

Behavioral responses of sub-adult Atlantic Sturgeon (*Acipenser oxyrinchus oxyrinchus*) to electromagnetic and magnetic fields under laboratory conditions.

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Electromagnetic fields (EMF) produced by high voltage (HV), submarine transmission cables leading from offshore wind generation facilities could affect foraging or migratory behaviors of electro-responsive fishes, including endangered Atlantic Sturgeon (*Acipenser oxyrinchus oxyrinchus*). However, no published studies have evaluated the possible effects of EMF exposure on sturgeon during residence in coastal waters, including the Wind Energy Area (WEA) near Virginia Beach, Virginia. This study will evaluate behavioral responses by sub-adult Atlantic Sturgeon to electromagnetic and magnetic fields under controlled laboratory conditions. Specially-fabricated EMF generators will attempt to emulate a range of field conditions that migratory fishes could encounter when in proximity to submarine HV sources. Sensor arrays and digital video recorders will synoptically quantify EMF conditions and fish behaviors during experimental trials. This presentation will present preliminary results generated to date and describe future study plans.