

# Sophia N. Wassermann

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## EDUCATION

### **PhD Candidate MARINE SCIENCE** Ryan Institute, National University of Ireland Galway

Irish Research Council Government of Ireland Postgraduate Scholar

Will Receive October 2020

Supervisor: Prof. Mark P. Johnson

Modelling the shoaling behaviour of mackerel in the field to improve stock assessment methods and indicate stock condition.

### **MSc BIODIVERSITY & CONSERVATION (DISTINCTION)** Trinity College Dublin

Received December 2016

Effects of climate change and bird predation on bivalve populations in Dublin Bay from 1985-2015. Supervisors: Prof. Stephen Waldren, Prof. James G. Wilson, Dr. Andrew Jackson

### **BA ENVIRONMENTAL STUDIES** Vassar College

Received May 2013

Academic Honors: Sigma Xi, The Scientific Research Honor Society

## RESEARCH EXPERIENCE

### **FULBRIGHT U.S. STUDENT PROGRAM: HÁSKÓLÍ ÍSLANDS & MARICE**

September 2014 - June 2015 | Reykjavik, Iceland

Supervisors: Dr. Guðrún Marteinsdóttir, Dr. Niall McGinty

Impact of environmental factors on the vertical distribution of capelin (*Mallotus villosus*) during their spawning migration.

### **THE SCHOOL FOR FIELD STUDIES: CENTER FOR MARINE RESOURCE STUDIES**

August 2013 - July 2014 | South Caicos, Turks and Caicos Islands

Supervisors: Dr. Heidi Hertler, Dr. Alex Tilley, Dr. Edward Hind-Ozan, Dr. Charlotte de Fontaubert

- Distance sampling for detection probability of invasive lionfish (*Pterois volitans*).
- Survey of beach topography for change with rising sea levels and effects on sea turtle nesting.
- Investigation into tourist opinions of attractions featuring captive cetaceans.
- Survey of coral reef benthic cover.
- Led research and recreational dives, organism ID sessions, and field work for undergraduate students studying abroad.

### **DR. JOHN LONG'S LAB - VASSAR COLLEGE DEPARTMENT OF BIOLOGY**

September 2012 - May 2013 | Poughkeepsie, NY

Supervisors: Dr. John Long, Dr. Marianne Porter

Swimming kinematics and schooling behavior of cownose rays (*Rhinoptera bonasus*).

### **SCHOOL FOR FIELD STUDIES: CENTER FOR MARINE RESOURCE STUDIES**

October 2011 - December 2011 | South Caicos, Turks and Caicos Islands

Supervisor: Dr. Alli Candemlo

Habitat use by size of lionfish and possible competition with Nassau grouper (*Epinephelus striatus*). Research was incorporated into undergraduate thesis.

### **NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

September 2009 - December 2009 | Staatsburg, NY

Progression of zebra mussel (*Dreissena polymorpha*) invasion in the Hudson River.

## WORK EXPERIENCE

### **NUI GALWAY MARINE SCIENCE**

Tutor | September 2018 - Present

Working with students in small groups and alone before major deadlines for their Marine Science coursework. Providing support for writing, presentation, and study skills.

## **MARTIN RYAN INSTITUTE & NUI GALWAY ZOOLOGY, EARTH & OCEAN SCIENCE**

Laboratory & Field Demonstrating | March 2017 - Present

Demonstrating (teaching assistant) for undergraduates in the lab and field for:

- Field Skills in Marine Science
- Marine Zoology
- Geographic Information Systems and Biostatistics

## **BECOMING A DATA SCIENTIST - DataSciGuide**

Assistant | January 2017 - Present

Content generation including blog posts and links to resources for entering the data science field.

## **ZOOLOGICAL JOURNAL OF THE LINNEAN SOCIETY**

Language Editing | June 2017 - November 2018

Copy-editing with a focus on English language support.

## **NUI GALWAY ACADEMIC WRITING CENTRE**

Writing Tutor | October 2016 - May 2017 | Galway, Ireland

- Conducted one-on-one writing consultations.
- Led workshops on exam preparation and presentation skills.

## **VASSAR COLLEGE WRITING CENTER**

Writing Consultant | September 2010 - May 2013 | Poughkeepsie, NY

Held consultations with students on essays and personal writing.

## **NATIONAL CENTERS FOR COASTAL OCEAN SCIENCE**

Intern | May 2011 - August 2011 | Silver Spring, MD

Worked with NCCOS scientists and communications team to develop easily-comprehended material for the website.

## **PUBLICATIONS**

### **PAPERS**

- Wassermann, S.N., E.J. Hind-Ozan & J. Seaman. Reassessing public opinion of captive cetacean attractions with a photo elicitation survey. *PeerJ* 2018.
- Tilley, A., E. Carter, S. Wassermann & J. Lopez Angarita. Enhancing management effectiveness of invasive lionfish using distance sampling and detection probability. *Aquatic Conservation* 2015.

### **PRESENTATIONS**

- Wassermann, S.N. Using collective behaviour for sustainable fishing. Invited talk: Department of Psychology, NUI Galway. February 2019.
- Wassermann, S.N. & M.P. Johnson. It's wrong, but is it useful? Validating theoretical models of fish collective behaviour. 2nd Ecology and Evolution Ireland Conference 2019. Galway, Ireland. Poster.
- Wassermann, S.N. & M.P. Johnson. Modelling the shoaling behaviour of Atlantic mackerel to improve stock assessment methods. *Ecology Across Borders* 2017, Ghent, Belgium. Poster.
- Wassermann, S.N. & M.P. Johnson. Fish of a Feather: Modelling the shoaling behaviour of mackerel in the field to improve stock assessment methods. *Marine Biological Association Postgraduate Conference* 2017, Penryn, Cornwall. Oral Presentation.
- Wassermann, S.N., N. McGinty, A. Ólafsdóttir & G. Marteinsdóttir. The impact of environmental factors on capelin behaviour during the spawning migration. *International Marine Conservation Congress* 2016, St. John's, Newfoundland & Labrador. Oral Presentation.
- Wassermann, S. & E. Hind. Tourist attitudes towards captive marine mammal attractions in the Turks and Caicos Islands. *International Marine Conservation Congress* 2014, Glasgow, Scotland. Poster.
- Long, J.H., S. Wassermann, A. Siciliano, & M.E. Porter. When fish school and when they don't: Test of a simple network model. *The Society for Integrative & Comparative Biology Annual Conference* 2014, Austin, Texas. Poster.

## LEADERSHIP AND SERVICE

### ELECTED POSITIONS

- Student Representative to the Society for Conservation Biology (SCB) Marine Section Board & the SCB Global Student Affairs Committee, 2017-2020.
- Assistant Editor (Engineering, Mathematics, and Science) of the Trinity Postgraduate Review 2016.
- Vassar College Student Association residence president 2010-2011 & 2012-2013.

### VOLUNTEER WORK

- Co-Chair of the 6th International Marine Conservation Congress 2020, Kiel, Germany.
- Deputy Co-Chair & Student Activities Chair of the 5th International Marine Conservation Congress 2018, Kuching, Malaysia.
- SCB Awards Committee.

## AWARDS & FUNDING

- Marine Institute Ireland - National Research Vessels Ship-Time Grant-Aid (Principal Participant) for CV18012, 2018
- EuroMarine - Young Scientist Fellowship Programme for Training Awardee, 2017
- Ryan Institute - Travel Support Scheme Awardee, 2017
- Marine Biological Association - Student Member Bursary, 2017
- Irish Research Council - Government of Ireland Postgraduate Scholarship, 2017
- NUI Galway - PhD International Merit Scholarship, 2017
- Fulbright U.S. Student Program (Iceland) - Awardee, 2014

## CERTIFICATIONS & SKILLS

- Certifications: PADI Open Water Scuba Instructor, Enriched Air/EANx, Deep Diver, Search & Recovery, Emergency O2 Provider; BSAC O2 Administration, Boat Handling, Compressor Operation; Emergency First Response Instructor; Personal Survival Techniques (PST) STCW-95
- Software & Coding: Python, R, L<sup>A</sup>T<sub>E</sub>X, NetLogo, HTML/CSS, Adobe Creative Suite, ArcGIS
- Hardware: CTD/Sonde, hyperspectral radiometer, flow cytometer

## SEATIME EXPERIENCE

- RV Celtic Explorer - Western European Shelf Pelagic Acoustic Survey (WESPAS) (CE19010). Biologist (Fish Lab). Celtic Sea, 13 June - 4 July 2019.
- RV Celtic Explorer - Celtic Sea Herring Acoustic Survey (CE18016). Biologist (Fish Lab). Celtic Sea, 18-28 October 2018.
- RV Celtic Voyager - Distribution of Nephrops larvae and associated oceanographic conditions (CV18012). Scientist. Celtic Sea and Irish Sea, 3-16 April 2018.
- SSV Corwith Cramer - Sea Education Association Summer Program. Gulf of Maine, 15-30 July 2007.