

Niagara Springs Sturgeon Hatchery



Young sturgeon being released into the Snake River



New Hatchery Aims to Boost Snake River Sturgeon

One of the oldest creatures on the planet is getting some help from modern technology, thanks to Idaho Power and the Idaho Department of Fish and Game (IDFG).

White sturgeon began swimming in rivers long before the first T-Rex tromped through a prehistoric jungle. And they are still around, inhabiting the Snake River from Shoshone Falls downstream through Hells Canyon and beyond.

Idaho Power's newest hatchery, dedicated to increasing the population of these bottom-feeding behemoths, opened earlier this year at Niagara Springs, south of Wendell.

Idaho Power has monitored Snake River sturgeon and worked with IDFG for more than 20 years to support populations, especially in the middle reaches of the Snake River, where their numbers have been reduced by human activity over the past century.

The White Sturgeon Conservation Hatchery at Niagara Springs, adjacent to Idaho Power's steelhead-rearing facility, aims to produce up to 2,500 juvenile sturgeon

each year for release into the Snake River between Shoshone Falls and Brownlee Reservoir.

That's a significant increase from the numbers currently raised in cooperation with the College of Southern Idaho's hatchery program in Twin Falls.

Rather than relying on the traditional method of capturing adults and spawning them in a hatchery, biologists are using a technique called "repatriation" to produce the next generation of sturgeon.

"Basically, we collect fertilized eggs from different areas of the Snake River where we know the sturgeon spawn, and we bring those eggs into the hatchery where the odds of them surviving and growing into adult fish are much higher than in the wild," said project leader Phil Bates.

Increased genetic diversity among the hatchery-raised sturgeon is a key benefit of repatriation. Female sturgeon release eggs — up to a million at a time — into the current where they drift downstream before attaching to river-bottom rocks or aquatic plants.

As the eggs from many different parents mingle together, Idaho Power biologists use specifically designed nets to gather eggs directly from the water, or special mats that collect the eggs as they settle.

Eggs hatch in 4–7 days. Within a few weeks they grow into larvae and learn how to eat. Once they figure it out, baby sturgeon are prolific feeders. After 10 months at the hatchery, the sturgeon grow to about 12 inches long and are ready for release back into the Snake River.

A tiny electronic tag placed under the skin will enable biologists who catch sturgeon during population surveys to track their life history.

Your great-grandchildren may have a chance to catch one, too. Many sturgeon live 80 years and grow to be over 8 feet long. Idaho Power biologists have recorded Snake River sturgeon longer than 10 feet.

"Sturgeon are fascinating creatures. They really are a throwback to ancient times," Bates said. "Hopefully with a little help, they will be an important part of the river's future."



200 Sturgeon

MILLIONS OF YEARS

JURASSIC PERIOD



150

Stegosaurus



67

Tyrannosaurus

CRETACEOUS PERIOD

TODAY

Humans



HATCHERY HAPPENINGS

The new White Sturgeon Conservation Hatchery at Niagara Springs is just one of five Idaho Power hatcheries devoted to supporting native Snake River fish populations as part of our commitment to good stewardship and meeting federal license requirements for our hydropower plants. Here's a look at what's happening at our other hatcheries.



Snake River Fall Chinook on Their Way Home to Spawn

The annual migration of fall Chinook salmon from the Pacific Ocean to their spawning areas in the Snake River below Hells Canyon Dam is well underway, with the first fish expected to arrive next month.

Fall Chinook salmon lay eggs in nests (called redds) below Hells Canyon Dam each fall between October and early December. Since 1991, Idaho Power has provided stable flow releases from Hells Canyon Dam to benefit spawning habitat for adult salmon in the fall and a minimum flow to protect incubating eggs through the following spring.

To do this, the company must lower the water level in Brownlee Reservoir upstream of Hells Canyon Dam. This enables Brownlee to absorb water coming in while maintaining a steady flow going out. Streamflow forecasts determine how much space needs to be left in Brownlee so the reservoir can be near full at the end of the operation in December. Once spawning is complete, Idaho Power uses the stable spawning flow as a minimum flow to ensure no redds are exposed while eggs are incubating. This minimum flow is maintained until all fish have emerged from the redds the following May.

To monitor the health of the fall Chinook salmon population, the U.S. Geological Survey and Idaho Power count redds throughout the 100 miles of Snake River below Hells Canyon Dam. Idaho Power uses drones to identify redds in shallow water and underwater cameras mounted on boats to find redds in deeper waters.

Last year, biologists recorded more than 4,700 fall Chinook redds in the Snake, Salmon, Clearwater, Grande Ronde and Imnaha rivers.



Niagara Springs — Steelhead

We raise 1.8 million juvenile steelhead here each year. A new roof over the outdoor raceways protects fish from predators and disease transmission from birds. The fish are growing faster due to reduced stress in the semi-indoor environment.



Oxbow

This is our oldest hatchery, where adult steelhead collected at the nearby Hells Canyon Dam fish trap are spawned to provide eggs for the Niagara Springs hatchery. Spring Chinook salmon are also trapped at Hells Canyon Dam and held here before being transferred to Idaho Power's Rapid River hatchery. The Oxbow hatchery is due for a major renovation scheduled to begin next year.

Pahsimeroi

Located near Challis, Idaho, this hatchery produces more than 3 million steelhead eggs each year, which are distributed to Niagara Springs and to other hatchery programs around the state. In August and September, the hatchery spawns summer Chinook salmon that were trapped earlier in the summer, rearing approximately 1 million juvenile salmon for release into the Pahsimeroi River.



Rapid River

This hatchery produces 3 million spring Chinook salmon annually for release into the Snake, Little Salmon and Rapid rivers. Spawning at Rapid River takes place in August and September.



 Learn more about our fish conservation programs at idahopower.com/fish.

From the Energy Efficient Kitchen Sept. 2021 Side Dish

Harvest Fresh Applesauce

- 6 medium apples
- 1 ½ cups water
- 1 ½ tsp ground cinnamon
- 1 tsp vanilla extract
- ¼ tsp ground ginger
- Toasted walnuts (optional)

Peel, core and chop the apples. In a medium saucepan, combine water and apples and bring to a boil. Reduce heat, cover and simmer for 20 minutes. Add cinnamon, vanilla and ginger. Re-cover and simmer for 15 minutes. Remove from heat. Mash to desired consistency with a potato masher. Sprinkle with toasted walnuts and serve warm.

Recipe selected from Idaho Power's *Centennial Celebration Cookbook*.