Wind Farms and Whales

What is a Unusual Mortality Event (UME)

Under the Marine Mammal Protection Act, an unusual mortality event (UME) is defined as "a stranding that is unexpected; involves a significant die-off of any marine mammal population; and demands immediate response." In April 2017, a UME was called for humpback whales, which includes stranded whales from 2016.

TAKEAWAY:

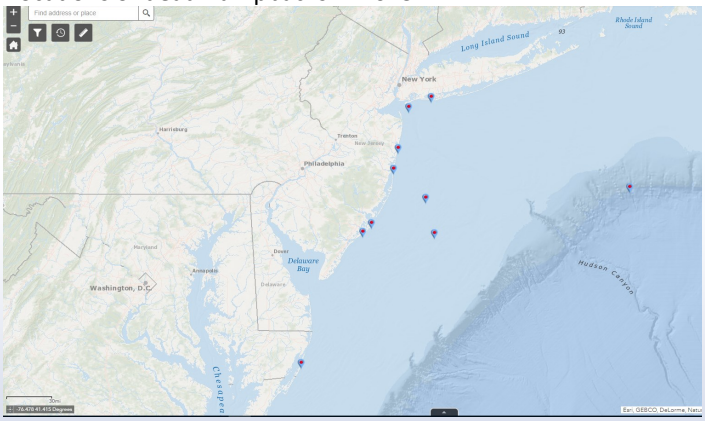
The current number of stranded whales is not much different than in previous years.

Humpback Whale Strandings by State*

State	'16	'17	'18	'19	'20	'21	'22	'23	Total
ME	2	0	2	0	1	0	2	0	7
NH	1	0	0	0	0	0	0	0	1
MA	3	7	4	4	10	4	3	0	35
RI	2	3	0	1	0	0	3	0	9
NY	4	5	8	5	9	1	2	2	36
NJ	3	3	2	5	4	0	4	7	28
MD	1	1	0	0	0	1	0	1	4
DE	3	2	1	1	1	0	0	0	8
VA	2	7	4	6	4	1	1	6	31
NC	4	6	2	4	3	3	4	0	26
SC	1	0	0	0	0	0	0	0	1
GA	0	0	1	1	0	0	0	0	2
FL	0	0	2	0	1	0	0	0	3
TOTAL	26	34	26	27	33	10	19	16	191

*as of 4-23-23. Source: https://www.fisheries.noaa.gov/

Locations of dead humpbacks in 2023



Partial or full necropsy examinations were conducted on approximately half of the whales since the UME began. Of the whales examined (approximately 90), about 40 percent had evidence of human interaction, either ship strike or entanglement.

Source: https://www.fisheries.noaa.gov/

What's Happening

Why Wind Farms?

Source: www.mass.gov

In March 2021, the Biden-Harris administration announced a national goal of generating 30 GW of offshore wind energy by 2030, marking the nation's first federal-scale offshore wind energy goal. This goal is overseen by the Bureau of Ocean Energy Management (BOEM)—the agency tasked with regulating energy development in federal waters .

There are currently 7 windmills off the East coast of the US. 5 are part of the Rhode Island Wind Farm. The other two are off the coast of VA.

BOEM's Process

Phase 1: Planning and analysis stage. BOEM identifies areas for **potential** wind farms.

Phase 2: Lease issuance. BOEM issues a wind energy lease and the lessee has the exclusive right to seek approval for the development of that lease area. This does not grant the lessee permission to construct a wind farm, only develop the plans.

Phase 3: Approval of Site Assessment Plan (SAP). Lessee conducts a site characterization study (finding shallow hazards, geological, geotechnical, biological conditions, environmental conditions and hazards, etc.) Lessee submits the SAP where they detail installation, operation and deconstruction plans. A site assessment is conducted upon approval of the SAP.

Phase 4: Approval of Construction and Operations Plan (COP). The COP is approved and BOEM develops Environmental Impact Statement (EIS). This is then open for public comment two times. After that, BOEM approves, approves with modification or disapproves the COP. Then construction can begin.

Some of the environmental regulations that are evaluated for the Environmental Impact Statement

- National Historic Preservation Act (NHPA)
- Migratory Bird Treaty Act (MBTA)
- Endangered Species Act (ESA)
- Magnuson-Stevens Fishery Conservation and Management Act (Essential Fish Habitat [EFH])
- Marine Mammal Protection Act (MMPA)
- Coastal Zone Management Act (CZMA)

Scan this QR code to learn more about BOEM's plans to develop offshore wind.

with Wind Farms?

MYTH: They are allowed to kill whales.

FACT: They are NOT permitted to kill whales! The Marine Mammal Protection Act prohibits the "taking" of marine mammals, including hunting, capture, or harassment. There are two type of "takes"

Level A: has the potential to injure a marine mammal or marine mammal stock in the wild

Level B: has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering.

NOAA authorizes Level B takes, not level A takes. Each company also has to offer sufficient mitigation strategies to prevent the takes. There are public comment periods before these are authorized. See a proposal here!

MYTH: The sounds kill whales.

FACT: There have been no published scientific studies that show that baleen whales become injured by the sonar equipment used by survey vessels. The equipment (boomers, sparkers, chirpers) used to explore the ocean floor for wind use is less intrusive to the whale's environment than that used for oil and gas exploration. The sound has a narrow beam width (1° to 3.5°) and is at a higher frequency (180 kHz) than most of these marine mammals are hearing. (For example, the most reliable model data indicated humpbacks hearing range is between 15 Hz and 3 kHz. (Source, DOSITS)

MYTH: Human sonar interferes with whale sonar.

FACT: Many of the whales washing ashore are baleen whales—and they don't echolocate (or use sonar), only the toothed whales do.

Think about it this way...

You and your children go to a parade. Usually the first thing that goes by are the loud fire engines. Your children cover their ears. You might have been granted a Level B take because by taking the kids to the parade, you caused a behavior change.

What's Happening in NY and NJ?

Vessel Traffic has Increased

CNN BUSINESS Markets Tech Media Success Perspectives Videos

'SEARCHING FOR MEXICO'

The busiest port in America is no longer on the West Coast

By Vanessa Yurkevich, CNN
Updated 11:14 AM EST, Fri December 9, 2022

New York (CNN) — For the past 22 years, the Port of Los Angeles has been the busiest container port in North America, moving around 10 million cargo containers filled with goods for Americans and bringing in roughly half a billion dollars in revenue each year to the state of California. But for the past three months, the Port of New York and New Jersey has been No. 1.

Vessel Traffic in the NY Bight (Source: BOEM)

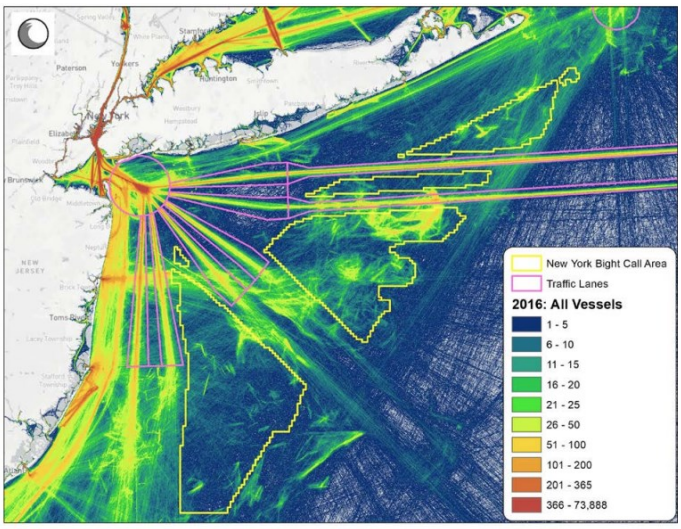
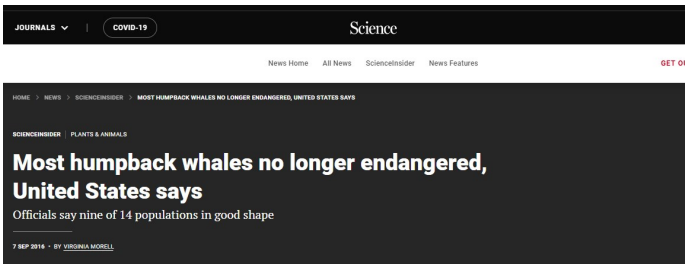


Figure 6: AIS counts for all vessels carrying AIS transponders in 2016.[47]

Humpback Whale Numbers have Increased



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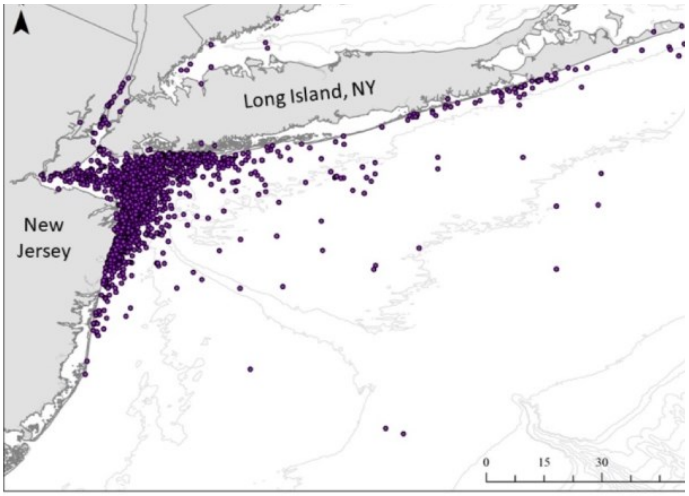
Most humpback whales no longer endangered, United States says

Officials say nine of 14 populations in good shape

7 SEP 2016 • BY VIRGINIA MORELL

Humpback Whale Sightings 2011-2023

Source: Gotham Whale



2/17/23 Gotham Whale

MAIN TAKEAWAY:

- Many more whales than ever before are seen feeding off the coast of NY and NJ likely because of the increase in "bunker", which seems to be a preferred prey fore juveniles feeding closer to shore.
- More boats are moving in and out of NY harbor— **utilizing the same space and time**. The potential for collisions will naturally increase.
- Some whales washing up are showing signs of blunt force trauma from shipstrikes.
- At this point, there is no evidence that points to wind farms as the direct cause of whale deaths.

Think about it this way...

If you are around one bee, you can likely avoid being stung. BUT, if you step on a nest, your chances of being stung are much greater!