



**NOAA**  
**FISHERIES**

Office of Protected Resources  
Marine Mammal  
and Sea Turtle  
Conservation Division

## What is an Unusual Mortality Event?

*The MMPA defines a Unusual Mortality Event as “a stranding that is unexpected; involves a significant die-off of any marine mammal population; and demands immediate response.” Investigating UMEs is crucial to understanding the health of marine mammal populations, ocean health, and larger environmental issues.*



**Photo (top):** A vessel-struck male calf stranded dead in Florida in 2021 (calf of right whale #3230). Credit: Florida Fish and Wildlife Conservation Commission.

All photos taken under MMPA  
Permit No.18786



# North Atlantic Right Whale Unusual Mortality Event

**North Atlantic right whales are an endangered species and are in crisis. The species is approaching extinction with fewer than 350 individuals and fewer than 100 reproductively active females remaining.**

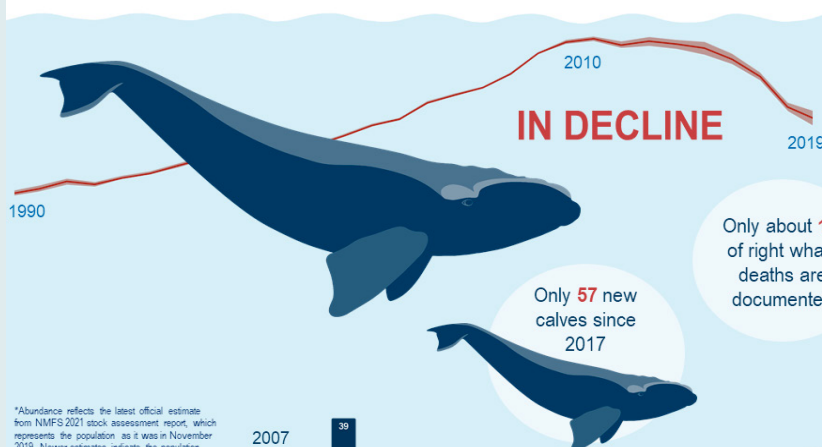
North Atlantic right whales almost became extinct after centuries of exploitation from commercial whaling. The species slowly increased to almost 500 individuals in 2010 due to protections from the Marine Mammal Protection Act (MMPA) of 1972 and the Endangered Species Act (ESA) of 1973.

Sadly, the North Atlantic right whale population started declining again and most severely in 2017 when 17 mortalities were documented in the United States and Canada, prompting NOAA Fisheries to declare an Unusual Mortality Event (UME) for the species. The ongoing UME tracks and investigates dead and seriously injured or sick individuals. Since 2017, at least 93 whales have been documented in the UME: 35 dead, 21 seriously injured, and 37 morbidity (sublethally injured or ill) cases.

The primary causes of the UME are entanglements in fishing gear and vessel strikes in both U.S. and Canadian waters, which are long-standing threats to the recovery of the species. Several cases include adult females or calves, which are particularly concerning. The 93 UME cases are a minimum because research suggests a majority of right whale deaths and injuries are undetected.

## NORTH ATLANTIC RIGHT WHALE

**~368\*** RIGHT WHALES LEFT  
95% confidence +/- 11 (in 2019)



**93** DOCUMENTED DEAD, SERIOUS, or SUBLETHAL INJURIES/ILLNESS  
UNUSUAL MORTALITY EVENT  
2017–present

### 35 DEAD

- 13 Unknown causes
- 11 Vessel strikes
- 9 Entanglements
- 2 Perinatal mortality

### 21 SERIOUS INJURIES

- 19 Entanglements
- 2 Vessel strikes

### 37 SUBLETHAL INJURIES/ILLNESS

- 28 Entanglements
- 4 Poor Body Condition
- 3 Injuries of unknown cause
- 2 Vessel strike

\*Abundance reflects the latest official estimate from NMFS 2021 stock assessment report, which represents the population as it was in November 2019. Newer estimates indicate the population has continued to decline to fewer than 350 individuals.  
Updated 1/9/2022.  
Information pertains to the United States and Canada.  
Abundance graph based on [Pace et al., 2017](https://doi.org/10.1002/ea3.3406) (doi.org/10.1002/ea3.3406) and NMFS stock assessment reports.



## The Unusual Mortality Event Program

The UME Program was established by Congress under the MMPA to investigate die-offs of marine mammals. The Working Group on Marine Mammal UMEs is composed of marine mammal health experts who determine when a morbidity or mortality event is “unusual.” NOAA Fisheries reviews the Working Group’s recommendation and decides whether to declare a UME for species under our jurisdiction (whales, dolphins, seals, and sea lions).



**Photo (above):** Broken baleen protrudes from the mouth of entangled and injured male right whale #3125 as responders from the Center for Coastal Studies attempt to remove rope constricting the whale’s head and mouth. Credit: Center for Coastal Studies.



**Photo (above):** The U.S. Coast Guard helped NOAA and partners respond to a dead vessel-struck North Atlantic right whale calf off New Jersey in 2020 (calf of right whale #3560). The carcass was towed ashore for a full necropsy to confirm and document the injuries. Credit: Marine Mammal Stranding Center.

**Photo (right):** Close-up of “Dragon” (#3180), an entangled adult female with a buoy and rope in her mouth in 2020. Credit: NOAA Fisheries.

## Management Actions To Reduce Threats Causing the North Atlantic Right Whale Unusual Mortality Event

NOAA Fisheries is responsible under the MMPA and ESA for protecting and recovering right whales. The agency implements regulatory and non-regulatory measures with partners to reduce the threat of entanglements and vessel strikes and collaborates with Canada since right whales are a transboundary species.

### FOR VESSEL STRIKES

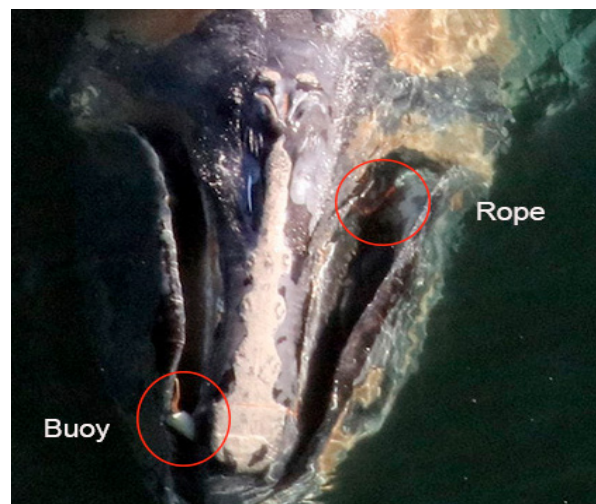
- Requiring vessels to slow down in specific areas during designated times in Seasonal Management Areas
- Requesting voluntary speed reductions in Dynamic Management Areas and Right Whale Slow Zones
- Modifying international shipping lanes
- Developing right whale alert systems and mandatory vessel reporting systems
- Enhancing emergency response for injured whales
- Working with stakeholders to develop mitigation measures

### FOR ENTANGLEMENTS

- Implementing seasonal closures and restricted areas for fixed gear commercial fisheries in areas whales aggregate
- Regulating maximum breaking strength for buoy lines
- Requiring sinking line between traps/pots on the seafloor
- Mandating gear marking to understand where and how whales become entangled
- Requiring weak links in fixed gear fisheries to help whales break free of lines and nets
- Enhancing emergency response for entangled whales
- Working with stakeholders to develop mitigation measures

### OTHER ACTIVITIES TO PROMOTE RECOVERY

- The Species in the Spotlight [5-year Action Plan \(2021–2025\)](#) outlines additional priority actions to address the most urgent threats



You can donate to the Marine Mammal Unusual Mortality Event Fund, which supports response and investigation efforts for UMEs via [Pay.gov](https://www.pay.gov)

