# Coastal Environmental Data

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## Background

#### Offshore wind, Aquaculture, and Fisheries

Environmental Monitoring Lead for the University of Maine's Offshore Wind Program and serve on the Governor's Offshore Wind Research Consortium

Co-direct a USDA Aquaculture Experimental Station and the University of Maine's State Certified Coastal Water Quality Laboratory

Lead PI on an NSF Navigating the New Arctic: Rapid Arctic change and its implications for fisheries and fishing communities of the western North Atlantic



Lobster landings peaked in 2016 Landed Value peaked in 2021

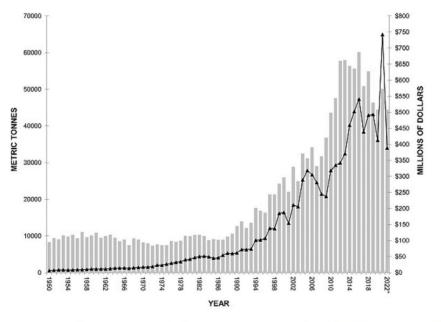
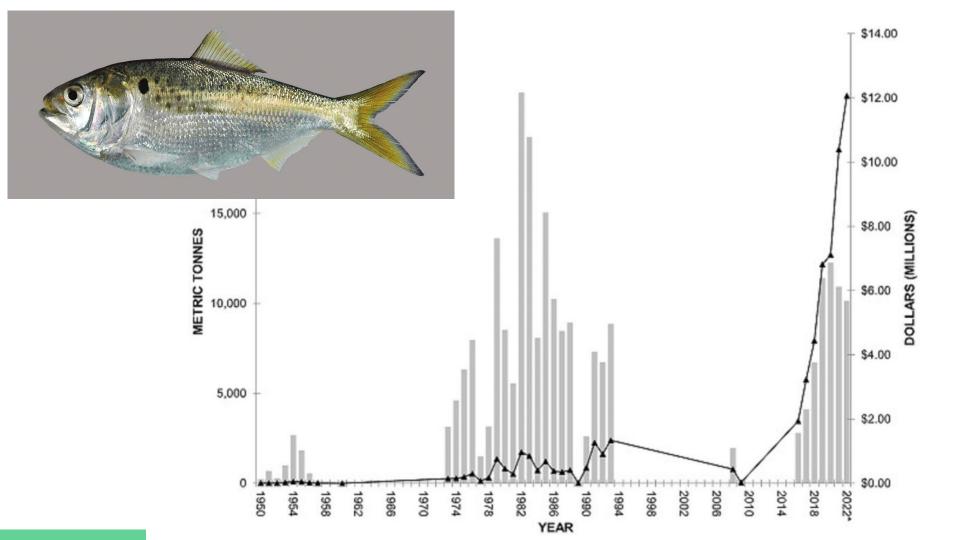


Figure 1. Maine American lobster (Homarus americanus) landings (metric tonnes) and ex-vessel value from 1950 to 2022 as reported by the MEDMR landings programme. All 2022 values are considered preliminary, and all data is reported from Maine lobster dealers. Mandatory dealer reporting was started in 2004.

**Table 1.** Select marine species currently or recently studied by the MEDMR.

Species/Fishery	Common name	2022 fishery value in Maine	MEDMR Bureau
Homarus americanus	American lobster	\$388 589 931	BMS*
Anguilla rostrata	American eel	\$20 166 770	SRFH*
Mya arenaria	Soft shell clam	\$16 676 325	BPH*
Brevoortia tyrannus	Atlantic menhaden	\$12 066 941	BMS*
Placopecten magellanicus	Atlantic sea scallop	\$8 768 193	BMS
Groundfish species	Atlantic cod and more	\$3 593 578	BMS*
Strongylocentrotus droebachiensis	Green sea urchin	\$2 679 282	BMS*
Clupea harengus	Atlantic herring	\$1 889 359	BMS
Alosa pseudoharengus	River Herring	\$1 534 276	SRFH
Salmo salar	Atlantic salmon	Confidential	SRFH
Osmerus mordax	Rainbow smelt	Confidential	SRFH
Pandalus borealis	Northern shrimp	Closed	BMS

All value estimates are in USD and represent preliminary values provided by the MEDMR landings group. MEDMR data is stored in an internal database (MARVIN) and non-confidential data is publicly available. Bureau within MEDMR that leads the monitoring and research programmes that support these fisheries in Maine (BMS: Bureau of Marine Science; SRFH: Bureau of Sea-Run Fisheries and Habitat; and Bureau of Public Health). Asterisks indicate these programmes are reviewed in this manuscript, while all other programmes are presented in the supplementary data. For a full list of MEDMR commercial fisheries information: https://www.maine.gov/dmr/fisheries/commercial/landings-program/historical-data.



#### Let's Start with Offshore Wind

https://www.northeastoceandata.org/data-explorer/?energy-infrastructurelplanning-areas

Aquaculture:

https://maine.maps.arcgis.com/apps/webappviewer/index.html?id=b846cf37b1d64c988f89eafa085c8b7a

Commercial Fishing Activity

https://www.northeastoceandata.org/data-explorer/?commercial-fishinglvessel-activity

Marine Mammals

https://www.northeastoceandata.org/data-explorer/?marine-mammalslall-cetaceans

GMRI's Warming Updates:

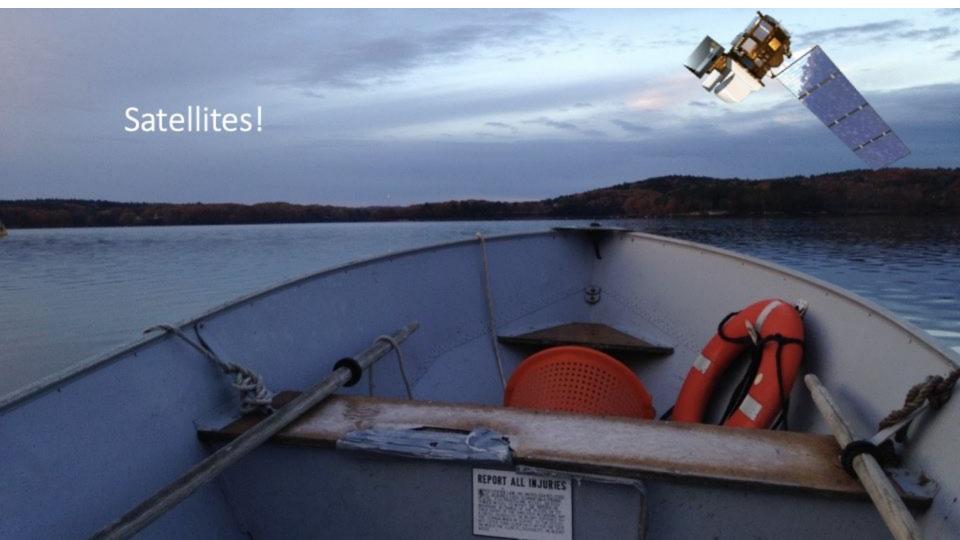
https://www.gmri.org/stories/gulf-of-maine-warming-update-summer-2023/

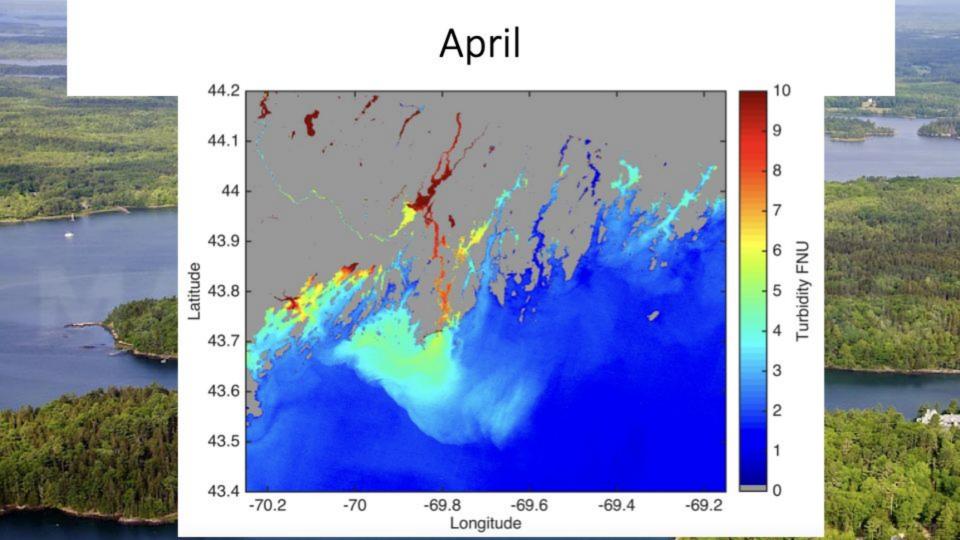
Ocean Temperature in the Gulf of Maine

https://p5.neracoos.org/products/clim\_test/drupal\_clim.html

Maine DEP Project specific data example: Kingfish Maine

https://www.maine.gov/dep/projects/kingfish/index.html





### Early September 44.2 44.1 8 44 43.9 DNA 57 Latitude 8.85 43.7 3 43.6 43.5 43.4 -69.2 -70.2 -70 -69.6 -69.4 -69.8 Longitude