



North American Commission

NAC(17)4

Annual Report

(Tabled by the United States)

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United States, 2016

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1. Summary of Salmonid disease incidences

In 2016, there have been several reports of disease outbreaks among commercial salmon farming sites in Maine. Routine monitoring results for sites in Maine indicated a low level presence of the pathogen *Renibacterium salmoninarum* at several sites. Some of these sites also experienced low dissolved oxygen levels this summer which may have led to outbreaks of Bacterial Kidney Disease in some of the cages on those sites.

Given the recent detections of Infectious Salmon Anemia Virus at Canadian sites in close proximity to some Maine sites in Cobscook Bay, the Maine Department of Marine Resources (MDMR) required increased surveillance for some U.S. sites along with strict biosecurity protocols for vessels moving between these areas (complete disinfection of harvest vessels) to minimize transfer of pathogens. No U.S. sites have detected ISAV in 2016.

U.S. Point of Contact on Disease:

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2. Summary of breaches of containment of salmonids from net cages

While there were not any reportable breaches of containment during the 2016 calendar year, there were three farm-origin salmon captured in salmon rivers in Maine.

The Maine Department of Marine Resources (MDMR) led several field investigations to capture putative aquaculture origin fish after receiving reports of many large fish observed in the Dennys River, Maine. On Wednesday, August 31, regional DMR staff checked six locations between river kilometer (rkm) 1.33 and 5.81. About 36 fish were observed in an area known as Charlies Rips (rkm 2.24) and a second school of 12 fish was observed above Route 86 (rkm 5.12). After several attempts, the MDMR biologists were able to capture two fish from the river on September 2, 2016. The fish were initially determined to be farm-origin by overall appearance and scale analyses. Another putative farm-origin salmon was captured in the Penobscot River, Maine on September 29, 2016.

Tissue samples were collected from each of these fish. The samples were analyzed to 1) verify the origin of the fish (e.g., from U.S. salmon farms or outside of the United States); 2) verify the Continent of Origin (North American or European); and 3) screen for pathogens of concern. Since all farm-origin salmon raised in the United States are genetically marked, we were able to determine that these three individuals were from active U.S. farm sites. Pathogen screening conducted by the United States Fish and Wildlife Service revealed no pathogens of concern.

Species (Strain, if applicable)	Number ¹	Average size of fish ²	Location ³	Result ⁴	Cause of the breach	Date

There were no reported escapes, and as such, this table has intentionally been left blank.

1. This should be the best estimate possible, though it is recognized that exact numbers may be difficult to obtain.
2. Based on the codes of containment, it was agreed that average size is a more accurate measurement than lifestage.
3. The more specific the information the better, however Bay level is considered sufficient.
4. This refers to using recapture methods as detailed in the relevant code of containment and summarizing the results of the recapture attempt.

Notes:

Federal permits for U.S. commercial aquaculture operations in Maine require reporting any escapes of 50 fish or greater, and specifically for marine sites; only fish larger than 2 kg or a loss of greater than 25% of cage biomass for fish smaller than 2 kg are reported (i.e., reportable escape).

3. Summary of Salmonid introductions from outside the Commission Area

Species (strain, if applicable)	Number	Life Stage	Origin ¹	Destination ²	Purpose ³	Date
<i>Salmo trutta</i> (Iijoki River strain)	35,000	Eyed egg (to support culture and release of 2-year smolts)	Taivalkoski Hatchery, Finland	Two small streams that flow directly into Long Island Sound.	Promote a sea-run trout fishery with minimal impact to wild salmon conservation efforts.	January 2016
<i>Oncorhynchus mykiss</i>	45,000	Eyed eggs	Washington State (Trout Lodge Inc.)	Maine: these fish will all be stocked in inland (mainly private) ponds with little or no potential to	Recreational fisheries and for stocking in private ponds	various

				impact wild salmon recovery efforts.		
<i>Oncorhynchus mykiss</i>	25,000	Eyed eggs	Washington State (Trout Lodge Inc.)	New Hampshire: 24,000 will go to inland waters with little to no impact to wild salmon conservation. 1,000 will be transferred to net pens off the coast of New Hampshire with negligible impact to wild salmon conservation.	The 1,000 fish being transferred to marine cages are involved in a project examining how multi-trophic aquaculture may reduce environmental impacts associated with rearing finfish.	various

1. This would be the province or state for introductions from the west coast; or country for international introductions. It was decided that introductions between Canada and the US that are within the Commission Area (between Maine and NB, for example) would not be included here as those introductions would be captured in other avenues (ICES WGITMO, for example) and because these are not as relevant.

2. The more specific the information the better, however Bay level is considered sufficient.

3. This refers to the intention for the introduction – aquaculture, research, stock enhancement, etc.

4. Summary of Transgenic activities within the Country Annex 1 of NAC(10)6

We have no further updates beyond what we provided in 2016.