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Woods Hole Oceanographic Institution  
**Biology Department Seminar**



Thursday, February 1, 2024 – 12:00 Noon

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## **Influence of Hypoxia on Adult Yellow Perch Distributions and Diets in Lake Erie's Central Basin**

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In Lake Erie, thermally induced stratification and excessive nutrient inputs have led to increases in the magnitude, frequency, and extent of seasonal hypolimnetic hypoxia. Low dissolved oxygen conditions have been shown to degrade habitat quality, affect organism physiology, and influence the behavior of species. Hypoxia is known to affect the spatial distribution of yellow perch (*Perca flavescens*), which supports valuable commercial and recreational fisheries in the lake. In the last decade, catch of adult (age 2+) yellow perch in the central basin of Lake Erie has significantly declined. Although considerable research has gone into understanding the impacts of hypoxia on the Lake Erie ecosystem, the conditions driving fishery-specific changes in yellow perch catch are poorly understood. In this presentation, I highlight my master's thesis findings on the influence of seasonal shifts in hypoxia on yellow perch ecology using paired hydroacoustic-bottom trawl surveys and stomach content analysis. The goal of my work was to quantify behavioral responses (distribution and diet) of yellow perch during hypoxic and normoxic conditions. Understanding how yellow perch, their predators, and prey respond to changing environmental conditions is needed for properly managing the fisheries and protecting the lake's resources.

**HYBRID! In Person:** Redfield Auditorium **Zoom:** <https://whoi-edu.zoom.us/j/95922469199> Meeting ID: 959 2246 9199 **By phone:** Find your local number: <https://whoi-edu.zoom.us/u/adzCrrekkl>