

CURRICULUM VITAE

Jennifer J. Johnson

Research Associate III

Woods Hole Oceanographic Institution

Applied Ocean Physics and Engineering Department (AOPE)

EDUCATION:

M.Sc. Oceanography, University of New Hampshire Center for Coastal & Ocean Mapping-Durham, New Hampshire, 2020

B.Sc. Biology, Virginia Polytechnic Institute and State University-Blacksburg, Virginia, 2014

PROFESSIONAL EXPERIENCE:

Research Associate III, Woods Hole Oceanographic Institution, AOPE Dept, 2023-present

Research Associate II, Woods Hole Oceanographic Institution, AOPE Dept, 2020-present

Graduate Research Assistant, University of New Hampshire, CCOM, 2018-2020

Biological Technician, Northeast Fisheries Science Center, NOAA NMFS, 2015-2018

GIS Analyst Intern, Virginia Tech's Center for Geospatial Information Technology, 2014-2015

Research Technician Intern, National Center for Coastal Ocean Science, NOAA NOS, 2014

Biological Technician Intern, Indiana Department of Natural Resources (DNR), 2013

Physical Scientist Intern Contractor, NOAA Atlantic Hydrographic Branch, 2012-2013

TRAINING, CERTIFICATIONS, LICENSES:

Part 107 Licensed Unmanned Aerial Pilot (FAA), 2015-2023

USGS Photogrammetry course Denver, CO, 2020

Myriax Echoview software training Nova Scotia, CA, 2019

Alan Alda Research Communications workshop, 2019

Plasma & Acetylene torch (electric & internal combustion) & Fish trawl net inspection (NOAA), 2019

UNH BioAcoustic Summer School (SeaBASS), 2018

FarSounder Sonar Install Certified, 2017

Offshore Survival Safety (Fathom Research LLC), 2016

Scientific Diver (WHOI), 2015

OER Bathymetric Mapping Training (NOAA), 2015

AWARDS:

North Pacific Research Board (NPRB) Graduate Student Research Award, 2019

NMFS Northeast Fisheries Science Center Team Member of the Year Award, 2015

NOAA Ernest F. Hollings Scholarship Award, 2013

PROFESSIONAL AFFILIATIONS:

Member, Acoustical Society of America (ASA) 2020-present

Member, ICES Working Group on Fisheries Acoustics, Science & Technology (WGFAST) 2018-present

RESEARCH INTERESTS:

Acoustic propagation and scattering of sound in marine environments. Acoustic remote sensing. Marine measurement systems.

PARTICIPATION IN EDUCATION PROGRAM:

Instructor at Children's School of Science, Woods Hole, MA 2016 & 2017

CRUISE PARTICIPATION:

Sept 2024: R/V Reville, New England Seamounts

Nov 2023: R/V Armstrong, New England Seamounts

June 2022: R/V Armstrong, New England Seamounts

March 2022: R/V Atlantis, New England Seamounts

July 2021: R/V Atlantis, Anacortes, WA to San Francisco (Chief Sci Role)
 June 2021: R/V Armstrong, New England Shelf Break
 May 2021: R/V Armstrong, New England Shelf Break
 September 2019: R/V Oscar Dyson, Dutch Harbor to Kodiak AK
 August 2018: R/V Sikuliaq, Nome to Beaufort Sea
 June 2018: R/V Gloria Michelle, Gulf of Maine
 September 2017: R/V Sikuliaq, Nome to Beaufort Sea
 July 2016: R/V Armstrong, Mid-Atlantic
 Jan 2016: R/V Okeanos Explorer, San Francisco to Hawaii
 March 2015: R/V Okeanos Explorer, Rhode Island to Puerto Rico
 March 2014: R/V Nancy Foster, St. Croix USVI

PUBLISHED MANUSCRIPTS AND ABSTRACTS:

- Miksis-Olds, J.L., Seger, K.D. and **Johnson, J.J.**, 2024. "Understanding the relationship between the Bering Sea Cold Pool and vocal presence of odontocetes in the context of climate change." *The Journal of the Acoustical Society of America*, 155(4), pp.2392-2406.
- Porter, M.B., Duda, T.F., Traykovski, P.A., **Johnson, J.J.**, Singh, S. and Manganini, K., 2023. "Acoustic modems and models in constrained marine spaces." *The Journal of the Acoustical Society of America*, 154(4_supplement), pp. A248-A248.
- Johnson, J. J.**, Lin, Y. T., Newhall, A. E., Gawarkiewicz, G. G., Knobles, D. P., Chaytor, J. D., & Hodgkiss, W. S. "Acoustic ducting by shelf water streamers at the New England shelfbreak." *JASA Express Letters*, no. 8 (2023).
- Seger, K.D., Miksis-Olds, J. and **Johnson, J.J.**, 2023. "Odontocete foraging vocalizations during various Cold Pool states in the Bering Sea." *The Journal of the Acoustical Society of America*, 153(3_supplement), pp. A25-A25.
- Johnson, J.J.**, Lin, Y.T., Gawarkiewicz, G., DeCourcy, B.J. and Newhall, A.E., 2022." Variations of acoustic ducting in the presence of gulf stream warm core rings at the New England shelfbreak." *The Journal of the Acoustical Society of America*, 152(4), pp. A27-A27.
- DeCourcy, B.J., Lin, Y.T., Gawarkiewicz, G., **Johnson, J.J.**, and Zhang, W.G., 2022. "Influence of environmental perturbations on acoustic signals in the 2021 New England Shelf Bread Acoustics experiment." *The Journal of the Acoustical Society of America*, 151(4), pp. A47-A47.
- Duda, T. F., Traykovski, P. A., **Johnson, J. J.**, Singh, S., Manganini, K., Porter, M. B., "Measurements of harbor features and underwater acoustic data transmission performance," *IEEE OCEANS 2022, Hampton Roads*, Hampton Roads, VA, USA, 2022, pp. 1-10.
- Foote, K.G., Borrelli, M., **Johnson, J. J.**, Legare, B., McCormack, B., McFarland, S., Solazzo, D., "Quantifying sidescan sonar positioning accuracy, with special reference to measurement in the intertidal zone," *IEEE OCEANS 2022, Hampton Roads*, Hampton Roads, VA, USA, 2022, pp. 1-6.
- Johnson, J. J.**, Miksis-Olds, J. M., Lippman, T.C., Jech, J. M., Seger, K. D., Pringle, J. M., Linder, E., "Decadal community structure shifts with cold pool variability in the eastern Bering Sea shelf." *The Journal of the Acoustical Society of America* 152, no. 1 (2022): 201-213.
- Lin, Y.T., Gawarkiewicz, G., Lavery, A.C., Zhang, W.G., Jech, J.M., Siderius, M., Chaytor, J., Siegmann, W.L., Reeves Ozanich, E., DeCourcy, B.J. Loranger, S., Forsyth, J., **Johnson, J.J.**, Newhall, A.E., Bahr, F. 2021. "Correlation between the fluctuations of underwater sound propagation and shelfbreak oceanography." *The Journal of the Acoustical Society of America*, 150(4), pp. A157-A157.

Jech, J. M., **Johnson, J. J.**, Lutcavage, M., Vanderlaan, A. S., Rzhanov, Y., LeRoi, D. “Measurements of juvenile Atlantic bluefin tuna (*Thunnus thynnus*) size using an unmanned aerial system.” *Journal of Unmanned Vehicle Systems*, 8(2) (2020), 140-160.

PRESENTED TALKS:

Johnson, J.J.*, Duda, T.F., Traykovski, P.A., Singh, S., Porter, M.B., and Peterson, J.C. “Acoustic communication and modeling in shallow water constrained environments.” ONR Unmanned Maritime Systems Technology (UMST) Program Review, Atlanta, GA. 29 Jan 2025.

Johnson, J.J.*, Duda, T.F., Traykovski, P.A., Singh, S., and Porter, M.B. “3D Propagation for Acoustic Communications in Constrained Spaces.” ONR Unmanned Maritime Systems Technology (UMST) Program Review, Panama City, FL. 8 May 2024.

Johnson, J.J.*, Lavery, A.C., Zuang, Zhaozhong., Mursaline, M.A., and Petitt, R.R. “Measurements of Target Strength of Gulf Stream Mesopelagic Fishes using Underwater Vehicles.” International Council for Sea Exploration (ICES) Working Group Fisheries Acoustics, Science, and Technology (WGFAST), Brest, France. 9 April 2024.

Ashjian, C.J.*, Okkonen, S.R., Alatalo, P., Bahr, F., Campbell, R.G., Gelfman, C., Jech, J.M., **Johnson, J.J.**, Sato, M., Lowe, M.R. and Sawyer, H., 2024, February. “Does a Shelf-Break Valley Serve as a Conduit for the Upwelling of Krill onto the Beaufort Shelf to the east of Pt. Barrow, AK.” *Ocean Sciences Meeting*. AGU. 23 Feb 2024.

Johnson, J. J.*, Lin, Y. T., Newhall, A. E., Gawarkiewicz, G. G., Knobles, D. P., Chaytor, J. D., & Hodgkiss, W. S. “Acoustic ducting by shelf water streamers at the New England Shelfbreak.” Acoustical Society of America Conference, Nashville, TN. 5 Dec 2022.

Duda, T. F., Traykovski, P. A., **Johnson, J. J.***, Singh, S., Manganini, K., Porter, M. B. “Measurements of Harbor Features and Underwater Acoustic Data Transmission Performance.” IEEE Oceans Conference, Virginia Beach, VA. 18 Oct 2022.

Johnson, J. J.*, Miksis-Olds, J. M., Lippman, T.C., Jech, J. M., Seger, K. D., Pringle, J. M., Linder, E., “The Effect of Cold Pool Variability on Zooplankton Dynamics of the Eastern Bering Sea Shelf.” Alaska Marine Science Symposium (AMSS), Anchorage, AK. 27 Jan 2021.

Johnson, J. J.*, Miksis-Olds, J. M., Lippman, T.C., Jech, J. M., Seger, K. D., Pringle, J. M., Linder, E., “The Effect of Cold Pool Variability on Zooplankton Dynamics of the Eastern Bering Sea Shelf.” Center for Coastal Ocean Mapping (CCOM) Seminar. Durham, NH. 31 July 2020.

Johnson, J. J.*, Miksis-Olds, J. M., Lippman, T.C., Jech, J. M., Seger, K. D., and Pringle, J. M. “Faring Changes in the Bering.” Sea Grant Kodiak Seafood Marine Science Center. Kodiak, AK. 2 Oct 2019.

Johnson, J. J.*, Miksis-Olds, J. M., Lippman, T.C., Jech, J. M., Seger, K. D., and Pringle, J. M. “Cold Pool Variability and Zooplankton Dynamics.” Environmental Acoustics Symposium Brown University. Providence, RI. 29 May 2019.

*Presenter