

7th Annual California Coastal Wildlife Disturbance Symposium, Abstracts and Speaker Contact Information

Launching "Respect Wildlife"

Lisa Duba lisa@gigantic-idea.com

Principal, Gigantic Idea Studio

Nancy Roberts, nancy@gigantic-idea.com

Senior Associate, Gigantic Idea Studio

Lisa presented an update on the Respect Wildlife project, a collaborative project comprising representatives from state and federal agencies, non-governmental organizations, and others combining efforts to reduced human-caused disturbance to California's coastal wildlife. Follow @RespectWildlifeProject on Instagram and Facebook (@RespectWildlife on Twitter) to follow the new campaign. See the website and download or share the social media packet at <https://www.respect-wildlife.org/>

Tolowa Dee-ni' Nation: First Stewards

Rudy Lopez, rudy.lopez@tolowa.com

Race Richards, race.richards@tolowa.com

Tolowa Dee-ni' Nation, Natural Resources/Marine Division

The role of the Morro Bay Harbor Department in wildlife stewardship in Morro Bay, CA

Eric Endersby, Morro Bay Harbor Director, eendersby@morrobayca.gov

Becka Kelly, Harbor Patrol Supervisor, bkelly@morrobayca.gov

Beyond behavior: using biologgers to better understand wildlife responses to human disturbance

Dr. Mark Ditmer, mark.ditmer@gmail.com

U.S. Forest Service, Rocky Mountain Research Station, Ogden, UT, USA

The human footprint and the associated disturbance to wildlife is increasing in severity, frequency, and extent. Most studies rely on a species' behavioral change to identify and quantify disturbance. However, some disturbances may not result in obvious behavioral changes as commonly measured by researchers. My talk will demonstrate the utility in considering physiological changes, here, quantified with cardiac biologgers, to determine acute stressors

from human disturbance. By combining fine-scale estimates of black bear (*Ursus americanus*) heart rate (bpm) with GPS data I was able to: 1) gain a better understand of how bears perceive the risks of roadways, 2) determine that bears exhibited strong stress responses, but limited behavioral changes when exposed to novel stimuli in their environment (drones), and 3) quantified how quickly captive bears habituated to the same stimulus. As physiological biologgers continue to miniaturize, become less expensive, and collect data at finer scales, they can become a powerful tool to understand and quantify disturbances to wildlife more fully. Finally, I will briefly discuss my plans for utilizing cardiac biologgers to understand stress responses of a migratory ungulate to better inform the conservation of migratory pathways.

Can marine mammals make me sick? Marine mammals and zoonotic disease

Michael J. Murray DVM, MMurray@mbayaq.org

Jane Dunaway Director of Veterinary Services
Monterey Bay Aquarium

Zoonotic diseases are defined by the World Health Organization as “diseases and infections that are naturally transmitted between vertebrate animals and humans.” There are at least 150 zoonotic diseases that have been described, and an estimated six out of ten infectious diseases are zoonotic. Do marine mammals also transmit diseases to humans, and if so, how, which ones, and how significant are they? While there are two major modes of transmission, direct & indirect contact and consumption, this discussion will emphasis direct and indirect contact. That being said, exposure via consumption of marine mammals is an important mechanism for zoonotic disease transmission in some parts of the world.

Zoonotic diseases are caused by a broad spectrum of pathogens, including viruses, bacteria, fungi, and protozoa. While providing detailed descriptions of the pathogenesis, clinical signs, treatment, and epidemiology is not feasible in a short presentation, a short description of some of the more important zoonotic diseases of marine mammals will be presented. Additionally, guidance for prevention of human infection will be discussed.

Sustainable manta ray tourism management in Indonesia

Dr. Maulita Sari Hani, msh.hutapea@gmail.com

Conservation International Indonesia <https://www.conservation.org/places/indonesia>

Manta rays are flagship species for marine conservation because of a number of threats including anthropogenic, overfishing, plastics (microplastics), over tourism, commercial trade (gills for medicine), and chaotic shipping lines where they often injured or killed. Because of these reasons, manta ray face risk of extinction and listed on the Red List of IUCN. A number of studies present the value of this fish estimated millions of dollars per year from tourism which show much greater valuable alive than dead. Responsible manta ray tourism encourages stakeholders to protect the species by generating incentives from tourism while develop conservations initiatives to protect the species. Desk study on current literatures were reviewed to identify the role of stakeholders in supporting the sustainable management of manta ray

tourism. This chapter explored the operations of manta ray tourism in Indonesia as the study areas. In summary, to reach the positive contributions from manta ray tourism, there is an important role of co-management between stakeholders to ensure the sustainable operations and conservation of the ecology, economy, and socio-culture.

Successful collaboration between groups improves education and reduces wildlife disturbance at Bolsa Chica Ecological Reserve

Melissa Loebel, Melissa.Loebel@wildlife.ca.gov

Bolsa Chica Ecological Reserve

Bolsa Chica Ecological Reserve is one of the last, largest, and most diverse ecosystems in Southern California. It is surrounded by an urban area along one of the most traveled highways in the region (Pacific Coast Hwy). With over 90,000 visitors a year and a crowded beach nearby, the reserve is highly vulnerable to disturbance. With the most recent Elegant Tern nest Abandonment, Melissa is dedicating much of her time to developing a reserve watch program, working with the FAA and drone applications to restrict airspace or provide language to educate users of the rules and regulations at all Eco Reserve's. She will discuss the challenge they face at Bolsa Chica Ecological Reserve and the measure they are taking to mitigate wildlife disturbance.

Community Representation in the Outdoors and Parks

Claudia Pineda Tibbs, claudia.p.tibbs@gmail.com

Latino Outdoors <https://latinooutdoors.org/>

Claudia centers their environmental conservation and sustainability work on the belief that individual and collective action are necessary for ensuring the needs (healthy food, clean air and water, shelter, work, happiness, respect, and a sense of belonging) of all people and our planet are being met now and in the future. Claudia suggested ways to increase opportunities for BIPOC (Black, Indigenous, and People of Color) to develop their own environmental identity and conservation ethic in order to develop a sense of agency and advocate for environmental justice policies impacting frontline communities and communities of color.

Respect. Protect. Enjoy. Wildlife viewing guidelines: Resource protection through responsible recreation

Grace Bottitta-Williamson, grace.bottitta@noaa.gov

NOAA's National Marine Sanctuary System

Encountering wildlife can be a once-in-a lifetime opportunity! These simple guidelines for "[Responsible Wildlife Viewing](#)" were created to educate the public to prevent human-wildlife conflict while promoting positive and memorable visitor experiences. A free and downloadable

media tool kit is available to use and share to encourage others to recreate responsibly. On land or sea, these guidelines can be used almost everywhere!

<https://sanctuaries.noaa.gov/wildlife-viewing/>

<https://sanctuaries.noaa.gov/espanol/etiqueta-oceanica.html>

Keynote:

Applying principles of animal behavior and human behavior to manage human-wildlife interactions

Kirsten Leong, kirsten.leong@noaa.gov

NOAA Pacific Islands Fisheries Science Center

Sara Melena, National Park Service, Natural Resource Stewardship and Science

Katie Abrams, Colorado State University, Dept. of Journalism and Media Communication

Protecting wild animals and wild spaces has allowed for rebounding wildlife populations and amazing wildlife viewing opportunities. However, these encounters can affect behavior. For example, rather than fleeing from people, animals may learn to ignore people or approach them for food. People, in turn may try to get close to seemingly “tame” animals. While these behavioral changes can increase the probability of viewing wildlife, they also can negatively affect wildlife health and reproduction, current and future visitor experiences, and the health and safety of both humans and wildlife (e.g., via injury and disease transmission). This presentation will provide a summary of key principles from animal behavior and human behavior to improve management of human-wildlife interactions. Options for managing animal behavior will be reviewed first, since wildlife biologists and managers often start from this perspective. However, proactive strategies require managing human behavior, which needs skills and disciplinary knowledge from fields such as social psychology, communication, and interpretation. Social marketing integrates skills and theory from these fields to improve the adoption of pro-environmental behaviors. The rest of the talk will provide an overview of key principles of social marketing, illustrated through examples of campaigns developed to reduce negative human-wildlife interactions.

Virtual Workshop 1: *Interpretation to Address Wildlife Issues*

Facilitator: Jim Covell, chrisjim@sbcglobal.net

Jim Covell, retired Director of Training & Interpretation from the Monterey Bay Aquarium, shared his expert techniques for staying positive and effective while interpreting wildlife viewing etiquette for visitors to California's coast. Many coastal interpreters whether paid or volunteer can suffer from burnout after observing repeated human disturbances to wildlife despite their presence and timely messaging. Some of the valuable techniques that Jim shared in this engaging workshop are:

- How to keep your cool under pressure when people disturb wildlife

- How to keep a positive attitude and balanced perspective when people challenge you
 - Key techniques for framing effective messaging in a relatable way for any visitor
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Virtual Workshop 2, *Social Media and Wildlife Disturbance*

Panel: Nancy Roberts (Gigantic Idea Studio), nancy@gigantic-idea.com

Katelyn Sprofera (CA Marine Sanctuary Foundation), katelyn@californiamsf.org

Shannon Shikles (NOAA), shannon.shikles@noaa.gov

Alex Anderson (CA State Parks), Alex.Anderson@parks.ca.gov

This workshop convened a panel of experienced social media practitioners from varied backgrounds to share their stories, tips, and challenges creating social media on wildlife-related issues. What are current trends for posts? What are the best strategies for addressing comments? What kinds of post may promote rather than discourage disrespectful behavior towards wildlife? Some of the discussion categories included:

- Best practices for managing your social media account
- Maximizing your reach and targeting messaging
- Summary and discussion