

Addendum to the New England Wind Biological Assessment to USFWS

Pursuant to Section 7(a)(2) of the Endangered Species Act (ESA) of 1973, on December 23, 2022, the Bureau of Ocean Energy Management (BOEM) requested formal consultation with the U.S. Fish and Wildlife Service (USFWS) regarding species that may be affected by the approval of a Construction and Operations Plan (COP) for the for the New England Wind project, a commercial wind energy facility located within BOEM's OCS-A 0534 Lease Area offshore Massachusetts.

On September 14, 2022, the tri-colored bat was proposed for listing as endangered under the ESA 87 Fed. Reg. 177 [September 14, 2022]). As such, BOEM is providing this addendum including the tri-colored bat as a covered species.

Species Description

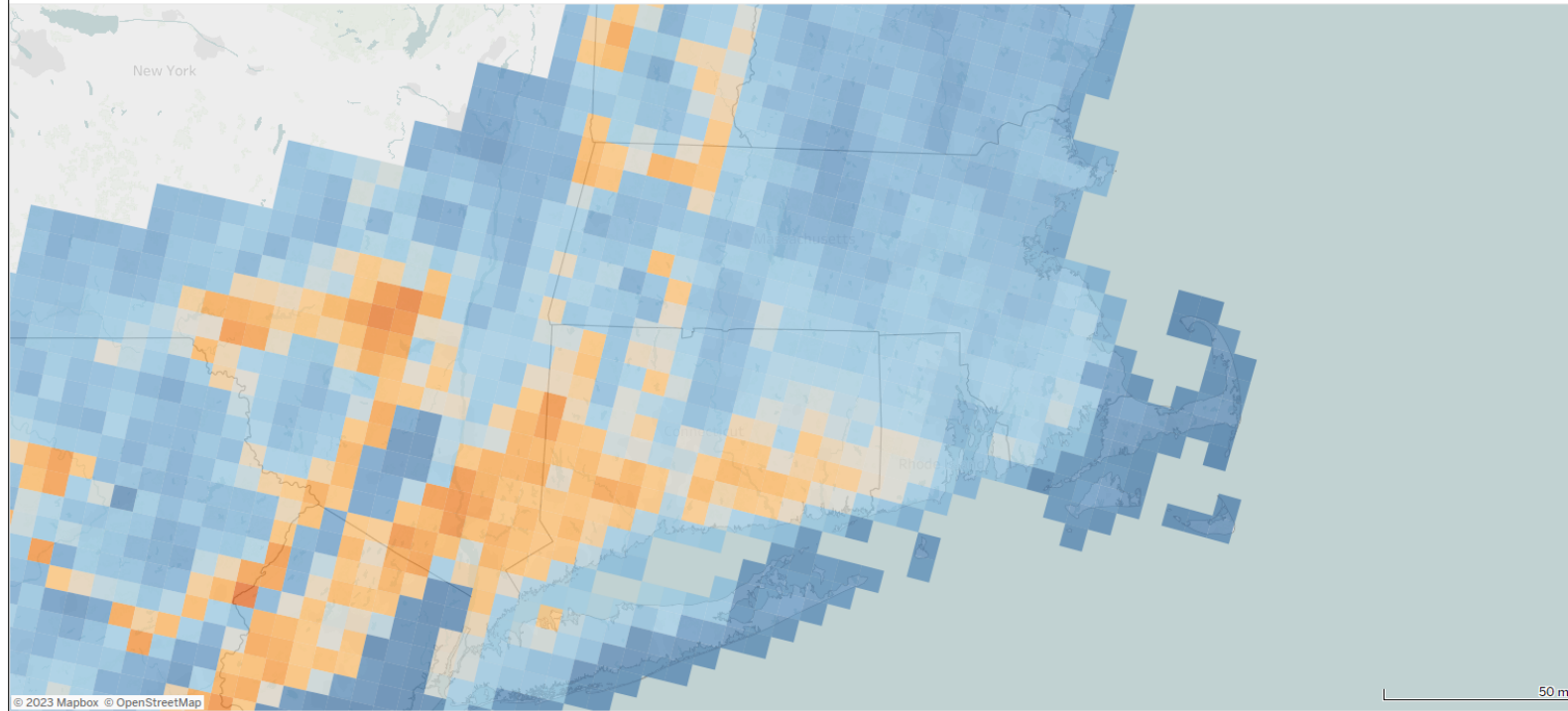
The tri-colored bat (TCB) is a small, wide-ranging bat species that occurs in 39 US states, Mexico, Belize, Guatemala, Honduras, Nicaragua, and four Canadian provinces. It is one of the smallest bat species in North America and is distinguished by its unique fur coloration that is dark at the base, lighter in the middle, and dark at the tip. The USFWS proposed listing the TCB as endangered on September 14, 2022, and found that designating critical habitat is not prudent for this species (87 Fed. Reg. 177 [September 14, 2022]). The annual life cycle of the TCB includes winter hibernation (caves and mines), spring migration, summer birth of young, fall migration, and fall swarming and mating. During the spring, summer, and fall, TCB primarily roost among live and dead leaf clusters of live or recently dead deciduous hardwood trees. In the summer TCB have also been found roosting among pine needles and within artificial roosts (barns, beneath porch roofs, bridges, and concrete bunkers). Female TCBs exhibit high site fidelity, returning to the same summer roosting locations every year. While female TCBs form maternity colonies male TCBs roost singly (USFWS 2021).

The greatest threat to TCB is white-nose syndrome. The effect of white-nose syndrome on TCB has been extreme. A recent study using data from 27 states and 2 provinces estimated that TCB colonies declined by 90 to 100 percent after being infected with *Pd*, across 59 percent of the species' range (Cheng et al. 2021). Although overshadowed by the impacts of white-nose syndrome, annual fatalities from land-based wind energy is estimated at 3,327 individuals (USFWS 2021). However, the offshore risk to the TCB seems to be minimal because they appear to be less active offshore and are one of the least common species documented in studies at offshore sites (Stantec 2016; Solick and Newman 2021). A long-term acoustic study in the Great Lakes ($n = 6$ sites), Gulf of Maine ($n = 24$), and Mid-Atlantic ($n = 8$) coastal regions from 2009–2014 detected 565,158 bat passes during 17,730 detector nights. Of those, only 12 passes were identified as tri-colored bats. TCB passes were recorded at the Coastal Studies Institute in North Carolina ($n = 6$), Manitou Island, Michigan ($n = 5$), and Ocracoke Light in North Carolina ($n = 1$) (Stantec 2016).

Occurrence in the Action Area

The occurrence of TCBs within the onshore portions of the Action Area are predicted to be very low (Figure 1). Additionally, the Massachusetts Rare Species database was reviewed for extant occurrences of the species, with the closest occurrence over 60 miles from the onshore Action Area. (Figure 2). Given the lack of records in the onshore portion of the Action Area, BOEM expects little, if any, use of habitat that may be disturbed by construction, operation, or eventual decommissioning of onshore project elements. Additionally, given the lack of records of TCB using open water habitats, BOEM does not expect any individuals to encounter operating wind turbine generators (WTGs) on the OCS.

Status and Trends - Bat Summer Occupancy by Species and Year



Select a grid cell to explore trends

Species
Tricolored bat

Year
2019

Sampled Cells (Yes/No)
Within the Predicted Range
Highlight Sampled

Specify grid cell GRTS ID
Highlight Grts Id

NABat GRTS Priority
All

State/Provincial View

Covariates

Download

Average Occupancy
0.000 1.000

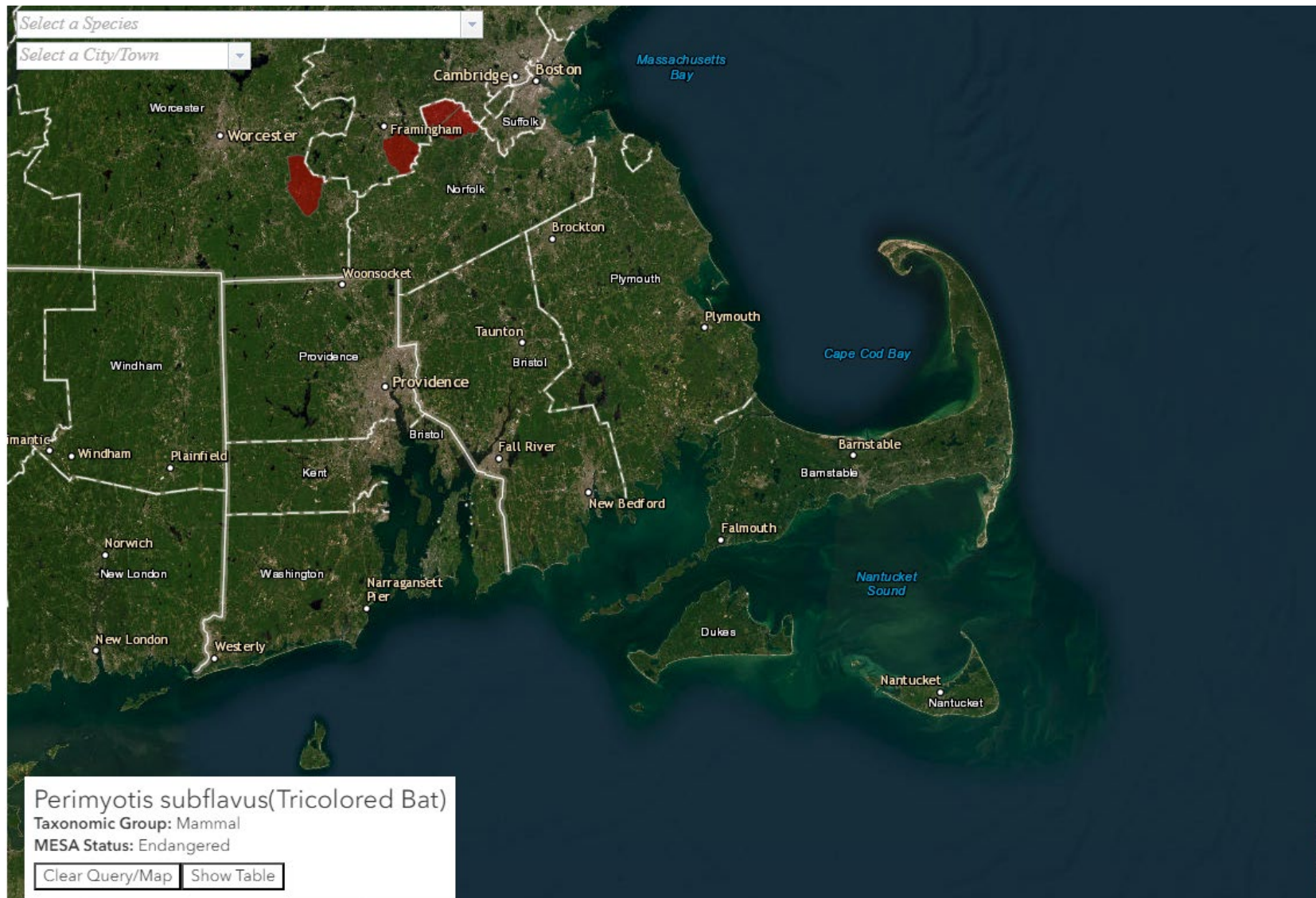
© 2023 Mapbox © OpenStreetMap

Map depicting mean occupancy probability by species and year for each grid cell, as defined by the user via filters. Occupancy probability of a grid cell is a quantitative measure of belief that a species uses a grid cell in a summer year. Spatial extent for each species map corresponds with the 'modeled species range', or the geographic area within the extent of available NABat monitoring data.

Udell, B.J., Straw, B.R., Cheng, T., Enns, K.D., Winfred, F., Gotthold, B.S., Irvine, K.M., Lausen, C., Loeb, S., Reichard, J., Rodhouse, T., Smith, D.A., Stratton, C., Thogmartin, W.E., and Wiens, A.M., Reichert, B.E., 2022, Status and Trends of North American Bats Summer Occupancy Analysis 2010-2019 Data Release. U.S. Geological Survey data release, <https://doi.org/10.5066/P92JGACB>.

Source Udell et al. 2022

Figure 1. Predicted tri-colored bat summer occupancy



Source: MDFW 2023

Figure 2. Known records of tri-colored bats in Massachusetts.

Effects of the Proposed Action

As discussed above a major threat to TCB is fatal interaction with operating WTGs. However, given the general lack of TCB records over open water habitats, BOEM assumes that no individual TCBs would encounter operating WTGs associated with the Proposed Action, and therefore direct impacts to individual TCBs due to collision mortality would not be expected to occur.

The Proposed Action would remove up to approximate 6.7 acres of potentially suitable forested habitat for the onshore substation. As discussed above, based upon modeled summer occupancy and extant occurrence records of TCB in Massachusetts, TCB would not be expected to occur within the forested habitat that would be removed as part of the Proposed Action.

Given the overall lack of onshore and offshore records of TCB in the vicinity of both onshore and offshore Project elements, BOEM assumes that TCB would not be exposed to the Proposed Action, and as such, the Proposed Action would have *no effect* on TCB.

Literature Cited

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