



Whales and Offshore Wind - What's True, What's Not and Where is it Coming From?

As the U.S. works to develop renewable energy, misinformation about offshore wind's impact on our environment and marine species has been spreading in local communities. Multiple studies and analyses have revealed these false claims are originating from, and being perpetuated, by special interest groups connected to the fossil fuel industry. This document corrects the most common false claims with science-based research, and details how this misinformation is spreading.

WHO IS BEHIND THE FALSE CLAIMS ON OFFSHORE WIND AND MARINE LIFE?

False claims about offshore wind and marine mammals are originating from local organizations along the east coast, including Save Right Whales, Protect Our Coast New Jersey and Save Our Beach View. While these groups define themselves as grassroots, **recent studies have shown these groups' financial backing are linked to climate denial think tanks and the oil and gas industry.** ([Lutz & Rowland-Shea, 2023](#), [Slevin et al., 2023](#))

- Despite evidence, these fake grassroots, or "astroturf," groups have been obscuring and denying their **connection to the larger anti-offshore wind network**, including the Caesar Rodney Institute, the Texas Public Policy Foundation, the American Coalition for Ocean Protection, American Fuel and Petrochemical Manufacturers and the American Energy Alliance. ([Lutz & Rowland-Shea, 2023](#), [Slevin et al., 2023](#))
- These false claims are being perpetuated by political leaders and **others who oppose offshore wind.** ([Workboat Staff, 2024](#), [Taft, 2023](#))
- Litigation against offshore wind projects has raised concerns over **whether the claims brought forth are fully aligned with environmental protections or driven by fossil fuel interests.** ([Storrow, 2024](#))

FALSE CLAIM: Offshore wind farms have caused the recent spike in whale deaths.

FACTS A large range of experts and scientists state there is no evidence linking offshore wind development to recent whale deaths. ([Axelrod, 2024](#), [Thorne & Wiley 2024](#))

Some of these experts include:

- [Marine Mammal Commission](#)
- [NOAA Fisheries](#)
- [Department of Energy](#)
- [Woods Hole Oceanographic Institution](#)
- [Cornell University](#)
- [Duke University](#)
- [Yale University](#)

Researchers have **found definitive evidence of other factors driving the increase in recent whale deaths** and the 'unusual mortality events' among the Atlantic humpback whale, Northern Atlantic right whale, and Atlantic minke whale, including:

Vessel Strikes

- Vessels that strike marine mammals can cause serious injury or death, or otherwise negatively affect their health and ability to reproduce. Mothers and calves are disproportionately affected. ([Kershaw, 2022](#))
- Since 2017, 58% of identifiable deaths to North Atlantic right whales have been caused by vessel strikes (as of August 2024). ([NOAA, August 2024](#))
- Nearshore areas are extremely busy with vessel traffic, especially as shipping has dramatically increased with a global economy. ([Robbins et al., 2022](#), [Tournadre, 2014](#))

Entanglement in Fishing Gear

- Since 2017, 35% of identifiable deaths of North Atlantic right whales, 88% of serious (i.e., lethal) injuries, and 75% of sublethal injuries have been caused by fishing gear entanglement (as of August 2024). ([NOAA](#), August 2024)
- Active, abandoned or lost fishing gear can become entangled around marine mammals, causing painful wounds and hampering their ability to swim, surface for air, and feed, as well as impairing their ability to successfully reproduce.

Climate Change

- Warming waters caused by climate change have put extreme pressure on whale populations. Whale food sources, such as zooplankton and small fish, are shifting or declining altogether, affecting whale feeding areas and migration routes. ([Cooley, 2022](#), [Meyer-Gutbrod et al., 2023](#))
- Whales are now often sighted outside their usual regions, migrating much further to find ideal habitats and shifting their foraging patterns into high-traffic areas and fishing grounds, increasing the risk of vessel strikes and entanglement in fishing gear. ([Thorne & Wiley 2024](#))

FALSE CLAIM: The sounds produced by offshore wind have caused recent whale deaths.

FACTS

Whales rely on sound to navigate, find prey, avoid predators, and communicate with each other. Excessive underwater noise can disrupt a whale's communication, navigation abilities, and feeding behavior.

Loud noise can cause auditory injuries when experienced at close range. ([NOAA, 2022](#))

Many industries make noise in the ocean, including shipping, the military, bridge and pier construction, the oil and gas industry, and offshore wind development. The use of best practices and evolving technologies, reflecting years of research on underwater noise, helps mitigate these noise disturbances to protect marine mammals. ([Weilgart, 2023](#))

The offshore wind industry produces underwater noise through High Resolution Geophysical (HRG) surveys and through pile driving to install turbine foundations. ([BOEM, 2023](#))

- **There is no evidence that HRG surveys are linked to recent marine mammal deaths.** ([Thorne & Wiley, 2024](#); [BOEM, 2018](#); [MMC, 2023](#))
- HRG surveys are different from seismic airgun arrays. Seismic airgun arrays emit high levels of noise pollution and are used by the oil and gas industry. **Seismic airgun arrays are not used in renewable energy development.** ([BOEM, 2021](#))
- **HRG survey sounds are lower in energy than seismic airgun arrays and many sources are highly directional and/or emit sounds at frequencies higher than marine mammals can hear.** Sounds that are audible to marine mammals are largely mitigatable through proven safety measures and are very unlikely to have caused any of the observed strandings. ([Thorne & Wiley, 2024](#), [BOEM, 2018](#); [MMC, 2023](#))
- Pile driving, which occurs only during construction, does produce significant underwater noise. **Noise minimization and mitigation strategies are required by developers to reduce the noise impact** of this activity. These strategies include seasonal restrictions, noise abatement techniques, and other proven strategies noted below. ([BOEM, 2023](#); [BOEM, 2021](#))

Offshore wind developers are required to employ a number of proven marine mammal safety measures to mitigate noise and other risks. These requirements often go beyond what is required of other ocean industries. Additionally, offshore wind developers are investing in the development of additional advanced technologies to protect whales. Required and developing safety measures include:

Protected Species Observers

- Protected species observers (PSOs) are trained third-party professionals hired by developers to detect and identify marine mammals and turtles within the potential impact zone for an activity, and to work to prevent harm to these animals. PSOs have shown proven results, and are used to reduce the possibility of vessel contact and noise disturbances, and to monitor for any behavioral effects of the activity. **PSOs are required by NOAA and BOEM for a range of ocean activities, including all offshore wind surveying and development.** ([NOAA, 2023](#); [A.I.S. Inc., 2020](#); [BOEM, 2023](#))
- Whales don't always appear at the water's surface, so visual monitoring must be combined with passive acoustic monitoring (PAM) and other technologies (listed below).

Seasonal/Time of Day Restrictions

- Timing pile driving and other development activity to avoid peak migration or foraging seasons for North Atlantic right whales significantly reduces any acoustic disturbance to these animals as well as reduces vessel strike risk. Similarly, limiting activities to daytime hours increases the monitoring capabilities of PSOs to spot marine mammals. **All federal permits for offshore wind farms thus far include seasonal and time of day restrictions on construction activity.** ([SLR Consulting, 2024](#); [SEER, 2022](#); [Federal Register, 2023](#))

Speed Restrictions

- One of the most effective proven strategies for **preventing whale deaths from vessel strikes are lower vessel speeds.** A vessel speed limit of 10 knots can reduce the probability of lethal injury or mortality of a North Atlantic right whale by 80-90%. ([Conn & Silber, 2013](#))
- As part of the federal government's North Atlantic right whale protection strategy, vessels 65-feet and longer are required to travel at 10-knots or less at seasonal times in high risk areas, and are asked to voluntarily slow down to 10 knots outside of these areas if right whales have been sighted. NOAA is in the process of updating these regulations to further improve protections.
- As part of offshore wind federal permits, **almost all offshore wind vessels are required to travel at 10-knots or less year round.** Crew transfer vessels may exceed 10-knots when no federal speed regulations are in place; however, developers are required to conduct additional monitoring of the transit route and slow down if whales are detected. ([Conn & Silber, 2013](#); [Federal Register, 2013](#))

Bubble Curtains and Other Noise Abatement Systems

- **Offshore wind developers are required to use noise abatement technologies during noisy construction activities, such as pile driving.** For example, bubble curtains can be used during offshore wind construction to help protect marine mammals from acoustic disturbances. Through perforated hoses that emit bubbles to form a barrier, this technology significantly reduces sound waves from loud activity. Other noise reduction systems are also being introduced into the market that, when combined with bubble curtains, **can significantly reduce the sound energy from pile driving to mitigate harm to marine mammals and the broader environment.** ([Oladimeji Bello, 2024](#); [Davis, 2018](#); [AdBm Technologies, 2020](#))

Acoustic Monitoring

- Passive acoustic monitoring (PAM) uses underwater microphones to detect sounds made by marine mammals, fish and other sources. These devices come in many forms, including seafloor-mounted devices, floating buoys, remote operated vehicles and devices on ships. **This monitoring detects vocalizing marine animals so that vessels can slow down or surveying or construction work can be paused.** Whales don't always make noise, so sound monitoring conducted by PAM specialists must be combined with visual observers (PSOs) and other technologies. Offshore wind developers are investing in improving these technologies as well as using the data collected to predict when and where marine mammals can be found. ([NOAA, 2021](#); [NYSERDA, 2021](#))

Infrared Cameras

- Infrared cameras, or thermal imaging, are evolving technologies that can detect whales at the surface of the water even in low light conditions. They work by detecting the temperature difference between the cold water and the warmth of a whale's body and the air they exhale. **Offshore wind developers are required to utilize these monitoring technologies in any low light or night conditions,** and are also investing in their research and development to further improve detections. ([Horton et al., 2017](#); [Gray, 2023](#))

Regional Wildlife Science Collaborative for Offshore Wind (RWSC) is a coalition of federal agencies, states, eNGOs, and offshore wind developers that coordinates monitoring and research of wildlife and marine ecosystems to help ensure that offshore wind energy is developed responsibly on the Atlantic Coast. RWSC is actively working to support the evaluation of new technologies that can detect and monitor whale presence near construction sites. ([RWSC, 2024](#))

KEY REASONS TO SUPPORT OFFSHORE WIND:

Offshore wind is an effective clean energy source that can replace fossil fuels.

- Offshore wind is the most **effective and reliable** wind resource, as winds blow stronger and more consistently over the ocean than over land and peak during times of peak electricity demand. Offshore wind alone has the potential to generate more than 5 times what the U.S. consumes annually in electricity. ([R. Zuckerman et al., 2023](#))
- With 40% of the U.S. population living within an hour of the coast, offshore wind offers an effective option **to provide local energy** for communities that lack suitable space for land-based wind and solar. Local energy provides energy security against global disturbances. ([NOAA, 2024](#))

Offshore wind is overwhelmingly popular with the American population.

- A plurality of Americans recognize the benefits renewables bring to communities across the country, including energy independence, good-paying jobs, and boosts to the economy. ([Barr Foundation & Hart Research Associates, 2024](#))
- Two-thirds of coastal residents **support offshore wind development** and favor the government supporting offshore wind. ([Turn Forward & Climate Nexus, 2024](#))

Offshore wind is creating thousands of jobs.

- Offshore wind development is **creating good-paying, highly-skilled jobs** in local communities. By 2030, offshore wind is predicted to create up to 58,000 family-sustaining jobs. ([Stefek et al., 2022](#))
- Offshore wind jobs are benefiting communities across America, including in [Kentucky](#) (steel), [Texas](#) (transmission), [Wisconsin](#), [Louisiana](#), [Texas](#), and [Florida](#) (shipbuilding).