

Edward A. Hale, Ph.D.

Assistant Professor

School of Marine Science & Policy, Delaware Sea Grant

College of Earth, Ocean & Environment, University of Delaware

Tel: (302) 645-4060

Email: ehale@udel.edu

Education

Stockton University

Galloway, NJ Marine Science

B.S. 2007

University of Delaware

Newark, DE Marine Bioscience

Ph.D. 2013

Experience

2020-Present Assistant Professor, University of Delaware-Delaware Sea Grant

2018-2022 Marine Advisory Specialist, Delaware Sea Grant, University of Delaware

2014-2018 Biometrician, State of Delaware, Division of Fish & Wildlife

2013-2014 Interpretive Specialist, State of New Jersey, Department of Parks & Forestry

2012-2013 Fisheries Specialist, Atlantic States Marine Fisheries Commission

Research Interests

Fisheries, Fisheries Ecology, Fisheries Oceanography, Aquaculture, Shellfish Aquaculture

Professional Activities

1. Member of the American Fisheries Society, 2008-present
2. President of the Mid-Atlantic Chapter of the American Fisheries Society, 2017
3. President of the Northeastern Division of the American Fisheries Society, 2021

Presentations

Hale, E., Smoot, T., Wood, L., and M. Windsor. 2023. Assessing Oyster Growth and the Habitat Value of Oyster Aquaculture Gear for Estuarine Fishes and Invertebrates. World Aquaculture Society: Aquaculture America Conference 2023. New Orleans, LA.

Breece, M.W.; Fox, D.A.; **Hale, E.A.**; Haulsee, D.E.; Shatley, M. and M.J. Oliver. 2018. A Satellite based mobile warning system to reduce Atlantic Sturgeon interactions in the Delaware Bay. 148th Annual Meeting of the American Fisheries Society. Atlantic City, N.J.

DiJohnson, A.M., **Hale, E.A.**, Breece, M.W., and D.A. Fox. 2018. Model Behavior: Comparing Atlantic Sturgeon movement to vessel traffic within the Delaware River. 148th Annual Meeting of the American Fisheries Society. Atlantic City, N.J.

Hale, E.A., Johnston, L.J., Breece, M.W., Oliver, M.J., Fox, D.A., Clark, J.H., Mathews, J.A. and D.E. Haulsee. 2018. Exploring New Communication Pathways in Fisheries. 148th Annual Meeting of the American Fisheries Society. Atlantic City, N.J.

Mathews, J.A., **Hale, E.A.**, and I.A. Park. 2018. Effects of large scale climatic signals on trends in abundance of Atlantic Croaker (*Micropogonias undulatus*), Black Drum (*Pogonias cromis*), Spot (*Leiostomus xanthurus*) and Weakfish (*Cynoscion regalis*) in a Mid-Atlantic estuary. 148th Annual Meeting of the American Fisheries Society. Atlantic City, N.J.

Breece, M.W.; Fox, D.A.; **Hale, E.A.**; Haulsee, D.E.; Shatley, M. and M.J. Oliver. 2018. A Satellite

based mobile warning system to reduce Atlantic Sturgeon interactions in the Delaware Bay. Ecological Society of America. New Orleans, LA.

Park, I.A.; **Hale, E.A.**; Zimmerman, J.; Clark, J.F. and M.T. Fisher. 2016. Age, Growth and Movements of Atlantic Striped Bass (*Morone saxatilis*) in the Delaware River Estuary. The 72nd Annual Meeting of Northeast Association of Fish & Wildlife Agencies. Annapolis, MD.

Ribeiro, F.; **Hale, E.A.**; Hilton, E.J.; Clardy, T.R.; Deary, A.L.; Targett, T.E. and J.E. Olney. 2016. Composition and temporal patterns of larval fish communities in Chesapeake and Delaware Bays. XV European Congress of Ichthyology. Porto, Portugal.

Publications

Dean, E. M., Cooper, A. R., Wang, L., Daniel, W., David, S., Ernzen, C., Gido, K. B., **Hale, E.**, Haxton, T. J., Kelso, W., Leonard, N., Lido, C., Margraf, J., Porter, M., Pennock, C., Propst, D., Ross, J., Staudinger, M. D., Whelan, G. & Infante, D. M. 2022. The North American Freshwater Migratory Fish Database (NAFMFD): Characterizing the migratory life histories of freshwater fishes of Canada, the United States and Mexico. *Journal of Biogeography*, 00, 1– 11.

Mathews, J.A., **Hale, E.A.**, Oleynik, H., Clark, J.H., Park, I.A., Greco, M.J., and C.J. Petrone. 2022. Exploring trends in abundance of Young-of-the-Year, and Age-1 Atlantic Croaker (*Micropogonias undulatus*), Black Drum (*Pogonias cromis*), Spot (*Leiostomus xanthurus*) and Weakfish (*Cynoscion regalis*) in relation to salinity, temperature and large-scale climatic signals in a Mid-Atlantic estuary. *Transactions of the American Fisheries Society*.

Breece, M., Oliver, M., Fox, D., **Hale, E.A.**, Haulsee, D., Shatley, M., Bograd, S., Hazen, E., and H. Welch. 2021. A satellite-based mobile warning system to reduce interactions with an Endangered Species. *Ecological Applications*.

Hale, E. A. and T.E. Targett. 2018. Vertical distribution of larval Atlantic Menhaden (*Brevoortia tyrannus*) and Atlantic Croaker (*Micropogonias undulatus*): implications for vertical migratory behavior and transport. *Fisheries Oceanography*.

Hale, E. A., Park, I.A., Fisher, M.T., Wong, R.A., Stangl, M.J. and J. F. Clark. 2016. Abundance Estimate for and Habitat Use by Early Juvenile Atlantic Sturgeon within the Delaware River Estuary. *Transactions of the American Fisheries Society* 145 (6): 1193-1201.

Ribeiro F., **Hale E.A.**, Hilton E.J., Clardy T.R., Deary A.L., Targett T.E., Olney J.E. 2015. Composition and temporal patterns of larval fish communities in Chesapeake and Delaware Bays, USA. *Marine Ecology Progress Series* 527:167-180.

Schieler, B.E.; **Hale, E.A.**; Targett, T.E. 2014. Daily variation in ingress of fall-spawned larval fishes into Delaware Bay in relation to alongshore and along-estuary wind components. *Estuarine, Coastal and Shelf Science*, 151: 141-147.