



Council

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***Special Liaison Meeting to Review Measures to Minimise Impacts of
Aquaculture on Wild Stocks***

Presentation by the United States of America

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Conservation Organization (NASCO)
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**Special Liaison Meeting to Review Measures to Minimize
Impacts of Aquaculture on Wild Salmon Stocks
June 4, 2001**

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Presentation by the United States of America

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1. Introduction

The rapid decline of wild salmon stocks in the US, concurrent with the rapid growth of the salmon farming industry, has resulted in biological, social, and political conflicts. The potential for conflicts is enhanced by the geographical overlap between USA farm sites and rivers with wild salmon populations. The challenges facing efforts to protect and recover wild salmon stocks, while promoting international competitiveness of the salmon farming industry, are not unique to the USA. In recent years progress has been made in the areas of communication, data and information sharing, and measures instituted by the industry on a voluntary basis.

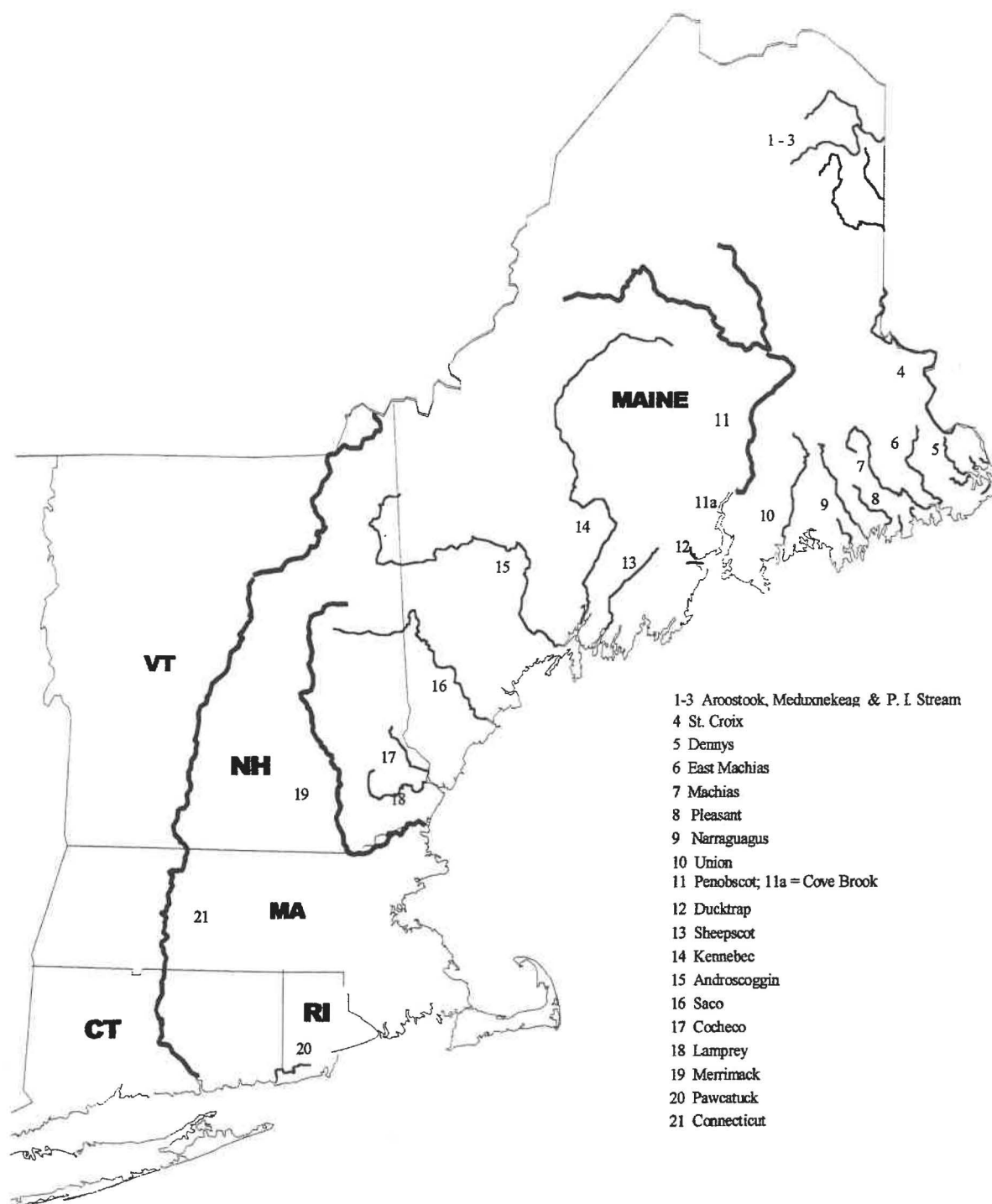
Additionally, an atmosphere has developed in which government, industry, and non-government entities work cooperatively on strategies to minimize interactions between farmed and wild salmon with minimal interference in commercial operations. Given the current status of the species, it is imperative that all parties continue our cooperative efforts to address these significant issues. Those measures and strategies undertaken by the USA in recent years and how they relate to implementation of the Oslo Resolution are presented in the following pages.

2. Status of USA wild Atlantic salmon stocks

2.1.1 Overview of USA rivers with Atlantic salmon populations

Atlantic salmon restoration and management programs occur in 21 rivers throughout the New England region of the USA (Figure 2.1). In southern New England waters (south of Cape Cod, Massachusetts) salmon restoration and management programs occur in the Connecticut River Drainage, in the states of Connecticut, Massachusetts, Vermont and New Hampshire, and in the Pawcatuck River, which is in the state of Rhode Island. In northern New England (north of Cape Cod, Massachusetts) salmon restoration and management programs occur in 3 rivers in New Hampshire (the Merrimack and 2 small coastal rivers), and 16 rivers in Maine. The Penobscot River represents the largest Atlantic salmon restoration program in Maine. It is important to note that in November 2000 the USA federal government listed 8 small salmon populations in Maine (including one small tributary to the lower Penobscot River) as endangered under the Endangered Species Act (ESA) of 1973. Listing the Atlantic salmon under the ESA requires that all Federal agencies be subjected to the same species protection rules and regulations that apply to business and industry (e.g., the aquaculture industry).

Figure 2.1 Map of New England, USA Atlantic salmon rivers.



2.2 Documented Atlantic salmon returns to USA rivers

Documented Atlantic salmon returns to rivers in New England in 2000 were 803 salmon, which was about 45% lower than the previous year. Returns of 1SW salmon declined by 29% from 1999 to 2000 (380 to 270), while MSW returns to New England declined by 50% from the previous year (1,072 to 533). Total salmon returns to the rivers of New England continued the downward trend that began in the mid-1980s, and were 58% and 66% lower than the previous 5-year and 10-year averages, respectively. Total documented Atlantic salmon returns to USA rivers have declined from >5,000 in the past 25 years (Figure 2.2) to current levels. It should be noted that the numbers illustrated in Figure 2.2 are minimal estimates, since many rivers in Maine do not contain fish counting facilities and since all facilities throughout New England are less than 100% effective at capturing adult salmon. Most USA Atlantic salmon returns are recorded in the rivers of Maine, with the Penobscot River accounting for about 67-85 % of the annual total. Atlantic salmon returns to the Connecticut River usually represent about 10% of USA total, with the balance recorded in the Merrimack River in New Hampshire. Less than 1% of salmon returns are recorded annually in the Pawcatuck River in Rhode Island and the smaller coastal rivers of New Hampshire.

Adult returns in the 1970s and 1980s were often 50-100% of conservation spawning escapement requirements (expressed as MSW females) for many rivers in Maine. However, in recent years, estimated spawning escapements in most New England rivers have declined to less than 5% of conservation requirements.

2.3 Management authority and fisheries for Atlantic salmon in USA rivers

Management authority for Atlantic salmon in the USA in freshwater and up to 3 miles at sea is exercised by the individual New England states, while the federal government retains management authority in the area from 3 to 200 miles at sea.

Although commercial fishing for Atlantic salmon was commonly practiced throughout New England in the 19th century, landings steadily declined in concert with the diminishing resource. There were occasional good commercial catches in Maine during 1920s and 1930s; however, the

commercial fishery was finally closed in 1948 after a reported catch of only 40 salmon in the Penobscot River.

The first Atlantic salmon caught on an artificial fly in the USA was recorded in the Dennys River (Maine) in 1860. Angling gear and techniques used to catch Atlantic salmon in Europe were brought over to North America and successfully used in the Penobscot River beginning in the 1880s. Despite the nostalgia associated with accounts of Atlantic salmon fishing in the 1880s, the 1980s were actually the premier years for salmon fishing in the state of Maine, and excellent catches of salmon in the rod fishery continued into the early 1990s (Figure 2.3). In response to rapidly declining salmon returns to Maine rivers, the state of Maine instituted increasingly restrictive regulations, from grilse-only in 1994 to catch and release in 1997 and, finally, to a complete closure of fishing for Atlantic salmon in December 1999. Sport fishing for sea-run Atlantic salmon in all other New England states, and from 3 to 200 miles at sea, has been prohibited since the early 1980s.

Figure 2.2 Documented Atlantic salmon returns to USA rivers, 1975 - 2000.

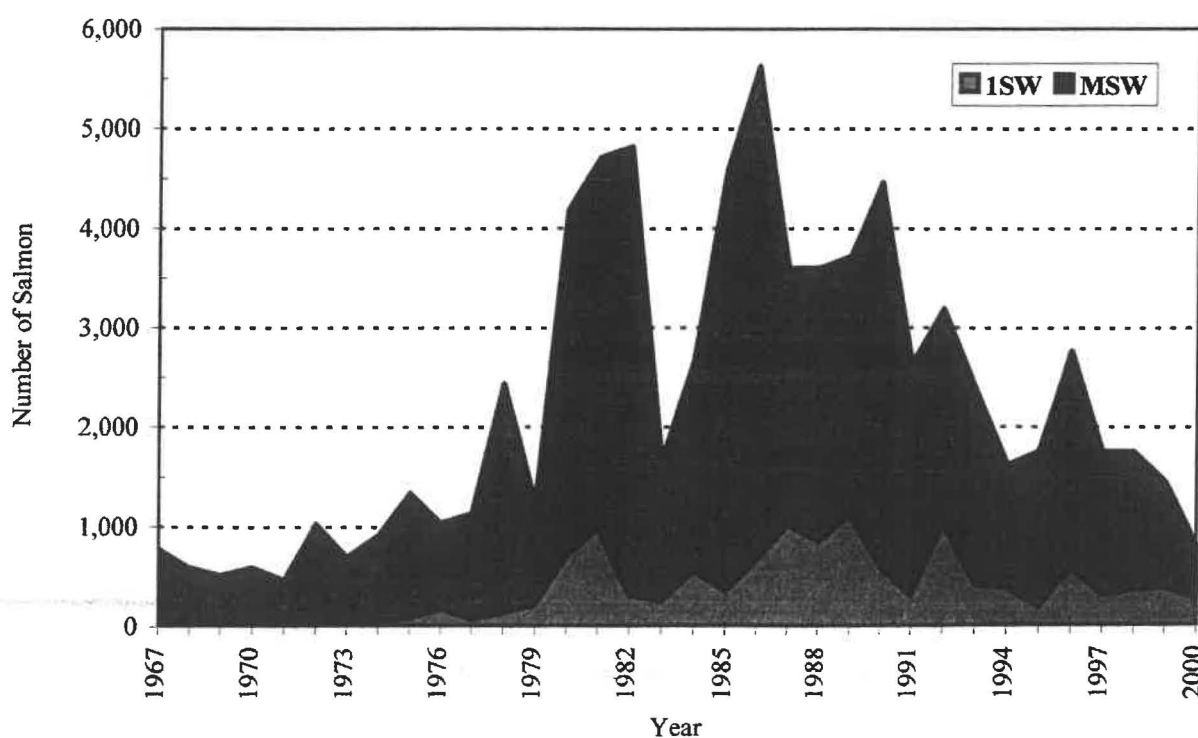
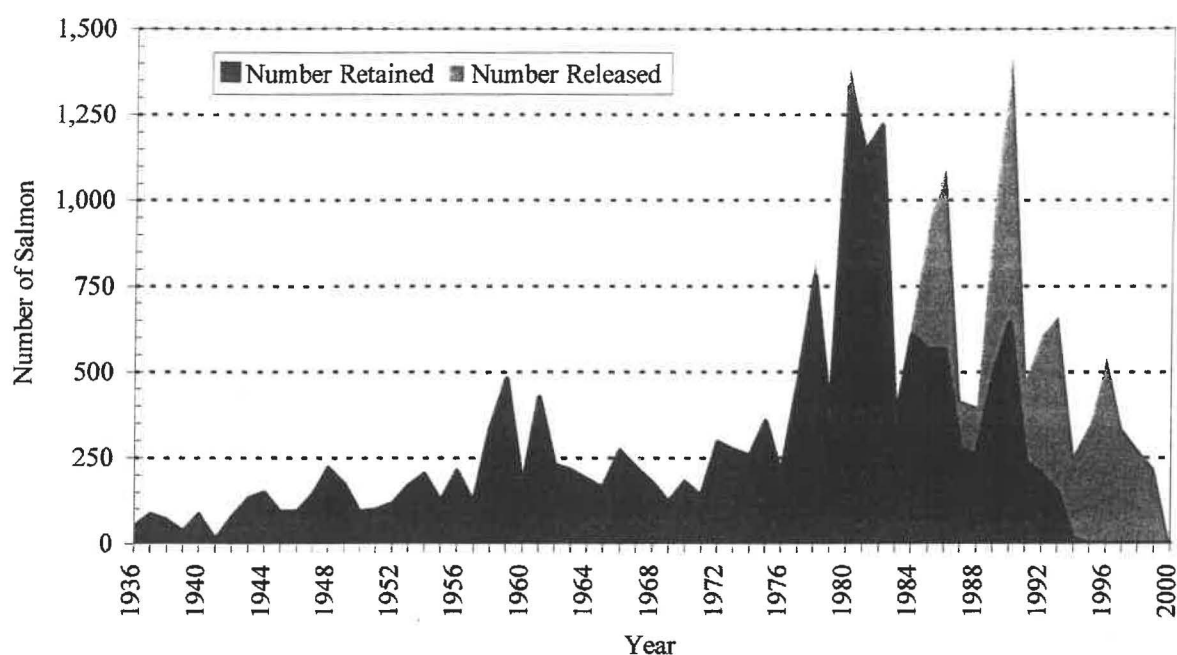


Figure 2.3 Sport catches of Atlantic salmon in USA (Maine) rivers, 1936 – 1999.



3. Overview of the USA Atlantic salmon aquaculture industry

3.1 Atlantic salmon farming in the states of Washington and Maine

Overview of the Washington Salmon Farming Industry

The Atlantic salmon aquaculture industry in Washington state is currently composed of 9 lease sites encompassing 120 acres of water; all are located in Puget Sound in the Seattle area. One company (Cypress Island, Inc.) controls 8 of the 9 leases, and produces >95% of the Atlantic salmon in Washington. Currently, there were 126 cages deployed in the Washington industry. The most commonly used cages are 25 x 25 meters in size, although some 15 x 15 and 12 x 24 meter cages are used. These cages are connected together with steel walkways in groups of 8 to 22; circular cages are not used in Washington.

The Washington aquaculture industry operates two freshwater smolt-rearing hatcheries, which produce up to three million smolts annually. All Atlantic salmon strains used in the Washington industry were originally provided to the industry by the US government (National Marine

Fisheries Service) beginning in 1984. A mixture of many different salmon stocks was used to establish the industry in Washington, including the following: Grand Cascapedia, from Quebec, Canada; Saint John, from New Brunswick, Canada; Penobscot, Union and landlocked salmon (Grand Lake Stream) from Maine; Connecticut River from Connecticut; and Norwegian Landcatch (imported from Scotland). No importations have occurred in Washington since the late 1980s.

Salmon production methods in the state of Washington are quite different from those used in the state of Maine. All Atlantic salmon broodstock are reared at a single freshwater hatchery, and about 2/3 are reared under controlled temperature and photoperiod regimes, which results in spawning during the month of June. The remaining broodstock are reared under normal conditions, and spawn in late October or early November. Smolts are also reared under controlled light conditions, which results in the production of smolts (ages 0+ and 1+) from February through November. In some instances smolts are held at a brackish water site for about 6 months, before being transferred to full saltwater cage sites. As in Maine, cage rearing to harvest in Washington requires about 18 months, and harvesting can now occur during all months of the year.

The Atlantic salmon farming industry in Washington has an estimated value of \$25 million and provides about 145 full-time jobs (excluding personnel at the two hatcheries) for Washington residents.

Overview of the Maine Salmon Farming Industry

The Atlantic salmon aquaculture industry in the state of Maine is currently composed of 43 leased sites that encompass about 750 acres of water. Most (26) cage sites are located in the Cobscook Bay area near the Maine-New Brunswick border. Although 15 companies or individuals hold leases in Maine, 4-5 major companies produce most of the salmon reared in Maine (smaller companies rear for or sell to the larger, global companies). Atlantic salmon is the primary species of finfish under cultivation, with rainbow trout a distant second; other species reared (experimentally) in recent years include cod, haddock, flounder, pollock, charr, etc. In January 2001 there were 570 cages deployed in Maine's coastal waters. The most commonly

used cages are 24 x 24 meters in size, and connected together with steel walkways in groups of 8 to 20; additionally, 70-100-120 meter diameter cages (polarCirkels™) are also used extensively.

The Maine aquaculture industry operates five freshwater smolt-rearing hatcheries, which produce more than five million smolts annually. Although several European stocks (from Iceland, Scotland, Norway, and Finland¹) were used in Maine from 1989-1995, the following three strains are currently under production: Penobscot, Saint John, and Landcatch. Penobscot River, Maine stocks were originally provided to the industry by the state of Maine (100,000 smolts in 1983 and 50,000 smolts in 1985), while Saint John River stocks have been imported from nearby New Brunswick, Canada since the late 1980s. The Saint John stocks were originally provided to the New Brunswick salmon farming industry by the Canadian government (Department of Fisheries and Oceans). The Landcatch strain (a mixture of several Norwegian stocks) was originally imported to Maine from Scotland in 1989. It has been estimated that approximately 30-50% of all salmon currently under production in Maine are either pure or hybridized Landcatch strains, with either of the other two regional North American stocks. The exact percentage of Landcatch hybrids being reared in Maine is difficult to ascertain due to a rapidly changing industry and incomplete and/or inadequate record keeping. Since 1995, the State of Maine has prohibited the importation of live fish or eggs from Atlantic salmon from Europe (and west of the Continental Divide in the USA), although the importation of milt is not prohibited. Consequently, since 1997 the salmon farming industry has imported milt of the Bolak strain from Norway (via Iceland).

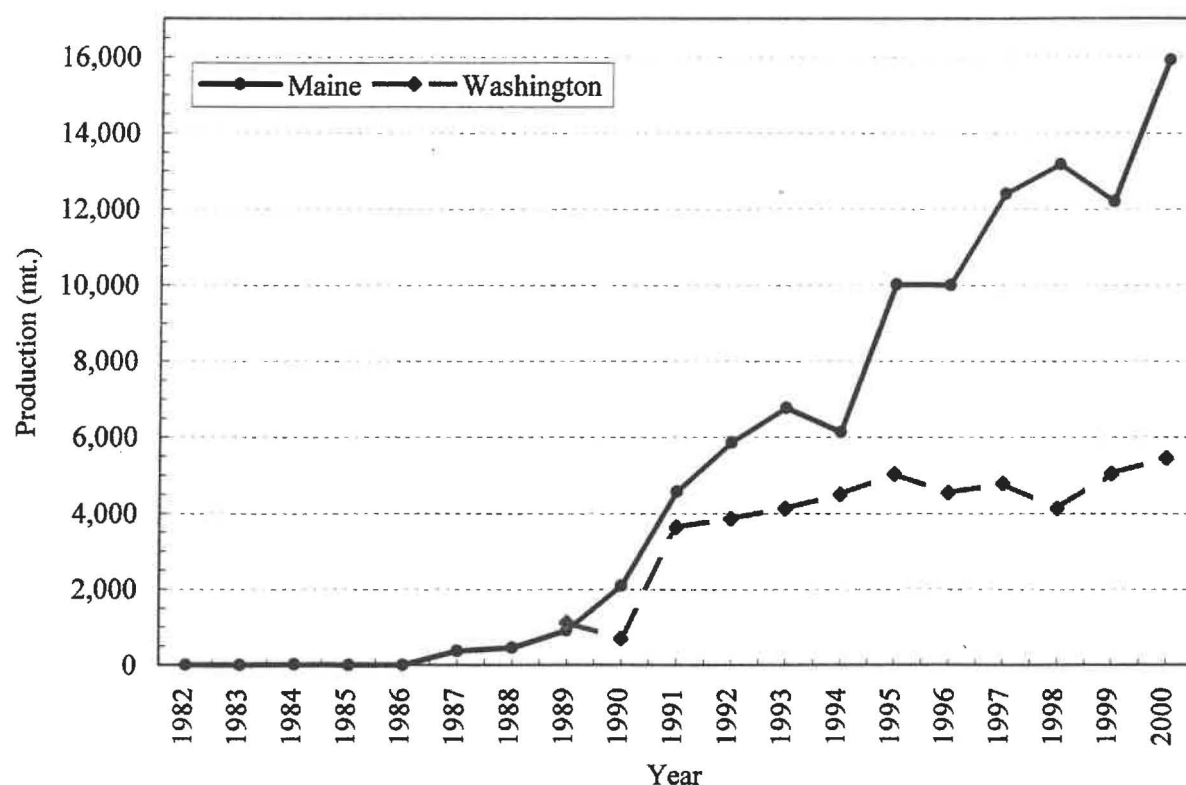
Cage rearing to harvest in Maine requires about 18 months, yielding an average standing crop of about 6 million salmon in two-year classes. Most salmon are harvested from October through March, although salmon are harvested throughout the year. The Atlantic salmon farming industry in Maine has an estimated value of about \$100 million and provides about 1,100 full-time, direct jobs and another 500-700 infrastructure, indirect jobs to Maine people.

¹ Icelandic stocks originated from the Eldi and Isno Rivers; Norwegian stocks (via Scotland) used were the Mowi strain (from the Landcatch Company); Finnish (Baltic Ocean) stocks originated from the Moorum River.

3.2 Production of farmed Atlantic salmon in the USA

The total production of Atlantic salmon in the state of Maine has increased from 20 mt in 1984 to more than 16,000 mt (> 36 million lbs.) in 2000, while production in the state of Washington has remained stable at about 5,000 mt (10–12 million lbs.) annually (Figure 3.2). While Atlantic salmon production has increased rapidly since the late 1980s in Maine, New Brunswick, and British Columbia, opposition to salmon farming in Washington has prevented expansion of the industry there.

Figure 3.2 Production of farmed Atlantic salmon in the USA, 1982 – 2000.



3.3 Regulation of the industry

Federal, State, and local government authorities regulate the USA Atlantic salmon farming industry extensively. A federal permit is required by the US Army Corps of Engineers (ACOE) for structures in navigable waters (Section 10 of the Rivers and Harbors Act of 1899), by the US Environmental Protection Agency (EPA) for discharges into coastal waters (Section 404 of the

Clean Water Act, under the National Pollutant Discharge Elimination System), and by the US Coast Guard for navigational markings. A federal importation permit is also required if live fish or eggs are imported from outside of the US. On the state level, both Maine and Washington require aquatic lands leases, a state water quality certification permit, and additional permits to rear fish in hatcheries, to transfer fish to cage sites, and to import live fish or eggs. On the local level, Washington state requires a county and/or city shoreline development permit, while in Maine a public hearing is held for each proposed lease site to obtain input from local residents and non-governmental interests (e.g., Atlantic Salmon Federation, Trout Unlimited, etc.).

The permitting process is complex, although both Maine and Washington states have established uniform application procedures (“Unified Application and Monitoring Program” in Maine and “Joint Aquatic Resources Permits Application” in Washington) that are used to apply for several of the required permits simultaneously. Additionally, both states have designated a lead state agency and single point contact for application and monitoring requirements.²

Both Maine and Washington require an initial environmental assessment prior to issuance of a lease for cage sites; extensive annual monitoring at hatcheries and cage sites is also required. The state of Maine has a very stringent finfish aquaculture monitoring program (FAMP) that requires annual spring and fall diver survey reports and videos, water quality monitoring data at and in the vicinity around cage sites, and biennial benthic survey reports. Information pertaining to these requirements is described in greater detail in the following Section.

4. Implementation of the Oslo Resolution in the United States

The United States is committed to implement the Oslo Resolution to minimize the impact(s) of aquaculture upon wild salmon stocks. Returns to NASCO, providing details of the implementation of the Oslo resolution by the USA, are presented in the following categories: general measures; measures to minimize genetic and other biological interactions; measures to minimize the risk of transmission of diseases and parasites; and, research and development projects. Since the state of Washington does not fall under the jurisdiction of NASCO or the

² The aquaculture coordinator for the Maine Department of Marine Resources and a similar position in the Washington Department of Ecology serve as contacts for applicants and act as liaisons with other agencies.

Oslo Resolution, only information applicable to the state of Maine will be presented in the following Section. The summaries provided below encompass laws, rules, guidelines, and recommendations by Federal, State and local authorities, as well as actions undertaken voluntarily by the Maine salmon farming industry. Some of the regulations and guidelines listed below are being phased in with new leases or as existing leases are renewed.

4.1 General measures

General Requirements

- Leaseholders must provide evidence of technical and financial capability necessary to accomplish the project.
- Leases are granted for a maximum of 10 years.
- No single lease shall exceed 100 acres in area.
- An annual review of each lease is conducted; the lease may be revoked for non-compliance with conditions, or if operations governed by the lease are conducted in a manner substantially injurious to marine organisms.
- A harvest fee of \$0.01 per pound must be paid monthly (within 30 days of harvest) with submission of the required production report form.³
- Anti-fouling agents used to treat net pens must be registered by the Maine Pesticide Control Board.
- Fish feed must be in pellet form.

Site Requirements and Restrictions

- Onsite field studies (conducted between May 1 and Sept. 30) are required in order to characterize existing environmental and biological conditions, including reference data for future comparisons. Information to be collected includes: diver survey and videotape of flora and fauna, substrate, etc.; hydrography survey at the surface, bottom, and 1-meter off the bottom, including current speed, direction, and ability to predict fate of fecal

³ Income from this fee is deposited into a non-lapsing "Salmon Aquaculture Monitoring, Research and Development Fund" which is used by the Maine Dept. of Marine Resources to develop effective and cost-efficient water quality, licensing, and monitoring criteria, to analyze and evaluate site monitoring data, and to process lease applications.

material and unconsumed feed, etc.; water quality survey at peak stratification periods (Aug-Sept); benthic analyses, including chemical and biological analysis; sediment analysis, including depth of redox discontinuity, total organic carbon, etc.; and an infauna survey, to establish existing benthic infauna prior to placing fish in pens.

- Accurate plans required for each site, depicting physical structures (single pen plan, pen system arrays, on-site support structures, etc.). A mooring plan, including a description of its ability to withstand severe storms, tidal surges, and equipment break up, and an aerial photo of the lease area must also be provided.
- Pen restrictions: not closer than $\frac{1}{4}$ mile from eagle nests or essential habitats for threatened or endangered species under state law; no closer than 1,000 feet from municipal, state, or federally-owned beaches, parks, or docking facilities; no closer than 1,500 feet from any area designated as high use or critical habitat for threatened or endangered species protected by federal law; not located within 1,500 feet of any area named in acts of Congress or presidential proclamations (e.g., national parks, wilderness area, national monuments, refuges, etc.).
- Boundary markers around lease areas shall be placed and maintained in accordance with appropriate Coast Guard regulations.
- Exact location of the state lease boundary (coordinates) must be sent to the US National Ocean Survey.
- Fish pen culture sites must be a minimum of 2,000 feet from any other finfish lease site, although an exception may be granted by mutual consent of both parties.

Operations

- Leaseholder must provide information that describes how the proposed activity will affect boat traffic in the area, feeding techniques and schedules, feed transport and processing, predator control methods, net cleaning and maintenance schedules, etc.
- Leases shall not interfere with breeding, pupping, or sensitive aggregation area of any federally listed marine mammals. Additionally, the incidental take of marine mammals or any bird entanglements or kills must be reported within 48 hours (mammals to the National Marine Fisheries Service, birds to the US Fish and Wildlife Service).

- Facility must be open for inspection by the permitting agency(ies) personnel during working hours, and records must be made available upon request by said agency(ies).
- Environmental monitoring data must be provided to the National Marine Fisheries Service.
- Records of containment systems must be maintained to track history, modifications, repairs and inspections, etc.
- Federal fishery agencies are now (as of 2000) recommending that the US ACOE require applicants to submit an integrated loss control plan for each site, to include predator deterrence, husbandry practices, contingency escape recovery protocols, storm preparedness measures, etc.
- An inventory tracking system is now (as of 2000) recommended by the US ACOE. It allows for clear, accurate inventory tracking of all size classes of salmon, including documentation of any escapes.
- For new leases (as of 2000), the US ACOE recommends that reports of escapes of more than 500 fish be made within 24 hours. The Maine salmon farming industry now routinely reports escapes on a voluntary basis.

4.2 Measures to minimize the genetic and other biological interactions, including enhancement programs measures

- No live anadromous Atlantic salmon, whose original source as fertilized eggs or gametes was outside of the North American continent shall be introduced or transported to marine waters within the State of Maine.
- No live finfish of any stage of development post hatching whose source is outside of the North American continent shall be introduced or transported to marine waters within the State of Maine.
- Weirs/trapping facilities have been installed on rivers in the vicinity of aquaculture sites to intercept and remove aquaculture escapees. The Dennys and Pleasant river facilities were installed in 1999, and the East Machias facility is to be installed in 2001; the Machias facility is currently in the design phase. Previously installed facilities on the St. Croix, Narraguagus, Union and Penobscot rivers are also used for this purpose.

- Maine scientists are in the process of implementing procedures that will allow for streamside reading of scale samples from suspected escaped farm fish captured in weirs.
- Smolt monitoring facilities on the Pleasant River are used to identify and remove any escapees from the freshwater hatchery located in the drainage.
- The US ACOE does not authorize the use of transgenic Salmonids in Maine.
- Government authorities and the Maine aquaculture industry are working cooperatively to try to institute a marking system that may be used to identify fish to a specific site. (See Section 4.4, Research and Development, for additional information).
- Adoption of an industry-wide “Code of Practice for the Responsible Containment of Farmed Atlantic Salmon in Maine Waters” in October 1998. The Code is currently undergoing extensive revisions, and will be revised and upgraded to industry-leading (world-wide) standards by the fall of 2001. The new Code will be applicable to all aquaculture in Maine (finfish, shellfish, seaweed, etc.) and will incorporate both freshwater and saltwater facilities utilized by the Maine industry.
- All Maine hatcheries producing smolts for the industry are undergoing a re-engineering survey in preparation of a major program (estimated cost: \$30 million) which will better treat effluents/discharges and further reduce the likelihood of escapees from freshwater hatcheries. It is possible that some existing hatcheries may be closed.

Measures to Minimize Adverse Interactions From Enhancement Activities

- Craig Brook National Fish Hatchery, the oldest fish hatchery in the USA, was reprogrammed (beginning in 1992) from a single-broodstock and smolt production facility to a multiple (river-specific) broodstock and fry production facility. Phase I of the reconstruction program (completed in 2000) consisted of replacing water supply pipelines, construction of a new broodstock and production building (with six broodstock holding bays), six new incubation and fry rearing units, office space, conference room, visitor center, etc. Phase II of the hatchery reconstruction program, now underway, will provide an additional incubation and fry-rearing unit, along with additional administrative space. The newly reconstructed facility features enhanced disease screening and biosecurity protocols, in addition to salmon genetics screening activities.

- Enhancement activities (salmon stocking) by State and Federal agencies are conducted utilizing river-specific (local) stocks; emphasis is placed upon the use of fry in order to maximize natural smolt production.
- All broodstock are tagged with passive integrated transponder (PIT) tags for positive identification of individual salmon throughout their lifetime.
- All broodstock are genetically typed utilizing state-of-the-art micro-satellite DNA methods, which allows for culling of diseased individuals and/or any non-native genotypes. This process allows scientists to identify the parental origin (“familyprints”) of juvenile and adult salmon throughout their life cycle.
- Broodstock(s) used for enhancement activities are representative of the entire spawning run, with single-paired matings utilized.

4.3 Measures to minimize the risk of transmission of diseases and parasites to wild stocks of salmon

Fish Health

- Leaseholders must comply with New England Salmonid Fish Health Guidelines, or State guidelines, whichever are more restrictive.
- Only antibiotic chemicals approved by the Food and Drug Administration (FDA) shall be applied. Prophylactic use of antibiotics is prohibited.
- All smolts are vaccinated against bacterial diseases such as *Vibriosis*, etc.
- There shall be no discharge of pollutants from the facility other than fish excrement, ammonia excretions, unconsumed fish food, and medications approved by the US FDA.
- All mortalities, feed bags, fish food fines, and other waste material shall be removed daily to the mainland shore and disposed of properly.
- No dead fish or viscera to be disposed of in state waters
- All lots of salmon at freshwater aquaculture hatcheries undergo vigorous, comprehensive, annual fish health inspections.
- All escapees captured at weirs are sacrificed and checked for diseases & parasites

- Maine salmon farmers are working toward adequate year-class separation; about 2/3 of Maine salmon farms are currently able to achieve this goal, a substantial increase in recent years. Similarly, fallowing of sites is practiced routinely where possible.
- A coordinated, integrated sea lice control program was instituted in the Maine aquaculture industry for 2000/2001. This program covers personnel training, monitoring at sites, and methods of treatment.
- In March 2001 the Maine salmon farming industry adopted an industry-wide ISA Action Plan. The plan incorporates aggressive disease monitoring, independent biosecurity audits, and site-specific Best Management Practices.

4.4 Research and development

- Government agencies and the Maine aquaculture industry are cooperating in a study to evaluate the feasibility of using net-pen reared adult Atlantic salmon of river-specific origin to supplement the natural production in several Maine rivers. The purpose of this joint venture is to involve the aquaculture industry in the rehabilitation of native stocks using their facilities and expertise. An initial release of 1,054 adult salmon (2SW) occurred in October 2000; ongoing studies to evaluate reproductive success through juvenile production and adult returns will continue for the next 6 years.
- A \$5 million study was recently (March 2001) initiated with funding provided by the Federal government, the Maine Aquaculture Association, and the National Fish and Wildlife Foundation. The 3-year study will result in the development of an aquaculture containment verification system based upon best management practices, escape event reporting, and sea trials of selected tagging techniques at three cage sites in Maine.
- A Workshop was held in March 2001 for industry representatives and officials of Federal, State, and local government agencies to address the practicability of marking aquaculture fish to more readily assess the impact of escapees upon wild salmon populations. Additional discussions in this area are continuing.
- Government scientists are evaluating the near shore ecology of smolts and postsmolts through the use of ultrasonic tags and the deployment of stationary detection units. This study will help identify migration routes, ecological transition zones, and some of the possible causes of marine mortality in near shore habitats. Collaborative studies with

Canadian scientists have been initiated to determine if US salmon enter the Bay of Fundy and if Canadian salmon enter US waters.

- In conjunction with the project to rear adult Atlantic salmon in Maine aquaculture industry net-pen facilities for restocking programs, US scientists are evaluating stock-specific marine growth characteristics of commercially reared salmon and evaluating the retention of visual implant elastomer (VIE) tags as a method for marking individual salmon.
- US scientists have recently (2000) prepared a contract to conduct a survey of salmonid and non-salmonid wild fishes in the NW Atlantic for the infectious salmon anemia virus (ISAv) and for bacterial kidney disease (BKD). To date, the following fishes have tested negative for both pathogens: Atlantic mackerel (N=120), Atlantic herring (N=40), alewife (N=60), and winter flounder (N=60). In 2001, targeted sampling of American eel and alewife were conducted in the Narraguagus, Pleasant, Penobscot, and Sheepscot rivers.
- In 2001, USA scientists initiated efforts to sample Atlantic salmon smolts and post-smolts in the Penobscot Bay estuary and open waters of the Gulf of Maine. Collection of juvenile Atlantic salmon in marine systems will allow for evaluation of parasitism rates by sea lice, incidence of disease, and incidence of escaped farmed fish in the vicinity of migrating restoration populations.

5. Conclusion

The USA shares current widespread concerns about the status of wild Atlantic salmon populations in the North Atlantic. Historical recreational salmon fisheries and salmon farming have been and will continue to play important cultural and economic roles in rural areas of the states of Maine and Washington. In addition to these direct, economic benefits, many members of society also derive great satisfaction from the knowledge that uncommon or unusual animals such as the Atlantic salmon share our environment. The USA remains committed to maintaining and enhancing the economic, cultural, and esthetic value of wild salmon runs for all components of society. Similarly, the USA recognizes that continued communication, coordination, and close cooperation between wild salmon interests and the salmon farming industry is vital to the successful restoration, maintenance, and enhancement of wild salmon runs and fisheries and to the continuation of a viable and sustainable salmon farming industry.