



# DAVID W. JOHNSTON, PH. D.

## PROFILE

I am a broadly skilled marine conservation ecologist who focuses on the foraging ecology and habitat needs of marine animals in relation to pressing conservation issues. I have active projects involving the effects of climate change on marine animals, the oceanographic drivers of foraging ecology in marine vertebrates, the design and utility of marine protected areas, human/marine mammal conflicts in coastal oceans and the sustainability of incidental mortality and directed harvests of marine animals. I am an accomplished lecturer with experience in large and small classes at both undergraduate and graduate levels, including teaching field courses in remote locations. I have extensive experience incorporating new technologies into teaching, including the use of research-grade global circulation models (e.g. EdGCM) and custom digital textbooks deployed on mobile devices.

## ACADEMIC APPOINTMENTS

ASSISTANT PROFESSOR OF THE PRACTICE OF MARINE CONSERVATION & ECOLOGY. AUGUST 1, 2013 TO PRESENT.

DUKE UNIVERSITY MARINE LABORATORY, DIVISION OF MARINE SCIENCE AND CONSERVATION. NICHOLAS SCHOOL OF THE ENVIRONMENT. 135 DUKE MARINE LAB RD. BEAUFORT NC 28516.

ADJUNCT ASSOCIATE PROFESSOR. JANUARY 2011 TO PRESENT.

CENTER FOR FISH, FISHERIES AND AQUATIC ECOSYSTEMS RESEARCH, MURDOCH UNIVERSITY, WESTERN AUSTRALIA.

RESEARCH SCIENTIST, JUNE 2008 TO JULY 2013.

DUKE UNIVERSITY MARINE LABORATORY, DIVISION OF MARINE SCIENCE AND CONSERVATION. NICHOLAS SCHOOL OF THE ENVIRONMENT. 135 DUKE MARINE LAB RD. BEAUFORT NC 28516.

LEADER, CETACEAN RESEARCH UNIT, PIFSC/NOAA. JANUARY 2005 TO MAY 2008.

JOINT INSTITUTE OF MARINE AND ATMOSPHERE RESEARCH. UNIVERSITY OF HAWAI'I AT MANOA. 1000 POPE ROAD, MARINE SCIENCE BUILDING 312 HONOLULU, HI 96822.

## EDUCATION

POSTDOCTORAL FELLOW, MBARI, APRIL 2004 TO DECEMBER 2004.

MONTEREY BAY AQUARIUM RESEARCH INSTITUTE (MBARI)/MONTEREY BAY NATIONAL MARINE SANCTUARY. MOSS LANDING. CA 95039.

[Examined historic and recent CalCOFI/MBARI hydrographic and biological data in context of monitoring ecological change in the Monterey Bay National Marine Sanctuary.

DOCTOR OF PHILOSOPHY (PH.D.) DUKE UNIVERSITY. APRIL 2004

NICHOLAS SCHOOL OF THE ENVIRONMENT, DUKE UNIVERSITY MARINE LABORATORY, BEAUFORT, NORTH CAROLINA USA

Thesis Title: Fine scale oceanography and foraging marine predators: The ecology and conservation of an island wake ecosystem in the Bay of Fundy, Canada. Advisor: Dr. A. J. Read.

MASTERS OF SCIENCE (M.SC.) UNIVERSITY OF GUELPH. AUGUST 1995.

DEPARTMENT OF ZOOLOGY, UNIVERSITY OF GUELPH, GUELPH, ONTARIO, CANADA

Thesis Title: Spatial and temporal differences in heavy metal concentrations in tissues of harbour porpoises (*Phocoena phocoena* L.) from the Western North Atlantic. Advisor: Dr. D. E. Gaskin (Deceased).

BACHELORS OF SCIENCE (B.SC.) UNIVERSITY OF GUELPH. APRIL 1993

DEPARTMENT OF ZOOLOGY, UNIVERSITY OF GUELPH, GUELPH, ONTARIO, CANADA.

Specialized Honours Marine Biology.

## **RECENT GRANTS AND FUNDING**

### **MURDOCH UNIVERSITY (2013-2015). \$206,213 (AUS).**

Developing Transformative Technology and Pedagogy at Murdoch University: A Partnership between Murdoch and Duke Universities. Principle Investigator (with Lars Bejder and Neil Lonergan).

### **LOTTERYWEST FOUNDATION (2013-2014). \$100,000 (AUS).**

Coastal Walkabout: Developing a smartphone-capable citizen science network for Western Australia . Principle Investigator (with Lars Bejder).

### **NATIONAL SCIENCE FOUNDATION (2013-2014). \$70,393.**

RAPID: Linking the movement patterns and foraging behavior of humpback whales to their prey across multiple spatial scales within the LTER study region. Co-Investigator (with A.S. Friedlaender and D.P. Nowacek).

### **PACIFIC LIFE FOUNDATION (2012-2014). \$270,000.**

Comparing humpback whale feeding ecology: Pacific, Atlantic and Antarctic. Co-Investigator (with A.S. Friedlaender and D.P. Nowacek).

### **U.S. DEPARTMENT OF ENERGY (2011-2013). \$77,309 (DUKE PORTION).**

Modeling wildlife densities and movements across spatial and temporal scales on the mid-Atlantic Outer Continental Shelf. Co-Investigator (D.C. Evers [PI], B.Gardner, R. Veit, A.S. Friedlaender and I. Stenhouse)

### **INTERNATIONAL FUND FOR ANIMAL WELFARE (2010-2014). \$50,309.**

Assessing spatial and temporal overlap between fisheries and foraging grey seals using high-resolution cell phone (GSM) tag technology. Principle Investigator (Co-Investigator A.S. Friedlaender).

### **STRATEGIC ENVIRONMENTAL RESEARCH AND DEVELOPMENT PROGRAM (2011-2014). \$2,049,867**

Delphinid cetaceans: Quantifying behavioral ecology and response to predators using a multi-species approach. Co-Investigator (A. J. Read [PI], D. P. Nowacek, A. S. Friedlaender, B. L. Southall and P. Tyack)

### **NATIONAL GEOGRAPHIC SOCIETY (2010). \$25,000**

Investigating the foraging behaviour of fin whales foraging in an island wake using high resolution digital recording tags (DTAGs). Principle Investigator.

### **MARINE MAMMAL COMMISSION (2010). \$37,900**

Matching funds for assessing the distribution and abundance of coastal spinner dolphins in Hawaii. Principle Investigator (Co-Investigator L. Bejder).

### **DUKE CENTER FOR INSTRUCTIONAL TECHNOLOGY JUMPSTART GRANTS (2010-2012). \$10,608**

Digital Textbooks for Mobile Devices: Developing mobile device-ready content for Marine Megafauna (BIO 127.) Principle Investigator (Co-Investigators L. Crowder, A. S. Friedlaender, C. L. Van Dover, D. P. Nowacek and A. J. Read). See: <http://superpod.ml.duke.edu/digital>

### **NOAA COOPERATIVE GRANTS PROGRAM- PIRO (2010-2013). \$244,000.**

Funds for assessing the distribution and abundance of coastal spinner dolphins in Hawaii, and an assessment of time/area closures as a management approach. Principle Investigator (Co-Investigators L. Bejder and A. J. Read).

### **NOAA PRESCOTT GRANTS PROGRAM- OPR (2009-2011). \$96,172.**

Using marine mammal strandings and observer data to estimate life history parameters and assess demographic impacts of marine fisheries on odontocete populations in the northwestern Atlantic Ocean. Principle Investigator (Collaborator J. E. Moore).

**DUKE UNIVERSITY CENTER FOR GLOBAL CHANGE (2009-2010). \$27,000.**

Funds for establishing a Duke working group focusing on climate change and high latitude marine mammals and to develop a course on climate change effects on marine systems. Principle Investigator (Co-Investigators A.S. Friedlaender and D. P. Nowacek). See: <http://nicholas.duke.edu/cgc/groups/fy0910-mammals.html>

**INTERNATIONAL FUND FOR ANIMAL WELFARE (2009-2014). \$132,000.**

Funds for assessing sea ice conditions, climate variability and available breeding habitat for pagophilic seals in the North Atlantic. Principle Investigator (Co-Investigators A.S. Friedlaender and J. E. Moore).

**PROFESSIONAL SERVICE**

Convener, Marine mammals and climate change working group. Duke Center for Global Change. 2010

IACUC Representative, Duke Marine Lab - October 2008 to August 2009.

Member, National Marine Educators Association

Member, Society for Marine Mammalogy.

Member, Society for Conservation Biology.

Member, Ethics Committee. Society for Marine Mammalogy.

Member, Education Committee. Society for Marine Mammalogy.

Founding Member, Steering Committee. Pacific Islands Photo-Identification Network (PIPIN).

Review Editor: Endangered Species Research

Manuscript Reviewer: Animal Conservation, Biology Letters, Biological Conservation, Marine Mammal Science, Journal of Applied Ecology, Endangered Species Research, Marine Environmental Research, Marine Ecology Progress Series, PLOS ONE.

**SPECIALTIES AND AWARDS**

**PRESENTER, WATER THEME. DUKE FORWARD CAMPAIGN LAUNCH. 2012**

One of 4 Duke faculty invited to present their research program to Duke Donors at the launch of the current Duke Forward Campaign seeking to raise 3.2 billion dollars.

**PROGRAM LEAD, INNOVATIONS IN TEACHING IN AN M-ENVIRONMENT. 2012.**

Directing the formation of a community of practice amongst faculty and students at the Duke Marine Laboratory to explore mobile e-learning approaches in marine science and conservation. Program website: <http://superpod.ml.duke.edu/inteam>

**FACULTY MENTOR, SCIENTISTS WITH STORIES PROJECT. 2012-2013.**

Mentored a student-led cross-institutional program aiming to provide graduate students with skills in science communication using new technology. Program website: <http://scientistswithstories.org>

**CERTIFIED OCEAN GLIDER PILOT, SEAGLIDER TRAINING COURSE. 2010.**

Completed iRobot Seaglider pilot training held at the Seaglider Fabrication Center (SFC) of the University of Washington. Familiar with all aspects of launch, recovery and maintenance of the 1KA Seaglider.

**FRED FAIRFIELD MEMORIAL AWARD FOR INNOVATIVE RESEARCH. SOCIETY FOR MARINE MAMMALOGY 2003.**

*Island in the stream: Integrating physical oceanography and remote sensing to examine habitat use of marine mammals in an island wake in the Bay of Fundy, Canada.* 15th Biennial Conference on the Biology of Marine Mammals, Greensboro NC. December 14-19, 2003.

## RECENT TEACHING

### MARINE CONSERVATION/SERVICE LEARNING.

An undergraduate course that introduces students to current topics in conservation, including the methods and tools used in marine conservation research and practice, challenges and opportunities in marine conservation, and the social conflicts that may be encountered. Students teach fundamental principles of marine conservation to 8th graders, develop digital textbook materials for middle school teachers, and reflect on the role of community outreach in conservation. Fall 2011, 2012.

### MARINE MAMMALS AND CLIMATE CHANGE.

A graduate seminar course that introduces students to the ongoing effects of climate change and variability on marine mammals. Emphasis placed on global climate modeling using EdGCM (a research-grade global circulation model for education), and visualizing changes in environmental conditions using model output and remotely sensed and *in situ* data. Spring 2011.

### MARINE MEGAFaUNA.

An undergraduate engagement course that introduces students to the basics of marine science and conservation through examples of the diversity of marine megafauna (marine mammals, seabirds, pelagic fishes and sea turtles), their ecology and their conservation status. Course taught with iPads using our new Cachalot digital textbook application. Fall 2008, 2009. Spring 2011, 2012.

### MARINE MAMMAL BIOLOGY AND ECOLOGY.

A course on marine mammal biology, ecology and conservation. Summer block section includes field excursions with local fauna to demonstrate oceanographic observations and quantitative lab components including conservation genetics and population assessment techniques for studying populations in the wild. Course taught with iPads using our new Cachalot digital textbook application. July-August 2007, 2008, 2009, 2010, 2011; 2012, Fall 2010.

### MARINE CONSERVATION ECOLOGY.

An experiential field course focusing on the ecology and management of marine vertebrates on Midway Atoll. Co-Instructor: Dr. Andy Read. January-February, 2006, 2007, 2008, 2009. See student weblog: <http://www.nicholas.duke.edu/hawaii>

## RECENT AND UPCOMING SEA-TIME

2013. Iceland to Greenland in the Wake of the Vikings. Cruise Ship LeBoreal. Naturalist and Duke Alumni Lecturer. August.

2013. Palmer Long Term Ecological Research Program. Western Antarctic Peninsula. ASRV Laurence M. Gould. Cetacean Research Team Leader. January-February.

2012. Expedition to Antarctica. Cruise Ship LeBoreal. Naturalist and Duke Alumni Lecturer. February. <http://www.dukealumni.com/learn-travel/expedition-antarctica>.

2011. ANTARCTICA: Expedition to an Ethereal World. Cruise Ship Clelia II. Naturalist and Duke Alumni Lecturer. January.

2010. Multiscale Integrative Studies of Humpback whales And their Prey (MISHAP), Western Antarctic Peninsula. ASRV Laurence M. Gould. Leader - Visual Survey Team. April-June. See: <http://www.nicholas.duke.edu/antarctica>

2009. Multiscale Integrative Studies of Humpback whales And their Prey (MISHAP), Western Antarctic Peninsula. ASRV Laurence M. Gould. Leader - Visual Survey Team. April-June. See: <http://www.nicholas.duke.edu/antarctica/2009/>

## APPS AND DIGITAL RESOURCES

### CACHALOT | MOBILE MARINE MEGAFaUNA.

Cachalot is a novel textbook that integrates open access science, expert material and compelling media and delivers it on mobile devices. See <http://cachalot.me>

### THE NAI'A GUIDE

Hawaiian spinner dolphins, known locally as nai'a, are threatened by the continual disruption of their rest in shallow Hawaiian bays. The Nai'a Guide provides visitors to Hawaii with information, maps, photos, audio, and video explaining the dolphins' ecology in relation to tourism pressure. See <http://www.naiaguide.org>

### NORRIS TO NOW | SPINNER DOLPHIN SCIENCE AND MANAGEMENT

This interactive web-based timeline of scientific, historical, cultural and management events is a public resource to help educate people about spinner dolphins in Hawaii. See <http://www.spinnerdolphin.net/Timeline/>

### THE VIEW FROM BELOW

The View From Below is an evolving, introductory digital textbook for advanced middle school students (and teachers) that addresses several major issues in marine conservation in a compelling and interactive way. The text is written by undergraduates. See <http://superpod.ml.duke.edu/johnston/app/the-view-from-below/>

### COMMON INVERTEBRATES FROM BEAUFORT, NC, AREA - DIGITAL EDITION

A revised version of the classic guide to invertebrates inhabiting the region surrounding the Duke Marine Lab. Undergraduates enrolled in marine invertebrate classes contribute text and multimedia materials to this evolving resource.

## SELECT PUBLICATIONS IN PREPARATION

Johnston, D. W., H. Jones and L. Sohl. *In Prep.* Statistical and earth simulation model forecasts of changing sea ice cover in the breeding habitats of harp seals (*Pagophilus groenlandicus*).

Heenehan, H., X. Basurto, L. Bejder, J. Tyne, and D. W. Johnston. *In Prep.* Combining command and control and community-based conservation to implement ecosystem-based management in dolphin resting bays in Hawai'i.

## PEER-REVIEWED PUBLICATIONS

Friedlaender, A.S., J.A. Goldbogen, D.P. Nowacek, A.J. Read, D. W. Johnston, N. Gales. *In Review.* Feeding rates and under-ice foraging strategies of the smallest bulk-filter feeder, the Antarctic minke whale. *Nature Communications*.

Siders, Z. A., A. J. Westgate, D. W. Johnston, L. D. Murison and H. N. Koopman. *In Revision.* Seasonal variation in the spatial distribution of basking sharks (*Cetorhinus maximus*) in the Bay of Fundy, Canada. *PLoS ONE*.

Soulen, B. K., K. Cammen, T. F. Schultz, and D. W. Johnston. 2013. Factors affecting stranded harp seals (*Pagophilus groenlandicus*) in the Northwest Atlantic. *PLoS ONE*. 8(7): e68779

Thorne, L. H., D. W. Johnston, D. L. Urban, J. Tyne, L. Bejder, R. W. Baird, S. Yin, S. H. Rickards, M. H. Deakos, J. R. Mobley, Jr., A. A. Pack, M. Chapla Hill. 2012. Predictive modeling of spinner dolphin (*Stenella longirostris*) resting habitat in the main Hawaiian Islands. *PLoS ONE*. 7(8): e43167.

Johnston, D. W., A. S. Friedlaender, A. J. Read and D. P. Nowacek. 2012. Initial density estimates of humpback whales (*Megaptera novaeangliae*) in the inshore waters of the Western Antarctic Peninsula during the late autumn. *Endangered Species Research*. 18: 63–71

Johnston, D. W., M. T. Bowers, A. S. Friedlaender, and D. M. Lavigne. 2012. The effects of climate change on harp seals (*Pagophilus groenlandicus*). *PLoS ONE*. 7 (1): e29158 EP

Nowacek, D. P., A. S. Friedlaender, P. N. Halpin, E. L. Hazen, **D. W. Johnston**, A. J. Read, B. Espinasse, M. Zhou, and Y. Zhu. 2011. Super-aggregations of krill and humpback whales in Wilhelmina Bay, Antarctic Peninsula. **PLoS ONE**. 6(4): e19173

Forney, K. A., D. R. Kobayashi, **D. W. Johnston**, J. Marchetti, and M. M. Marsik. 2011. What's the catch? Patterns of cetacean bycatch and depredation in Hawaii-based pelagic longline fisheries. **Marine Ecology**. 32(3): 380–391

Friedlaender, A. S., **D. W. Johnston**, W. R. Fraser, J. Burns, P. N. Halpin, D. P. Costa. 2011. Ecological niche modeling of sympatric krill predators around Marguerite Bay, Western Antarctic Peninsula. **Deep-Sea Research Part II: Topical Studies in Oceanography**. 58: 1729-1740

Hazen, E. L. and **D. W. Johnston**. 2010. Meridional complexity in the deep scattering layers and top predator distribution in the Central Equatorial Pacific. **Fisheries Oceanography**. 19(6), 427–433

Friedlaender, A. S., **D. W. Johnston** and P. N. Halpin. 2010. Effects of the North Atlantic Oscillation on sea ice breeding habitats of harp seals (*Pagophilus groenlandicus*) across the North Atlantic. **Progress in Oceanography - Climate Impacts on Oceanic Top Predators (CLIOTOP) Special Issue**. 86(1): 261-266

Friedlaender, A. S., D. P. Nowacek, **D. W. Johnston**, A. J. Read, R. B. Tyson, L. E. Peavey, and E. M. Revelli. 2010. Multiple sightings of large groups of Arnoux's beaked whales (*Berardius arnouxii*) in the Gerlache Strait, Antarctica. **Marine Mammal Science**. 26(1): 246-250.

Leaper, R., D. M. Lavigne, P. J. Corkeron and **D. W. Johnston**. 2010. Towards a precautionary approach to managing Canada's commercial harp seal hunt. **ICES Journal of Marine Science**. 67: 316-32

Gales, N., D. Bowen, **D. W. Johnston**, K. Kovacs, C. Littnan, W. Perrin, J. Reynolds and P. Thompson. 2009. Guidelines for the Treatment of Marine Mammals in Field Research. **Marine Mammal Science**. 25 (3): 725-736.

McDonald, M. A., J. A. Hildebrand, S. M. Wiggins, **D. W. Johnston** and J. J. Polovina. 2009. An acoustic survey of beaked whales at Cross Seamount near Hawaii. **Journal of the Acoustical Society of America**. 125 (2): 624-627.

**Johnston, D. W.**, J. Robbins, M. E. Chapla, D. K. Mattila and K. R. Andrews. 2008. Diversity, habitat associations and stock structure of odontocete cetaceans in the waters of American Samoa, 2003-2006. **Journal of Cetacean Research and Management**. 10: 59-66.

**Johnston, D. W.**, M. A. McDonald, J. J. Polovina R. Domokos, S. Wiggins and J. A. Hildebrand. 2008. Temporal patterns in the acoustic signals of beaked whales at Cross Seamount. **Biology Letters**. 4: 208-211.

**Johnston, D. W.**, M. E. Chapla, L. E. Williams and D. K. Mattila. 2007. Identification of humpback whale wintering habitat in the Northwestern Hawaiian Islands using spatial habitat modeling. **Endangered Species Research**. 3: 249-257.

**Johnston, D. W.** and A.J. Read. 2007. Flow-field observations of a tidally driven island wake used by marine mammals in the Bay of Fundy, Canada. **Fisheries Oceanography**. 16:422-435.

Nowacek, D. P., L. H. Thorne,, **D. W. Johnston** and P. L. Tyack 2007. Responses of cetaceans to anthropogenic noise. **Mammal Review**. 37: 81-115.

Ingram, S. N., L. Walsh, **D. W. Johnston** and E. Rogan. 2007. The influence of benthic topography and oceanography on the distribution of fin and minke whales in the Bay of Fundy, Canada: using a whale-watching tour-boat as a platform of opportunity. **Journal of the Marine Biological Society of the U.K.** 87: 149-156.



Baker, J. B. C. L. Littnan and D. W. Johnston. 2006. Potential effects of sea-level rise on the terrestrial habitats of endangered and endemic megafauna in the Northwestern Hawaiian Islands. **Endangered Species Research**. 2: 21-30.

Johnston, D. W., L.H. Thorne, and A.J. Read. 2005. Fin whales (*Balaenoptera physalus*) and minke whales (*Balaenoptera acutorostrata*) exploit a tidally-driven island wake ecosystem in the Bay of Fundy. **Marine Ecology Progress Series**. 305: 287-295.

Johnston, D. W., A. S. Friedlaender, L. G. Torres and D. Lavigne. 2005. Variation in sea ice cover on the east coast of Canada, 1969 to 2002: Climate variability and implications for harp and hooded seals. **Climate Research**. 29: 209-222.

Johnston, D. W., A.J. Westgate and A.J. Read. 2005. Effects of fine scale oceanographic features on the distribution and movements of harbour porpoises (*Phocoena phocoena*) in the Bay of Fundy. **Marine Ecology Progress Series**. 295: 279-293.

Gannon, D. P., D. W. Johnston, A.J. Read and D.P. Nowacek. 2004. Resonance and dissonance: Science, ethics and the sonar debate. **Marine Mammal Science**. 20: 213-214.

Johnston, D. W. 2002. The effect of acoustic harassment devices on harbour porpoises (*Phocoena phocoena*) in the Bay of Fundy, Canada. **Biological Conservation**. 108: 113-118.

Johnston, D. W., P. Meisenheimer and D. M. Lavigne. 2000. An evaluation of management objectives for Canada's commercial harp seal hunt, 1996-1998. **Conservation Biology**. 14: 729-737.

Johnston, D. W. and T.H. Woodley. 1998. A survey of acoustic harassment device (AHD) use in the Bay of Fundy, NB, Canada. **Aquatic Mammals**. 24: 51-61.

Taylor, V.J., D. W. Johnston and W.C. Verboom. 1997. Acoustic harassment device (AHD) use in the aquaculture industry and implications for marine mammals. **Proceedings of the Institute of Acoustics**. 19: 267-276.

Palka, D. L., A. J. Read, A. J. Westgate and D. W. Johnston. 1996. Summary of the current knowledge of harbour porpoises in US and Canadian waters. **Report of the International Whaling Commission**. 46:559-565.

## **REPORTS, CHAPTERS, POPULAR-PRESS AND BOOKS**

Johnston, D. W. 2012. Re-Imagining the Marine Science Textbook: Cachalot | Mobile Marine Megafauna. *In* Duke Environment Magazine. Spring 2012.

Johnston, D. W. 2012 Harp seals on thin ice. The Seamonster: Ocean science, sports and discovery. <http://theseamonsnet.net/2012/01/harp-seals-on-thin-ice/>

Johnston, D. W. *In Press*. Vigilance, Resilience and Failures of Science and Management: Spinner dolphins and tourism in Hawaii. Chapter 20 *In* Higham, Bejder and Lusseau [Eds]. Whaling-watching, sustainable tourism and ecological management.

Gales, N. N., D. W. Johnston, C. L. Littnan and I. Boyd. 2010. Ethics in Marine Mammal Research. Chapter 1 *In* (I. Boyd, D. Bowen and S. Iverson, [eds.]. Marine Mammal Ecology and Conservation: A Handbook of Techniques. Oxford University Press, Oxford U.K.

Carretta, J. V., K. A. Forney, M. S. Lowry, J. Barlow, J. D. Baker, D. W. Johnston, B. Hanson, R. L. Brownell Jr., J. Robbins, D. K. Mattila, K. Ralls, M. M. Muto, D. Lynch, and L. Carswell. 2010. Pacific Marine Mammal Stock Assessments: 2009. NOAA-TM-NMFS-SWFSC-453. U. S. DEPARTMENT OF COMMERCE. National Oceanic and Atmospheric Administration. National Marine Fisheries Service. Southwest Fisheries Science Center. 336pp.

Carretta, J. V. , K. A. Forney, M. S. Lowry, J. Barlow, J. D. Baker, **D. W. Johnston**, B. Hanson, M. M. Muto, D. Lynch, and L. Carswell. 2009. Pacific Marine Mammal Stock Assessments: 2008. NOAA-TM-NMFS-SWFSC-434. U. S. DEPARTMENT OF COMMERCE. National Oceanic and Atmospheric Administration. National Marine Fisheries Service. Southwest Fisheries Science Center. 317pp.

Chapla, M. E., **D. W. Johnston** and K. Urian. 2007. Pacific Islands Photo-Identification Network Workshop Report. Pacific Islands Fisheries Science Center Administrative Report. H-07-02, 28pp.

**Johnston, D. W.** 2006. A hard days night: Spinner dolphins need their rest too. Ka Pili Kai. 28: 9-11.

Reeves, R. R., A. J. Read and **D. W. Johnston**. 2006. Report: Workshop on Research Needs for the Conservation and Management of Cetaceans in the Pacific Islands Region. Pacific Islands Fisheries Science Center, PIFSC Special Publication, SP-06-002.

Hannah, J. and **D. W. Johnston**. 2004. Whales of Atlantic Canada and the Northeastern United States. A Field Guide. International Marine Mammal Association Inc. Guelph, ON. 72pp.

Wells, P.G., P.D. Keizer, J. L. Martin, P. A. Yeats, K. M. Ellis and **D. W. Johnston**. 1996. The chemical environment in the Bay of Fundy. Pages 37-56 In J.A. Percy, P.G. Wells and A.J. Evans [eds.]. Bay of Fundy Issues: A scientific overview. Environment Canada – Atlantic Region Occasional Report No. 8.

## **RECENT INVITED PRESENTATIONS**

When my seals call home, they rely on America's most available network. RTP 180°. Research Triangle Park. June 2013.

Novel Approaches to Marine Science Education and Outreach. A conversation about Digital Publishing and Smartphone-based Citizen Science. Hatfield Marine Science Center, Oregon State University. April 2013

Seals and Spinners - Specialized Behaviors and Spatial Ecology. Understanding the habitat needs of marine mammals in relation to pressing conservation issues. Hatfield Marine Science Center, Oregon State University. April 2013

The iPad as a Digital Teaching Tool: Apps, Textbooks and best practices for using mobile devices in the class, lab and field. Board of Visitors Retreat. Nicholas School of Environment, Duke University. April 2013.

High-Latitude Marine Megavertebrates and Climate Change: Innovative Approaches to Conservation Challenges and Educational Opportunities. Center for Ocean Solutions, Stanford University. October 2012.

Presenting Ocean Mapping and Citizen Science - Water Theme. Duke Forward Fundraising Campaign Launch. September 2012. Duke University

Developing ecological niche models for marine vertebrate conservation: Climate change in the Western Antarctic Peninsula and dolphin-based tourism in Hawaii. April 2012. Spring Invitational Seminar Series. School of Marine Science and Policy. University of Delaware.

Smartphones and Marine Mammal Conservation: Citizen Science in the Age of the "Tricorder." February 2012. Murdoch University Public Lecture Series. Murdoch University.

Developing the Scalable Open-Access Digital Textbook for Marine Science: Enhancing Science, Technology, Engineering and Math (STEM) teaching through the integration of transformational philosophy, pedagogy and technology. Murdoch University. February 2012. Exploring, Discovering and Transforming' Research Group Seminar Series. Murdoch University.

On thin ice: Climate change and high-latitude marine vertebrates. November 2011. Let's Talk CO2: Learning, Sharing and Acting On Climate Change. Pine Knolls Aquarium Workshop on Climate Change.



New publishing/New pedagogies: How online media and mobile devices are changing the way we think about publishing, teaching, and community engagement. October 2011. Duke Center for Instructional Technology Seminar Series. Duke University.