Utilizing Overlay Analysis To Identify Which Critical Species and their Habitats Interfere with the Proposed New Jersey Offshore Wind Project Location of Ocean Wind 1

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Offshore Wind Proposed Site Ocean Wind 1 has a Low Interference with Some Critical Species

Introduction

Offshore wind energy is a type of renewable energy which utilizes the wind created from large bodies of water to generate energy and has been developing on the continental shelf of New Jersey.

Ocean Wind 1 will be New Jersey's first wind farm located 15 miles off the coast of Atlantic County.

There are concerns about:
➢ Critical species
➢ Critical habitats

An overlay analysis of baleen whale and avian abundance was performed to display the abundance of multiple critical species in the New York Bight.

A map of fish Habitat Areas of Particular Concern (HAPC) is included to display if these critical habitats interfere with Ocean Wind 1.
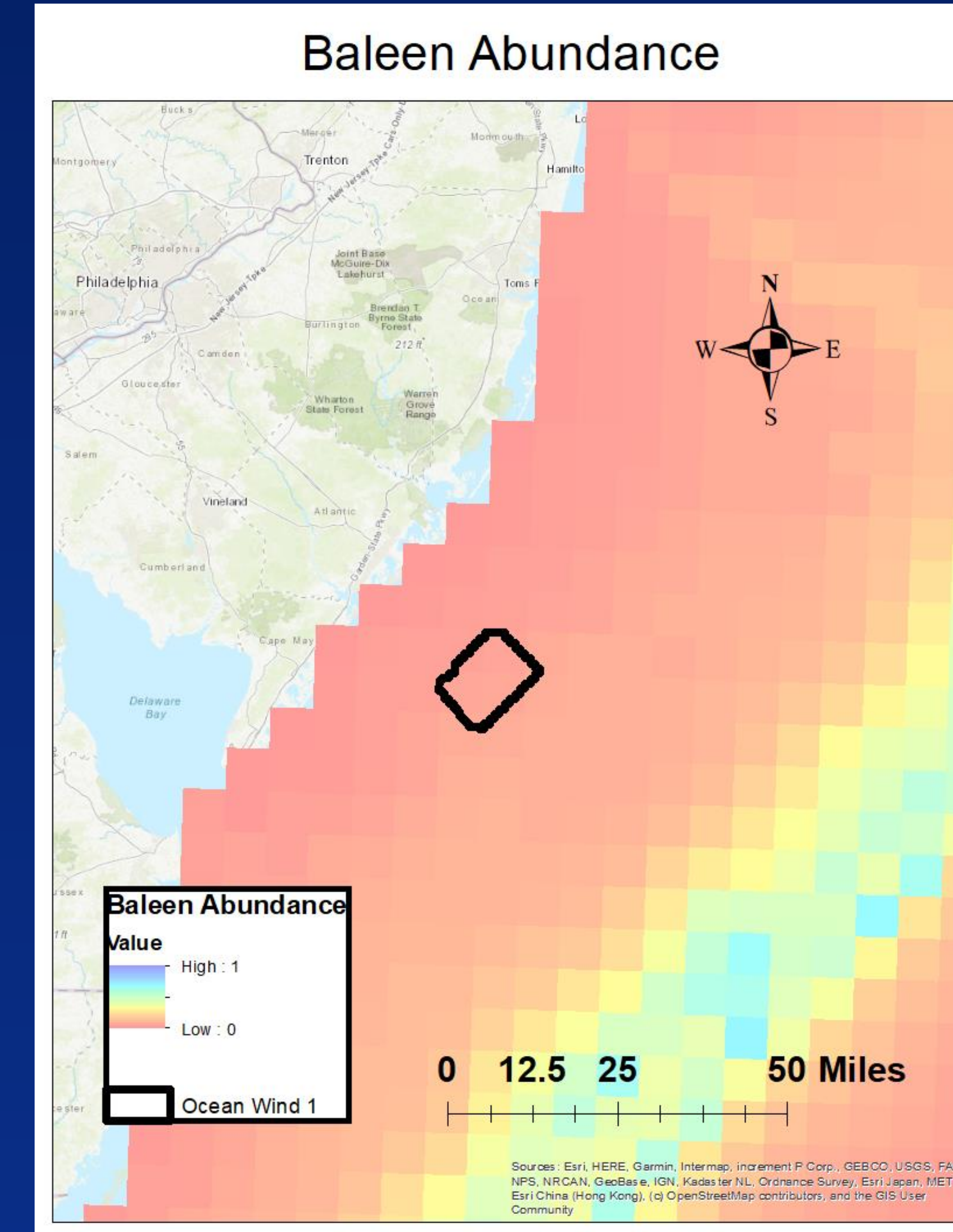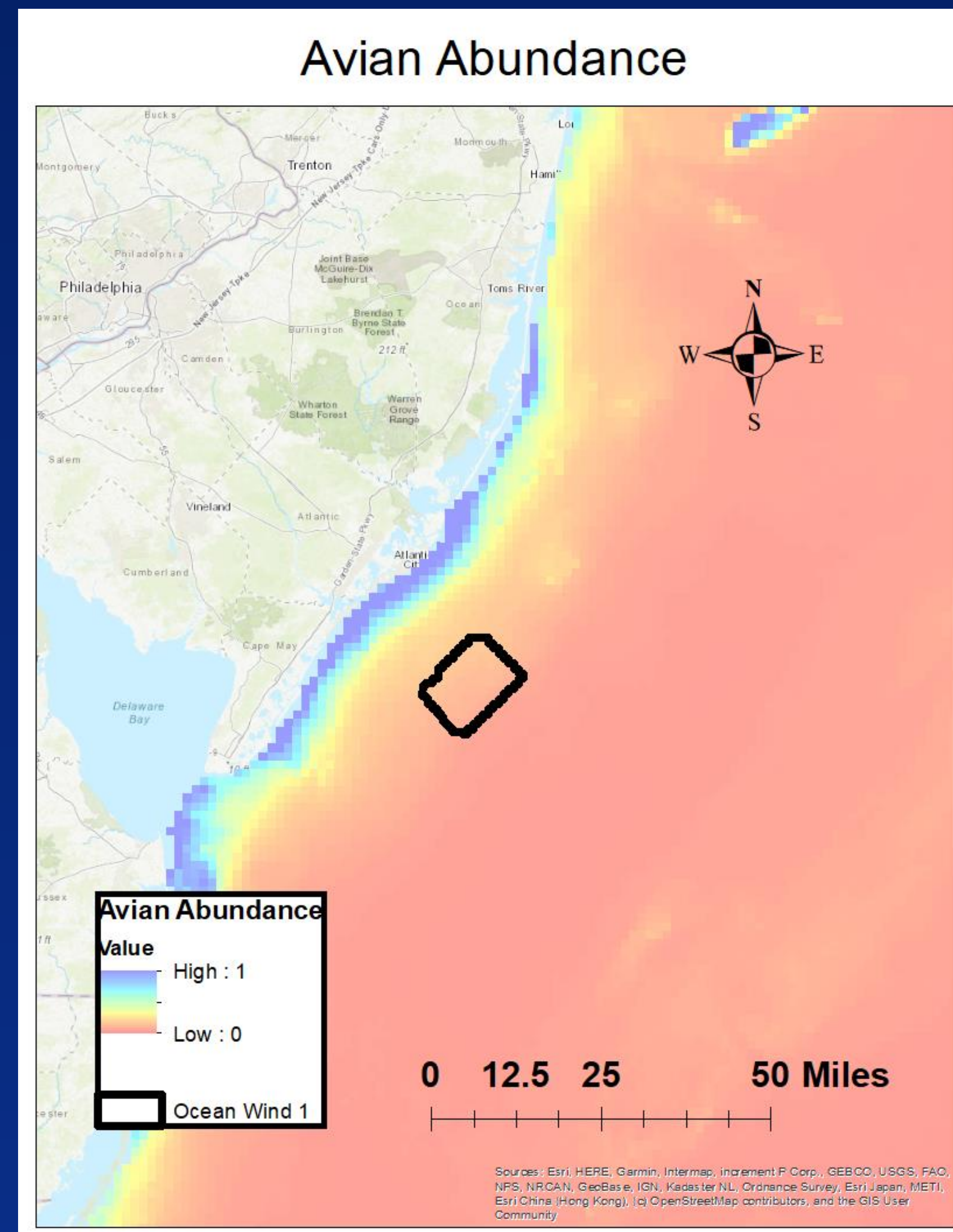

Figure 1. The individual avian and baleen abundances mapped with the Ocean Wind 1 site
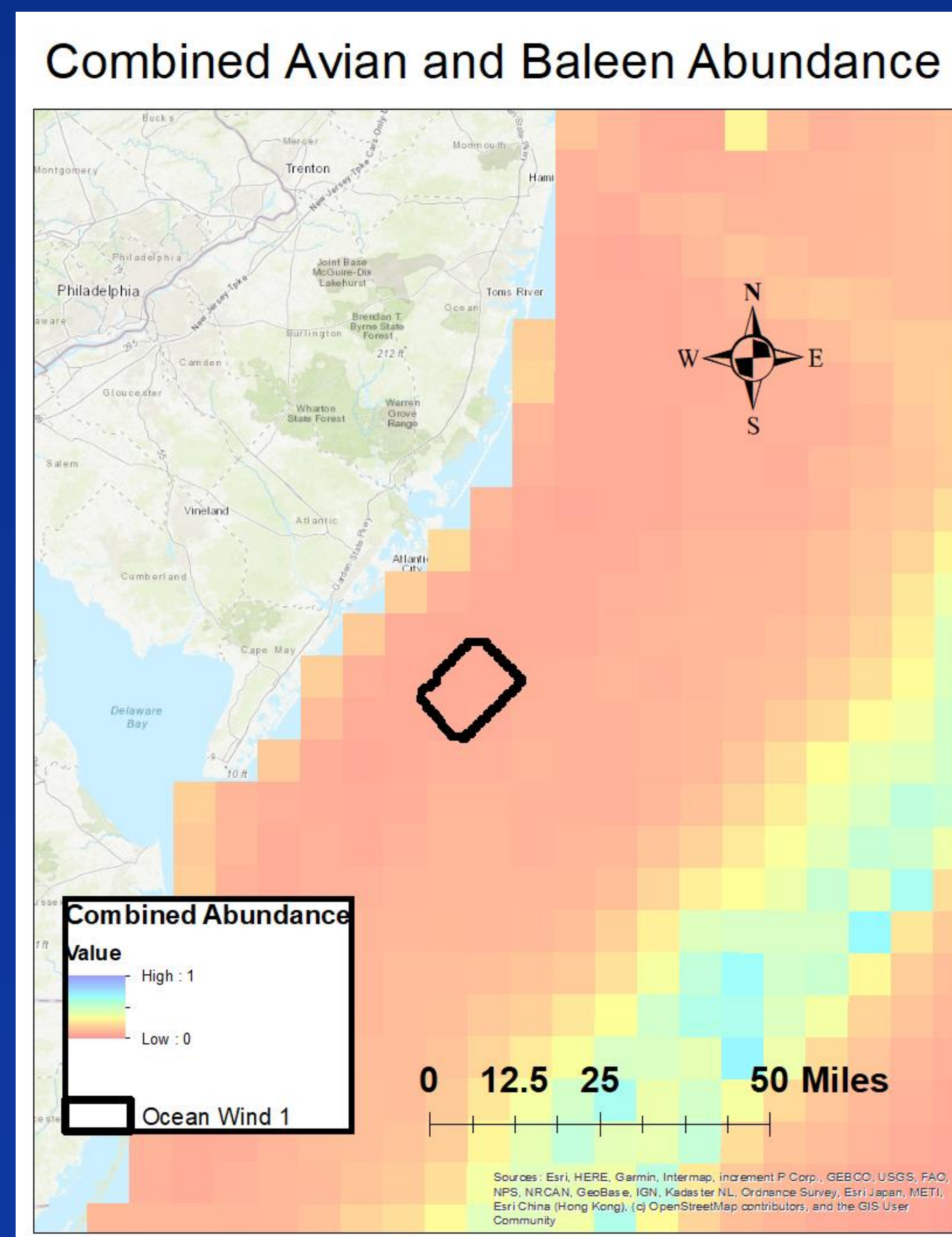

Figure 2. The overlay analysis of avian and baleen abundance mapped with the Ocean Wind 1
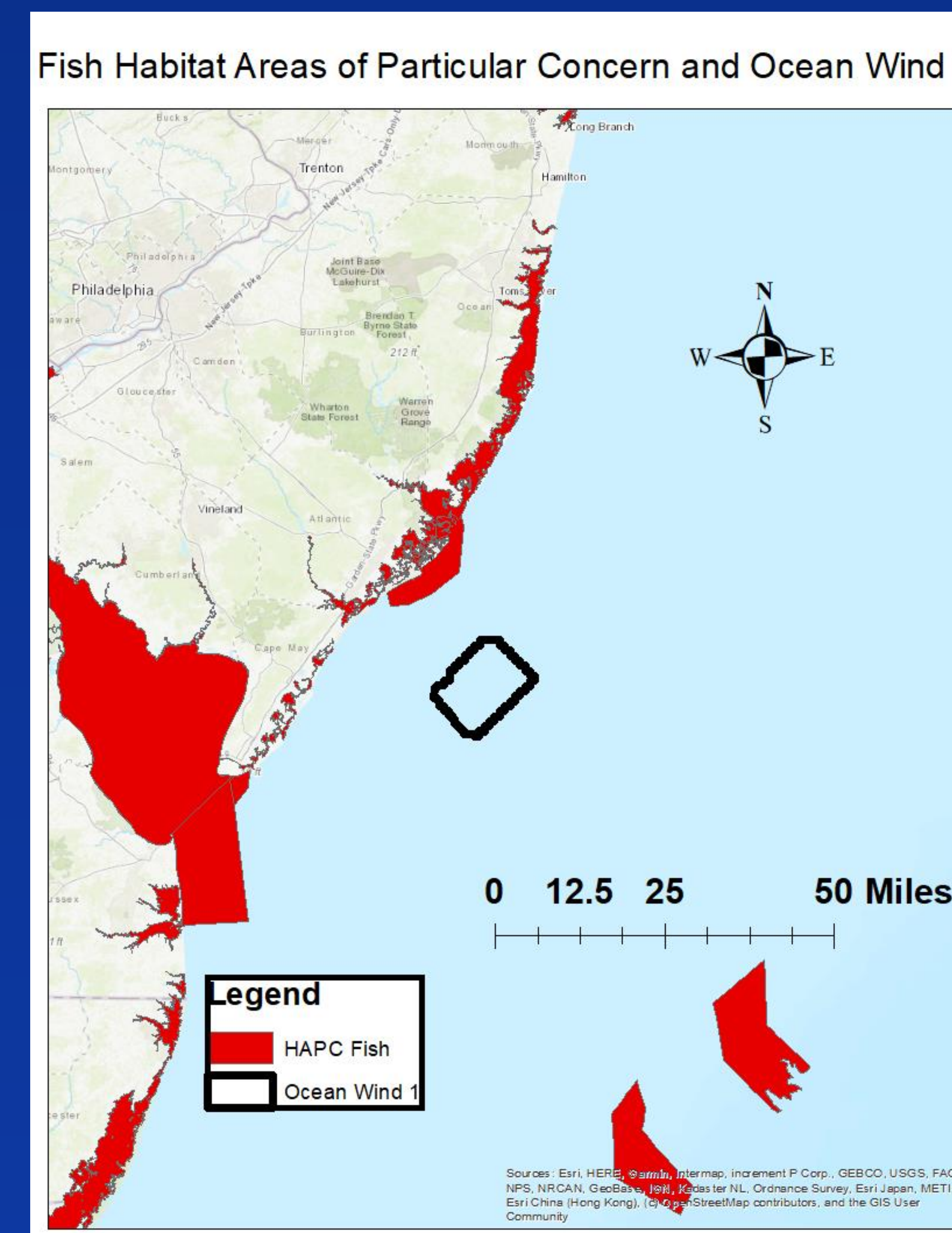

Figure 3. The fish Habitat Areas of Particular Concern mapped with the Ocean Wind 1 site

Results

Map displaying the Habitat Areas of Particular Concern (HAPC) with Ocean Wind 1 shows no interference.

Map displaying the combined avian and baleen abundance displays that there is a relatively low abundance of avian and baleen species in the area of Ocean Wind 1.

Methods

➢ Mapped the Habitat Areas of Particular Concern HAPC vector with the Ocean Wind 1 vector
➢ Mapped baleen whale abundance and avian abundance
➢ Set all values from 0 (low) to 1 (high)
➢ Did an overlay analysis with baleen whale and avian abundance using raster calculator to display the abundance of multiple species

Conclusions

The data suggests that the site of Ocean Wind 1 will have a minimal effect on some of the species of concern and their habitats.