

Red Tide

Facts about Red Tide

- Harmful algal blooms, or HABs, occur worldwide.
- At high concentrations (known as blooms), algae may discolor the water red, green, or brown.
- In Florida, red tide is caused by a naturally occurring marine plankton called *Karenia brevis*, abbreviated *K. brevis*.
- *K. brevis* is found most commonly in the Gulf of Mexico, but blooms have also occurred throughout the entire US and along the Atlantic coast.
- At high concentrations, *K. brevis* produces toxins that can affect the central nervous system of fish, birds, mammals, and other animals.
- Blooms of *K. brevis* can irritate the skin, eyes, and throat. Respiratory irritation is common.
- Blooms can move daily based on wind and ocean currents and can last for days, weeks, months, or even more than a year.
- The Florida red tide can be found in bays and estuaries but not in freshwater systems such as lakes and rivers.
- Although red tide is a natural phenomenon, its frequency, duration, and severity are worsened by large inputs of nitrogen and phosphorus into the ocean from man-made sources such as fertilizer and waste water.

Sources/More Information

Florida Fish and Wildlife Conservation Commission
myFWC.com/research/redtide

Mote Marine Laboratory and Aquarium
mote.org/florida-red-tide-how-you-can-help

Red Tide and Manatees

Red tide acts as a neurotoxin in manatees, and other animals, giving them seizures that can result in drowning. The brain, respiratory tract, kidneys, and liver of the manatee are the primary targets of these brevetoxins. If manatees exposed to red tide can be moved out of the affected area by trained biologists and stabilized at a critical care facility, they are likely to recover.

Manatees can die from ingesting seagrass and seawater over several weeks that is contaminated by red tide neurotoxins. Additionally, wave action can easily break open *K. brevis* cells and release their toxins into the air. These aerosolized toxins can be inhaled by manatees when they break the surface of the water to breath.

Futhermore, large blooms of red tide can reduce the amount of light penetration in the water and prevent the growth of large patches of seagrass, which is a primary food source for manatees.

Since the recording of manatee deaths from red tide began in 1996, there have been extensive die-offs (more than 50 manatees) in 1996, 2003, 2005, 2006, 2007, 2013, 2016, 2017, and 2018.

Important Contact Information

Report Distressed Wildlife: 1-888-404-3922

Red Tide Status Report: 1-866-300-9399

↳ Outside of Florida: 1-727-552-2448

Florida Poison Control Center: 1-800-222-1222

Report Fish Kills: 1-800-636-0511



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