

GARFO Master ESA Species Table - Gulf of Maine DPS of Atlantic Salmon

General distribution: the Gulf of Maine (GOM) DPS of Atlantic salmon includes all anadromous Atlantic salmon whose freshwater range occurs in the watersheds from the Androscoggin River northward along the Maine coast to the Dennys River, and wherever these fish occur in the estuarine and marine environment; the marine range of the GOM DPS extends from the Gulf of Maine, throughout the Northwest Atlantic Ocean, to the coast of Greenland; included in the GOM DPS are all associated conservation hatchery populations used to supplement these natural populations; currently, such conservation hatchery populations are maintained at Green Lake National Fish Hatchery and Craig Brook National Fish Hatchery, both operated by the U.S. Fish and Wildlife Service; excluded from the GOM DPS are landlocked Atlantic salmon and those salmon raised in commercial hatcheries for the aquaculture industry.

Disclaimer: the best available information on GOM DPS Atlantic salmon presence within the Greater Atlantic Region is presented below; waterbodies included are ones where we have information specific to GOM DPS Atlantic salmon use of the area that would be helpful for action agencies reviewing proposed actions and their potential effects on Atlantic salmon; for waterbodies in the Gulf of Maine not listed below, we have no data on usage by GOM DPS Atlantic salmon; a description of Atlantic salmon life history stages are included at the end of the table below

Body of Water	Distribution/Range in Watershed			Life Stages Present	Use of the Watershed
	Marine/Estuarine	Throughout	Apr-Nov		
Narraguagus River	Marine/Estuarine	Throughout	Apr-Nov	Smolts (Juveniles) and Adults	Foraging, Migration
	Freshwater	Throughout	Year round	Eggs, Hatchlings (Alevin), Fry, Parr, Smolts (Juveniles), Adults	Spawning - Oct-Dec Rearing - Year round Foraging - Year round Overwintering - Dec-Mar
Ducktrap River	Marine/Estuarine	Throughout	Apr-Nov	Smolts (Juveniles) and Adults	Foraging, Migration
	Freshwater	Up to Dickey Mill Dam (RKM 18)	Year round	Eggs, Hatchlings (Alevin), Fry, Parr, Smolts (Juveniles), Adults	Spawning - Oct-Dec Rearing - Year round Foraging - Year round Overwintering - Dec-Mar
Dennys River	Marine/Estuarine	Throughout	Apr-Nov	Smolts (Juveniles) and Adults	Foraging, Migration
	Freshwater	Throughout	Year round	Eggs, Hatchlings (Alevin), Fry, Parr, Smolts (Juveniles), Adults	Spawning - Oct-Dec Rearing - Year round Foraging - Year round Overwintering - Dec-Mar
Machias River	Marine/Estuarine	Throughout	Apr-Nov	Smolts (Juveniles) and Adults	Foraging, Migration
	Freshwater	Throughout	Year round	Eggs, Hatchlings (Alevin), Fry, Parr, Smolts (Juveniles), Adults	Spawning - Oct-Dec Rearing - Year round Foraging - Year round Overwintering - Dec-Mar

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East Machias River	Marine/Estuarine	Throughout	Apr-Nov	Smolts (Juveniles) and Adults	Foraging, Migration
	Freshwater	Throughout	Year round	Eggs, Hatchlings (Alevin), Fry, Parr, Smolts (Juveniles), Adults	Spawning - Oct-Dec Rearing - Year round Foraging - Year round Overwintering - Dec-Mar
Penobscot River	Marine/Estuarine	Throughout	Apr-Nov	Smolts (Juveniles) and Adults	Foraging, Migration
	Freshwater	Up to Medway Dam on western branch; Up to Grand Lake Dam on eastern branch	Year round	Eggs, Hatchlings (Alevin), Fry, Parr, Smolts (Juveniles), Adults	Spawning - Oct-Dec Rearing - Year round Foraging - Year round Overwintering - Dec-Mar
St. George River	Marine/Estuarine	Throughout	Apr-Nov	Smolts (Juveniles) and Adults	Foraging, Migration
	Freshwater	Up to Trues Pond Dam	Year round	Eggs, Hatchlings (Alevin), Fry, Parr, Smolts (Juveniles), Adults	Spawning - Oct-Dec Rearing - Year round Foraging - Year round Overwintering - Dec-Mar
Medomak River	Marine/Estuarine	Throughout	Apr-Nov	Smolts (Juveniles) and Adults	Foraging, Migration
	Freshwater	Throughout	Year round	Eggs, Hatchlings (Alevin), Fry, Parr, Smolts (Juveniles), Adults	Spawning - Oct-Dec Rearing - Year round Foraging - Year round Overwintering - Dec-Mar
Kennebec River	Marine/Estuarine	Throughout	Apr-Nov	Smolts (Juveniles) and Adults	Foraging, Migration
	Freshwater	Up to Anson Dam	Year round	Eggs, Hatchlings (Alevin), Fry, Parr, Smolts (Juveniles), Adults	Spawning - Oct-Dec Rearing - Year round Foraging - Year round Overwintering - Dec-Mar
Androscoggin River	Marine/Estuarine	Throughout	Apr-Nov	Smolts (Juveniles) and Adults	Foraging, Migration
	Freshwater	Up to Lewiston Falls Dam (32 RKM upstream of Merrymeeting Bay)	Year round	Eggs, Hatchlings (Alevin), Fry, Parr, Smolts (Juveniles), Adults	Spawning - Oct-Dec Rearing - Year round Foraging - Year round Overwintering - Dec-Mar

Listing rule: 74 FR 29344, June 19, 2009; **Recovery plan:** NMFS and USFWS 2005; **Additional references:** Fay et al. 2006; 74 FR 29300, June 19, 2009

Atlantic Salmon Life History Stages Occurring in Freshwater

LIFE STAGE	SIZE/WEIGHT	DESCRIPTION
Egg	5-6 mm	Deposited in gravel depression (redd) in fall; hatch in early spring (March-April).
Larvae (Alevin)	2-3 cm	Alevin or sac-fry remain in the gravel for three to six weeks after hatching before emerging from the gravel to seek food as fry (mid-May).
Juvenile (Fry)	5-8 cm	Within days, the fry enter the parr stage, indicated by vertical bars visible on their sides. Capable of capturing and consuming live food.
Juvenile (Parr)	10-12 cm	Feed and grow for one to three years in their native stream before becoming smolts.
Sexually Mature Juvenile (Precocious Parr)	10-12 cm	Some male parr become sexually mature prior to smoltification and can successfully participate in spawning with sea-run adult females.
Juvenile (Smolt)	13-17 cm/ 60 grams	In the spring, their body chemistry changes (smoltification). Smolts exit freshwater system and enter marine environment (Late April–early June).
Adults (1 Sea Winter)	1-3 kg.	Return to natal stream in spring-summer after only 1 winter at sea and spawn in the fall at a smaller size; 95 to 98% of the grilse that return to Maine rivers are male.
Adults (2-3 Sea Winter)	~75 cm/4.5 kg;	Return to natal stream in spring-summer after 2 or more winters at sea and spawn in fall; 55 to 75% of the 2SW and 3SW returns are female.
Adults (Kelt)	Weight loss due to spawning in females ranges from 12% to 47%.	Post-spawn salmon can return to the ocean in the fall, or can overwinter in the river and estuary often feeding on rainbow smelt.
Adults (Repeat Spawner)		If a rejuvenated kelt survives another one to two years at sea, it will return to its home river as a “repeat spawner

Atlantic Salmon Marine Life History

The marine life history of Atlantic salmon of U.S. origin is not as well understood as the freshwater phase. Atlantic salmon of U.S. origin are highly migratory, undertaking long marine migrations from their natal rivers to the Northwest Atlantic Ocean, where they are distributed seasonally over much of the region. The marine phase starts with the completion of smoltification and migration through the estuary of the natal river.