

Eiren Kate Jacobson

Centre for Research into Ecological and Environmental Modelling
School of Mathematics and Statistics, University of St Andrews
The Observatory, Buchanan Gardens
St Andrews, Fife, Scotland KY16 9LZ

Phone: +44 (0)7427 000858
Email: eiren.jacobson@st-andrews.ac.uk
Website: www.eirenjacobson.info

EDUCATION

Scripps Institution of Oceanography, University of California, San Diego

Ph. D. in Biological Oceanography

La Jolla, CA

September 2017

M. S. in Biological Oceanography

March 2014

Columbia College, Columbia University in the City of New York

B. A. in Environmental Biology

New York, NY

May 2010

RESEARCH EXPERIENCE

Centre for Research into Ecological and Environmental Modelling

School of Mathematics and Statistics, University of St Andrews

Research Fellow

Supervisor: Len Thomas

St Andrews, UK

June 2018 - Present

School of Aquatic and Fishery Sciences, University of Washington

Affiliated with the NOAA AFSC Marine Mammal Laboratory

Postdoctoral Research Associate

Supervisors: André Punt and Charlotte Boyd

Seattle, WA

September 2017 - November 2018

Scripps Institution of Oceanography, University of California, San Diego

Affiliated with the NOAA SWFSC Marine Mammal and Turtle Division

Graduate Student Researcher

Supervisors: Jay Barlow and Peter Franks

La Jolla, CA

June 2012 - September 2017

NOAA SWFSC Marine Mammal and Turtle Division

Research Technician

Supervisors: Jay Barlow and Karin Forney

La Jolla, CA

June 2010 - June 2012

PEER-REVIEWED PUBLICATIONS

Jacobson, E. K., K. A. Forney, and J. Barlow. *In Prep.* PAMPower: Investigating the statistical power of passive acoustic monitoring networks to detect trends in cetacean abundance.

Jacobson, E. K., C. Boyd, T. L. McGuire, K. E. W. Shelden, G. K. Himes Boor, and A. E. Punt. *Submitted.* Assessing cetacean populations using integrated population models: an example with Cook Inlet beluga whales.

Jacobson, E. K., K. A. Forney, and J. Barlow. 2017. Using visual survey data to estimate passive acoustic detection parameters for harbor porpoise abundance estimates. *Journal of the Acoustical Society of America* 141:219-230. DOI: 10.1121/1.4973415.

Jacobson, E. K., K. A. Forney, and J. T. Harvey. 2015. Acoustic evidence that harbor porpoises (*Phocoena phocoena*) avoid bottlenose dolphins (*Tursiops truncatus*). *Marine Mammal Science* 31:386-397. DOI: 10.1111/mms.12154.

TECHNICAL REPORTS

- Jacobson, E. K.,** K. P. B. Merkens, K. A. Forney, and J. Barlow. 2017. Comparison of harbor porpoise (*Phocoena phocoena*) echolocation clicks recorded simultaneously on two passive acoustic monitoring instruments. U.S. Department of Commerce. NOAA Technical Memorandum NOAA-TM-NMFS-SWFSC-583. DOI: 10.7289/V5/TM-SWFSC-583.
- Jacobson, E. K.,** K. A. Forney, and J. T. Harvey. 2016. Evaluation of a passive acoustic monitoring network for harbor porpoise in California. California Energy Commission. Publication number: CEC-500-2016-008. DOI: 10.13140/RG.2.1.2282.9680.
- Jacobson, E. K.,** T. M. Yack, and J. Barlow. 2013. Evaluation of an automated acoustic beaked whale detection algorithm using multiple validation and assessment methods. U.S. Department of Commerce. NOAA Technical Memorandum NOAA-TM-NMFS-SWFSC-509. DOI: 10.13140/RG.2.1.1234.3923.

CONFERENCE PRESENTATIONS

- Jacobson, E. K.,** C. Boyd, T. L. McGuire, K. E. W. Sheldon, G. K. Himes Boor, and A. E. Punt. 2019. Assessing cetacean populations using integrated population models: an example with Cook Inlet beluga whales. Oral Presentation, Alaska Marine Science Symposium. 28-31 Jan. 2019, Anchorage, AK.
- Jacobson, E. K.,** C. Boyd, G. K. Himes Boor, T. L. McGuire, K. E. W. Sheldon, A. E. Punt, and P. R. Wade. 2018. Assessing cetacean populations using integrated population models: an example with Cook Inlet beluga whales. Oral Presentation, International Statistical Ecology Conference. 2-6 July. 2018, St Andrews, UK.
- Jacobson, E. K.,** K. A. Forney, and J. Barlow. 2017. PAMPower: Investigating the statistical power of passive acoustic monitoring networks to detect trends in cetacean abundance. Oral Presentation, Society of Marine Mammalogy Biennial Conference. 23-27 Oct. 2017, Halifax, Nova Scotia.
- Jacobson, E. K.,** K. A. Forney, and J. Barlow. 2017. Statistical power of passive acoustic networks to detect trends in cetacean abundance. Invited Presentation, European Cetacean Society Workshop on Static Acoustic Monitoring. 30 Apr.-3 May 2017, Middelfart, Denmark.
- Jacobson, E. K.,** K. A. Forney, and J. Barlow. 2017. A simulation framework to investigate the statistical power of passive acoustic networks to detect trends in cetacean abundance. Oral Presentation, NOAA Protected Species Assessment Workshop. 17-19 Jan. 2017, Seattle, WA.
- Jacobson, E. K.,** K. A. Forney, and J. Barlow. 2016. Using visual survey data to estimate passive acoustic detection parameters for harbor porpoise abundance estimates. Oral Presentation, International Statistical Ecology Conference. 28 Jun.-1 Jul. 2016, Seattle, WA.
- Jacobson, E. K.,** K. A. Forney, and J. Barlow. 2015. Using visual survey data to estimate passive acoustic detection parameters for harbor porpoise abundance estimates. Oral Presentation, Society of Marine Mammalogy Biennial Conference. 14-18 Dec. 2015, San Francisco, CA.
- Jacobson, E. K.,** and K. A. Forney. 2015. Evaluating the use of C-PODs for passive acoustic studies of harbor porpoises. Oral Presentation, Society of Marine Mammalogy Biennial Conference Workshop on Harbor Porpoise. 12 Dec. 2015, San Francisco, CA.
- Jacobson, E. K.,** K. A. Forney, and J. Barlow. 2015. Using visual survey data to estimate passive acoustic detection parameters for harbor porpoise abundance estimates. Oral Presentation, 7th International Workshop on Detection, Classification, Localization, and Density Estimation of Marine Mammals. 13-16 Jul. 2015, San Diego, CA.
- Jacobson, E. K.,** K. A. Forney, and J. T. Harvey. 2014. Acoustic evidence that harbor porpoises avoid bottlenose dolphins. Invited Presentation, Southern California Marine Mammal Workshop. 31 Jan.-1 Feb. 2014, Newport Beach, CA.
- Jacobson, E. K.,** K. A. Forney, and J. T. Harvey. 2013. Acoustic evidence that harbor porpoises avoid bottlenose dolphins. Poster Presentation, Society of Marine Mammalogy Biennial Conference. 9-13 Dec. 2013, Dunedin, New Zealand.

Jacobson, E. K., K. A. Forney, and J. T. Harvey. 2012. Developing a passive acoustic monitoring network for harbor porpoise in central California. Poster Presentation, Southern California Marine Mammal Workshop. 3-4 Feb. 2012, Newport Beach, CA.

Jacobson, E. K., T. M. Yack, and J. Barlow. 2011. Evaluation of an automated beaked whale detector using multiple validation and assessment methods. Poster Presentation, 5th International Workshop on Detection, Classification, Localization, and Density Estimation of Marine Mammals. 21-25 Aug. 2011, Mt. Hood, OR.

FIELD RESEARCH EXPERIENCE

Monterey Bay C-POD Array Development
NOAA SWFSC Marine Mammal and Turtle Division
Project Lead
Supervisor: Karin Forney

*R/V Sheila B., Monterey Bay
2013 - 2016*

Southeast Alaska Harbor Porpoise Survey
NOAA NMML Cetacean Ecology and Assessment Program
Field Acoustician
Supervisor: Marilyn Dahlheim

*M/V Lady Gundy, SE Alaska
July 2015 - August 2015*

California Current Cetacean and Ecosystem Assessment Survey
NOAA SWFSC Marine Mammal and Turtle Division
Field Acoustician
Supervisor: Shannon Rankin

*R/V Ocean Starr, U.S. West Coast
July 2014 - August 2014*

California Cooperative Oceanic Fisheries Investigations
Scripps Institution of Oceanography and NOAA SWFSC
Graduate Student Researcher
Supervisor: James Wilkinson

*R/V New Horizon, California
November 2013*

Monterey Bay Harbor Porpoise Aerial Surveys
NOAA SWFSC Marine Mammal and Turtle Division
Visual Observer
Supervisor: Karin Forney

*Monterey Bay, California
October 2013*

Southern California Behavioral Response Study
NOAA SWFSC Marine Mammal and Turtle Division
Field Acoustician
Supervisor: Jay Barlow

*Derek M. Baylis, Channel Islands
July 2013 - August 2013*

Pacific Islands Cetacean and Ecosystem Assessment Survey
NOAA PIFSC Protected Species Division
Field Acoustician
Supervisor: Erin Oleson

*R/V Oscar Elton Sette, Pacific Islands
April 2012 - May 2012*

U.S. West Coast Harbor Porpoise Aerial Surveys
NOAA SWFSC Marine Mammal and Turtle Division
Visual Observer
Supervisor: Karin Forney

*California and Oregon
September 2011 - December 2011*

NRDA Offshore Deep Meso- and Bathypelagic Fish Sampling Survey
Bio-Waves, Inc. and Geo-Marine, Inc.
Field Acoustician
Supervisor: Tom Norris

*R/V Pisces, Gulf of Mexico
June 2011 - July 2011*

Hawaiian Islands Cetacean and Ecosystem Assessment Survey
NOAA SWFSC Marine Mammal and Turtle Division
Field Acoustician
Supervisor: Shannon Rankin

*R/V McArthur II, Hawaiian Islands
August 2010 - October 2010*

TEACHING EXPERIENCE

Computing in Statistics

University of St Andrews

Co-Instructor (with Len Thomas)

Fall 2018

Introduction to R

Scripps Institution of Oceanography

Co-Instructor (with Jessica Carrière-Garwood)

Spring 2015

ACADEMIC SERVICE AND COMMUNITY INVOLVEMENT

Marine Mammal Science

Reviewer

June 2015 - present

Women and Minorities in Science at SIO

Co-Coordinator

January 2013 - June 2016

SIO Ecology Seminar

Co-Coordinator

September 2013 - June 2014

Scripps Peers

Mentor

August 2014 - August 2015

San Diego Summer Training Academy for Research in the Sciences

Graduate Advocate

June 2012 - August 2012

Columbia University Environmental Biology Society

President

May 2008 - May 2010

ACADEMIC AWARDS AND FUNDING RECEIVED

- | | |
|----------|---|
| 2017 | NOAA NMFS OST Stock Assessment Analytical Methods Funding
SIO Department Graduate Student Excellence Travel Award
Edna Bailey Sussman Foundation Internship |
| 2016 | International Statistical Ecology Conference Student Presentation Award
Edna Bailey Sussman Foundation Internship
Oliver Chair in Marine Biodiversity and Conservation Science Travel Award |
| 2015 | Kenneth E. Hill Endowed Fund for Marine Conservation Award
Achievement Rewards for College Scientists Scholarship
SIO Department Graduate Student Excellence Travel Award
E. W. Fager Award for Outstanding Contributions to Quantitative Education at SIO
Mia J. Tegner Memorial Fellowship in Coastal Ecology |
| 2012 | California Institute for Energy and Environment Research Grant
National Science Foundation Graduate Research Fellowship
National Science Foundation Integrative Graduate Education and Research Traineeship |
| Pre-2010 | Columbia College Dean's List
Columbia University Earth Institute Travel Grant
Columbia University Parent and Alumni Internship Fund Grant
Joseph Wood Krutch Scholarship
National Merit Scholarship |