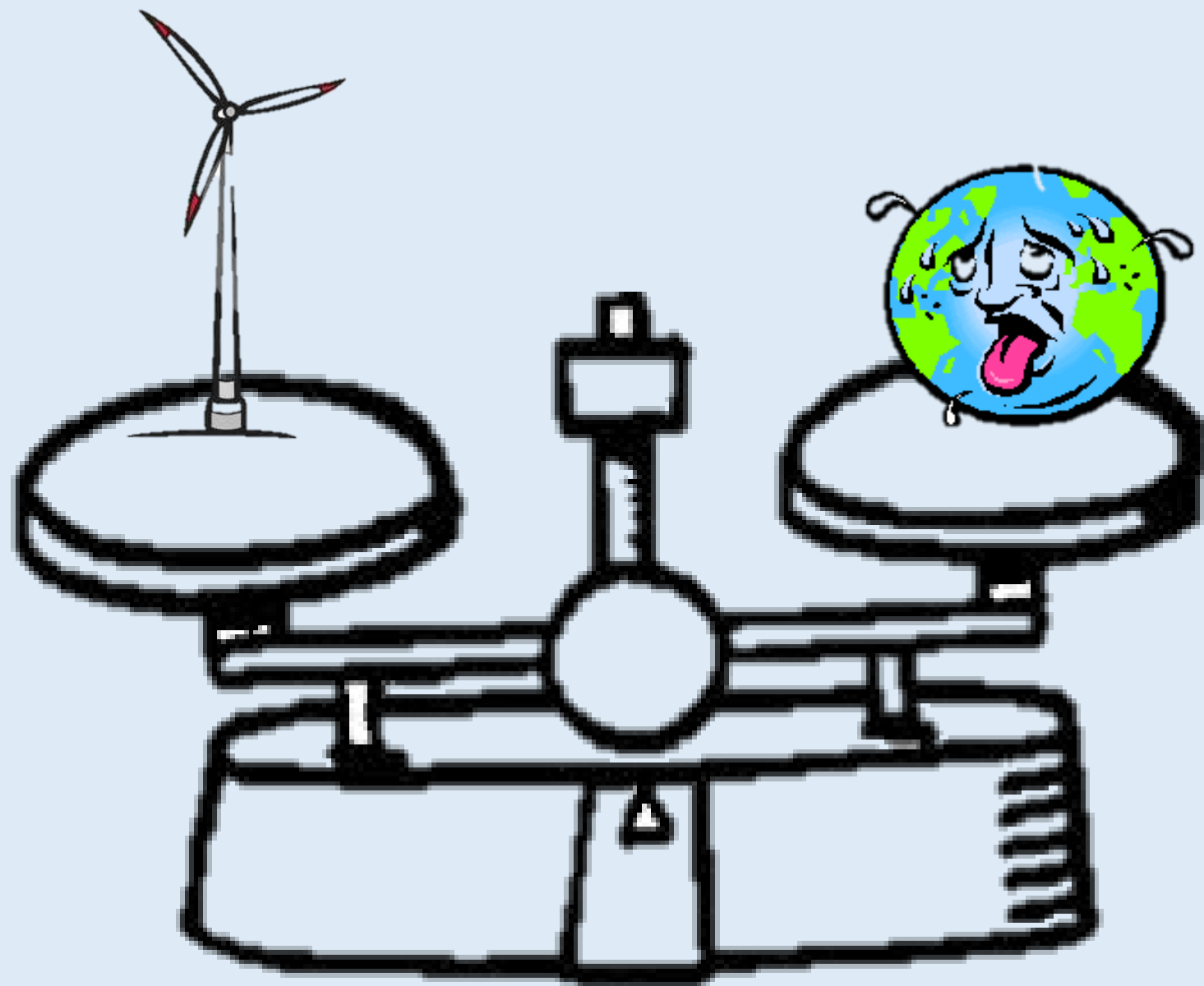


Impacts of Offshore Wind on Wildlife



Zara Dowling
NSF IGERT Offshore Wind Program Fellow
UMass-Amherst





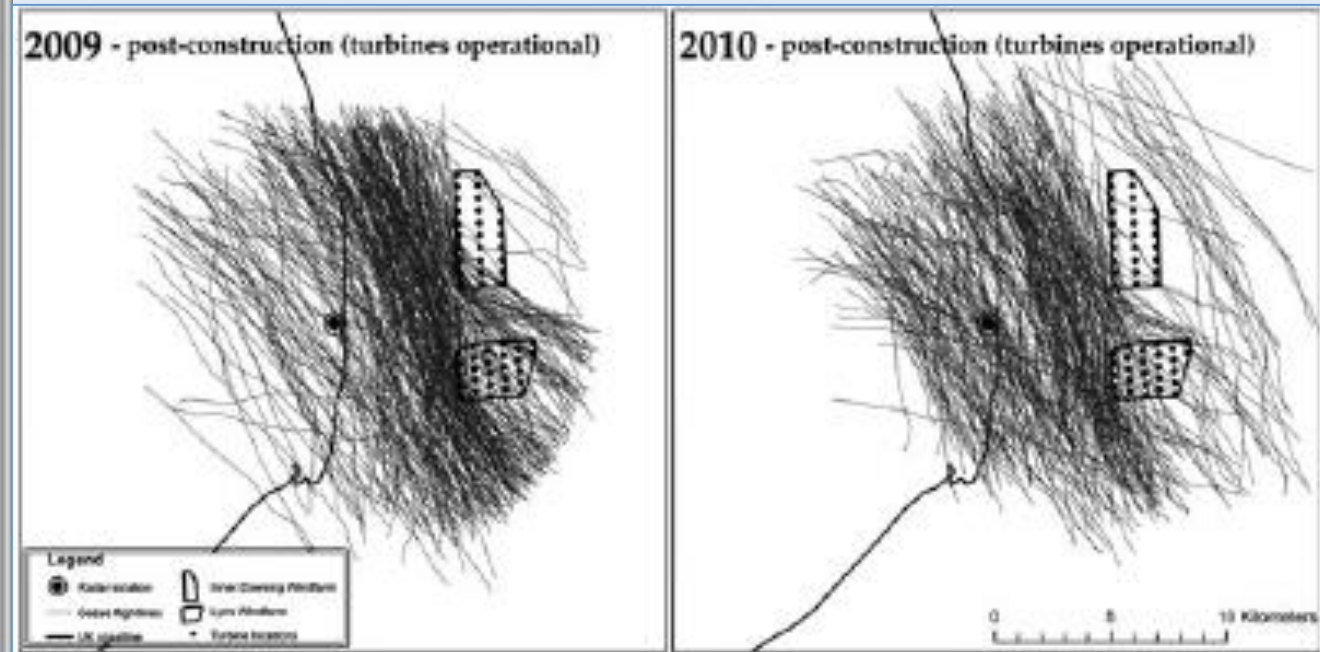
Marine Mammals & Sea Turtles



- Potential impacts from noise of monopile construction
- Increased risk of collisions due to increased vessel traffic during construction and deconstruction
- Minimal to moderate impacts may be due to electromagnetic fields or noise during operation

Marine Birds

- Collision effects are minimal
- Uncertainty regarding effects of displacement

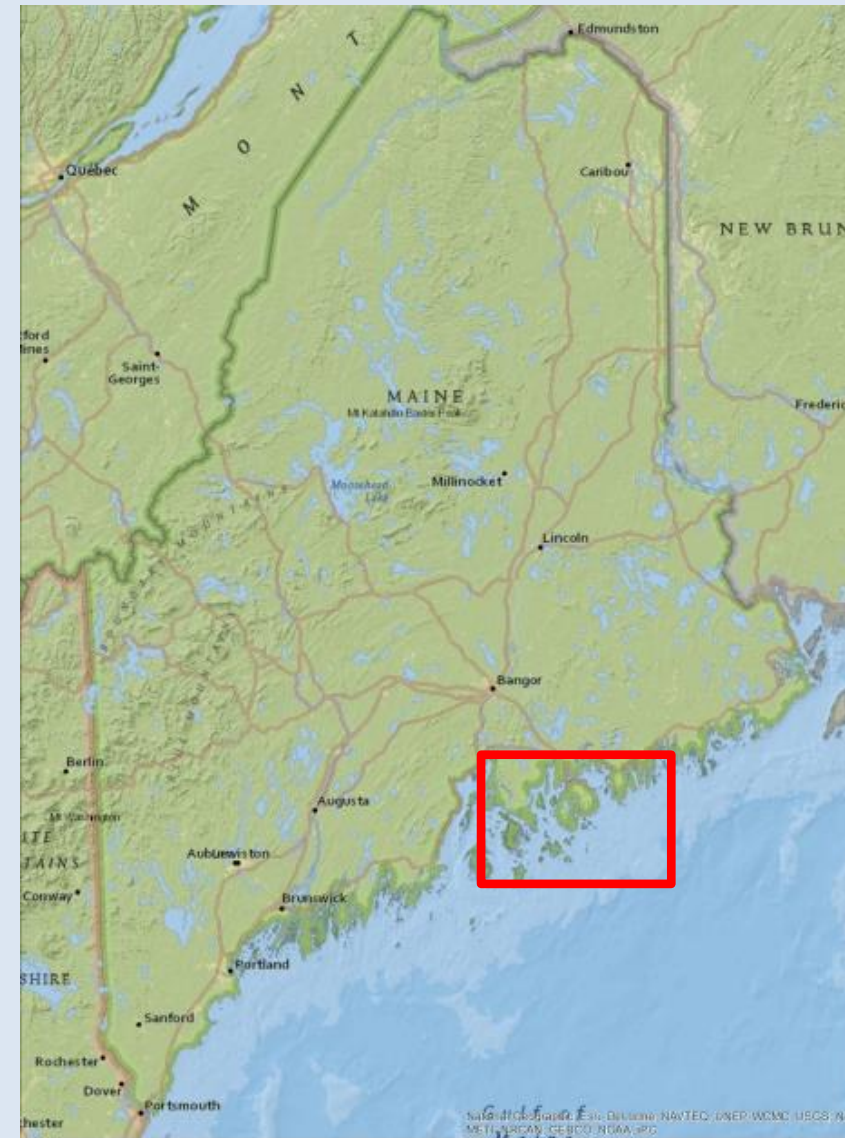
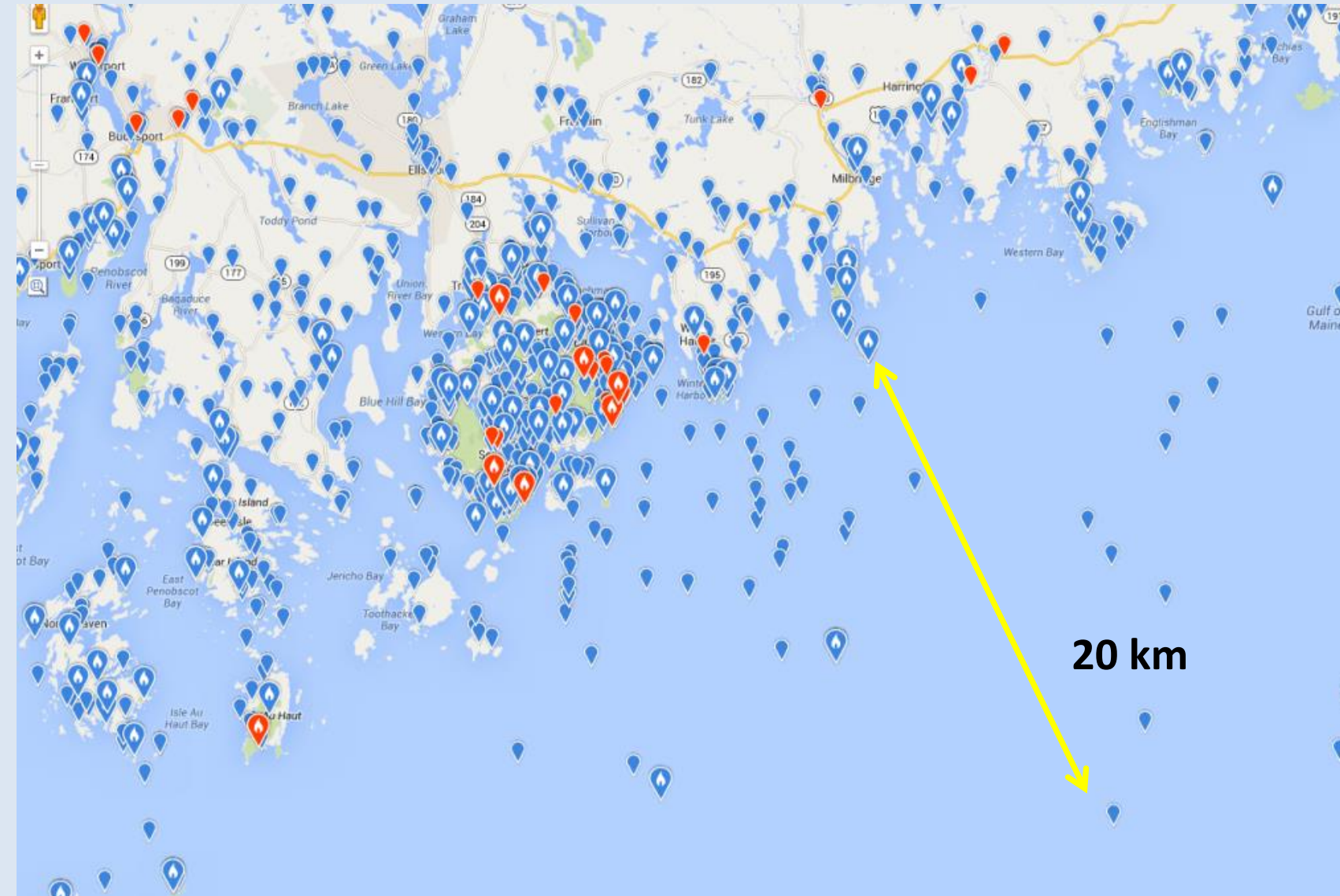


Fish & Macrobenthos



- Changes in substrate due to hard surfaces, scour, wave patterns, sediment deposition
- For Fish: Disturbance due to noise, EMF
- Artificial reef effects

Eagles



Songbirds



- ~80% of bird mortality at terrestrial turbines
- Attraction to lights (fog) => coastal collisions
- Migratory flight altitude typically ~200 and 800m, but lower over water and in bad weather

Long-distance Migratory Bats



- ~75% of bat mortality at terrestrial turbines
- Particularly vulnerable during fall migration season (~July 15-October 15)
- Higher relative abundance at coastal than inland sites
- Long anecdotal history of bats migrating offshore (e.g. “flock of...about a hundred which caught up with and settled on Mr. Cheeseman’s ship...” Thomas, 1921)



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