



Sea Urchins

The prickly green sea urchin is a common inhabitant of shallow waters along the coast of Maine. It is most often found clinging to rocks and ledges. It is related to starfish and sand dollars, and although it looks round, it is actually five-sided. It usually spawns once a year, in late winter, and its roe is prized for its fresh, salty, sweet flavor, described as tasting like the ocean.

Early commercial fisheries, first documented in 1929, served ethnic European and Asian markets in New



Measuring sea urchins.

Photo by Kerry Lyons



Sea urchin diver and tender.

Photo by Robert Russell

York and Boston, and in the 1970s, a small market for Maine urchins developed in Europe. The fishery expanded rapidly in 1987 with the development of a market in Japan, and in recent years there has been an increase in domestic (USA) sales. Total annual landings peaked at about 39 million pounds worth about \$23.5 million paid to the harvesters during the 1992-93 season. Today annual landings are about 2 million pounds valued at about \$6 million. About 60% of the sea urchins are caught by divers and a few rakers, and the rest by small drags.

Management of Maine's sea urchin fishery is the joint responsibility of the Maine State Legislature and the Maine Department of Marine Resources (DMR), with advice from the Maine Sea Urchin Zone Council, an industry council with representatives from the harvesting, buying/processing, aquaculture, and research communities.

The Maine coast has been divided into two exclusive management zones, and the divers and draggers must fish in only one or the other of the zones. Because of stock depletion, Zone 1 harvesters are allowed to fish during only 15 days of the year, and Zone 2 harvesters are allowed to fish for 30 days. They also have their choice of fishing an early or a late season,



Sea urchin drag. Photo by Robert Russell

and there are separate seasons for divers and for draggers. This complicated arrangement of staggered seasons allows Maine buyers and processors to have a supply of fresh urchins for about six months of the year, from September through March, when roe quality is best. The sea urchins are processed at plants in Portland and Scarborough.



Processing and packaging sea urchin roe.

Photo by Edwin Creaser

Other management measures include minimum and maximum size limits, no new licenses, daily catch limits, and mandatory reporting for both buyers and harvesters.

Every year since 2001, DMR has conducted an annual spring sea urchin dive survey, funded by the industry's license surcharge, with the cooperation of industry, the Sea Urchin Zone Council, and scientists and students at the University of Maine. It is probably the most thorough sea urchin survey in the world.

In 2019, DMR and industry divers counted 6,459 sea urchins and measured 779 of them at 73 shallow sites, working from industry vessels.



Sea urchin survey divers.

Photo by DMR

DMR scientists also interview commercial divers and draggers and measure samples from the catch each winter, and in 2017 we began a new research project in the Blue Hill Bay and Upper Jericho Bay area, to learn more about the relationships between urchin abundance, habitat, and fishery removals.

For more information, visit: <http://www.maine.gov/dmr/rm/seaurchin/index.htm> or contact Maggie Hunter, Maine DMR, PO Box 8, W. Boothbay Harbor, ME 04575
Tel: (207) 633-9541, margaret.hunter@maine.gov.



Dragger fleet in Lubec Maine.

Photo by Edwin Creaser