



## Department Update – Dr. Micaela Gunther

Happy summer to all Alumni! Things have remained busy here. Many of our students and faculty are keeping busy with long days in the field while completing their summer research, internships and other field experiences. With generous alumni contributions, we are happy to be supporting another four undergraduate students with stipends for their summer field experiences in Humboldt this year. Students Emily Aarsvold, Ethan Bonnin, Holly Gamblin and Erin Phillips are working with faculty members Tim Bean, Jeff Black, Micaela Gunther and Dan Barton, respectively, to gain essential field experience on a variety of fun projects involving elk, jays and sparrows.

We are also very happy to announce our new faculty hire: Dr. Barbara Clucas will join the ranks of tenure-track faculty in our Department. Dr. Clucas has served as a temporary lecturer in the Department for five years and we have greatly valued her collegiality and teaching during her time here at HSU. Her research interests are in the area of the Ecology of Urban Wildlife, and she will share her expertise in this area and in the complementary field of Conservation Biology with our students this Fall. Welcome, Dr. Clucas!

Enjoy the last of summer! We hope you all have many awesome wildlife-related experiences!



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## **Welcome to our new Faculty Member, Dr. Barbara Clucas!**

**Dr. Clucas was recently hired for the new Conservation Biologist faculty position created in the Department of Wildlife.**

Dr. Clucas' research integrates the fields of conservation biology, urban ecology and animal behavior. Using field, experimental and comparative approaches, she focuses on interactions among species and how these interactions affect survival, behavior and biodiversity. She received her PhD in Animal Behavior in 2008 from the University of California, Davis and did her postdoctoral work at the University of Washington in Seattle, Washington and Berlin, Germany. She became a lecturer in the Department of Wildlife at Humboldt State University (HSU) in 2011 and Research Associate in 2013. She has taught a variety of classes including Conservation Biology, Wildlife Ethology, Scientific Methods and Wildlife Techniques, and Urban Wildlife Ecology.

Dr. Clucas has worked with a diversity of taxa including mammals, birds and reptiles. In the past, she has studied communication in heterospecific flocks of songbirds, visual communication in anolis lizards, predator-prey interactions between rattlesnakes and ground squirrels, and interactions between birds and humans in urban areas. Recent projects she has worked on include urban tolerance in bird species, bird species richness and composition across urbanization gradients, economic valuation of urban songbirds, conservation of urban songbirds, perception of human gaze in crows, influence of landcover type and anthropogenic food on corvid (crows and ravens) distributions, effects of urbanization and introduced Eastern grey squirrels on Douglas squirrel abundance and colonization of HSU campus by Douglas squirrels. She is also collaborating with the US Fish and Wildlife service to address conflict among ravens, humans and western snowy plovers. Overall, her previous research has demonstrated that the challenges conservation biologists will encounter to maintain biodiversity in the face of urbanization are complex and these complex issues will need to be addressed by interdisciplinary approaches.

Dr. Clucas' future research as an assistant professor in the Department of Wildlife at HSU will focus on conservation of wildlife in urban areas and integrating humans into studies of urban ecosystems. She plans to continue her work on birds and humans in urban areas and expand it to study potential benefits of urban agriculture for biodiversity and human well-being. She also plans on expanding her studies of Douglas squirrels in Humboldt County and the Pacific Northwest to address questions about dispersal and climate change. She is also very interested in involving graduate and undergraduate students in these projects.

# ALUMNI SCHOLARSHIP RECIPIENTS

## 2014 – Taylor Norris '15

As a lifelong sportsman, fishing and hunting are a huge part of my life. After hearing about the wildlife program at Humboldt State University, I chose to pursue a degree in wildlife conservation at HSU. In addition to the heavy course load, I was involved in many extracurricular activities to further improve my training and experience. I was heavily involved in the California Waterfowl Association HSU student chapter, and became the wood duck box coordinator for the club. I had the privilege to establish and lead a team of Natural Resource Volunteers for the California Department of Fish and Wildlife (CDFW) in the Humboldt County Area. Our team was involved in habitat conservation projects, public outreach and education with local events and schools, local deer and Canada goose population surveys, any many other biological and law enforcement tasks. During my last semester at HSU, I worked as a Scientific Aid in the Marine Region with CDFW. My primary job with this position was collect recreational marine fishing effort and success between Shelter Cove and the Oregon border. When I was awarded the Conservation Unlimited Alumni Association Scholarship for the 2014-2015 academic year, I could not have been more honored. It was the generous support of the contributors to the Conservation Unlimited Alumni Scholarship that helped me complete my degree and graduate with honors. I am using my education and experience gained from HSU to pursue a career as a California State Game Warden with CDFW's Law Enforcement Division. I recently graduated as a member of Academy Class 59, and will be tasked with enforcing all laws of the State of California with an emphasis on fish and game code, pollution, and habitat protection throughout the entire State of California.



## 2015 – Rachel Guinea '15

After my 2015 summer fellowship at San Diego Zoo's Institute for Conservation Research (ICR), I was offered a position as a Tern and Plover Research Assistant for the season. This made my transition from graduating HSU and going into the Wildlife field easier. After this season there is a prospective position for me to transfer from Tern and Plover to a new Burrowing Owl project in the Inland Empire with ICR as well. My prior internships, the Raptor Research Center in Boise, ID and SDZ's ICR, have directly influenced my success in securing this position and the burrowing owl project to come. However, those internships weren't possible without seeking graduate students and professors to volunteer for while I was at HSU.



Networking is another great skill I attained while participating in National Conferences during my time at HSU. I have been networking with a Game Warden (that works on Marine Corps Base Camp Pendleton) who is willing to coach me through the resume and hiring process with CA Department of Fish and Wildlife (CDFW) to be hired on as a Biological Technician on Base. This lead is important to me because it provides me not only with a little more stability but also opportunity to generate contacts with professors in SDSU for a possible grad project in conservation genetics with bison that roam freely on Base. All in all, I am aggressively networking to find a niche I may fill here in Southern California because it is hard to relocate my family. Especially when my husband (just got married!) has already established roots here in the Inland Empire. Grad school is very much a goal of mine, however, I do want to acquire another season of field experience before I go back to school. Also, I want to be sure of what I want to study while in grad school before I dedicate another 3 years of my life to school.

## A New Cohort Released into the Wild!

This past year 109 students graduated with Bachelor's degrees in Wildlife! The department had 446 students enrolled, a slight dip from the 476 students of the previous year. This decline is not due to a lack of interest, but rather from placing more stringent criteria on declaring a major in Wildlife due to the popularity of the major at HSU. Keep an eye out for this group of eager young alumni as they set out on their careers in this exciting profession!

13 candidates for the Master's of Science in Natural Resources successfully defended their theses in the department this past year. These included the first two graduate students from the lab of one of the new tenure-track faculty members, Dr. Daniel Barton.

Kathleen Sholty – Dr. Brown "Strain distribution of *Borrelia burgdorferi* and *Anaplasma phagocytophilum* in sciurids and woodrats in northern California"

Matt Delheimer – Dr. Szykman Gunther "Artificial resting and denning structures ('Marten Boxes') for the Humboldt Marten (*Martes caurina humoldtensis*) on managed forests in northwestern California."

Kerry Rennie – Dr. Szykman Gunther "Home range overlap and spatial-temporal interactions in female fishers on the Hoopa Valley Indian Reservation in California."

Matt Lau – Dr. Colwell "GeoSpatial Modeling of Common Raven Abundance in Snowy Plover habitats in coastal northern California."

Derek Harvey – Dr. Black "Innovative Problem Solving in Wild Steller's Jays."

Matt Brinkman – Dr. Colwell "Evaluating Taste Aversion as a Management Tool to Reduce Nest-predation of Beach-nesting birds."

Stephanie Leja – Dr. Colwell "Habitat Selection and Response to Restoration by Breeding Western Snowy Plovers in Coastal Northern California."

Russ Bryant – Dr. Chip Euliss "An Assessment of the Native Invertebrate Pollinator Community and Floral Sources in Grasslands of Eastern North Dakota."

Emily Cate – Dr. Barton "Consumer movement among successional communities in relation to the rare, endemic plant Lassie's lupine."

Brooke Berger – Dr. Brown "The impacts of California mule deer fawn health on body condition, survival, and hair loss syndrome prevalence."

Ryan Baumbusch – Dr. Barton "A Model to Evaluate Barred Owl Removal Strategies for the Conservation of Northern Spotted Owls."

Jen Brown – Dr. Johnson "Assessing *Bd* Prevalence and Infection Intensity on Jamaica's Frogs in Relation to Canopy Cover in Coffee Farms."

Marisa Parish – Dr. Szykman Gunther "Beaver Bank Lodge Use, Distribution, and Influence on Salmonid Non-natal Rearing Habitation in the Coastal Plain of the Smith River, CA."



Wildlife grad students at commencement 2016.  
Photo: Shannon Mendia

# Humboldt Around the World

*Wildlifers Living and Working in the Spirit of Alexander von Humboldt*

Research and conservation outreach in a remote region of Madagascar

Luke J. Eberhart-Phillips '10 & '12

PhD Student, Department of Animal Behaviour, University of Bielefeld, Germany

The bird stood up promptly and bobbed its head up and down, nervous and attentive as I gazed through my spotting scope, dialed-in its location and recorded the color rings on its legs. Then, as if dancing to a silent tune, she frantically stamped her feet around the area where she had been sitting. With each step she skillfully



Female Madagascar plover incubates a nest.

cast dirt and pebbles over her eggs in hopes of hiding them from me and protecting their precious embryos from the intense tropical sun piercing down over both of us. In a split second the nest had disappeared into the substrate and, after a frustrated glance back at me, the anxious mother dashed into the shelter of some underbrush encroaching on the feet of an ancient baobab tree. I had found the nest of a Madagascar plover.

It's been a few years since I've smelled the coastal redwoods on a foggy summer afternoon or gotten soaked under a classic spring downpour, but I still remember both

Humboldt sensations as if they were yesterday. Currently, I am based in the German city of Bielefeld, where I have just started the third year of my PhD. My research is an extension of my BSc and MSc studies at Humboldt State, in which I conducted projects under the guidance of Dr. Mark Colwell investigating the behavioral ecology of Killdeer and conservation demography of snowy plovers. My PhD focuses largely on understanding avian mating system evolution in the light of sex-specific survival and variation in the adult sex ratio. I'm using the *Charadrius* plovers as a study system; a genus well known for its extraordinary inter- and intra-specific diversity in mating system and parental care. My working hypothesis is that the adult sex ratios of monogamous plover populations are even (50% male, 50% female), whereas in polygamous plovers the adult sex ratio deviates from parity. I aim to investigate where in plover life-history the deviation from parity occurs: do male chicks have higher survival than females, or is it at the reproductive stage in life when the sexes start to have differences in survival? This work relies heavily upon monitoring color-marked populations and conducting mark-recapture and demographic matrix modeling.

Like probably every Humboldt Wildlife alumni, I am stoked about getting into the field, immersing myself in the system, and developing a keen sense of the environmental processes to which local wildlife populations are adapted. This taste for natural curiosity and adventure has brought me to the island of Madagascar, where I conduct the fieldwork for my PhD. My study site is located next to the remote and primitive fishing village of Andavadoaka on Madagascar's south-western coast. The region is home to the semi-nomadic Vezo people, who rely on subsistence fishing from the offshore reefs. The region is the perfect natural laboratory to study the behavioral ecology of plovers because the Kittlitz's (*C. pecuarius*), white-fronted (*C. marginatus*), and the endemic Madagascar plover (*C. thoracicus*) are all very closely related and breed in the same habitat yet engage in different mating and parental strategies. This unique situation allows me to control for phylogeny and the local environment while assessing variation in the adult sex ratio and sex-specific survival.



Luke resighting plovers in Andavadoaka, Madagascar.

The Vezo refer to plovers as “Vorombato”, which translates to “stone-bird”, perhaps a nod to the ground nesting behavior of plovers or their earthy-colored round bodies. Much of my daily data collection involves walking through saltmarsh habitat encircled by majestic baobabs in search of nests and broods or capturing birds and resighting color-marked individuals. During fieldwork I frequently interact with the local Vezo, who often express a confused curiosity about what this crazy white guy is doing. During these encounters, I take the opportunity for some conservation outreach by demonstrating how I process a nest or band and measure a captured plover. As I hold a plover in my hand, I notice how the locals watch in awe, as if they had never before anticipated how beautiful a live plover could be up close. Then, when I release the bird from their outstretched hands, their eyes light up with wonder as they see the bird fly back to its home, happy to be free. Although I don't know their language, I try to convey a sense of respect to the animal in hopes that the Vezo will do the same. Vezo collect the eggs of ground nesting birds opportunistically for consumption, a practice that could contribute to the threatened status of the endemic Madagascar plover. I had never experienced these intimate cultural interactions while conducting fieldwork in remote regions of North America, however, these precious moments offer the chance to kindle a local desire to conserve and protect resident wildlife and the habitats they depend on.



Vezo mother and child of southwestern Madagascar



Luke banding a freshly hatched plover chick

I crouch over the nest, casting a shadow over its contents to protect them from the scorching sun. I uncover the two eggs from the carefully placed substrate and gently rub my finger over one. A tiny star on the speckled shell reveals that the occupant is tapping from the inside, trying to emerge. I put the egg next to my ear and sure enough, a fragile “pip-pip” calls from inside. I put the egg back in the nest, cover them again with care, retreat to an appropriate distance, and set up my scope to watch the nest. The anxious mother scurries back quickly and checks its contents, relieved to see all is in order. Tomorrow I will return to capture and band the newly hatched chicks.

### **TWS Western Section/Alumni Meeting Recap – Terra Fuller**

The 2016 Western Section Wildlife Society Conference in Pomona was a success, containing informative presentations and interesting plenary speakers. There were also many networking opportunities, with my personal favorite being the taco buffet and poster session. Unfortunately, a separate space for the alumni meeting could not be arranged, but the foyer to the banquet room did allow for some quick alumni business, along with some socializing. Using your Conservation Unlimited Alumni (HSU wildlife) donations we were able to pay for the lodging of 6 students to attend the conference. These students shared hotel rooms, which allowed them the opportunity to showcase their research and network with wildlife professionals and their peers.

As most of you know, HSU alumni are always well represented at the Western Section Conference and this year was no exception! As mentioned in our last newsletter, at least sixteen HSU authors presented at the conference, with HSU student Shannon Murphy winning 1<sup>st</sup> place for her research presentation on “PARENTAL CARE BEHAVIORS IN BRANDT’S CORMORANT (PHALACROCORAX PENICILLATUS): EFFECTS ON REPRODUCTIVE SUCCESS AND USE AS INDICATORS OF THE MARINE ENVIRONMENT”. In addition, alumnus MJ Mazurek was a plenary speaker who presented a case study for the topic of “Digging into the Roots of Conservation Conflict”.

I always look forward to TWS, because attending these conferences fosters continual learning and enhances relationships, which for me is an important component of my career.

I am looking forward to 2017, and thank you for supporting Conservation Unlimited Alumni.

Donations accepted via Paypal under Conservation Unlimited Alumni or send checks to Treasurer Brock Ortega: 12797 Treeridge Terrace, Poway, CA 92064

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### **Get Involved!**

Do you have ideas for future newsletter articles, alumni activities, or a story to share?

Contact Ryan Baumbusch:

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### **International Excursion**

Scott Frazer would like to coordinate a trip to Costa Rica during Jan 2018 or another location, possibly Zambia again (2017 or 2018), or first time to Kenya if there are at least 6-8 people who contact me within next 90 days to discuss details.

Brief details about possible trip to Costa Rica are an all inclusive 14 day package with ground transportation, meals, lodging, entrance fees and snack foods with an English speaking natural history guide and driver for approximately \$3950. Interested? Contact Scott at [genescottf@gmail.com](mailto:genescottf@gmail.com) for more details.