NATIONAL MARINE SANCTUARIES CONSERVATION SCIENCE SERIES



## ESTIMATES OF ECONOMIC CONTRIBUTIONS AND FISHING EFFORT FOR COMMERCIAL AND FOR-HIRE RECREATIONAL FISHERIES IN STELLWAGEN BANK NATIONAL MARINE SANCTUARY

## Addendum



U.S. Department of Commerce Gina Raimondo, Secretary

National Oceanic and Atmospheric Administration

National Ocean Service Nicole LeBoeuf, Assistant Administrator (Acting)

Office of National Marine Sanctuaries John Armor, Director



Report Authors: Ryan Shea<sup>1</sup>, Danielle Schwarzmann<sup>2</sup>

<sup>1</sup>National Marine Sanctuary Foundation <sup>2</sup>NOAA Office of National Marine Sanctuaries

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Cover photo: Fishing in Stellwagen Bank National Marine Sanctuary. Photo: On the Water

The landings presented in Schwarzmann et al. (2020) come from federal vessel trip report (VTR) data. These data do not include landings from lobster (*Homarus americanus*) fishers who exclusively hold state permits, meaning that the VTR data presented in Schwarzmann et al. (2020) do not encompass the full amount of lobster catch in the Gulf of Maine. This addendum provides additional data from states, which record lobster catch from state permit holders. However, data precision varies by state and available data lack the spatial resolution necessary to estimate catch within the sanctuary. Instead, state lobster catch data within the entire Gulf of Maine are presented to provide an overview of state-recorded lobster catch.

Data on state-reported lobster catch was obtained from Massachusetts, Maine, and New Hampshire. State data provided by Maine and Massachusetts include fishers who hold both federal and state lobster permits. This means there is some overlap between state and federal (i.e., VTR) reported catch. In other words, the same lobster catch for a given vessel and date may be reported in both state and VTR data. However, due to differences in reporting levels between federal and state agencies, the extent of the overlap was not estimated. In contrast, New Hampshire provided data that only include catch for fishers who exclusively hold state permits, which means that there is no overlap between the state and VTR data. Table 1 presents lobster catch by fishers from each state by reporting method (state and VTR) within relevant statistical areas (see Schwarzmann et al., 2020 for a map of these statistical areas).

State of Vessel	Statistical	State-Reported	VTR-Reported	Do state and VTR
Origin	Area(s)	Catch (millions of pounds)	Catch (millions of pounds)	data overlap?
Massachusetts	514	21.4	35.1	Yes
Maine	512, 513	867.6	46.5	Yes
New Hampshire	513	8.1	6.4	No

Table 1. Lobster catch by reporting method in the Gulf of Maine from 2007–2016.

A comparison of the VTR and state data for lobster catch shows that a sizable portion of lobster catch in the Gulf of Maine is unaccounted for in the VTR data. Although state data were not included in the original study, future studies will make efforts to better incorporate state and VTR data in analyses.

## Literature Cited

Schwarzmann, D., Shea, R., Leeworthy, V. R., Steinbeck, S., Dato, C. (2020). Estimates of economic contributions and fishing effort for commercial and for-hire recreational fisheries in Stellwagen Bank National Marine Sanctuary. National Marine Sanctuaries Conservation Series ONMS-20-05. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of National Marine Sanctuaries.

https://nmssanctuaries.blob.core.windows.net/sanctuaries-prod/media/docs/onms-20-05estimates-of-economic-contributions-and-fishing-effort-sbnms.pdf



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