

AMY S. KENNEDY, PH.D.

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EDUCATION

University of Paris, Center for Neurosciences. Ph.D. with high honors, 2013. Dissertation title: Satellite telemetry and humpback whales: A tool for determining the habitat use, distribution, and behavior of an endangered large whale species.

Maine Maritime Academy, BSc. Magna Cum Laude, Ocean Science, 2000

RESEARCH INTERESTS

Conducting telemetry research with applications in natural resource management and conservation; using fine-scale data to assess the overlap of marine mammal protected areas with dense cetacean habitat use.

Using satellite telemetry to describe large whale foraging behavior, habitat use, and individual movement variation.

Using Bayesian switching state-space modeled telemetry data to describe large whale foraging and migration.

EXPERIENCE

Cetacean Research Biologist, Marine Mammal Lab (NOAA/NMFS/AFSC). (2008-present)

Instructor, Marine Mammalogy, (University of Washington, SAFS; FSH475) (Spring 2018, 2019)

JISAO (University of Washington) Principal Investigator, supervisor (2015-present)

North Pacific Right Whale Catalog and South Georgia Right Whale Catalog Curator, (2008- present)

Telemetry project leads: N. Pacific Right Whale Study (NMML; 2008-2012), Arctic Whale Ecology Study, (NMML; 2012 to present), BAS South Georgia Telemetry Project (2017-present), Guadeloupe and Dominican Republic Humpback Whale Telemetry Project (2010-2013)

Satellite Tag deployment and project consultant: Strait of Magellan Humpback Whale Telemetry Project (Chile; 2011), Gulf of Maine Telemetry Study (USA; 2011-present), South African Cetacean Distribution Survey (South Africa; 2014-2016), Arabian Sea Humpback Whale Telemetry Project (Oman; 2015-present), Kenya Humpback whale telemetry project (Kenya, 2018-present), MIROMEN II (Reunion Island; 2019-present)

Aerial line-transect survey observer, team lead, and data manager, ASAMM (2009-present)

SKILLS/PROFICIENCY

Extensive small vessel operations experience, particularly in close proximity to large whales

Satellite tag deployment and Argos telemetry data processing for habitat-use analysis

Cetacean biopsy collection and processing

Aerial and shipboard line transect survey planning, observing, and data management

Photographic identification collection, database archiving, analysis, and catalogue curation

Experienced with personnel management as a chief scientist and supervisor on various projects

Proficient with the following software: R, Rstudio, Wildlife computers (Tag Agent, SPOTHost, MK10Host, and DAP), ArcGIS, IMatch, and Adobe Photoshop Lightroom CC suite.

PROFESSIONAL AFFILIATIONS AND SERVICE

IndoCet Research Consortium, Associate Member, 2020-present

IWC North Pacific Humpback Whale Comprehensive Assessment Working Group, 2017

International Biologging Society, 2016-present

Advisory Team for the Arctic Animal Telemetry Network, 2014-present

Society for Marine Mammalogy, 2005-present

SELECT PUBLICATIONS

- Angliss RP, Ferguson MC, Hall P, Helker V, Kennedy AS, and Sformo T. (2018). Comparing manned to unmanned aerial surveys for cetacean monitoring in the Arctic: methods and operational results. *Journal of Unmanned Vehicle Systems*, 6(3), 109-127.
- Clarke JT, Kennedy AS, and Ferguson MC. (2016) Bowhead and gray whale distributions, sighting rates, and habitat associations in the eastern Chukchi Sea, Summer and Fall 2009-15, with a retrospective comparison to 1982-91. *Arctic* 69(4): 359-377.
- Dahlheim MD, Zerbini AN, Waite JM, and Kennedy AS. (2015) Temporal changes in abundance for harbor porpoise (*Phocoena phocoena*) inhabiting the inland waters of Southeast Alaska. *Fishery Bulletin* 113: 242-255.
- Ferguson, MC, Angliss, RP, Kennedy, AS, Lynch, B, Willoughby, A, Helker, V et al. (2018). Performance of Manned and Unmanned Aerial Surveys for Estimating Arctic Cetacean Density and Associated Uncertainty. *Journal of Unmanned Vehicle Systems* doi: 10.1139/juvs-2018-0002
- Garrigue C, Clapham PJ, Geyer Y, Kennedy AS, and Zerbini AN. (2015) Satellite tracking reveals novel migratory patterns and the importance of seamounts for endangered South Pacific humpback whales. *Royal Society Open Science* 2(11): 150489.
- Hückstädt LA, Schwarz LK, Friedlaender AS, Mate BR, Zerbini AN, Kennedy AS, et al. (2020) A dynamic approach to estimate the probability of exposure of marine predators to oil exploration seismic surveys over continental shelf waters. *Endangered Species Research* 42: 185–199.
- Jackson J, Kennedy A, Moore M, Andriolo A, Bamford C, Calderan S et al. (2020) Have whales returned to a historical hotspot of industrial whaling? The pattern of southern right whale (*Eubalaena australis*) recovery at South Georgia. *Endangered Species Research*.
- Kennedy AS, Salden DR, and Clapham PJ. (2011) First high- to low-latitude match of an eastern North Pacific right whale (*Eubalaena japonica*). *Marine Mammal Science*: 28(4): E539-E544
- Kennedy AS, Zerbini AN, Vasquez OV, Gandilhon N, Clapham PJ, and Adam O. (2013) Local and migratory movements of humpback whales (*Megaptera novaeangliae*) satellite tracked in the North Atlantic Ocean. *Canadian Journal of Zoology*: 8-17.
- Kennedy AS, Zerbini AN, Rone BK, and Clapham PJ. (2014) Individual variation in movements of humpback whales (*Megaptera novaeangliae*) satellite-tracked in the eastern Aleutian Islands and Bering Sea. *Endangered Species Research* 23: 187-195
- Kennedy AS and Clapham, PJ. (2017) From Whaling to Tagging: The Evolution of North Atlantic Humpback Whale Research in the West Indies. *Marine Fisheries Review* 79(2); 23-37.
- Kennedy AS, Carroll E, Baker CS, Bassoi M, Buss D, Collins MA et al. (2020) Whales return to the epicentre of whaling? Preliminary results from the 2020 cetacean survey at South Georgia (Islas Georgias del Sur). Paper. SC/68/CMP/22 presented to the International Whaling Commission Scientific Committee.
- Robbins J, Zerbini AN, Gales NJ, Gulland F, Double MC, Clapham PJ et al. (2013) Satellite tag effectiveness and impacts on large whales: preliminary results of a case study with Gulf of Maine humpback whales. In *International Whaling Commission Scientific Committee*. Edited by International Whaling Commission, Jeju, South Korea. p. 10.
- Wade P, Kennedy AS, LeDuc RG, Barlow J, Carretta J, Sheldon K, et al. (2011) The World's Smallest Whale Population? *Biology Letters* 7: 83-85.
- Wade P, De Robertis, A, Hough K, Booth R, Kennedy AS, LeDuc R, et al. (2011) Rare detections of North Pacific right whales in the Gulf of Alaska, with observations of their potential prey. *Endangered Species Research* 13: 99-109.
- Zerbini AN, Baumgartner MF, Kennedy AS, Rone BK, Wade PR, and Clapham PJ. (2014) Ecological and management implications of endangered North Pacific right whale (*Eubalaena japonica*) space-use patterns in the Bering Sea. *Marine Ecology Progress Series*: Vol. 532: 269-281.