

New York waters may be an important, additional feeding area for large whales

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A new study finds that that some large whale species (humpback, fin and minke whales) use the waters off New York and New Jersey as a supplemental feeding area feasting on two different types of prey



species.

Publishing their results in the journal *Marine Biology Research*, a team of scientists from the Wildlife Conservation Society (WCS) and Columbia University describe the New York Bight (NYB) – the area of water from Montauk Point, New York to Cape May, New Jersey—as an important supplemental feeding ground for several <u>whale species</u> gorging on locally abundant prey fish.

From their boat surveys, the team studied three species of baleen <u>whales</u>: humpback (Megaptera novaeangliae), fin (Balaenoptera physalus), and minke (Balaenoptera acutorostrata). They found that large, mixedspecies groups—often including all three whale species, common dolphins (Delphinus delphis), and various seabirds—gathered in certain areas mid-shelf (6.2—37.2 miles from shore) to feed on schools of sand lance (Ammodytes spp.), a slender species of baitfish. In nearshore waters less than 6.2 miles from shore, whales were more scattered and fed mostly on schools of Atlantic menhaden (Brevoortia tyrannus), a larger, oily species.

Use of the NYB as a feeding area for some of these whale populations may be evolving with time as unprecedented and ongoing climate-driven shifts in ocean temperatures, currents, and salinity in the Northwest Atlantic drive shifts in whale distribution within other documented feeding areas in adjacent regions.

Said one of the study's co-lead authors, Carissa King of WCS's Ocean Giants Program: "There is a lot of excitement about seeing whales in the waters off New York, and we often don't get to highlight what they are doing here. Considering the high prevalence of foraging behavior documented in the study, it is more likely that changing prey availability and/or oceanographic conditions have led to some recent shifts in whale distribution and greater habitat utilization in coastal waters of the New



York Bight."

Foraging was the primary behavior documented, though resting, traveling, and socializing behaviors were also observed including instances of competitive group behavior for humpback and fin whales, behaviors that typically associated with breeding areas.

The scientists noted that whales were often observed feeding around shipping lanes and in areas of high recreational boating activity. Of particular concern is the potential for vessel strikes—one of the main causes of injury or death for humpback, fin, and <u>minke whales</u> along the U.S. East Coast. During this study, a number of humpback and fin whales were observed with evidence of a previous vessel strike, such as healing or healed boat propeller wounds, missing dorsal fin, or missing part of its flukes (tail). In one particular instance, the center of the wounded area on an individual humpback whale's fluke was still raw indicating it was a relatively recent injury. In addition to vessel strikes, potential impacts from vessels include behavioral disturbance, physiological impacts, and injury from exposure to increased noise levels, which could impact feeding and other whale behaviors.

The authors say the results of the study can help inform management decisions to balance the needs of whales and other wildlife with various ocean resource users and other human activities in the region.

Said Dr. Howard C. Rosenbaum, Director of WCS's Ocean Giants Program and a co-author of the study: "The extent that we have seen whales and other marine life feeding in the New York Bight are truly amazing wildlife spectacles that need better protection. This new information is particularly important given the current and potential pressures facing whales within the New York Bight. Hopefully our data now illustrate the need for better practices and effective mitigation in this urbanized region."



More information: Carissa D. King et al, Baleen whale distribution, behaviour and overlap with anthropogenic activity in coastal regions of the New York Bight, *Marine Biology Research* (2021). DOI: 10.1080/17451000.2021.1967993

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