**Translating marine animal tracking data into conservation policy and management, Hays et al.**

Distribution and movement data can impact the management and conservation of a variety of marine species throughout the world. Although tracking studies are commonplace today, there is often a breakdown in data reaching management officials in part due to the complex pathways involved in the transfer of data. The authors highlight successful instances of location data impacting policy decisions (See included Figure 1. from publication) and note that these instances most often include early engagement, direct communication, and data sharing between researchers and stakeholders. Published in the journal *Trends in Ecology & Evolution*

**Animal cultures matter for conservation, Brakes et al.**

A growing body of evidence suggests that decision-makers should also consider aspects of animal sociality and culture to determine conservation priorities. Socially transmitted knowledge can impact the survivorship of individuals within a population, create subpopulations with differing behaviors, influence phenotypic diversity and adaptability, and identify individuals that are key repositories of knowledge. Moreover, social learning is prevalent across a wide range of taxa. International
authorities are moving to include cultural variation when identifying and enacting conservation policies. *Photo of learned sperm whale depredation behavior, courtesy of S. Mesnick, NMFS Permit 774-1714. Published in the journal* Science.

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**Skeletal records of bleaching reveal different thermal thresholds of Pacific coral reef assemblages, Mollica et al.**

The scientists used a novel coral bleaching proxy, skeletal stress bands, to assess the relative thermal thresholds of coral communities. They reconstructed bleaching histories for multiple coral reefs in the central equatorial Pacific from 1982-2015. Within each population, the stress response of massive corals indicated community level bleaching and different levels of community bleaching resulted despite similar stress conditions at different reefs. These reef to reef differences are a measure of thermal tolerance. This study illustrates that we can reconstruct past bleaching events using proxy data from the skeletons of massive corals, and concurrently assess the thermal tolerances of coral reef communities. *Photo courtesy of NOAA Fisheries. Published in the journal* Coral Reefs.

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**Lessons from seabird conservation in Alaskan longline fisheries, Melvin et al.**

This study assessed seabird bycatch rates from Alaska fisheries observer data between 1993 and 2015. Bycatch rates varied by species assemblage and fishery and the adoption of streamer lines and night setting efforts reduced most of the seabird bycatch four targeted fisheries. The observed decrease in the annual weighted mean bycatch rate of albatrosses and non-albatross species from 1993-2015 in all Alaskan longline fisheries is depicted in the figure above from the publication. Best practices to prevent seabird mortality require a variety of methods including gear modifications, industry support, robust observer data, and outreach to vessel operators. Published in the journal *Conservation Biology*.
Other Recent Publications

Environment, Climate, and Ecosystem Effects

Barraza et al. Trace metals in green sea turtle (Chelonia mydas) inhabiting two southern California coastal estuaries. Science Direct

Population Studies

Piovano et al. Mixed stock analysis of juvenile green turtles aggregating at two foraging grounds in Fiji reveals major contribution from the American Samoa Management Unit. Scientific Reports


Conservation

Sharp et al. Gross and histopathologic diagnoses from North Atlantic right whale (Eubalaena glacialis) mortalities between 2003 and 2018. Diseases of Aquatic Organisms

Methods

Chabot et al. Characterizing stable isotope relationships between green turtle (Chelonia mydas) skin and unhatched eggs. Rapid Communications in Mass Spectrometry

Levi et al. Environmental DNA for the enumeration and management of Pacific salmon. Molecular Ecology Resources

Rust et al. Accuracy and precision of age determination using growth layer groups for California sea lions (Zalophus californianus) with known ages. Marine Mammal Science

Williams et al. Leveraging automated image analysis tools to transform our capacity to assess status and trends on coral reefs. Frontiers in Marine Science

Zollett and Swimmer. Safe handling practices to increase post-capture survival of cetaceans, sea turtles, seabirds, sharks, and billfish in tuna fisheries. Endangered Species Research

Habitat Use


Frouin-Mouy et al. Acoustic occurrence and behavior of ribbon seals (Histriophoca fasciata) in the Bering, Chukchi, and Beaufort seas. Polar Biology
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