check out the information below! We would like to take a moment to thank all those who have supported us in the past and those who continue to support us. We at the Department of Fisheries and Wildlife thank you for all you do!

To make a donation, please visit our web page using the link provided below. This page contains instructions on how to donate, as well as a list explaining each scholarship we offer to our students.

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