

# JULIE M. VAN DER HOOP, PHD

**Aarhus University Institute for Bioscience**  
**Zoophysiology Department**  
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## ACADEMIC APPOINTMENTS

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**Marie Skłodowska-Curie Research Fellow** 2017-2019  
Aarhus University  
Supervisor: Peter T. Madsen

**Post-Doctoral Investigator** Oct 2016-Jan 2017  
Woods Hole Oceanographic Institution  
Supervisor: Michael J. Moore

## EDUCATION

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**Ph.D.** 2011-2016  
**Massachusetts Institute of Technology-Woods Hole Oceanographic Institution**  
Joint Program in Biological Oceanography.  
Thesis: Effects of added drag on cetaceans – fishing gear entanglement and external tag attachment  
Advisor: Michael J. Moore

**Kaufman Teaching Certificate in Graduate Student Education** 2014  
**Massachusetts Institute of Technology**

**B.Sc. Com. Hon.** 2006-2010  
**Dalhousie University**  
Marine Biology and Oceanography, First Class Honours  
Thesis: Determining the absolute probability of vessel strikes to North Atlantic right whales *Eubalaena glacialis* on the Scotian Shelf (van der Hoop et al. 2012)  
Advisor: Christopher T. Taggart

## RECENT ACTIVITIES

**Animove** Animal Movement and Remote Sensing in Ecology and Conservation Course, 27 Aug – 5 Sept 2017

**Invited Speaker:** International Whaling Commission and Office of Naval Research Workshop on Cetacean Tag Development and Best Practices, 6-8 Sept 2017

**Bio Logging Symposium**, 25-29 Sept 2017

- Oral Presentation: Ventilation rates in free-swimming odontocetes as a measure of field metabolic scaling (van der Hoop et al.)
- Poster: Physiology and movement to assess breathing frequency and tidal volume in marine mammals (Fahlman et al.)
- Poster: Enhanced localization of marine mammals in controlled experimental settings (Shorter et al.)

**Invited Speaker:** North Atlantic Right Whale Consortium Meeting, 22 Oct 2017

**Society for Marine Mammalogy Biennial Conference**, 21-27 Oct 2017

- Plenary Speaker: F. G. Wood Award Recipient
- Oral Presentation: Respiratory rates in free-swimming odontocetes as a measure of field metabolic scaling (van der Hoop et al.)
- Poster: Accurate gear type characterization is critical for entanglement mitigation (Asmutis-Silvia et al.)

# JULIE M. VAN DER HOOP, PHD

## PUBLICATIONS

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### Submitted

- van der Hoop, J.M.**, A. Fahlman, K.A. Shorter, J. Rocho-Levine and M.J. Moore. Energy economy in bottlenose dolphins under different levels of drag. *Journal of Experimental Biology* JEXBIO/2017/169292
- van der Hoop, J.M.**, M. Byron, K. Ozolina, J. Johansen, P. Domenici, and J.F. Steffensen. Turbulent flow reduces oxygen consumption in the labriform swimming shiner perch, *Cymatogaster aggregata*. *Journal of Experimental Biology* JEXBIO/2017/168773

### Published

- Guerra, M., L. Hickmott, **J. van der Hoop**, W. Rayment, E. Leunissen, E. Slooten, M. Moore. 2017. Diverse foraging strategies by a marine top predator: sperm whales exploit pelagic and demersal habitats in the Kaikōura submarine canyon. *Deep Sea Research Part I*. 128:98-108.
- Shorter, K.A., Y. Shao, L. Ojeda, K. Barton, J. Rocho-Levine, **J. van der Hoop** and M. Moore. A day in the life of a dolphin: using bio-logging tags for improved animal health and well-being. *Marine Mammal Science*.
- van der Hoop, J.M.**, D.P. Nowacek, M.J. Moore, M. Triantafyllou. 2017. Swimming kinematics and efficiency of entangled North Atlantic right whales. *Endangered Species Research*. doi: 10.3354/esr00781
- van der Hoop, J.M.**, P. Corkeron, A.G. Henry, A.R. Knowlton and M.J. Moore. 2017. Predicting lethal entanglements as a consequence of drag from fishing gear. *Marine Pollution Bulletin* 115: 91-104
- Asmutis-Silvia, R., S. Barco, T. Cole, A. Henry, A. Johnson, A. Knowlton, S. Landry, D. Mattila, M. Moore, J. Robbins, **J. van der Hoop**. 2017. Rebuttal to published article "A review of ghost gear entanglement amongst marine mammals, reptiles and elasmobranchs" by M. Stelfox, J. Hudgins, and M. Sweet. *Marine Pollution Bulletin*.
- van der Hoop, J.M.**, P. Corkeron, M.J. Moore. 2016. Entanglement is a costly life-history stage in large whales. *Ecology and Evolution*. DOI: 10.1002/ece3.2615
- Fahlman, A., **J.M. van der Hoop**, M.J. Moore, G. Levine, J. Rocho-Levine, M. Brodsky. 2016. Estimating field energetics from respiratory frequency: why we need to understand physiology. *Biology Open* 5:436-442.
- van der Hoop, J.M.**, P. Corkeron, J. Kenney, S. Landry, D. Morin, J. Smith, M. J. Moore. 2016. Drag from fishing gear entangling North Atlantic right whales. *Marine Mammal Science* 32: 619-642.
- van der Hoop, J.M.**, A. Fahlman, T. Hurst, J. Rocho-Levine, K.A. Shorter, V. Petrov and M.J. Moore. 2015. Bottlenose dolphins modify behavior to reduce metabolic effect of tag attachment. *Journal of Experimental Biology* 217:4229-4236.
- van der Hoop, J.M.**, A. S. M. Vanderlaan, T. V. N. Cole, A. G. Henry, L. Hall, B. Mase-Guthrie, T. Wimmer, and M. J. Moore. 2015. Vessel strikes to large whales before and after the 2008 Ship Strike Rule. *Conservation Letters* 8:24-32.
- van der Hoop, J. M.**, M. J. Moore, A. Fahlman, A. Bocconcelli, C. George, K. Jackson, C. Miller, D. Morin, T. Pitchford, T. Rowles, J. Smith, and B. Zoodsma. 2013. Behavioral impacts of disentanglement of a right whale under sedation and the energetic cost of entanglement. *Marine Mammal Science* 30:282-307.
- Moore, M. J., **J. M. van der Hoop**, S. G. Barco, A. M. Costidis, F. M. Gulland, P. D. Jepson, K. T. Moore, S. Raverty and W. A. McLellan. 2013. Criteria and case definitions for serious injury and death of pinnipeds and cetaceans caused by anthropogenic trauma. *Diseases of Aquatic Organisms* 103:229-264.
- van der Hoop, J. M.**, M. J. Moore, S. G. Barco, T. V. Cole, P. Y. Daoust, A. G. Henry, D. F. McAlpine, W. A. McLellan, T. Wimmer and A. R. Solow. 2013. Assessment of management to mitigate anthropogenic effects on large whales. *Conservation Biology* 27:121-133.
- van der Hoop, J. M.**, A. S. M. Vanderlaan and C. T. Taggart. 2012. Absolute probability estimates of lethal vessel strikes to North Atlantic right whales in Roseway Basin, Scotian Shelf. *Ecological Applications* 22:2021-2033.
- Moore, M. J. and **J. M. van der Hoop**. 2012. The painful side of trap and fixed net fisheries: chronic entanglement of large whales. *Journal of Marine Biology* 2012:1-4.

# JULIE M. VAN DER HOOP, PHD

**To be Submitted** [within three months; drafts available on request]

Zhang, **van der Hoop** et al. Hydrodynamic drag of bio-logging tags on bottlenose dolphins - How much is too much? Target Journal: Animal Biotelemetry

Moore, **van der Hoop**, et al. Unmanned Aerial System imaging of large whales – a relatively benign tool. Target Journal: Marine Mammal Science

Johnson, Nicol, Bejder, Mattila, **van der Hoop** and Jepson. Cetacean Welfare: A novel application of the Five Domains Model. Target Journal: Animal Welfare

## GRANTS AND FUNDING: TOTAL TO DATE \$473,177

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### Research Grants: \$238,492

2016	Office of Naval Research: Respiratory Acoustics To Estimate energy (RATE) Co-PIs: Madsen and van der Hoop	\$58,894
2015	Herrington-Fitch Family Foundation: Effects of Drag from Right Whale Entanglement in Fishing Gear Co-PIs: Moore and van der Hoop	\$39,610
2014	Cooperative Institute for the North Atlantic Region (CINAR): Effects of Drag from Entanglement in Fishing Gear in Right Whales Co-PIs: Moore and van der Hoop	\$51,246
2013	Herrington-Fitch Family Foundation: Effects of Drag from Right Whale Entanglement in Fishing Gear Co-PIs: Moore and van der Hoop	\$54,000
2013	Worthington Foundation: Effects of Drag from Right Whale Entanglement in Fishing Gear Co-PIs: Moore and van der Hoop	\$8,000
2012	WHOI Marine Mammal Center: Estimating drag forces and energetics of free-swimming entangled whales PIs: Thorrold (co-PI), van der Hoop (co-PI), Miller, Grosenbaugh	\$25,477
2012	WHOI Coastal Oceans Institute: Potential chemical cues released from whale tissue PI: van der Hoop	\$1,265

### Fellowships: \$220,845+

2016	Marie Skłodowska-Curie Actions Individual Fellowship, European Commission	
2014	Stanley W. Watson Fellowship, University of Washington	\$12,745
2014	MIT Martin Family for Sustainability Fellowship	\$60,000
2013	University of Washington Wainwright Fellowship	\$1,600
2013	NSERC Post Graduate Scholarship - Doctoral Level	\$105,000
2011	NSERC Post Graduate Scholarship - Masters Level	\$17,500
2011	WHOI Von Damm Fellowship	\$24,000

### Other Financial Awards: \$13,840

2015	MIT Student Assistance Fund \$1000, WHOI Travel Grant \$750, MIT Graduate Student Council Travel grant \$550, WHOI Biology Department \$500	
2015	Ruth and Paul Fye Award for Excellence in Interdisciplinary Research	\$600
2014	WHOI Biology Department Student Travel Grant \$500, WHOI Travel Grant \$750, MIT Student Assistance Fund \$1000	
2013	WHOI Biology Department Education Support \$1000, WHOI Academic Programs Office Education Support \$2400	
2013	MIT Student Assistance Fund \$1000, WHOI Travel Grant \$750, MIT Graduate Student Council Travel Grant \$500, Biology Department Student Travel Grant \$600	
2012	MIT Student Assistance Fund \$220, WHOI Travel Grant \$220	
2011	MIT Student Assistance Fund \$1000, WHOI Travel Grant \$500	

# JULIE M. VAN DER HOOP, PHD

## HONORS AND AWARDS

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- 2017 F. G. Wood Award, Society of Marine Mammalogy. Best Student Paper in Marine Mammal Science
- 2015 Endangered Species Print Project Student Presenter Award, North Atlantic Right Whale Consortium Annual Meeting
- 2015 MIT Graduate Woman of Excellence
- 2015 Ruth and Paul Fye Award for Excellence - Interdisciplinary (Woods Hole Oceanographic Institution)
- 2014 Woods Hole Oceanographic Institution Stanley W. Watson Fellowship
- 2014 MIT Martin Family for Sustainability Fellowship
- 2013 University of Washington Wainwright Fellowship
- 2013 NSERC Post Graduate Scholarship (Doctoral Level)
- 2013 Endangered Species Print Project Student Presenter Award, North Atlantic Right Whale Consortium Annual Meeting
- 2011 NSERC Alexander Graham Bell Post Graduate Scholarship (Masters Level)
- 2011 Woods Hole Oceanographic Institution Von Damm Fellowship (Pioneering Female Oceanographer)
- 2011 Coastal Oceans Institute Student Fellowship
- 2011 Honourable Mention, Poster Session Awards, American Cetacean Society International Conference, Monterey, CA, U.S.A.
- Dalhousie University, Halifax Nova Scotia, Canada*
- 2010 Constance I. MacFarlane Scholarship - Top Marine Biology Student
- 2009 David Durward Memorial Prize - Outstanding Achievement in Animal Physiology
- 2009 In-Course Scholarships - Exceptional University- and course-level achievement
- 2006 Entrance Scholarship - Based on admission GPA

## INVITED SEMINARS

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- 2017 University of St. Andrews Sea Mammal Research Unit (SMRU) and Centre for Research into Ecological and Environmental Modelling (CREEM)** 6 Dec 2017
- 2017 North Atlantic Right Whale Consortium Meeting.** Assessing speed reductions: Efficacy, data gaps and opportunities. 22 Oct 2017
- 2017 University of Washington School of Aquatic and Fisheries Sciences.** Seeing below the surface: Using bio-logging tags to study animal movement and physiology. Seattle, WA. 28 March 2017.
- 2016 North Atlantic Right Whale Consortium Meeting.** Is the vessel-strike problem solved? New Bedford, MA, U.S.A. 2 Nov 2016
- 2014 University of British Columbia Fisheries Center Seminar.** Kinematic, energetic and behavioural effects of drag in cetaceans. Vancouver, BC. 20 June 2014

## INVITED WORKSHOPS

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- 2017 International Whaling Commission and Office of Naval Research** Workshop on Cetacean Tag Development and Best Practices, Washington, D.C., USA
- 2016 International Whaling Commission** Meeting on Non-Killing Welfare Threats to Cetaceans, Kruger Park South Africa.
- 2015 International Whaling Commission** Third Meeting on Large Whale Entanglement Issues, Provincetown, MA, USA.
- 2014 Kjell Johansen Memorial Symposium:** Diving Physiology, Aarhus University, Denmark.
- 2012 Untangled:** Regional and global impacts of marine debris on animal welfare – seeking solutions. World Society for the Protection of Animals (WSPA). Miami, FL, USA.

## JULIE M. VAN DER HOOP, PHD

- 2012 Criteria and Case Definitions for Human Originated Cause of Death**, Proximate or Contributing Cause of Death: Vessel, Fishing and Gunshot Trauma in Stranded Cetaceans and Pinnipeds. Woods Hole Oceanographic Institution/NOAA. Woods Hole, MA, USA.
- 2011 International Whaling Commission** Second Workshop on Welfare Issues Associated with the Entanglement of Large Whales, IWC/63/WKM&AWI. Provincetown, MA, USA.
- 2011 Consortium for Wildlife Bycatch Reduction and New England Aquarium** Dynamics of Large Whale Entanglements in Fishing Gear. Woods Hole, MA, USA.

### PRESENTATIONS

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- van der Hoop, J.M.\***; M. Johnson, N. Aguilar de Soto, F. Jensen, L. Rojano Doñate, D. Wisniewska, P.T. Madsen. Ventilation rates in free-swimming odontocetes as a measure of field metabolic scaling. 22<sup>nd</sup> Biennial Conference on the Biology of Marine Mammals, 22-27 Oct 2017. (International; Oral).
- Henry, A.\*, D. Mattila, S. Barco, T. Cole, A. Johnson, A. Knowlton, S. Landry, M. Moore, J. Robbins, **J. van der Hoop**, R. Asmutis-Silvia. Don't assume it's all trash: accurate gear type characterization is critical for entanglement mitigation. 22<sup>nd</sup> Biennial Conference on the Biology of Marine Mammals, 22-27 Oct 2017 (International; Poster)
- van der Hoop, J.M.\***; M. Johnson, N. Aguilar de Soto, F. Jensen, L. Rojano Doñate, D. Wisniewska, P.T. Madsen. Ventilation rates in free-swimming odontocetes as a measure of field metabolic scaling. 6<sup>th</sup> Bio-Logging Science Symposium, 25-29 Sept 2017. (International; Oral).
- van der Hoop, J.M.\***; P. Corkeron, M.J. Moore. Entanglement is a costly life-history stage in large whales. European Cetacean Society Meeting, Middelfart, DK. 2 May 2017 (International; Oral).
- van der Hoop, J.M.\***; P. Corkeron, A.G. Henry, A.R. Knowlton, M.J. Moore. Predicting Lethal Entanglements as a Consequence of Drag from Fishing Gear. North Atlantic Right Whale Consortium Meeting, New Bedford, MA, U.S.A. 2 Nov 2016 (International; Oral).
- Shorter, K.A.\*, L. Ojeda, V. Petrov, J. Rocho-Levine, **J. van der Hoop**, M. Johnson, M.J. Moore. Improved modeling, sensing and analysis of marine mammal swimming kinetics and kinematics. 40th Annual Meeting of the American Society of Biomechanics. Raleigh, NC, USA. 2-5 August 2016.
- van der Hoop, J.M.\***, A. Fahlman, K.A. Shorter, J. Rocho-Levine, M. Brodsky, T. Hurst, M.J. Moore. Metabolic effects of drag on instrumented bottlenose dolphins. 21<sup>st</sup> Biennial Conference on the Biology of Marine Mammals. San Francisco, CA, USA. 14-18 December 2015. (International; Oral)
- Shorter, K.A.\*, L. Ojeda, J. Rocho-Levine, **J.M. van der Hoop**, M. Johnson, M.J. Moore. Estimating the per-stroke work of a bottlenose dolphin (*Tursiops truncatus*) during a continuous swimming task. 21<sup>st</sup> Biennial Conference on the Biology of Marine Mammals. San Francisco, CA, USA. 14-18 December 2015. (International; Oral)
- van der Hoop, J.M.\***, P. Corkeron, M. Moore. Energetic impacts of entanglement in North Atlantic right whales. North Atlantic Right Whale Consortium Meeting, New Bedford, MA, U.S.A. 4 Nov 2015 (International; Oral).
- van der Hoop, J.M.** Integrating Animal Sensing Systems. NSF Data Science Workshop. University of Washington. Seattle, WA, USA. 5-7 Aug 2015 (National; Oral and Poster).
- van der Hoop, J.M.** Entanglement in North Atlantic right whales: sublethal impacts on drag, movement, and energetic cost. Woods Hole, MA, USA. 30 July 2015. (Departmental, Oral).
- van der Hoop, J.M.\***, P. Corkeron, J. Kenney, S. Landry, D. Morin, J. Smith, M.J. Moore. Drag from fishing gear entangling North Atlantic right whales. International Whaling Commission Third Meeting on Large Whale Entanglement Issues. Provincetown, MA. 21-23 Apr 2015 (International; Oral).

## JULIE M. VAN DER HOOP, PHD

- Brodsky, M.\*, S. Loring, M. Piscitelli, **J.M. van der Hoop**, et al [15 authors] Pulmonary function testing in cetaceans: What can we do with it? International Association for Aquatic Animal Medicine Meeting, Chicago, IL. 6-10 Apr 2015 (International; Oral).
- van der Hoop, J.M.\***, J. Kenney, S. Landry, D. Morin, D. Sandilands, J. Smith, M. J. Moore 2014. Drag from entangling fishing gear: Costs and gains. North Atlantic Right Whale Consortium Meeting, New Bedford, MA. 4 Nov 2014 (International; Oral).
- S. Emmert\*, **J.M. van der Hoop**, Y. Bernaldo de Quiros, A. Fahlman, R. Wells, J. Rocho-Levine, M. Brodsky, M.J. Moore. Characterizing bottlenose dolphin (*Tursiops truncatus*) breath sounds. American Cetacean Society. Newport Beach, CA. 7-9 Nov 2014 (National; Poster).
- van der Hoop J.M.\***, A. Fahlman, M. Brodsky, S. Emmert, T. Hurst, M. Johnson, J. Rocho-Levine, K.A. Shorter, R. Wells, M.J. Moore 2014. Physiological studies with suction cup tags. Office of Naval Research Program Review. Washington, D.C. 20-22 October 2014. (International; Poster).
- Shorter, K.A.\*, F. Giovanni, L.E. Howle, M. Bowers, D. Nowacek, T. Hurst, M. Johnson, M.M. Murray, L. Ojeda, J. Rocho-Levine, **J. van der Hoop**, R.S. Wells, M.J. Moore 2014. Improving attachments of non-invasive (type III) electronic data loggers to cetaceans. Office of Naval Research Program Review. Washington, D.C. 20-22 October 2014. (International; Poster)
- van der Hoop, J.M.\***, A. Fahlman, S. Emmert [10 Authors] 2014. Acoustic parameters as indicators of metabolic rate in Bottlenose Dolphins. 5<sup>th</sup> Biologging Science Symposium. Strasbourg, France. 22-26 Sept 2014 (International; Oral).
- van der Hoop, J.M.\***, A. Fahlman, M. Brodsky [20 Authors] 2014. Cetacean lung mechanics and metabolics from a portable pneumotachometer. Aarhus University Diving Physiology Workshop. Aarhus, Denmark. 18-19 Sept 2014 (International; Oral).
- van der Hoop, J.M.\*** 2014. Probabilities and trends of large whale mortality in the NW Atlantic. Large Whale Distribution and Occurrence Workshop. NOAA South West Fisheries Science Center, La Jolla, CA (Federal; Oral).
- van der Hoop, J.M.\***, A. Fahlman, T. Hurst, J. Rocho-Levine, K.A. Shorter and M.J. Moore. 2013. Metabolic and behavioural effects of tag attachment in *Tursiops truncatus*. 20<sup>th</sup> Biennial Conference on the Biology of Marine Mammals. Dunedin, NZ. (International; Oral)
- Hickmott, L.S.\*, **J. van der Hoop**, W. Rayment, E. Slooten, M. Guerra, A. Fahlman, M. Brown, D. LeRoi, W. Perryman, M. Brodsky, B. S. Miller and M. J. Moore. 2013. New Zealand sperm whales (*Physeter macrocephalus*): From an eye in the sky to insights in the abyss, a multi-disciplinary study of the sperm whales of Kaikoura Canyon. 20<sup>th</sup> Biennial Conference on the Biology of Marine Mammals. Dunedin, NZ. (International; Oral)
- van der Hoop, J.M.\***, A.S.M. Vanderlaan, L. Hall, B. Mase-Guthrie, T. Wimmer and M.J. Moore. 2013. Vessel-strikes to large whales before and after the 2008 Ship Strike Rule. North Atlantic Right Whale Consortium Meeting, New Bedford, MA (International, Oral).
- van der Hoop J.M.\***, M.J. Moore, A.H. Fahlman, [12 Authors] 2012. Behavioral impacts of disentanglement of a right whale under sedation and the energetic cost of entanglement. WSPA Conference on Entanglement in Marine Debris, Miami, FL, USA (International; Oral and Poster)
- van der Hoop J.M.\***, M.J. Moore, S.G. Barco, [12 Authors] 2011. Spatial and Temporal Trends in Large Whale Mortality in the Northwest Atlantic in the Context of Efforts to Mitigate Human Impacts. 19<sup>th</sup> Biennial Conference on the Biology of Marine Mammals. Tampa, FL, USA. (International; Oral)
- Smith, J.\*, **J.M. van der Hoop**, T. Pitchford, J.C. George, D. Morin, J. Kenney and M.J. Moore. 2011 Additional drag forces and associated energetic requirements of an entangled right whale. 19<sup>th</sup> Biennial Conference on the Biology of Marine Mammals. Tampa, FL, USA. (International; Poster)

## JULIE M. VAN DER HOOP, PHD

- van der Hoop, J.M.\***, A.S.M. Vanderlaan and C.T. Taggart. 2011. AIS and the Absolute Probability of Lethal Vessel-Strikes. 19<sup>th</sup> Biennial Conference on the Biology of Marine Mammals. Tampa, FL, USA. Workshop: The Maritime Automatic Identification System. (International; Oral)
- Moore, M.J.\*; **J.M. van der Hoop\***, T. Rowles, J. Smith, C. George, S. Landry, B. Zoodsma, T. Pitchford, K. Jackson, D. Morin, W.A. McLellan, A. Costidis, and M. Walsh. 2011. Eg 3911 Dec 2010 – Feb 2011 Entanglement/Disentanglement Impacts. Second Workshop on Welfare Issues Associated with the Entanglement of Large Whales, International Whaling Commission IWC/63/WKM&AWI. Provincetown, MA, USA. (International; Oral).
- van der Hoop, J.M.\***, M.J. Moore, A. Bocconcelli, J. Smith, T. Pitchford, J.C. George and D. Morin. 2011. The behavioral impacts of disentanglement of a right whale under sedation and the energetic cost of entanglement. North Atlantic Right Whale Consortium Meeting, New Bedford, MA. (International; Oral)
- van der Hoop, J.M.\*** and M.F. Baumgartner. 2010. Estimating swimming paths of tagged baleen whales using an acoustic tracking system. American Cetacean Society, Monterey, CA, USA. (International; Poster)
- van der Hoop, J.M.\***, A.S.M. Vanderlaan and C.T. Taggart. 2010. Determining the absolute probability of lethal vessel-strikes to North Atlantic right whales, *Eubalaena glacialis*, in the Roseway Basin region of the Scotian Shelf. North Atlantic Right Whale Consortium Meeting, New Bedford, MA. (International; Oral)
- van der Hoop, J.M.\***. 2010. Determining the absolute probability of vessel-strikes to North Atlantic right whales, *Eubalaena glacialis*, on the Scotian Shelf. Atlantic Undergraduate Biology Conference, Fredericton, NB. (Regional; Oral).

### TEACHING AND MENTORSHIP EXPERIENCE

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2017 - 2022	<b>Graduate Faculty Term Membership</b> , Duke University as member of Doctoral Thesis Committee of Chen-Yi Wu
2014	<b>Kaufman Teaching Certificate in Graduate Student Education</b> , Massachusetts Institute of Technology
July 2014, 2015, 2016	<b>Invited lecturer</b> , Sea Education Association high school summer program (SEAScape)
Summer 2014	<b>Co-Advisor</b> for WHOI Summer Student Fellow (NSF REU Program)
January 2013	<b>Lecturer</b> , WHOI Winter Semester
August 2010	<b>Teaching Assistant</b> , BIOL 3626 Field Studies of Marine Mammals Instructors: D. Austin, D. Lidgard; Dalhousie University
Winter 2010	<b>Teaching Assistant</b> , BIOL 4060 Marine Mammalogy Instructors: D. Austin, T. Wimmer; Dalhousie University
Fall 2009	<b>Teaching Assistant</b> , BIOL 2003 Diversity of Animals Instructors: T. Romanuk, A. Pinder, J. Frail-Gauthier; Dalhousie University
August 2009	<b>Teaching Assistant</b> , BIOL 3626 Field Studies of Marine Mammals Instructors: D. Austin, D. Lidgard; Dalhousie University
Fall 2008	<b>Teaching Assistant</b> , BIOL 2003 Diversity of Plants and Animals Instructors: A. Gunawardena, T. Romanuk, J. Frail-Gauthier; Dalhousie University

# JULIE M. VAN DER HOOP, PHD

## TRAINING AND SPECIAL SKILLS

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- Inertial Sensing:** Analysis of On-Animal Movement Data, 1-5 Oct 2017, Mark Johnson, SMRU
- AniMove:** Course on Animal Movement and Remote Sensing in Ecology and Conservation, 27 Aug – 5 Sept 2017, Max-Planck Institute of Ornithology
- Software Carpentry:** Basic concepts and tools in scientific computing, including program design, version control, data management, and task automation 3-4 Sept 2015, 13 Oct 2017.
- Computation and Software:** MATLAB, R, Github, QGIS, Tracker, ArcGIS, LabChart
- Marine mammal necropsy:** grey, harp, hooded seals; bottlenose, common, Atlantic white-sided dolphins; harbor porpoises; pilot, pygmy sperm, humpback, Minke, North Atlantic right whales.
- Spoken Languages:** Fluency in French and English; Conversational Japanese; Introductory Danish

## RESEARCH EXPEDITIONS: LEADER

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- 2017 Dolphin Quest, Honolulu, HI: Tagging and metabolic physiology of bottlenose dolphins, 21 days.
- 2017 Chicago Zoological Society, Sarasota, FL: Tagging, metabolic physiology and health of wild bottlenose dolphins, 6 days.
- 2015 Chicago Zoological Society, Sarasota, FL: Tagging, metabolic physiology and health of wild bottlenose dolphins, 13 days.
- 2014 Chicago Zoological Society, Sarasota, FL: Tagging, metabolic physiology and health of wild bottlenose dolphins, 6 days.
- 2013 Dolphin Quest, Honolulu, HI: Tagging and metabolic physiology of bottlenose dolphins, 30 days.
- 2012 RV Tioga, Buzzards Bay, MA: Measuring drag on fishing gear from entangled whales, 1 day.

## RESEARCH EXPEDITIONS: PARTICIPANT

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- 2015 Duke University, Jacksonville, FL. Chief Scientist: Doug Nowacek. Tagging North Atlantic right whales, 7 days.
- 2013 WHOI, Kaikoura, NZ. Chief Scientist: Michael Moore. Tagging and body condition of sperm whales. 21 days.
- 2012 WHOI-CIRCE, Tarifa, Spain. Chief Scientists: Frants Jensen, Phillippe Verborgh. Simultaneous tagging of long-finned pilot whales, 30 days.
- 2012 Mingan Island Cetacean Study, Mingan Island, QC. Chief Scientist: René Swift, University of St. Andrews. Tagging fin and humpback whales with simultaneous echosounder, 30 days.
- 2012 RV Delaware II, NOAA, Great South Channel. Chief Scientist: Peter Duley. Right whale photo ID and biopsy survey, 11 days.
- 2011 RV Corwith Cramer, Sea Education Association. Oceanographic and plastics sampling, 10 days.
- 2010 RV Endeavor, George's Bank. Chief Scientist: Gareth Lawson. Trophic interactions and prey field mapping, 10 days.

## OTHER RESEARCH EXPERIENCE

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- Jan 2011 – May 2011            Researcher, Canadian Sea Turtle Network
- Sept 2010 – Jun 2011        Research Assistant, Woods Hole Oceanographic Institution.  
Advisor: Michael Moore, Biology Department.
- 2010                                Summer Student Fellow, Woods Hole Oceanographic Institution  
Advisor: Mark Baumgartner, Biology Department



# JULIE M. VAN DER HOOP, PHD

## MEMBERSHIP OF SCIENTIFIC SOCIETIES

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Society for Women in Marine Science, American Association for the Advancement of Science, Society for Marine Mammalogy, The Oceanography Society

## PEER REVIEW

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**Review Editor** for *Frontiers in Physiology*

**Reviewer** for *Conservation Letters*, *Conservation Physiology*, *Environmental Conservation*, *Marine Environmental Research*, *PLoS ONE*, *Endangered Species Research*, *Marine Mammal Science*, *Regional Studies in Marine Science*, *Physiology & Behaviour*, *Diseases of Aquatic Organisms*, *American Naturalist*

## SYNERGISTIC AND SERVICE ACTIVITIES

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2017 – Present	Junior Researcher Association, Aarhus University
2016 – 2018	Elected Member, North Atlantic Right Whale Consortium Board
2016 – 2017	Scientific Planning Committee, Marine Mammal Society 2017 Biennial Meeting
2015 – 2017	WHOI Gender and Climate Survey Committee
2013 – Fall 2014	President and Biology Representative, MIT-WHOI Joint Program Student Group
2012 – 2016	Elected Student Representative, North Atlantic Right Whale Consortium Board
2012 – 2017	Member, Broader Impacts Group, an MIT and WHOI Student Group
2011 – 2017	Student Representative, WHOI Sustainability Committee
2011 – 2017	Racing Member, and Club Officer and Captain, MIT Cycling
2010 – 2017	Volunteer, International Fund for Animal Welfare (IFAW)
2010 – 2017	Volunteer, Woods Hole Science and Technology Education Program
2010	Student Voting Member, Dalhousie Undergraduate Curriculum Committee
2009 – 2010	Representative and Voting Member, Dalhousie Science Society
2008 – 2010	Editor, <i>Journal of Undergraduate Science (JUST@Dal)</i> , Dalhousie University
2006 – 2010	Captain and Co-President, Dalhousie Field Hockey
2006 – 2010	Member (Exec. 2009-2010), Dalhousie Association of Marine Biology Students

## SELECTED INTERNATIONAL MEDIA OUTREACH

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Scientific social media engagement via twitter (@jvanderhoop, 700 followers)

Science: The North Atlantic right whale faces extinction, 7 Nov 2017

Science News for Students: What a drag! Fishing gear's effects on whales, 13 Jan 2016

Discovery Magazine: Tagged dolphins adjust by swimming slowly, 27 Oct 2014

Richmond Review: 30 Under 30 – Julie van der Hoop, Oceanographer, 28 Feb 2014

Nature News: Ship speed limits can save right whales doi:10.1038/nature.2014.15336

Phys.org: Dolphins assist scientists studying effects of data-logging tags

Science Now: Whales freed from fishing gear may still die a slow death

CBC Radio Quirks and Quarks: Entangled whales suffer slow death, 25 May 2013

Nature News: Whale woe in the North Atlantic doi:10.1038/nature.2012.11547

CBC Radio Quirks and Quarks: Whales for the killing, 27 Oct 2012

Others: *Scientific American*, *NBCNews*, *CBC Radio Canada (French)*, *Huffington Post*, *The Times of London*, *The Guardian*, *Cape Cod Times*, *Falmouth Enterprise*, *Hawaii News Now*, ++