

## **Amy S. Kennedy, Ph.D.**

Cooperative Institute for Climate, Ocean, and Ecosystem Studies (University of Washington) &  
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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**

My overarching research interests focus on telemetry-based bio-logging research and development, with emphasis on describing fine-scale marine mammal behavior within protected areas and regions of high human impact. In addition to behavior and movement studies, I collaborate on projects that examine the long-term physiological impacts of bio-logger deployment on large whales and the overall performance of various tag designs. My goal is to integrate methods that allow for the examination of tag design and deployment into bio-logging studies whenever possible.

### **EXPERIENCE**

Consulting Research Biologist, Marine Ecology and Telemetry Research (2020-present)

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

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

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

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

Telemetry project co-PI: N. Pacific Right Whale Study (MML; 2009-2012), Arctic Whale Ecology Study, (MML; 2012-present), BAS South Georgia Telemetry Project (2017-present), Guadeloupe and Dominican Republic Humpback Whale Telemetry Project (2010-2013, 2021)

Satellite tag deployment and project consultant: Strait of Magellan Humpback Whale Telemetry Project (2011), Gulf of Maine Telemetry Study (2011-present), South African Cetacean Distribution Survey (2014-2016), Arabian Sea humpback whale telemetry project (Oman; 2015-2017), Kenya humpback whale telemetry project (2018-present), MIROMEN II (Réunion Island; 2019-present), South African right whale telemetry project (2021-present)

Humpback whale research assistant and disentanglement team member (CCS)(2003-2007)

### **SKILLS/PROFICIENCY**

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

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

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

Strategic Leadership training, University of Washington (32 hours)

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

## 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.
- Bamford CG, Jackson JA, Kennedy AK, Trathan PN, Staniland IJ, Andriolo A et al. (2022) Humpback whale (*Megaptera novaeangliae*) distribution and movements in the vicinity of South Georgia and the South Sandwich Islands Marine Protected Area. *Deep Sea Research Part II: Topical Studies in Oceanography*: 105074.
- Calderan SV, Leaper RC, Miller BS, Andriolo A, Buss DL, Carroll EL, Kennedy AS, Stepien EN, Jackson JA (2021) Southern right whale vocalizations on foraging grounds in South Georgia. *JASA Express Letters* 1: 061202.
- 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, Brower, AA, and Clarke, JT. (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
- Findlay KP, Seakamela SM, Mejer MA, Kirkman SP, Barendse J, Cade DE, Hurwitz D, Kennedy AS, Kotze PG, McCue SA, and Thornton M. (2017) Humpback whale “super-groups”–A novel low-latitude feeding behaviour of Southern Hemisphere humpback whales (*Megaptera novaeangliae*) in the Benguela Upwelling System. *PloS one*. 1;12(3):e0172002.
- 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, Robbins J, Gales NJ, Costa DP (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 AS, 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*. DOI: <https://doi.org/10.3354/esr01072>
- 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, 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 EC, Baker S, 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/68B/CMP/22 Presented to the International Whaling Commission Scientific Committee, online, 2020.
- Robbins J, Zerbini AN, Gales NJ, Gulland F, Double MC, Clapham PJ, Andrews-Goff V, Kennedy AS, Landry SC, Mattila DK, and Tackaberry J. (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.
- Stevick PT, Bouveret L, Gandilhon N, Rinaldi C, Rinaldi R, Broms F, Carlson C, Kennedy AS, Ward N, and Wenzel F. (2019). Migratory destinations and timing of humpback whales in the southeastern Caribbean differ from those off the Dominican Republic. *Journal of Cetacean Research and Management* 18: 127-133.
- Stevick PT, Berrow SD, Bérubé M, Bouveret L, Broms F, Jann B, Kennedy A, Suárez PL, Meunier M, Ryan C, and Wenzel F. (2016) There and back again: multiple and return exchange of humpback whales between breeding habitats separated by an ocean basin. *Journal of the Marine Biological Association of the United Kingdom*: 1; 96(04): 885-90
- Wade P, Kennedy AS, LeDuc RG, Barlow J, Carretta J, Shelden K, Perryman W, Pittman R, Robertson K, Rone B, Salinas JC, Zerbini A, Brownell R, and Clapham PJ. (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, Munger L, Napp J, Shelden K, Rankin S, Vasquez O, and Wilson C. (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.

#### **PROFESSIONAL AFFILIATIONS AND SERVICE**

- IndoCet Research Consortium, Associate Member, 2020-present  
 IWC North Pacific Humpback Whale Comprehensive Assessment Working Group, 2017  
 International Bio-logging Society, 2016-present  
 Advisory Team for the Arctic Animal Telemetry Network, 2014-present  
 Society for Marine Mammalogy, 2005-present