



**North American Commission**

**NAC(20)06**

***Annual Report***

***(Tabled by the United States)***



**NEA(20)06**

***NAC Annual Report  
(Tabled by the United States)***

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**United States, 2019 Activities**

**Submitted by: National Marine Fisheries Service**

**Date: 18 May 2020**

**1. Summary of Salmonid disease incidences**

In 2019, several U.S. commercial salmon farms in Maine tested positive for bacterial kidney disease (BKD) requiring therapeutic treatments. In addition, 17 wild sea-run Atlantic salmon collected from the Penobscot River for broodstock tested positive, via PCR, for the non-pathogenic strain of Infectious Salmon Anemia (ISAv) [HPR0]. All 17 were released back to the river. This is a dramatic increase in the number of suspects in the Penobscot; this annual total of 17 is more than the previous 10 years combined. An additional salmon tested positive, via PCR and gene sequencing, for an unknown variant of the pathogenic strain of ISAv [HPR-deleted]. This individual was culled from the population.

**U.S. Point of Contact on Disease:**

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

There were no reportable escape events in 2019.

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

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 sets thresholds for what is considered a reportable escape. In Maine, operators must report any escapes greater than 50 fish at sites where individual fish weigh more than 2 kg. For sites where the individual fish weigh less than 2 kg, operators must report any escape that exceeds 25% of cage biomass.

**3. Summary of Salmonid introductions from outside the Commission Area**

Listed below is information on salmonids brought into the Commission Area in 2019. No salmonids that originate from outside the NAC area are stocked directly into salmon rivers in Maine. The vast majority of fish brought in from outside the Commission area are stocked in inland ponds and lakes (e.g., private “farm ponds”) and, thus, pose little or no risk to Atlantic salmon in the wild. Any potential risks are further minimized by strict fish health regulations (both state and federal) as well as distance from salmon rivers in Maine.

Species (strain, if applicable)	Number	Life Stage	Origin <sup>1</sup>	Destination <sup>2</sup>	Purpose <sup>3</sup>	Date
Rainbow Trout	33,000	Eyed Eggs	Trout Lodge, WA	Maine	Private Ponds, Recreational Fisheries	2019
Rainbow trout	110,000	Eyed eggs	Trout Lodge, WA	New Hampshire	Private ponds, research, commercial net pen aquaculture in New Hampshire	2019
Brown Trout (sea-run lijoki strain)	36,430	Eyed eggs	Taivalkoski Hatchery, Finland	Connecticut	Pilot project to establish a sea-run trout population in two small coastal streams	2019

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.

There is increasing interest in land-based commercial production of Atlantic salmon in Maine. State and Federal permitting and public meetings are ongoing to exchange information about two land-based facilities (i.e., recirculating aquaculture systems - RAS). One site is located on the shores of the Penobscot River estuary in Bucksport, Maine. The other proposed site is located in Belfast, Maine. These facilities will rear Atlantic salmon from egg to harvest size in large tanks, entirely indoors. Both projects are considering importing non-North American origin eggs for production within their facilities in 2018, the State of Maine Department of

Environmental Protection issued a Maine Pollution Discharge Elimination System (MEPDES) permit for a proposed RAS facility in Bucksport, Maine. Reviews of the design of each facility and containment management systems are being conducted through federal and state permit applications, including the U. S. Army Corps of Engineers for any in-water construction activities and the State of Maine discharge permit for wastewater (MEPDES). To date, no eggs or fish have been imported into the state or transferred to a facility. All permits must be in place and final approval from state and federal agencies is required prior to importing any eggs or fish into the proposed facilities described above.

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

In 2018, the U.S. Food and Drug Administration (FDA) approved a supplemental New Animal Drug Application (NADA) to rear genetically engineered (GE) salmon (AquaAdvantage) at an FDA approved land based facility in Indiana. The supplemental application filed in 2017 requested approval for an additional facility located in Albany, Indiana. A previous NADA approved by the FDA in 2015 specifically identified the company (AquaBounty Technologies) and the product (AquaAdvantage GE salmon) to be produced in AquaBounty's freshwater hatchery on Prince Edward Island, Canada with the subsequent eggs to be transferred to Panama for grow out to market. In 2016, the FDA issued an Import Alert (99-40) to prevent the importation of AquaAdvantage GE salmon into the U.S. due to concerns over insufficient labelling requirements to appropriately notify the consumer of the product being purchased for food. In 2019, the FDA deactivated the Import alert 99-40; this now allows AquaBounty to sell products from their AquaAdvantage salmon in the U.S. and import GE salmon eggs into a single FDA approved land based facility in the U.S. for grow-out to market (located in Indiana). The first harvest of market size fish from the facility is anticipated in late 2020. It should be noted that these facilities are not proximate to the salmon rivers in Maine and that state and federal regulations are in place prohibiting the use of transgenic salmon for grow out in marine net pens in Maine.