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**Movement
Mondays**



Foraging movements and
behaviors of American
Oystercatchers on two barrier
islands in Virginia

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ABSTRACT The American Oystercatcher (*Haematopus palliatus*) is a beach nesting shorebird that breeds along the U.S. Atlantic Coast and feeds on marine invertebrates. Previous research has indicated that breeding pairs who nest closer to their foraging areas fledge more chicks. The breeding population of American Oystercatchers on two barrier islands in Virginia has strongly declined since 2016, despite management for human disturbance and predators. Therefore, other factors like foraging habitat quality may be involved. We studied foraging habitat quality by tracking foraging movements and behaviors with GPS tags and complemented this with behavioral observations on chick provisioning and foraging. In 2023 we deployed 10 GPS trackers on American Oystercatchers on two islands in Virginia to examine fine-scale foraging movements and foraging range. To relate foraging behaviors to breeding areas, we ran a connectivity analysis. In 2022 and 2023, we made 500 foraging and chick provisioning observations on 20-25 breeding pairs on Assateague Island and 31-32 breeding pairs on Assawoman Island, Virginia. During foraging and chick provisioning observations, we recorded where adults fed, what prey species they ate, how much, how much they fed their chicks, prey size, and prey handling time. GPS tracking data revealed two main foraging strategies on the two islands – specialists and generalists. The majority of individuals on Assateague Island stayed within 300 m of their nest site to feed only on oceanside shorelines eating a single marine invertebrate species, the mole crab (*Emerita talpoida*). In contrast, most individuals on Assawoman Island fed on both bayside mudflats and oceanside shorelines, travelled up to 12.5 km to feed, and ate seven prey species. Individuals on both islands had non-overlapping foraging areas, which suggests territoriality at the feeding areas. This study provides the first evidence of diet specialization and territoriality at feeding areas for the species.

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Location: Collip 112