



Salmon in the Classroom

Why Chinook Salmon are a preferred species

Chinook Salmon

- The story of the Great Lakes and its fisheries relies heavily on the introduction of salmon. A myriad of stewardship and natural resource conservation lessons can easily be spawned from the introduction of Chinook salmon into the Great Lakes. Furthermore, the life history strategy of the Chinook salmon living portions of its life in rivers and in the Great Lakes easily facilitates the discussion of the river and lake ecosystems as well as their connectivity within the environment.
- Spawning in early fall and released in May, the life cycle of Salmon in the Classroom matches perfectly with the length of the school year.
- Students will mirror how the DNR raises Chinook salmon in hatcheries, allowing them to learn first hand how fisheries managers are able to successfully rear millions of salmon each year to stock into rivers all across Michigan.
- Chinook salmon take food readily in an aquarium setting. They are a very aggressive species. Students will enjoy watching them eat. On average, Chinook salmon will be 3 – 5” when released in the spring, so students will have the opportunity to observe substantial growth of their fish during the school year.
- Students are able to visit the Little Manistee Weir to watch the egg take process as well as the Wolf Lake State Fish Hatchery and Platte River Fish Hatchery to see first hand how the fish are reared by the DNR.
- Although Chinook salmon survival is limited at best, it is still fair to say that those released by students have just as good of a chance of surviving as those stocked by the DNR. Chinook salmon are released into the river just prior to the smolting stage. This is the stage where they lose their juvenile markings which help camouflage them from predators. At this time they will turn to a silver cover which is a better camouflage while living in the Great Lakes. Shortly after stocking they will leave the river and migrate into one of the Great Lakes. The DNR has found that stocking at this stage of development greatly increases survival. At most locations there are fewer predators in the Great Lakes compared to what they encounter in the river.

Brook and Brown Trout

- For the most part in Michigan, brook and brown trout are resident stream fishes that rarely leave the confines of the river environment for the Great Lakes. Therefore, as a living example in the classroom, the teaching potential of trout is

more limited than that of the Chinook salmon, which is obligated to spend portions of its life in the river and the lake.

- Trout spawn around late November, so students would have a much shorter period to observe fish development.
- Brook and Brown Trout can be very fearful of people and will often times ignore food offered by hand. In a hatchery setting, fish must be either hand fed from a distance or automatic feeders must be used. If raised in an aquarium and hand fed by students, majority of food fed will not be eaten and will sink to bottom of tank. This accumulation of food will lead to degraded water quality and difficulty in maintaining appropriate PH levels. Fish will also be stressed which will make them more susceptible to a disease.
- Brook and brown trout that are released after 6 months of rearing have about a zero chance of survival. Trout are reared in hatchery raceways for 12 - 18 months to ensure acceptable growth and survival upon release. This prolonged format is impossible for schools to use.
- A limited 6 month rearing of brook and brown trout in a classroom setting would be expected to produce fingerlings 1 to 1.5 inches in length by the time of release at the end of the school year. This is considerably smaller than the release size of the Chinook salmon currently utilized by the SIC program. The smaller growth potential of brook and brown trout would lessen the impact of seeing first hand the development of fish in their classroom.
- Brook and Brown trout eggs are collected at the hatchery from broodstock and so a large part of the visible natural history would not be available.

Conclusion: The Salmon in the Classroom Working Group has agreed to consider the use of other species in the classroom in its 5 year plan. While administrative improvements and growth of the program have been tremendous, the SIC Working Group is hesitant to make any major changes at this time, such as adding another species, due to limited staffing, time constraints and severe budget reductions.

The main objective of Salmon in the Classroom is to provide students with an opportunity to participate in a hands-on, interactive program to learn about the natural history of the Great Lakes so that they may become future stewards of natural resources and are informed citizens of conservation. It is the conclusion of the SIC Working Group that Chinook salmon provide the most excitement and best year-long experience for students to achieve this objective.