

Human Dimensions of Rebounding Seal and Shark Populations on Cape Cod

EXECUTIVE SUMMARY

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Funding from Woods Hole Sea Grant supported a team from Salem State University, University of Massachusetts-Boston, Center for Coastal Studies, Center for Animals and Public Policy at Cummings School of Veterinary Medicine at Tufts University, Cape Cod Commercial Fishermen's Alliance, and Atlantic White Shark Conservancy to conduct a mixed mode (mail and Qualtrics) social science survey of residents, tourists and commercial fishers on Cape Cod about their views of seals and sharks. Representative samples of Cape Cod voters (n=547), commercial fishers (n=564), and tourists (n=699) completed surveys between June and September 2021. The methodology is detailed in Appendix A.

Differences in attitudes towards seals among stakeholder groups on Cape Cod are notable. Voters and especially tourists view seals favorably. They hope to see them on Cape Cod. They largely perceive seals as beneficial, positive, and enjoyable. They believe that seals are an important part of the marine ecosystem and a sign of a healthy environment. Commercial fishers hold different views and are more negative in their perceptions of seals and their ecological, economic, and fishery impacts. Commercial fishers blame seals for reducing and suppressing fish stocks, hurting the economy, and creating public safety risks by attracting sharks to the area. Most commercial fishers report interactions with seals. Interactions are most frequent in mid-water (bluefish, striped bass, and tuna), bait-like (herring/menhaden, mackerel, squid), and benthic (skate/monkfish, multi-species/groundfish, and dogfish) fisheries.

The results also indicate that voter and commercial fisher stakeholder groups are not monolithic. About one-fourth of voters share commercial fishers' critiques of seals, whereas some one-third of commercial fishers have more positive views of seals, especially around their ecosystem role. Tourists are largely unified in their positive evaluations of seals.

Little support is found for lethal management of seals in any of the groups. Voters and tourists are strongly opposed to lethal management under all circumstances. Commercial fishers are more divided, resulting in more neutral views when averaged. All three stakeholder groups prefer non-lethal management approaches to lethal management. In addition, almost two-thirds of tourists and half of voters believe seals should be left alone; only one-fifth of commercial fishers believe seals should be left alone. Support for the goals of the Marine Mammal Protection Act (MMPA) is at near consensus levels among voters and tourists; although more conflicted, two-thirds of commercial fishers also support MMPA goals.

Tourists and voters are more likely than commercial fishers to perceive sharks as having aesthetic, ecological, and economic benefits. Commercial fishers hold less favorable views of sharks than tourists and voters on almost every measure, although differences in views are less than in regard to seals. Commercial fishers view sharks more favorably than seals.

While sharks generate fear and are viewed as a threat to people by the majority of voters, tourists, and commercial fishers, the perceived benefits of sharks appear to outweigh the risks. Respondents in all three stakeholder groups view sharks as important to the marine ecosystem. By large margins, respondents in all groups agree with the statement “I am willing to accept some inconvenience and risk in order to have oceans where marine wildlife can thrive.” Very few respondents indicated that they had reduced beach visits to avoid sharks. Moreover, some two-thirds of voters and tourists, and more than half of commercial fishers feel that they have control over whether they encounter a shark.

Tourists are the most likely of the three groups to take actions to avoid encounters with sharks, such as checking and obeying signage and warning systems, following lifeguard instructions, avoiding seals, and using patrolled beaches. Commercial fishers are less likely than tourists and voters to take actions to avoid encounters with sharks. Although the majority of commercial fishers support shark encounter prevention policies such as increased public education, improved signage at beaches, and increased shark patrols, they are less supportive than tourists and voters, who favor these measures at near-consensus levels. Views of restrictions on deep water activities during peak shark season are more mixed, with some support among voters and tourists and virtually no support among commercial fishers.

All three stakeholder groups reject the lethal management of sharks. Over two-thirds of voters, tourists and commercial fishers support leaving sharks alone. Support for non-lethal management of sharks is also high.

While the surveys found differences in attitudes among the three stakeholder groups toward seals, sharks, and their management, shared commitments to coexistence with marine wildlife and ecosystem health are also apparent. Over two-thirds of respondents in all three groups indicate a desire to “learn to share the ocean with the animals that live there.” Management for the ecosystem is the top priority for tourists and voters, and is second only to the fisheries in the management priorities of commercial fishers.

The surveys also reveal that many respondents lack knowledge about the history of seals and sharks in Cape Cod waters and the impacts of public policies on their populations. Only about half of voters, fishers, and tourists are aware that state-funded bounty hunting resulted in the near extinction of seals on Cape Cod by 1960, and only about a third of each sample are aware that fishing activities depleted shark populations. Respondents in all three stakeholder groups are more aware of the role of laws in seal population recovery than in the recovery of shark populations. Commercial fishers are more knowledgeable about the role of laws in population recovery, seal behavior and shark biology.

Signs at the beaches and the news media are the primary sources of information on seals and sharks for all respondent categories. The majority of tourists also rely on lifeguards for information. One third of respondents in each stakeholder group use apps such as Sharktivity, and about one-third of tourists and commercial fishers and almost half of voters rely on social media for information on seals and sharks.

The full report can be found online at <http://seagrant.who.edu/sealshark>

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