

Fisheries and Aquaculture

Fisheries Output

Current State of Production & Distribution

- 39 thousand tons for coastal fisheries, 96 thousand tons for offshore fisheries, 25 thousand tons for deep-sea fisheries. Marine aquaculture 72 thousand tons. Coastal fisheries 202 million USD, offshore fisheries, 210.4 million USD, deep-sea fisheries 60.4 million USD, and marine aquaculture 121.9 million USD.
- Highest output was of cuttlefish/squid, followed by scallops (aquaculture).

Recent Noteworthy Projects

- Promotion of Marine Resource Management Fishery Policy which aims for sustainable fishing of useful marine species.
- Promotion of Fish Hatcheries Supported Fisheries Policy aiming to increase marine resources by aquaculture and fish stock release.

Future Promotion

Reliable Production of Fisheries and Aquaculture & Creation of Fishery Habitats

- Reliable Sustainable Production of Important Marine Resources
- Fishery Habitat Protection Activities Centered on Fishery Operators

Area	Production (tons)	Production (Million USD)
Landings	157,844	492.3
Aquaculture	102,091	122.5
Total	259,935	614.8

Squid & Cuttlefish

In 2006, the total catch volume was 76,879 tons. Being caught by standard fishing and set net fishing techniques in all prefectural waters.

Lefteye Flounder (*Paralichthys olivaceus*)

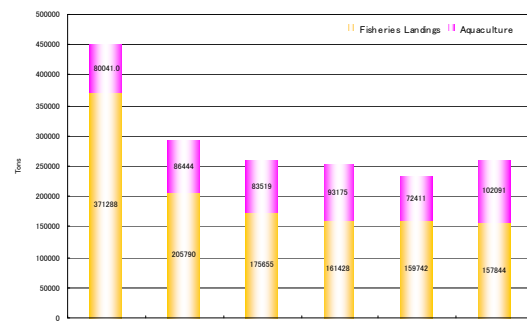
Total catch volume in 2006 was 1,082 tons. It is caught in all prefectural waters by set net fishing, standard pole & line fishing, gill net fishing, and trawling. Designated as the prefectural fish of Aomori, it is a managed marine resource raised and stock released by fish hatcheries in the prefecture.

Scallops

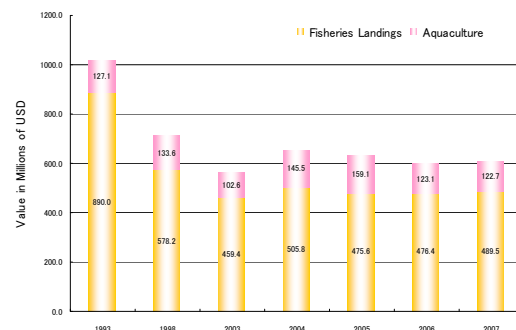
Total production in 2006 was 72,822 tons (this figure includes the entire weight of the scallop, including shell). The Mutsu Bay in the center of the prefecture is the primary location of aquaculture and hatchery raised stock dispersal.



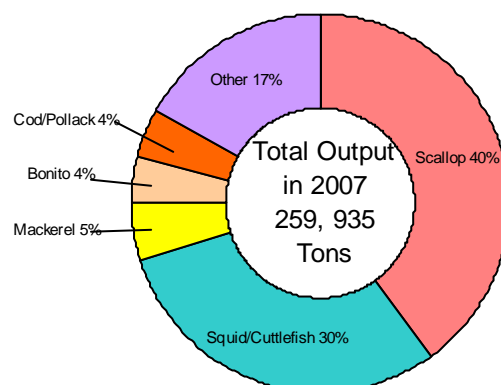
Industry Production



Industry Production



Output by Type



Marine Resource Management Based Fisheries

Current Situation

Resource management measures in effect restriction fishing seasons, areas, size, and weight of various species, including lefteye flounder, goldeye rockfish, sand lance, and Pacific cod.

Recent Noteworthy Projects

-Management measures have been taken into effect for the marine resource revival plan.

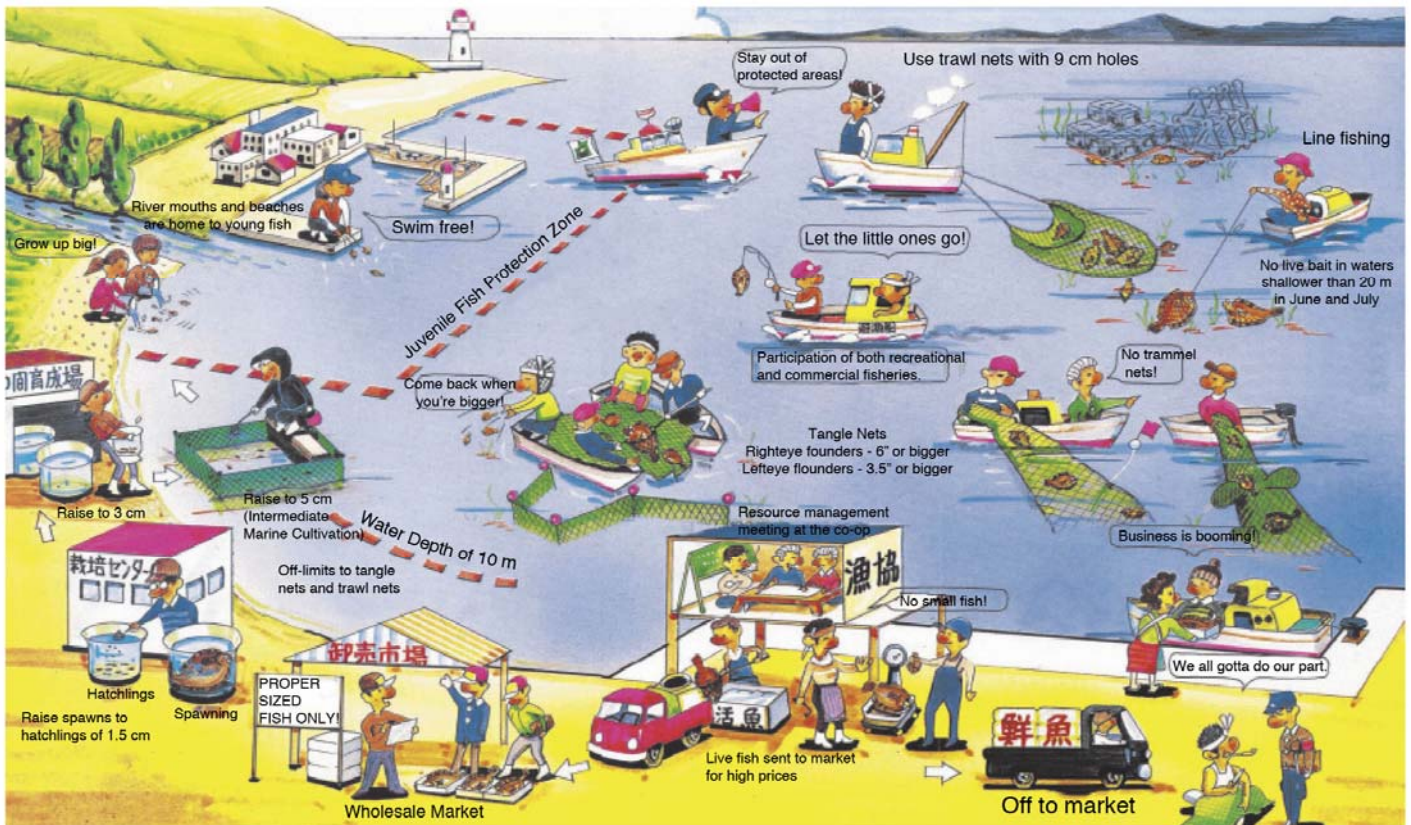
-Resource management Policies/guidelines have been decided for sea cucumber, which has been dramatically increasing in catch amounts and market value.

Future Promotion

Appropriate Management and Sustainable Usage of Marine Resources

- Promotion of marine resource revival plant and marine resource management measures carried out voluntarily by fishery operators.
- Support for coordination between fish farming and fisheries foundation development.
- Strengthened experimental studies for detailed management techniques of various species.
- Educating recreational fishers about marine resource management.

Lefteye Flounder Resource Management



Resource Revival Measures Currently In Effect

Wide Area Projects

Sea of Japan Projects

- Littlemouth Flounder & Sailfin Sandfish Revival Project (2003)
- Mutsu Bay Pacific Cod Spawning Revival Project (2007)
- Northern Sea of Japan Alaska Pollock Revival Project (2007)

Pacific Ocean Projects

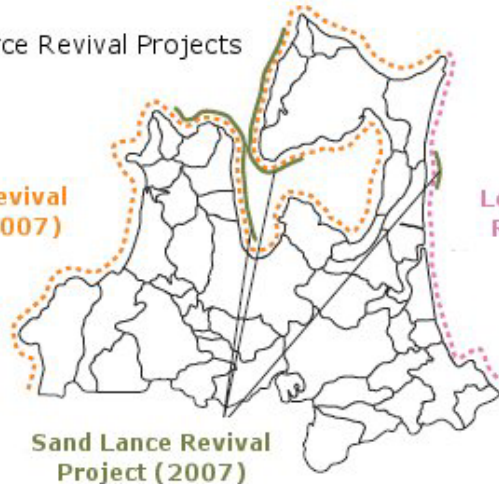
- Righteye Flounder Revival Project (2003)
- Chub Mackerel Revival Project (2003)
- Pacific Cod Revival Project (2007)

Local Resource Revival Projects

Rockfish Revival Project (2007)

Lefteye Flounder Revival Project (2008)

Sand Lance Revival Project (2007)



Fish Cultivation

Present Status of Fish Farming, Aquaculture, and Fisheries Development

- Salmon egg farming is carried out at 13 different locations within the prefecture, in 2007, approximately 136 million hatchlings were released.
- Juvenile olive flounder fish are raised at the Aomori Prefecture Fish Farming Promotion Association, releasing approximately 2.37 million fish in 2007.
- In addition to scallop aquaculture in the Mutsu Bay, kombu kelp, sea pineapple, and wakame seaweed are also cultivated.
- In an effort to improve and develop fish habitats, artificial reefs made with scallop shells have been placed on the ocean floor.

Recent Noteworthy Projects

- Experiment raising and release of rainbow trout, rockfish, and righteye flounder.
- Development of farming techniques for raising sea cucumber seeds in order to meet increased demand
- Scallop shells deposited on the ocean floor to improve ground conditions and research its benefits for increasing sea cucumber numbers.
- Experimental development of artificial habitat structures to promote seaweed development.

Future Promotion

Proactive Expansion of Marine Resources

- Research and development
- Promotion of healthy spawn production and optimal timing for fish stocking release
- Creation of hatchery and intermediate raising facilities
- Effectiveness studies on created fish habitats and maintenance management of their functions.

Mariculture Production in 2007

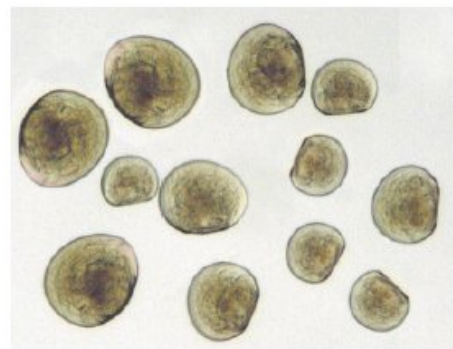
Type	Production
Scallops (includes shell)	101,396 tons
Sea pineapple	485 tons
Kombu seaweed	77 tons
Others	133 tons

Major Fish Hatchery Species Production

Type	Production
Salmon	5,154 tons
Lefteye flounder	1,397 tons
Abalone	57 tons
Sea urchin	890 tons



Salmon alevins



Scallop veligers



Releasing stock of young lefteye flounder



Artificial habitat structure (21 meters)