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# ***Making New Waves:*** ***aquaculture in Maine***



*a half-hour documentary  
focusing on current  
issues and opportunities  
in Maine aquaculture*

Aquaculture, the controlled cultivation and harvest of aquatic animals and plants in the sea, has been growing rapidly in Maine during the last decade. With its numerous estuaries, sheltered coves, and a large tidal flow of cold, clean, plankton-rich waters, much of the Maine coast provides an ideal setting for the development and expansion of aquaculture.

According to the Maine State Planning Office, the economic potential of aquaculture exceeds the current value of the state's traditional fisheries. However, as this new industry grows, many issues arise which public policy must address. A proper balance must be found between the economic benefits of aquaculture and maintaining environmental quality.

Some public policy concerns about aquaculture are the location of leases, water quality, environmental impact, regulation and site monitoring, competition with traditional fisheries, and possible genetic dilution of wild stocks. Maine's regulatory framework is being examined to identify ways to address these concerns and, at the same time, encourage the growth of aquaculture, es-

pecially by small-scale operators. Maine decision-makers, including our future leaders (youth), need to understand and be able to evaluate the options so they can make intelligent choices. Promoting economic opportunity and maintaining a clean environment are both important to the future health and well-being of the state.

In *Making New Waves: Aquaculture in Maine*, aquaculture industry members, representatives of environmental organizations, shorefront landowners, scientists, fisheries managers, state regulators, town officials, state planners, and others express their views and concerns about this burgeoning industry.

Maine's fishing industry is changing dramatically. As the demand for seafood grows, there are increasing pressures on traditional fisheries, as well as concerns about overharvesting. Aquaculture could help meet this demand and reduce some of the pressures on wild stocks. By enhancing Maine's fishing industry, "sea farming" could become a new tradition.

### ***Aquaculture Facts***

Major cultured species grown in Maine are Atlantic salmon, blue mussels, and oysters. Other species with aquaculture potential include trout, arctic char, clams, scallops, and seaweed. Aquaculturists lease sites on the ocean bottom from the state to raise their products. There are currently 68 aquaculture leases in the state—30 shellfish and 38 finfish.

Methods for culturing seafood depend on the species. Atlantic salmon and trout are raised to "smolt" size in freshwater hatcheries and then transported to salt water where they are grown in large, anchored, net pens until they reach market size. Mussels are raised in suspended mesh tubes, cultured on ropes, or grown on the ocean bottom. Oysters and clams are cultivated in floating, screen-lined trays and on the ocean bottom. While finfish must be fed daily, shellfish eat naturally-occurring algae in the water.

### **Aquaculture in Maine**

This guide provides information on aquatic species cultured in Maine, how to get started in aquaculture, site selection and leasing regulations, shipping and marketing, and a directory of Maine producers, suppliers, government agencies, aquaculture associations and consultants, funding agencies, and educational programs. Available from the Maine Aquaculture Innovation Center, University of Maine, Orono, ME 04469, (207) 581-2726 (\$5).

### **Aquarium Aquaculture: An Illustrated Guide for Teachers**

This 26-page curriculum guide fosters an understanding of the principles of aquaculture for K-12 students by using inexpensive equipment, easily maintained organisms, and simple aquacultural systems that may be set up, monitored and manipulated by students in the classroom. Available through the Sea Grant Communications Office, 30 Coburn Hall, University of Maine, Orono, ME 04469, (207) 581-1440 (\$3).

### **Charting Our Course**

This activity guide for grades 6-12 on water quality in the Gulf of Maine is written for teachers and youth group leaders interested in linking classroom activities with Maine's annual Coastweek observance. Available from the Maine Coastal Program/

State Planning Office, Station 38, Augusta, ME 04333.

### **Clean Water: We All Need it**

This 30-minute video documentary explores how three volunteer groups are addressing local water quality problems through citizen monitoring, community education, and pollution abatement strategies. The program can be viewed free of charge or purchased for \$10 (plus \$3 shipping fee). For more information, contact Knox-Lincoln Cooperative Extension Office, 375 Main St., Rockland, ME 04841, (207) 594-2104, or call your county Cooperative Extension Office.

### **The Estuary Book**

This new 48-page book describes the natural history of estuaries and bays, details the effect of pollution and human use, and suggests approaches to preserve and protect water quality and other natural resources along Maine's coast. Available from the Maine Coastal Program/State Planning Office, Station 38, Augusta, ME 04333.

### **Estuary Profile Series**

A companion publication to the *Estuary Book*, the *Estuary Profile Series* offers detailed information on physical characteristics, water quality, wildlife, and marine resources on 19 major estuaries along the Maine coast. Available for individual estuaries or as a set from the Maine Coastal

Program/State Planning Office, Station 38, Augusta, ME 04333.

### **The Ripple Effect**

This quarterly newsletter promotes water quality monitoring and marine education along Maine's coast. It is published by the Shore Stewards Program, which serves as a clearing house, supporting local groups in their efforts to restore and protect coastal waters. Contact the Shore Stewards Program, Station 38, Augusta, ME 04333 for a free subscription or more information.

### **Water Quality Training Manual**

This manual, intended for citizen volunteers who are monitoring estuarine waters, includes sections on organizing a monitoring group; field sampling and shoreline surveys; definitions of sampling variables; step-by-step procedures for analyzing temperature, salinity, dissolved oxygen, pH, and fecal coliform bacteria; information on data sheets and data management; and details on equipment and quality control. For more information, contact the Knox-Lincoln Cooperative Extension Office, 375 Main Street, Rockland, ME 04841, (207) 594-2104.

### **The Water Column**

This periodic newsletter reports on Maine aquaculture research and development. The Maine Aquaculture Innovation Center sponsors Maine aquaculture development through research and industry partnerships. For more information, contact Maine Aquaculture Innovation Center, Bio-Resource Engineering Building, University of Maine, Orono, ME 04469, (207) 581-2726 for a free copy.

### **Watershed: An Action Guide to Improving Maine Waters**

This 18-page booklet gives ideas about how to reduce non-point source pollution around the home and in the community. It also includes a resource directory of government agencies and nonprofit groups throughout the region that are working to sustain and improve the health of Maine's waters. Available from Cooperative Extension, 110 Libby Hall, University of Maine, Orono, ME 04469, (207) 581-3181.

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Available on VHS video tape. Other formats by special arrangement. To order, send \$12 in check or money order to: **Making New Waves**, Cooperative Extension, 110 Libby Hall, University of Maine, Orono, ME 04469 or Sea Grant Marine Advisory Program, 30 Coburn Hall, University of Maine, Orono, ME 04469. For more information, call (207) 581-3181 or (207) 581-1440.

**Making New Waves:  
Aquaculture in  
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viewing *free of charge*.  
Contact one of the  
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**University of Maine  
Cooperative Extension**

Androscoggin-Sagadahoc  
277 Minot Avenue  
Auburn, ME 04210  
(207) 786-0376

Aroostook County  
13 Hall Street  
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Washington County  
11 Water Street  
Machias, ME 04654  
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York County  
P.O. Box 347  
Alfred, ME 04402  
(207) 324-2814

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