

Stewards of the Sea: the U.S. Navy's Efforts to Track Sturgeon Movements in the Chesapeake Bay

Watterson, J.C.¹ and C. Hager²

¹U.S. Department of the Navy, Naval Facilities Engineering Command Atlantic, Norfolk, VA

²Chesapeake Scientific, LLC, Williamsburg, VA

In December 2012, the U.S. Department of the Navy (Navy) initiated a multi-year telemetry-based study to examine occupancy patterns of protected species within the lower Chesapeake Bay with an emphasis on areas where naval operations occur. Of particular interest is Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*), which was protected under the Endangered Species Act throughout its range in February 2012. The objectives of the study are to determine migratory pathways, behavior, and periods of residency to allow the Navy to conduct a more informed assessment of potential impacts to the species that may result from conducting training operations within the Chesapeake Bay. As part of this effort, over 75 Vemco VR2W receivers were deployed strategically in arrays to cover areas of military activity and regions of biological significance. Areas of deployment include the York River watershed, Hampton Roads and the Elizabeth River, the mouth of the Chesapeake Bay, and in near-shore coastal waters. During the first year of its deployment, the array had 1,984,268 detections of 26 different species and 1,596 individual fish tagged from as far north as Maine and as far south as Florida. Of the total number of fish detected, 886 were Atlantic sturgeon.