

# *Marine Aquaculture in Maine*

- ▶ How the public can participate in the leasing process



## What is aquaculture?

**Marine aquaculture is the culture and husbandry of marine animals, sea plants or algae.**



Photo courtesy MAA

▶ Worldwide, aquaculture provides about 30% of the seafood humans consume. *United Nations FAO Fisheries Department. 2004. The State of the World Fisheries and Aquaculture.*

▶ In the U.S., aquaculture products supply 47% of the national seafood market. *Johnson, H.M. 2005. Annual Report on the United States Seafood Industry: 13th ed.*

▶ Aquaculture is not a new industry in Maine, which was one of the first states in the country to begin growing fish and shellfish. Maine has been the number one producing state in marine aquaculture sales for 10 out of the last 15 years. *Compiled from USDA Aquaculture Outlook 2004; NOAA-Fisheries annual summaries; and Forster, J. 2003. Industry Profile: The U.S. Farmed Salmon Industry.*

▶ Maine's aquaculture industry raises both finfish and shellfish in farms along the coast. The most significant commercial species are Atlantic salmon, Eastern oysters, worms, and blue mussels.

▶ There are many other aquaculture products under development in Maine. These include halibut, haddock, cod, urchins, clams, scallops, and seaweed.



Photo: C. Schmitt



Photo: C. Bartlett

▶ Today, aquaculture is a large part of the marine resource economy, employing over 500 people and generating sales and revenue that is second only to lobsters, Maine's leading commercial fishery. *O'Hara, F., C. Lawton, and M. York. 2003. Economic Impact of Aquaculture in Maine.*

▶ Aquaculture leases in the state of Maine totaled 1,293 acres in 2005. If all of these leases were combined, they would fit inside of the breakwater in Rockland Harbor.

▶ Aquaculture farms must obtain a lease from the state because they operate in public waters. Most leases do not grant the farms exclusive use of the waters and compatible uses are allowed. As a leaseholder, the farmer must pay annual fees, submit annual reports and meet the obligations of the lease.

▶ Applicants may apply for either a license or one of two types of leases:

- **Standard leases** cover up to 100 acres, are in effect for up to 10 years, and may be renewed.
- **Experimental leases** cover up to two acres, are in effect for up to three years, and may not be renewed, unless the lease is for scientific research.
- **Limited Purpose Aquaculture Licenses (LPAs)** are annual licenses that allow up to 400 square feet of aquaculture gear for suspended shellfish culture. These are granted through a different process than a lease; contact DMR for further information.

## *What is an aquaculture lease?*



### *For any lease to be granted, it must meet specific statutory criteria:*

#### **THE LEASE CANNOT UNREASONABLY INTERFERE WITH:**

- *navigation;*
- *the coming and going of riparian landowners;*
- *fishing and other uses of the area, including other aquaculture uses;*
- *significant wildlife and marine habitat or the ability of the lease site and surrounding area to support ecologically significant species;*
- *the public's use and enjoyment of public parks and facilities or certain publicly-owned conserved lands within 1,000 feet of the proposed lease.*

The DMR commissioner must also determine that there is an available source of the organisms to be raised at the lease site; that the lease will not result in an unreasonable impact from noise or lights at the boundaries of the lease site; and that the lease is in compliance with visual impact criteria.

The laws governing aquaculture in Maine and the rules governing how applications are reviewed and approved are available at <http://www.maine.gov/dmr/aquaculture>.

▶ The DMR commissioner makes the final decision about whether a lease is granted, modified, or denied, based on the application; comments submitted by the public and local, state, and federal agencies; and the draft decision prepared by the DMR hearing officer.

▶ Depending on the type of aquaculture, applicants must obtain a number of other required federal and state permits before starting operations. These permits may also provide an opportunity for public comment.



## How does DMR process applications?



Photo, top to bottom:  
C. Schmitt, C. Davis,  
C. Schmitt, C. Schmitt, C. Bartlett

# HOW YOU CAN PARTICIPATE

- ▶ Aquaculturist meets with the DMR and town officials.
- ▶ Aquaculturist holds a scoping session, which is a public meeting, in the town where the lease will be located.
- ▶ Aquaculturist submits application to DMR.
- ▶ DMR reviews the application for completeness.
- ▶ A copy of the application is sent to municipalities, relevant state and federal agencies, and shorefront property owners within 1,000 feet.

step 1

- ▶ DMR biologists visit the proposed location to verify site conditions. For all standard leases and some experimental leases, DMR biologists use video to document the bottom environment, including plants and animals, and summarize the information in a report.

step 2

- ▶ For all finfish operations and others that include supplying feed to the animals, the applicant must conduct a detailed environmental baseline study to determine how aquaculture will impact the site in the future.
- ▶ The town harbormaster, the U.S. Army Corps of Engineers, Maine departments of Environmental Protection and Inland Fisheries and Wildlife, and other relevant federal and state agencies submit comments about potential impacts.

- ▶ DMR schedules and advertises a formal public hearing for all standard lease applications and for experimental lease applications when five or more people request a hearing.

step 3

- ▶ At least 30 days prior to the hearing, another copy of the application and the DMR site report are sent to the municipality, state and federal agencies, shorefront property owners within 1,000 feet of the proposed site, and other interested parties.

- ▶ The DMR hearing officer conducts the public hearing.

- ▶ The hearing officer writes a draft decision based on testimony from the public hearing and comments submitted to DMR.

- ▶ The applicant and interveners review the draft decision and have 10 days to comment.

- ▶ The DMR commissioner approves, modifies, or rejects the draft decision. If approved, a final lease is granted.

step 4

# E IN THE LEASING PROCESS

- ▶ **Watch for notices in** local newspapers, municipal offices, or information from riparian owners who have been notified. Check the DMR Web site for a list of pending applications and hearing schedules and to read applications online.
- ▶ **Attend a public meeting.** You can attend the scoping session, which is an opportunity to learn about and discuss the proposal before an application is submitted, and you can attend the public hearing, which is described below.
- ▶ **Contact DMR** and ask for a copy of the application.
- ▶ **Call** the applicant to discuss the proposal and establish a relationship.

- ▶ **Submit written comments** by mail, e-mail or fax. All comments submitted before the end of the public comment period, which is typically the end of the public hearing, will be considered during the lease review. Comments submitted by e-mail or fax must be backed up with a signed hard copy submitted to DMR.
- ▶ **Request intervener status**, if the proposed farm will substantially and directly affect you, at least 10 days before the public hearing. If DMR grants you intervener status, you will receive all correspondence during the review process, and can comment on the draft decision. You do not need to be an intervener to submit comments or testimony on a proposed lease.
- ▶ **Provide testimony** at the public hearing. If you speak at a public hearing, you are testifying in a formal proceeding and will be sworn in. To be effective:
  - ▶ Prepare your testimony in advance;
  - ▶ Address your testimony to the statutory decision criteria;
  - ▶ Support your points with evidence; and
  - ▶ Be prepared to answer questions from DMR and the applicant about your testimony.

*The Maine Department of Marine Resources welcomes and encourages comment on aquaculture lease applications.*

## *How do you participate?*

## *If a lease already exists*

You can contact the leaseholder or DMR to ask questions or make suggestions. Marine Patrol Officers inspect aquaculture sites on a regular basis, and the DMR aquaculture staff can answer questions about what to expect from a lease site or leaseholder.

Meet your local harbormaster, who can be an excellent source of information about the waterfront. The harbormaster is responsible for enforcing state and local ordinances; regulating the use of all moorings; monitoring the condition of waterfront structures; and enforcing orders of the town council, town manager, and Coastal Waters Commission.

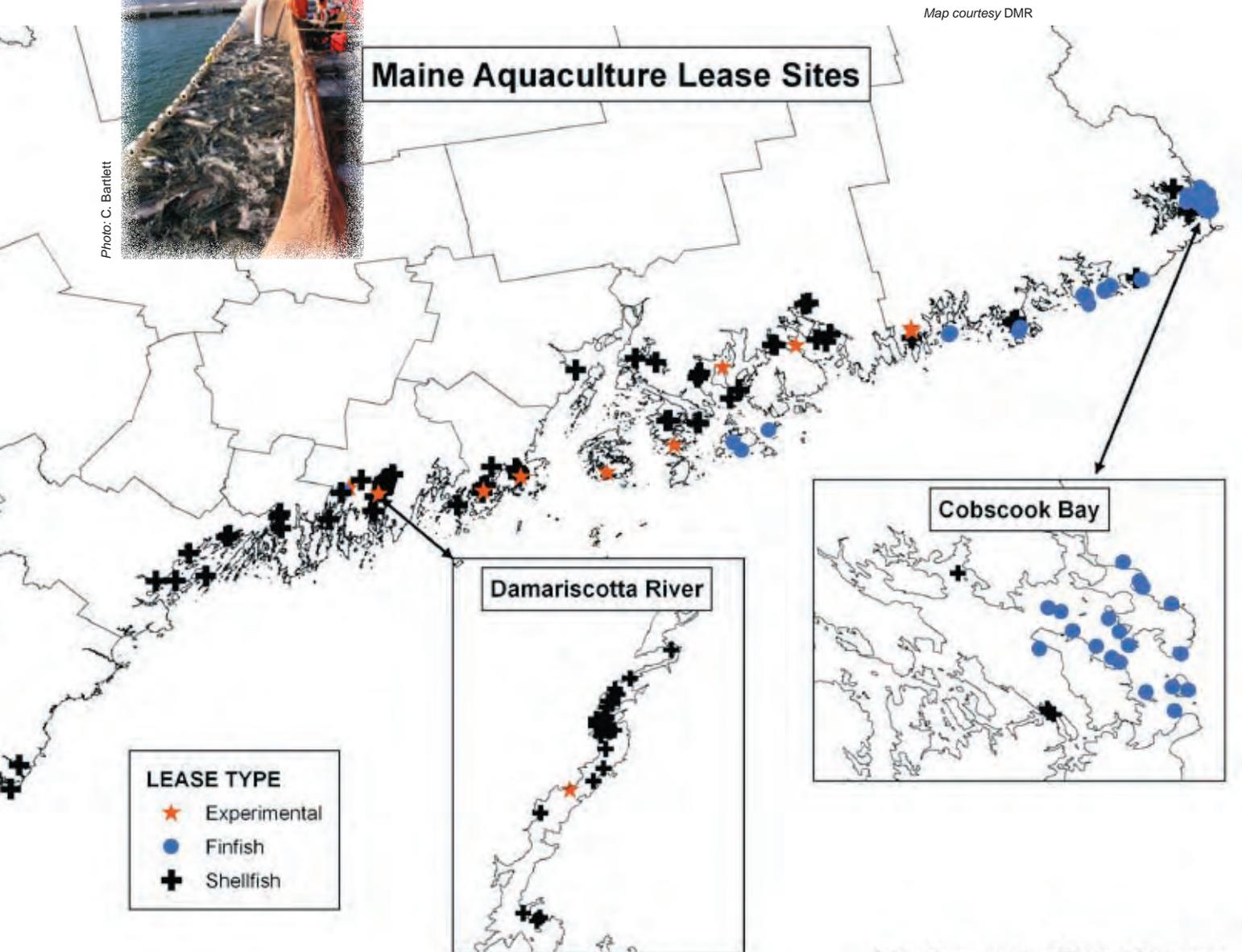
## Where are Maine's aquaculture farms?

Maine's marine aquaculture industry started in the 1970s.

- ▶ Most finfish farms are located Downeast, along the Washington County coast.
- ▶ Shellfish (oyster and mussel) farms are located along Maine's entire coastline. Many oyster farms are located in the Damariscotta River, where warm, productive water supports rapid growth.



Photo: C. Bartlett



Inventory of Aquaculture Farms in Maine, and Lease Information

[www.maine.gov/dmr/aquaculture/aqualeaseinventory.htm](http://www.maine.gov/dmr/aquaculture/aqualeaseinventory.htm)

Maine has some of the strictest aquaculture regulations and monitoring requirements in the world. These regulations and monitoring programs are enforced by both state and federal agencies. In addition to compliance with all regulatory requirements, there are a number of characteristics you can look for as indicators that an aquaculture proposal or operation is being responsibly managed.

- ▶ Operators should maintain an open dialogue with local communities and residents. Sites should be kept neat and well maintained.
- ▶ Operators should adhere to a recognized set of best management practices or code of practice that includes an environmental policy statement and a set of guiding principles.
- ▶ Operators should work collectively with other aquaculturists and researchers to continuously find ways to improve their operations.

*What to look for in a responsible aquaculture operation?*

Photo: Jonathon Wells © 2003



**Maine Department of Marine Resources:**

<http://www.maine.gov/dmr/aquaculture>

Aquaculture Policy Coordinator, State House Station #21, Hallowell, ME 04330-0021  
Tel: 207-624-6554, samantha.horn-olsen@maine.gov

**Maine Sea Grant:**

<http://www.seagrants.umaine.edu/extension/aq.htm>

5784 York Complex, University of Maine, Orono, ME 04469-5784, Tel: 207-581-1435  
cbartlett@maine.edu, dana.morse@maine.edu

**Maine Aquaculture Association:**

<http://www.maineaquaculture.com>

P.O. Box 148, Hallowell, ME 04347, Tel: 207-622-0136, info@maineaquaculture.com

**Maine Aquaculture Innovation Center:**

<http://www.maineaquaculture.org>

5717 Corbett Hall, Room 438, Orono, ME 04469, Tel: 207-581-2263  
maic@maineaquaculture.org

**Aquaculture Network Information Center (AquaNIC):**

<http://aquanic.org>

*Where can I learn more?*



# Sea Grant

Maine



MSG-E-06-01  
NA030AR4170054  
3M



Maine  
Coastal  
Program

Design & layout by  
Lina Torosyan.  
Cover photo by  
Jonathon Wells © 2003.

Funding for this brochure was provided by the U.S. Department of Commerce, Office of Ocean and Coastal Resource Management, under the Coastal Zone Management Act (CZMA) of 1972, as amended. CZMA is administered in Maine by the State Planning Office's Maine Coastal Program.

