

January 2023

JEFF KNEEBONE, PhD

Anderson Cabot Center for Ocean Life at the New England Aquarium

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EDUCATION

B.S. Marine and Freshwater Biology (August 1999 – May 2003)

University of New Hampshire, Durham, NH

M.S. Zoology (June 2003 – December 2005)

University of New Hampshire, Durham, NH

Thesis Title: *Using bomb radiocarbon analyses to validate age and growth estimates for the tiger shark, Galeocerdo cuvier, in the western North Atlantic*

Ph.D. Marine Science and Management (August 2008 – January 2013)

University of Massachusetts Dartmouth, School for Marine Science and Technology (SMAST)

Dissertation Title: *Spatial ecology and capture physiology of juvenile sand tiger sharks (Carcharias taurus) in the western North Atlantic*

PROFESSIONAL EXPERIENCE

Research Scientist I (July 2018 – Present)

Associate Scientist I (April 2017 – July 2018)

Postdoctoral Researcher (November 2015 – April 2017)

Anderson Cabot Center for Ocean Life, New England Aquarium

Assistant Research Technician (February 2015 – August 2015)

University of Massachusetts Dartmouth School for Marine Science and Technology

Research Technician (part time; January 2008 – December 2017)

Zeptomatrix Corporation, Franklin, MA

Fisheries Technician (part time; February 2014 – November 2014)

A.I.S. Inc., New Bedford, MA

Telemetry Data Analyst (January 2013 – January 2014)

Research Assistant (June – October 2012, part time: June – October 2014)

Massachusetts Division of Marine Fisheries, New Bedford & Gloucester, MA

Graduate Research Technician (June 2011 – December 2011)

Department of Environmental Conservation, University of Massachusetts Amherst

Research Associate (January 2005 – August 2008)

Animal Science Department, University of New Hampshire, Durham, NH

Undergraduate Research Assistant (part time; September 2001 – May 2003)

Zoology Department, University of New Hampshire, Durham, NH

PEER REVIEWED JOURNAL PUBLICATIONS

1. Ayer, M.H., C. Benton, W. King V, **J. Kneebone**, S. Elzey, M. Toran, K. Grange and D.L. Berlinsky. 2005. Development of practical culture methods for rainbow smelt *Osmerus mordax* larvae. *North American Journal Aquaculture* 67:202–209.
2. Sulikowski, J.A., **J. Kneebone**, S. Elzey, J. Jurek, P. Danley, W.H. Howell and P.C. Tsang. 2005. Age and growth of the thorny skate, *Amblyraja radiata*, in the Gulf of Maine. *Fisheries Bulletin* 103:161–168.
3. **Kneebone, J.**, D.E. Ferguson, J.A. Sulikowski, and P.C.W. Tsang. 2007. Endocrinological investigation into the reproductive cycles of two sympatric skate species, *Malacoraja senta* and *Amblyraja radiata*, in the western Gulf of Maine. *Environmental Biology of Fishes* 80:257–265.
4. Natanson, L.J., J.A. Sulikowski, **J. Kneebone** and P.C. Tsang. 2007. Age and growth estimates for the smooth skate, *Malacoraja senta*, in the Gulf of Maine. *Environmental Biology of Fishes* 80:293–308.
5. Sulikowski, J.A., S. Elzey, **J. Kneebone**, J. Jurek, W.H. Howell, and P.C.W. Tsang. 2007. The reproductive cycle of the smooth skate, *Malacoraja senta*, in the Gulf of Maine. *Marine and Freshwater Research* 58:98–103.
6. Sulikowski, J.A., W.B. Driggers, W. Ingram, **J. Kneebone**, D.E. Ferguson, and P.C.W. Tsang. 2007. Profiling plasma steroid hormones: a non-lethal approach for the study of skate reproductive biology and its potential use in conservation management. *Environmental Biology of Fishes* 80:285–292.
7. **Kneebone, J.**, L.J. Natanson, A.H. Andrews, and W.H. Howell. 2008. Using bomb radiocarbon analyses to validate age and growth estimates for the tiger shark, *Galeocerdo cuvier*, in the western North Atlantic. *Marine Biology* 154:423–434.

8. Cicia, A.M., W.B. Driggers, G.W. Ingram Jr., **J. Kneebone**, P.C. Tsang, D. Koester, and J.A. Sulikowski. 2009. Age and size at sexual maturity for Little Skate, *Leucoraja erinacea*, in the western Gulf of Maine based on estimates of three parameters. *Journal of Fish Biology* 75:1648–1666.
9. Ferguson, D.E., P.C.W. Tsang, **J. Kneebone**, R.A. Milvae, D.T. Schreiber, C.S. Keator, J.A. and McCracken. 2009. In Vivo Temporal Expression of Proteins Associated with Luteolysis Following Multiple Pulses of Prostaglandin F₂alpha in Sheep. *Biology of Reproduction* 81: 564.
10. Sulikowski, J.A., A.M. Cicia, **J.R. Kneebone**, L.J. Natanson, and P.C.W. Tsang. 2009. Age and size at sexual maturity for the smooth skate, *Malacoraja senta*, in the western Gulf of Maine. *Journal of Fish Biology* 75:2832–2838.
11. **Kneebone, J.**, P.C.W. Tsang, and D.H. Townson. 2010. Short communication: Rapid antibiotic screening tests detect antibiotic residues in powdered milk products. *Journal of Dairy Science* 93:3961–3964.
12. Bubleby, W.J., **J. Kneebone**, J.A. Sulikowski, and P.C.W. Tsang. 2011. Reassessment of spiny dogfish *Squalus acanthias* age and growth using vertebrae and dorsal fin spines. *Journal of Fish Biology* 80:1300–1319.
13. **Kneebone, J.**, J. Chisholm, and G.B. Skomal. 2012. Seasonal residency, habitat use, and site fidelity of juvenile sand tiger sharks (*Carcharias taurus*) in a Massachusetts estuary. *Marine Ecological Progress Series* 471:165–181.
14. **Kneebone, J.**, J. Chisholm, D. Bernal, and G. Skomal. 2013. The physiological effects of capture stress, recovery, and the post-release survivorship of juvenile sand tigers (*Carcharias taurus*) caught on rod and reel. *Fisheries Research* 147:103–114.
15. Winton, M.V., L.J. Natanson, **J. Kneebone**, G.M. Cailliet, and D.A. Ebert. 2013. Life history of *Bathyraja trachura* from the eastern Bering Sea, with evidence of latitudinal variation in a deep-sea skate species. *Journal of the Marine Biological Association of the United Kingdom* 94:411 – 422.
16. **Kneebone, J.**, J. Chisholm, and G. Skomal. 2014. Movement patterns of juvenile sand tigers (*Carcharias taurus*) along the east coast of the United States. *Marine Biology* 161:1149–1163.
17. **Kneebone, J.**, W.S. Hoffman, M.J. Dean, and M.P. Armstrong. 2014. Movements of striped bass between the Exclusive Economic Zone and Massachusetts state waters. *North American Journal of Fisheries Management* 34:524-534.

18. **Kneebone, J.**, W.S. Hoffman, M.J. Dean, D.A. Fox, and M.P. Armstrong. 2014. Movement patterns and stock composition of adult striped bass in Massachusetts coastal waters. *Transactions of the American Fisheries Society* 143:1115-1129.
19. Legare, B., **J. Kneebone**, B. DeAngelis, and G. Skomal. 2015. The spatiotemporal dynamics of habitat use by blacktip (*Carcharhinus limbatus*) and lemon (*Negaprion brevirostris*) sharks in nurseries of St. John, United States Virgin Islands. *Marine Biology* 162: 699-716.
20. Capizzano, C.W., Mandelman, J.W., Hoffman, W.S., Dean, M.J., Zemeckis, D.R., Benoît, H.P., **Kneebone, J.**, Jones, E., Stettner, M.J., Buchan, N.J., Langan, J.A., and Sulikowski, J.A. 2016. Estimating and mitigating the discard mortality of Atlantic cod (*Gadus morhua*) in the Gulf of Maine recreational rod-and-reel fishery. *ICES Journal of Marine Science* 73: 2342-2355.
21. Haulsee, D. E., Fox, D. A., Breece, M. W., Brown, L. M., **Kneebone, J.**, Skomal, G. B., and Oliver, M. J. 2016. Social Network Analysis Reveals Potential Fission-Fusion Behavior in a Shark. *Scientific Reports* 6:1-9.
22. Bethoney, N.D., Schondelmeier, B.P., **Kneebone, J.** and Hoffman, W.S., 2017. Bridges to best management: Effects of a voluntary bycatch avoidance program in a mid-water trawl fishery. *Marine Policy* 83:172-178.
23. Winton, M.V., **Kneebone, J.**, Zemeckis, D.R. and Fay, G. 2018. A spatial point process model to estimate individual centers of activity from passive acoustic telemetry data. *Methods in Ecology and Evolution* 9(11): 2262-2272.
24. **Kneebone, J.**, Winton, M., Danylchuk, A., Chisholm, J. and Skomal, G.B. 2018. An assessment of juvenile sand tiger (*Carcharias taurus*) activity patterns in a seasonal nursery using accelerometer transmitters. *Environmental Biology of Fishes* 101(12):1739-1756.
25. Knotek, R., **Kneebone, J.**, Sulikowski, J., Curtis, T., Jurek, J. and Mandelman, J., 2019. Utilization of pop-up satellite archival transmitting tags to evaluate thorny skate (*Amblyraja radiata*) discard mortality in the Gulf of Maine groundfish bottom trawl fishery. *ICES Journal of Marine Science* 77(1):256-66.
26. Sepulveda, C.A., Aalbers, S.A., Wang, M., **Kneebone, J.** and Bernal, D., 2020. Post-release survivorship of Pacific bluefin tuna (*Thunnus orientalis*) captured in the California recreational fishery. *Fisheries Research* 223:105413.
27. Zemeckis, D.R, **Kneebone, J.**, Capizzano, C.W., Bochenek, E.A., Hoffman, W.S., Grothues, T., Mandelman, J.W., and O.P. Jensen. 2020. Discard mortality of black sea bass (*Centropristis striata*) in a deepwater recreational fishery off New Jersey: does swim bladder venting reduce mortality? *Fishery Bulletin* 118:105-119.

28. Benoît, H.P., **Kneebone, J.**, Tracey, S.R., Bernal, D., Hartmann, K., and W. Golet. 2020. Distinguishing discard mortality from natural mortality in field experiments based on electronic tagging. *Fisheries Research* 230: 105642
29. **Kneebone, J.**, H. Bowlby, J.J. Mello, C.T. McCandless, L.J. Natanson, B. Gervelis, G.B. Skomal, N. Kohler, and D. Bernal. 2020. Seasonal distribution and habitat use of the common thresher shark (*Alopias vulpinus*) in the western North Atlantic Ocean inferred from fisheries-dependent data. *Fisheries Bulletin* 118:399-412.
30. **Kneebone, J.**, J. Sulikowski, R. Knotek, W.D. McElroy, B. Gervelis, T. Curtis, J. Jurek, and J. Mandelman. 2020. Using conventional and pop-up satellite transmitting tags to assess the horizontal movements and habitat use of thorny skate (*Amblyraja radiata*) in the Gulf of Maine. *ICES Journal of Marine Science* 77:2790-2803.
31. **Kneebone, J.**, Benoît, H.P., Bernal, D., and W. Golet. 2020. Application of a parametric survival model to understand capture-related mortality and predation in yellowfin tuna (*Thunnus albacares*) released in a recreational fishery. *Canadian Journal of Fisheries and Aquatic Sciences* 78(4):386-399.
32. Wheeler, C.R., **Kneebone, J.**, Heinrich, D., Strugnell, J.M., Mandelman, J.W. and Rummer, J.L., 2022. Diel rhythm and thermal independence of metabolic rate in a benthic shark. *Journal of Biological Rhythms*, 37(5), pp.484-497.
33. Knotek, R.J., Brooks, E.J., Howey, L.A., Gelsleichter, J.G., Talwar, B.S., Winchester, M.M., Jordan, L.K., Williams, S., Bond, M.E., Brooks, A.M., Shipley, O.N., Bacon, T., **Kneebone, J.**, and J. Mandelman. 2022. Merging technologies and supervised classification methods to quantify capture behavior on hook-and-line. *Journal of Experimental Marine Biology and Ecology*, 555, p.151782.

In preparation

Kneebone, J., Denton, J.S., L. Yang, S. Corrigan, A. Lynghammar, K. Jakobsdottir, C. Miri, M. Simpson, W.D. McElroy, and G.J.P. Naylor. Mitogenomic evidence of population differentiation of thorny skate, *Amblyraja radiata* (Rajiformes: Rajidae) in the North Atlantic.

Knotek, R., **Kneebone, J.**, Curtis, T., Sulikowski, J., Mandelman, J. Overcoming thorny bycatch problems: Application of a novel tool for identifying fishery-interaction hotspots for an overfished elasmobranch. Target journal: *North American Journal of Fisheries Management*

BOOK CHAPTERS

Mandelman, J.W., **Kneebone, J.R.**, Morgan, A., Murua, J., Jones, E. Strategies to reduce fisheries bycatch mortality in chondrichthyans. In: Carrier, J.C., Simpfendorfer, C.A., Heithaus, M.R. and Yopak, K. eds., 2022. Biology of Sharks and their Relatives, Third edition. CRC Press (*in press*).

TECHNICAL REPORTS, WHITE PAPERS, FACT SHEETS, EDITORIALS

Kneebone, J. 2018. I will survive: Satellite Tagging Reveals High Survivorship of Released Yellowfin Tuna. On the Water Magazine. November 27, 2018

Kneebone, J. and C. Capizzano. 2020. A comprehensive assessment of baseline recreational fishing effort for highly migratory species in southern New England and the associated Wind Energy Area. Final report to Vineyard Wind, LLC. May 4, 2020, 56 p.

Zemeckis, D., **J. Kneebone**, C. Capizzano, and E.A. Bochenek. 2021. Increasing the catch-and-release survival of black sea bass through swim bladder venting. Rutgers Cooperative Extension Fact Sheet FS1337. October, 2021

Kneebone, J. and R. Knotek. 2021. An updated assessment of baseline recreational fishing effort for highly migratory species (HMS) in southern New England and the associated Wind Energy Area, with focus on Beacon Wind. New England Aquarium, Anderson Cabot Center for Ocean Life, Boston, MA, Final report to Equinor. October 31, 2021, 60 p.

Gervelis B, **Kneebone J.** 2022. Passive acoustic telemetry as a tool to monitor the baseline presence and persistence of highly migratory fish species in popular recreational fishing grounds within the southern New England wind energy area. Newport (RI): U.S. Department of the Interior, Bureau of Ocean Energy Management. 40 p. Report No.: OCS Study BOEM 2022-059 Agreement No.: M20AC00006.

McCandless, C.T., **J. Kneebone**, B. Gervelis, K.C. Newton, and T.H. Curtis. 2023. Synthesis of the Science for Offshore Wind and Fisheries: Medium pelagic, large pelagic, and highly migratory finfish species (HMS).

SCIENTIFIC CONFERENCE PRESENTATIONS

Oral Presentations

Kneebone, J., D.E. Ferguson, J.A. Sulikowski, and P.C.W. Tsang. Endocrinological investigations into the reproductive habits of two sympatric skate species. 22nd American Elasmobranch Society Annual Meeting, New Orleans, LA. July 2006.

Kneebone, J., L.J. Natanson, A.H. Andrews, and W.H. Howell. Validated age and growth estimates for the tiger shark, *Galeocerdo cuvier*, in the western North Atlantic. 24th American Elasmobranch Society Annual Meeting, Montreal, Quebec, Canada. July 2008

Kneebone, J., J. Chisholm, and G. Skomal. Spatial and temporal habitat use and movement patterns of neonatal and juvenile sand tigers, *Carcharias taurus*, in a Massachusetts estuary. 26th American Elasmobranch Society Meeting, Providence, RI. July 2010

Kneebone, J., J. Chisholm, and G. Skomal (presenter). The physiological effects of rod and reel capture, recovery, and post-release survivorship of juvenile sand tigers (*Carcharias taurus*). 27th American Elasmobranch Society Meeting, Minneapolis, MN. July 2011

Kneebone, J., T. Curtis, J. Sulikowski, and J. Mandelman. Movement patterns and temperature preferences of thorny skate (*Amblyraja radiata*) in the Gulf of Maine. American Fisheries Society Southern New England Chapter Winter Meeting. New Bedford, MA. January 2017

Kneebone, J., D. Bernal, G. Skomal, L. Natanson, B. Gervelis, and N. Kohler. Movement patterns and habitat use of the common thresher shark (*Alopias vulpinus*) in the western North Atlantic Ocean. 69th meeting of The Tuna Conference, Lake Arrowhead, CA. May 2018

Kneebone, J., G. Skomal, D. Bernal, W. Golet, and J. Mandelman. Battery powered research: Using electronic tags to improve the management of threatened and exploited marine fish species. 148th American Fisheries Society Annual Meeting, Atlantic City, NJ. August 2018

Kneebone, J., W. Golet, H. Benoît, and D. Bernal. Understanding the mortality rate of yellowfin tuna following catch and release in the U.S. east coast recreational troll fishery: is predation a natural event? 70th meeting of The Tuna Conference, Lake Arrowhead, CA. May 2019

Kneebone, J., B. Gervelis, C. Capizzano, and R. Knotek. A multi-faceted approach to assess baseline presence of highly migratory pelagic fishes (HMS) and associated recreational fishing effort in the southern New England (SNE) wind energy area (WEA). 152nd American Fisheries Society Annual Meeting, Baltimore, MD. (virtual) November 2021

Kneebone, J., C.F. White, C. Collatos, and N. Whitney. 2023. I will survive! High survivorship of sandbar sharks (*Carcharhinus plumbeus*) following catch and release in a rapidly growing land-based recreational fishery in Massachusetts. American Fisheries Society Southern New England and Northeast Division Chapter Joint Meeting. Boston, MA. January 2023

Poster Presentations

Sulikowski, J.A., S. Elzey, **J. Kneebone**, and P.C.W. Tsang. The reproductive cycle of the smooth skate, *Malacoraja senta*, in the western Gulf of Maine. 21st American Elasmobranch

Society Annual Meeting, Tampa, FL. July 2005

Kneebone, J., S. Aalbers, D. Bernal, and C. Sepulveda. The physiological effects of capture stress and their impact on post-release survival of Pacific bluefin tuna (*Thunnus orientalis*) caught on rod and reel. 69th meeting of The Tuna Conference, Lake Arrowhead, CA. May 2018

Winton, M., **J. Kneebone**, D. Zemeckis, and G. Fay. A spatial point process model to estimate individual centres of activity from passive acoustic telemetry data. 148th American Fisheries Society Annual Meeting, Atlantic City, NJ. August 2018

Kim, E., C. Collatos, and **J. Kneebone**. 2023. Monitoring little tunny (*Euthynnus alletteratus*) movements and post-release survival in Nantucket Sound, Massachusetts. American Fisheries Society Southern New England and Northeast Division Chapter Joint Meeting. Boston, MA. January 2023

SCIENTIFIC WORKSHOPS AND WORKSHOP PRESENTATIONS

Kneebone, J. (presenter), J. Chisholm, D. Fox, and G. Skomal. Using telemetry to identify juvenile sand tiger (*Carcharias taurus*) essential fish habitat (EFH) along the U.S. east coast. Animal Telemetry Network Asset Identification Workshop. Annapolis, MD. February 21, 2017

Kneebone, J. (instructor) Tricks of the trade: Ways to maximize the quality and utility of tagging data. American Fisheries Society Southern New England Chapter Spring Meeting Workshop. Narragansett, RI. June 27, 2018

Kneebone, J. (instructor) and M. Winton. Advanced spatial plotting in R. American Fisheries Society Southern New England Chapter Winter Meeting Workshop. Boston, MA. January 12, 2020

SELECTED INVITED SEMINAR PRESENTATIONS

Kneebone, J. How I spent my summer vacation: tracking juvenile sand tiger sharks in New England. Mystic Aquarium Staff Seminar. November 18, 2010

Kneebone, J. The importance of spatial ecology in the management of threatened elasmobranch fishes. 3rd Annual Gloucester Genomics Institute Science Forum. September 17, 2016

Kneebone, J., J. Chisholm, and G. Skomal. Using telemetry to investigate the ecology and post-release survivorship of juvenile sand tiger sharks (*Carcharias taurus*). Key West Community College Marine Science Department Seminar. March 16, 2017

Kneebone, J., W. Hoffman, M. Dean, M. Armstrong, D. Fox, J. Chisholm, G. Skomal, W. Golet, and D. Bernal. Battery powered research: Using electronic tags to study popular recreational sportfish species in the northeast U.S. Rutgers University Marine Extension Program Seminar Series. Toms River, NJ. October 30, 2017

Kneebone, J. Battery powered research: Using electronic tags to improve the management of threatened and exploited marine fish species. University of New England, Marine Science Department Seminar Series. Saco, ME. April 1, 2019

Kneebone, J. Battery powered research: Using electronic tags to support the management (and monitoring) of exploited marine fish species in the Atlantic Ocean. University of Massachusetts Amherst, Department of Environmental Conservation Seminar Series (virtual). April 16, 2021

SELECTED OTHER PRESENTATIONS

Kneebone, J. How I spent my summer vacation: tracking juvenile sand tiger sharks off the east coast of the United States (keynote address). 30th Annual High School Marine Science Symposium. University of Massachusetts Dartmouth, Dartmouth, MA. March 2013

Kneebone, J., J. Chisholm, and G. Skomal. Sharks in our backyard: the resurgence of sand tiger sharks in New England. High School Marine Science Symposium, Narragansett, RI. May 17, 2017

Kneebone, J. Battery powered research: Using electronic tags to improve fishery management. New England Aquarium All Staff Meeting. Boston, MA. March 28, 2018

Kneebone, J. Battery powered research: Using electronic tags to improve fishery management. New England Aquarium Board Meeting. Boston, MA. April 18, 2018

Kneebone, J. and N. Whitney. New England Aquarium Shark Research. Boston HUB Week. New England Aquarium, Boston, MA. October 8, 2018

Kneebone, J. and M. Winton. Sharks of Massachusetts: More than just this guy. Science briefing at the Massachusetts State Courthouse. Boston, MA. June 13, 2019

Kneebone, J. and B. Gervelis. Highly migratory species telemetry monitoring in the southern New England wind energy areas. Responsible Offshore Science Alliance (ROSA) March 2021 advisory meeting (virtual) March 9, 2021

Kneebone, J. Management of Highly Migratory Species in the Atlantic. Rutgers Cooperative Extension Introductory Fisheries Science for Stakeholders (IFFISH) Course. (Online lecture) March 17, 2020 and April 11, 2021

Kneebone, J. and B. Gervelis. Highly migratory species telemetry monitoring in the southern New England wind energy areas. Mid-Atlantic Acoustic Telemetry Observation System (MATOS) spring meeting (virtual) April 12, 2021

Kneebone, J. Quantifying highly migratory species recreational fishing effort in the southern New England wind energy areas. Responsible Offshore Science Alliance (ROSA) June 2021 advisory meeting (virtual) June 17, 2021

SELECTED PUBLIC PRESENTATIONS

Kneebone, J. Shark Research Confessions. New England Aquarium Blue Planet Lecture Series. Boston, MA. May 2014

Kneebone, J., W. Hoffman, M. Dean, D. Fox, and M. Armstrong. Movement patterns, coastal migration, and stock composition of adult Striped Bass (*Morone saxatilis*) tagged in Massachusetts Coastal Waters. Cape Cod Charterboat Association Monthly meeting. Hyannis, MA. November 1, 2017

Kneebone, J., J. Chisholm, and G. Skomal. Sharks in our backyard. New England Aquarium Blue Planet Lowell Lecture Series. April 5, 2017

Kneebone, J., W. Golet, D. Bernal, and G. Skomal. Post-release survival of yellowfin tuna (*Thunnus albacares*) in the Atlantic recreational rod and reel fishery. Castafari Big Game Fishing Seminar. Quincy, MA. February 10, 2018

Kneebone, J., W. Golet, and D. Bernal. Yellow fever: New insights into yellowfin tuna movements and post-release survival in the northwest Atlantic. Castafari Big Game Fishing Seminar. Quincy, MA. March 10, 2019

Kneebone, J., J. Chisholm, C. White, and G. Skomal. Sharks in our backyard: Tracking juvenile sand tiger sharks in New England. Hull Library Nantasket Beach Lecture Series. Hull, MA. November 21, 2019

Kneebone, J. and C. Capizzano. Highly migratory species and offshore wind in southern New England: Past, present, and future. Falmouth Fishermen's Association Meeting (virtual) November 3, 2020

Kneebone, J., W. Golet, D. Bernal. Chasing tails: How tagging data support the management (and monitoring) of highly migratory pelagic species in the Atlantic Ocean. Stellwagen Bank Charterboat Association March meeting (virtual) March 9, 2021

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Kneebone, J. Tracking fish with passive acoustic telemetry. Discovery of Sound in the Sea (DOSITS) Webinar Series (virtual) May 7, 2021

MEDIA

WGBH News. New England Aquarium Scientists Studying Imperiled Skate. April 8, 2016

Living Lab Radio, Cape and Islands WCAI/NPR. Making catch and release safer for sharks. June 10, 2019

On the Water Adventures TV, Episode: Tagging Brown Sharks from the Beach. NBC Sports Boston. April 29, 2020 <https://www.onthewater.com/video/tagging-brown-sharks>

Shark Tales podcast. Shark fishing: Does the sport need to be reeled in? NBC 10 Boston. July 26, 2021

American Elasmobranch Society, Beyond Jaws podcast. November 1, 2021

The Guide Post: American Saltwater Guides Association podcast, August and December 2022

On the Water Fishing Podcast. March 2023.

TEACHING EXPERIENCE

Professional

Instructor: Biology of Sharks, University of Massachusetts Dartmouth (Spring 2018)

Co-Instructor: Biology of Fishes, Boston Marine Science Consortium (Spring 2020)

Assistant instructor: Research Methods in Endocrinology, University of New Hampshire (Spring 2008)

Student

Graduate teaching assistant: Principles of Aquaculture, University of New Hampshire (Spring 2004)

Undergraduate teaching assistant: Biology, University of New Hampshire (Spring 2001)

LEADERSHIP, MENTORING, ADVISING

Leadership

148th American Fisheries Society annual meeting symposium co-organizer, “Using Electronic Tagging Data to Inform the Assessment and Management of Fishery Resources”, August 20–21, 2018, Atlantic City, NJ

Mentor roles

Blue Swell Incubator Program. Cohort I: HydroNet. (October 2020 – April 2021)

Blue Swell Incubator Program. Cohort II: Ithaca Clean Energy (October 2021 – Present)

Students advised

Connor Capizzano, Masters committee, University of New England (2013 – 2015)

Ryan Knotek, Dissertation committee, University of Massachusetts Boston (2015 – 2021)

Carolyn Wheeler, Dissertation committee, University of Massachusetts Boston (2016 – 2022)

Grace Casselberry, Dissertation committee, University of Massachusetts Amherst (2017 – Present)

Emily Robins, Masters committee, University of Massachusetts Dartmouth (2020 – Present)

Joe Hoelbeche, Masters committee, University of Massachusetts Dartmouth (2021 – Present)

RESEARCH FUNDING

Fellowships

University of New Hampshire, Summer Undergraduate Research Fellowship (2002)

University of New Hampshire, Cooperative Institute for New England Mariculture and Fisheries Marine Program Graduate Research Fellowship (2003 – 2005)

Grants and awards

Application of bomb radiocarbon analyses to tiger shark age validation. 2004 University of New Hampshire, Center for Marine Biology Graduate Student Research Award (Role: Student)

Improving the management of an overfished, data poor species: Investigating the movements and stock structure of thorny skates using novel fishery-independent tagging technology. 2015 NOAA Saltonstall-Kennedy Program (Lead institution: New England Aquarium; Role: co-PI)

Post-Release Mortality of Yellowfin Tuna in the U.S. Rod and Reel Recreational Fishery. 2015

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NOAA Saltonstall-Kennedy Program (Lead institution: University of Maine; Role: co-PI)

Determining catch and release survivorship and best handling practices for Pacific Bluefin tuna. 2015 NOAA Saltonstall-Kennedy Program (Lead institution: Pflieger Institute of Environmental Research; Role: co-PI)

Identifying bottom trawl bycatch hotspots and capture and-handling practices to reduce the incidental mortality of an overfished Species of Concern -- the Thorny Skate -- in the Gulf of Maine. 2015 NOAA Bycatch Reduction and Engineering Program (Lead institution: New England Aquarium; Role: co-PI; dissertation research of Ryan Knotek)

Estimating and mitigating the discard mortality rate of black sea bass in offshore recreational rod-and-reel fisheries. 2016 Mid-Atlantic Fisheries Management Council (Lead institution: Rutgers University; Role: co-PI)

A multi-faceted investigation of the movement patterns, spatial and temporal habitat use, and stock structure of the common thresher shark (*Alopias vulpinus*) in the western North Atlantic. 2016 NOAA Saltonstall-Kennedy Program (Lead institution: University of Massachusetts Dartmouth; Role: PI)

Implementation of emerging technology to estimate and mitigate the post-release mortality rate of prohibited sandbar sharks in a rapidly growing shore-based fishery. 2018 NOAA Bycatch Reduction and Engineering Program (Lead institution: New England Aquarium; Role: co-PI)

Passive acoustic telemetry as a tool to monitor the baseline presence and persistence of highly migratory fish species in popular recreational fishing grounds within southern New England wind energy areas. Massachusetts Clean Energy Center. 2020. (Lead institution: INSPIRE Environmental; Role: co-PI)

Post-release mortality in recreationally-caught shortfin mako sharks: understanding the effects of capture, handling techniques, and retained gear. 2020 NOAA Bycatch Reduction and Engineering Program (Lead institution: University of Massachusetts Dartmouth; Role: co-PI)

Contracts

Atlantic Ocean Tropical Tuna Tagging Program: Northwest Atlantic Initiative. 2018 (Lead institution: University of Maine; Role: co-PI)

Using fisheries-dependent data and targeted outreach to document the spatial and temporal distribution of highly migratory species and highly migratory species recreational fisheries in the southern New England wind energy lease areas. Vineyard Wind, LLC. 2019. (Lead institution: New England Aquarium; Role: PI)

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Highly migratory species acoustic telemetry and recreational fishery monitoring in Equinor's Beacon Wind energy area. 2020-2022. (Lead institution: New England Aquarium; Role: PI)

Highly migratory species acoustic telemetry and recreational fishery monitoring in the Mayflower Wind energy area. 2020-2022. (Lead institution: New England Aquarium; Role: PI)

Highly migratory species monitoring with acoustic telemetry in Ørsted wind energy areas. 2021-2026. (Lead institution: New England Aquarium; Role: PI)

Highly migratory species monitoring with acoustic telemetry in Vineyard Wind energy areas. 2021-2025. (Lead institution: New England Aquarium; Role: PI)

PEER REVIEW SERVICE (since 2015)

Journals (# of reviews not including revised submissions)

Biological Conservation (n = 1)

Comparative Biochemistry and Physiology Part A (n = 1)

Fisheries (n = 2)

Fishery Bulletin (n = 2)

Fisheries Oceanography (n = 1)

Fisheries Research (n = 3)

ICES Journal of Marine Science (n = 1)

Journal of Fish Biology (n = 3)

Marine Biodiversity Research (n = 1)

Marine and Coastal Fisheries (n = 2)

Marine Ecological Progress Series (n = 1)

Marine and Freshwater Research (n = 1)

PLOS One (n = 1)

Scientific Reports (n = 2)

Technical reviews

Endangered Species Act Status Review Report: Thorny skate (*Amblyraja radiata*), NOAA Fisheries. August 22, 2016

Grant reviews

NOAA Fisheries 2019 Scallop Research Set Aside Program (November 2018)

PROFESSIONAL MEMBERSHIPS

January 2023

American Fisheries Society (AFS), Southern New England Chapter: Member (2015 – Present)
American Elasmobranch Society (AES): Member (2003 – 2006; 2015 – Present)
American Institute of Fishery Research Biologists (AIFRB): Member (2019 – Present)

SCIENTIFIC POSITIONS OR APPOINTMENTS

Technical Advisor to Swordfish/Shark Working Group, U.S. ICCAT Advisory Committee,
(Term 1: 2019 – 2020; Term 2: 2021 – 2022; Term 3: 2023 - Present)

Advisor (Academic appointment), NOAA Fisheries Highly Migratory Species Advisory Panel,
3-year term (2022 – 2024)

Advisor, New England Fishery Management Council Skate Advisory Panel (Term 1: 2020 –
2022; Term 2 (Panel chair): 2023 – Present)

Research Faculty, University of Massachusetts Boston (January 2017 – April 2021)

LICENSES AND CERTIFICATIONS

NAUI Master SCUBA certification (2003)
USCG Licensed Captain OUPV rating (2020)
STCW certification (2021)