

**The Sea Grant Files**  
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### **The Perplexing Pink Salmon of Lake Superior**

Was it by plane ... train ... or automobile? Somehow pink salmon got into Lake Superior, but how? Hi, my name is Jesse Schomberg and you are listening to The Sea Grant Files. In today's episode we are taking it back to the 50's to talk about how Pink Salmon became established in Lake Superior without purposeful stocking.

According to an article published back in 1967 in the Ontario Fish and Wildlife Review, the Pink Salmon saga started in 1954 when the Ontario Department of Lands and Forests sought to revitalize commercial fishing in the Hudson Bay region by gathering well over a million Chum and Pink Salmon eggs from rivers along the wild North Pacific coasts of Washington and British Columbia. After fertilization, the eggs were transported to a fish hatchery near Thunder Bay, where they became fry and then fingerlings. The fingerlings were loaded onto planes and flown to rivers and creeks surrounding Hudson and James Bays where they were released ... never to be seen again.

But ... get this ... anglers caught two adult Pink Salmon in 1959 in a Minnesota tributary to Lake Superior.

As Peter Nunan, the author of the Ontario Fish and Wildlife Review article, wrote: *It seemed incredible that this species, known only to mature in the salt water of the Pacific, could survive in the cold, soft water of Lake Superior.*

The flabbergasting catch created a whole lot of questions! Could these Pinks have swum to Lake Superior from Hudson Bay? No, no river passage connects these two waters. So, how on Earth did they get here?

One retelling suggests bad weather forced a Hudson Bay-bound plane to eject its cargo of 21,000 Pink Salmon fingerlings into Lake Superior. But ... Nunan in that Ontario Fish and Wildlife Review article reported what is likely the truth. Evidently an employee working for the hatchery where the fish were cultured remembered 100 Pink Salmon escaped during the process of loading the fish onto a float-plane. Then, a manager at the hatchery evidently swept about 350 fingerlings out of the troughs and put them near Pie Island. But, most tellingly, Nunan wrote: *In probing further ... it was learned that a much larger number of Pink Salmon fingerlings had really escaped.*

Evidently a retired hatchery employee confessed that the last aircraft carrying Pink Salmon fingerlings had to leave three troughs behind. Each trough contained roughly 7,000 fingerlings and each of those troughs were drained into a sewer that emptied into the Current River near Thunder Bay, inadvertently stocking approximately 21,000 Pink Salmon into Lake Superior.

So, we have an idea of how Pink Salmon came to be in Lake Superior but, how were these denizens of the Pacific Ocean able to survive in the unsalted, nutrient poor waters of Lake Superior?

It turns out, Pink Salmon, like most other salmon are *euryhaline*, meaning they can adapt to a wide range of salinities. Also known as “Pinks”, “Pinkies”, “Humpies” and “Humpbacks,” these salmon are native to British Columbia where they live an *anadromous* lifestyle; meaning they are born in fresh water, travel to and live much of their lives in salt water and return to fresh water to spawn. In the Great Lakes, the Pinks also spawn in freshwater rivers but they don’t need to undergo dramatic behavioral and physiological changes during “*smoltification*” to deal with the ocean’s salt water. They are adaptable that way.

We looked to Don Schreiner, Minnesota Sea Grant’s fisheries specialist, for more answers. Don, who retired several years ago from the Minnesota Department of Natural Resources after serving as the Lake Superior Area Fisheries Manager, said, “A major reproductive advantage that Pink Salmon have over other Pacific salmon is that they leave their natal stream immediately upon emerging from the redd in early spring. This minimizes the time they spend in streams, which can be inhospitable during the hot mid-summer and the deep cold periods of winter.”

In Lake Superior, Pink Salmon are opportunistic and feed on zooplankton, aquatic invertebrates and small fish. They likely inhabit the warmer layers near the surface where most live for two years, reaching only 1-2 pounds before returning to spawn and completing their life cycle.

Chinook and Coho, other species of Pacific salmon, also have managed to occupy the Great Lakes. Chinook Salmon were introduced to eat invasive Alewives. Cohos were also stocked and well welcomed by anglers. Depending upon how you view such things, you might also point to steelhead, a lake-running form of Rainbow Trout, as a member of the Pacific salmon genus that adapted well to Lake Superior’s waters.

Atlantic Salmon swim in Lake Superior, too. Atlantic Salmon were once native to Lake Ontario but they disappeared before 1900. They’ve been stocked into the upper Great Lakes and a world-class fishery for them has developed in the St. Marys River.

Chinook, Coho, and Atlantic Salmon have something in common; anglers prefer these bigger fish to the smallish Pinks.

Perhaps the next time you stroll down the grocery isle and come across a can of Pacific Pink Salmon, you’ll remember this bit of history, and smile, knowing that Pinks also run through the cold ... clear .... fresh waters of Lake Superior because it is truly “a fish that got away.”

This episode of the Sea Grant Files was produced by Annika Whitcomb, Sharon Moen, Mariah Schumacher, Maija Jenson, KUMD, and me, Jesse Schomberg. To listen to more episodes of The Sea Grant Files and to subscribe to our podcast, visit the Minnesota Sea Grant website at [www-dot-seagrant-dot-umn-dot-edu](http://www-dot-seagrant-dot-umn-dot-edu). You can also follow Minnesota Sea Grant on Facebook, Twitter and Instagram. Thanks for listening.

(Nunan, 1967)