

# 20th Annual Bay Area Conservation Biology Symposium



April 27, 2019

Hosted by the Berkeley Chapter  
of the Society for Conservation Biology

[nature.berkeley.edu/consbio/](http://nature.berkeley.edu/consbio/)

# Keynote Speakers



*Opening (9:00 - 10:00am)*

**Dr. Kyle S. Van Houtan**, Director of Science  
at the Monterey Bay Aquarium

“Doing science, doing good: meaningful  
conservation in and out of academia”

Dr. Kyle S. Van Houtan oversees the Monterey Bay Aquarium’s research. He concurrently holds an adjunct professorship at the Nicholas School of the Environment at Duke University. His research explores global change, biodiversity conservation, processes arising from climate change, long-term ecological monitoring, and ethics. In 2012, he received the Presidential Early Career Award for Scientists and Engineers from President Obama for his pioneering research on the climatic regulation of juvenile recruitment in sea turtle populations. Before joining the Aquarium, Dr. Van Houtan served as a program leader for NOAA in Hawaii where he led many initiatives in protected species, climate, and historical ecology.



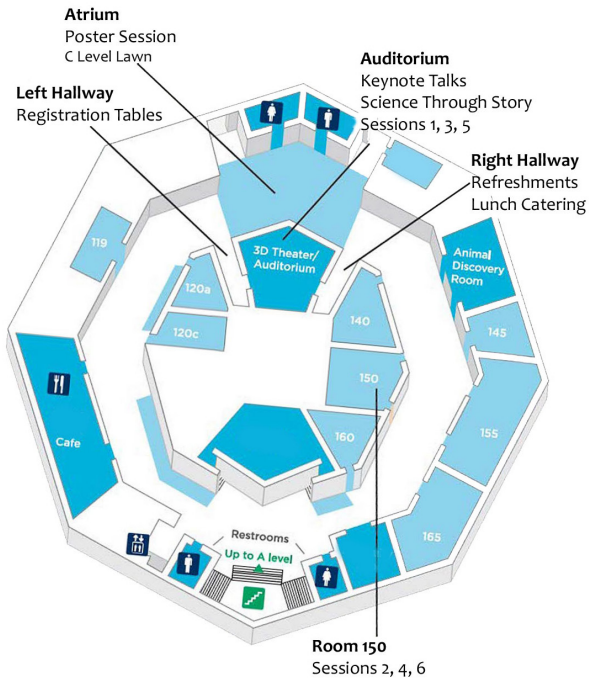
*Closing (3:45 - 4:45pm)*

**Dr. Flora Lu**, Professor and Pepper-Giberson  
Endowed Chair at UC Santa Cruz

“Indigenous peoples and conservation:  
lessons from the Amazon Rainforest”

Dr. Flora Lu is the Pepper-Giberson Endowed Chair and Professor of Environmental Studies at UCSC and Provost of Colleges Nine and Ten. She has conducted longitudinal research in the Ecuadorian Amazon on the topic of Indigenous subsistence, resource use, and livelihoods, and has also established a food justice program at UCSC in partnership with community organizations in Watsonville. Dr. Lu began conducting research in the Amazon as an undergraduate in 1992. Her longitudinal fieldwork among indigenous communities in northeastern Ecuador has been featured in two programs on the National Geographic Channel, funded by \$2.7 million in external grants, and published in four books and three dozen publications in journals.

Time	Schedule	Location
8:15 - 8:50	<b>Registration</b> / Breakfast	Atrium
9:00 - 10:00	<b>Opening Keynote:</b> Dr. Kyle Van Houtan	Auditorium
10:00 - 11:00	<b>Session 1:</b> Human Wildlife Interactions <b>Session 2:</b> Biodiversity Monitoring	Auditorium Room 150
11:00 - 11:15	Coffee Break	Atrium
11:15 - 12:15	<b>Session 3:</b> 5-min 'Lightning' Talks <b>Session 4:</b> Global Change	Auditorium Room 150
12:15 - 1:15	<b>Lunch</b>	Atrium, Lawn
1:15 - 2:15	<b>Science Through Story Workshop</b>	Auditorium
2:15 - 2:45	<b>Poster Session</b> / Coffee Break	Atrium
2:45 - 3:45	<b>Session 5:</b> Social-Ecological Systems <b>Session 6:</b> Community Ecology	Auditorium Room 150
3:45 - 4:45	<b>Closing Keynote:</b> Dr. Flora Lu	Auditorium
5:00 - 7:00	<b>Closing Reception</b>	Raleigh's



## Concurrent Sessions 1 & 2

	<b>Session 1: Human - Wildlife Interactions Auditorium</b> Moderator: Arthur Middleton	<b>Session 2: Biodiversity Monitoring Room 150</b> Moderator: Allison Barner
10:00	Using participatory mapping to understand human-wildlife conflict in a severely fragmented landscape <b>Christine Wilkinson</b>	Evaluating faunal diversity with environmental DNA <b>Kevin Leempoel</b>
10:15	Understory vegetation increases frog abundance and structures frog assemblages in oil palm <b>David Kurz</b>	Enhancing cetacean monitoring using a novel synthesis of passive acoustics, machine learning, and biologging <b>William Oestreich</b>
10:30	Mountain lion genomes provide insights into the genomic consequences of inbreeding and genetic rescue <b>Megan Supple</b>	Using dynamic occupancy and state space models to identify trends in a population of California red-legged frog ( <i>Rana draytonii</i> ) <b>Matt Sharp Chaney</b>
10:45	Assessment of Peregrine Falcon nesting habitat ( <i>Falco peregrinus anatum</i> ) in the San Francisco Bay Area <b>Prabha Venu</b>	Microhabitat selection and functional morphology in the heterogeneous environment of the cushion starfish ( <i>Culcita novaeguineae</i> ) on Mo'orea <b>Stavi Tennenbaum</b>

*\*Note: When entering and exiting auditorium during activities, please use the stairs to enter and exit through the back.*

## Concurrent Sessions 3 & 4

	<b>Session 3: 5-min 'Lightning' Talks Auditorium</b> Moderator: Owen Bidder	<b>Session 4: Global Change Room 150</b> Moderator: Guillermo de Mendoza
11:15	Impacts of ephemeral water availability and human infrastructure on elephant herd movement <b>Millie Chapman</b>	When seasons change: The importance of seasonal temperature in climate connectivity assessments <b>Morgan Gray</b>
	Wildlife and wildfire <b>Samantha Kreling</b>	
11:30	On-farm diversification in an agriculturally dominated landscape positively influences specialist pollinators <b>Aidee Guzman</b>	Predicting Black Oystercatcher ( <i>Haematopus bachmani</i> ) habitat loss due to sea level rise on the Monterey Peninsula <b>Amanda Preece and Rahil Ryder</b>
	Landscape biogeography of plant-fungal symbioses in <i>Populus</i> <b>Caroline Daws</b>	
11:45	Terrestrial habitat distribution of northern elephant seals using unmanned aircraft system imagery <b>Kyra Fitz</b>	Bat activity in California redwood forests investigated across summer fog-climate gradient <b>Chelsea Andreozzi</b>
	Historical declines of Northern California bull kelp canopy following El Niño events <b>Dennis Finger</b>	
12:00	Ecological and social approaches to human-carnivore coexistence <b>Lara Volski</b>	Modeling and mapping habitat suitability for foraging activity of cryptic foliage-roosting bats in central coastal California <b>Bethany Schulze</b>
	Dynamics of ecological networks on islands provide insight for global change: 1st lessons from Hawaii <b>Natalie Graham</b>	



# Science Through Story

Workshop Co-Led by  
**Sara ElShafie** of UC Berkeley  
and **Matt Nolte** of  
Pixar Animation Studios

1:15-2:15pm

Science is a search for evidence, but science communication is a search for meaning. Nothing makes content more meaningful than a good story. Drawing inspiration from creative processes in the film industry, this workshop offers tools to help scientists share their content with the public through compelling stories. Using examples from both popular films and scientific studies, we will explore how to humanize a subject through story development and draw in broad audiences through visual storytelling.

## About the Presenters:



**Sara ElShafie** is a PhD Candidate in Integrative Biology at the University of California, Berkeley. Her research, based at the UC Museum of Paleontology at Berkeley, investigates climate change impacts on animal communities over time. Sara developed a workshop series on story training for scientists and science educators in collaboration with artists at major film studios. She has been running these workshops at university campuses, museums, conference venues, and even theme parks across the continent over the last three years.



**Matt Nolte** has been at Pixar Animation Studios since 2004, and his roles have included Animator, Character Designer, and Character Art Director. He worked on *Cars*, *Ratatouille*, *Brave*, *The Good Dinosaur*, *Incredibles 2*, and the Pixar short *Lava*. He is currently working on Pixar's next original film *Onward*. Matt grew up drawing animals, never

knowing that his love for drawing and animation would lead to a job. He still loves watching ants in his backyard and imagining what it would be like to shrink to that size.

## Concurrent Sessions 5 & 6

	<p><b>Session 5: Social-Ecological Systems Auditorium</b></p> <p>Moderator: Katherine Siegel</p>	<p><b>Session 6: Community Ecology Room 150</b></p> <p>Moderator: Guillermo de Mendoza</p>
2:45	<p>Performance payments for conservation: lessons learned from the Eastern Pacific Hawksbill Sea Turtle Conservation Program in El Salvador and Nicaragua (2008-2018)</p> <p><b>Jose Urteaga</b></p>	<p>Slug thieves: nematocyst acquisition process in Aeolidiidae nudibranchs</p> <p><b>Lisa Paggeot</b></p>
3:00	<p>Relationship between health care, rainforest conservation, and human well-being: evaluating impact of a 10 year program in Borneo</p> <p><b>Isabel Jones</b></p>	<p>Neighboring plants influence native bee foraging: implications for restoration</p> <p><b>Kate Borchardt</b></p>
3:15	<p>“Tambourine and Accordion in these Woods”</p> <p><b>Chris Lesser</b></p>	<p>Effects of <i>Heteractis magnifica</i> color morphotype on preference in <i>Dascyllus trimaculatus</i> and <i>Amphiprion chrysopterus</i></p> <p><b>Ben Malit</b></p>
3:30	<p>Reconstructing ecosystem change in Monterey Bay, California</p> <p><b>Jennifer Selgrath</b></p>	<p>The effects of mask coloration on the swimming patterns of <i>Carcharhinus perezii</i></p> <p><b>Ellie Farquhar</b></p>

## Reception at Raleigh’s

**5-7pm:** Post-BACBS Reception with appetizers

**Raleigh’s Bar & Grill**, 2438 Telegraph Ave, Berkeley, CA 94704

## List of Posters

- Biogeography of the whorled wattles (*Acacia* section *Lycopodiifoliae*) in the Australian Monsoon Tropics - **Nancy Conejo**
- Spatial analysis of bird health in California's Central Coast - **Victoria Marie Glynn**
- Point Reyes Field Station: Building on over 100 years of shared history between UC Berkeley and the National Park Service - **Allison Kidder**
- Touch, shadow, and light: A comparative analysis of sensory systems and stress responses in *Spirobranchus giganteus* on Mo'orea (French Polynesia) - **Heather McCandless**
- The thermal acclimatization and susceptibility to grazing of crustose coralline algae from thermally variable and stable environments - **Emma Reich**
- Cock-A-Doodle-Do: Effects of the lunar cycle and weather on the behavior of the feral chicken on Mo'orea - **Yuju Shin**
- Influence of human activity on prey refugia and stress response - **Amy Van Scoyoc**

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