

ESTIMATING DIVERSITY OF COASTAL AVIAN AND MAMMALIAN FAUNA. Oleksii Dubovyk, Ella DiPetto, Iroshmal Peiris, Chi Wei & Eric L. Walters, Dept. of Biol. Sci., Old Dominion Univ. Metrics of diversity are among the most commonly used indicators of ecological restoration success. Accounting for biases that influence detection is critical when attempting to assess taxonomic diversity. For example, time of day or habitat type can bias assessments. In coastal environments, tidal cycles introduce dynamic fluctuations in water levels that can influence the behavior and distribution of birds and mammals across time. Our project investigated how time of day and tidal stage affected bird and mammal diversity along coastal shorelines in Hampton Roads, Virginia. The data were collected using trail cameras along 20 intertidal shorelines from spring to fall of 2022, yielding 18,409 animal observations. We found differences in temporal use of coastal marshes between birds and mammals, as well as guild-specific differences across tidal fluctuations and solar time of day. By exploring the interactions between temporal and environmental variables, our work contributes to the ability of coastal restoration projects to effectively assess restored habitat for wildlife. The funding for this project was provided by Old Dominion University, Hampton Roads Sanitation District, Virginia Association of Professional Soil Science, Northern Neck Audubon Society, Virginia Society of Ornithology, Coastal Virginia Wildlife Observatory, and Washington Biologists' Field Club. Author contact: Oleksii Dubovyk, oadubovyk@gmail.com.