

Platte River State Fish Hatchery Summary of 2006 Production Activities

Weir Operations

The Consent Agreement with the Platte Lake Improvement Association allows 20,000 adult Coho to be passed upstream of the Lower Platte River Weir during the fall salmon run. This number ensures that sufficient eggs and milt can be obtained in order to maintain the MDNR Coho stocking program. The agreement also allows for passage of up to 1,000 adult Chinook salmon.

During the fall of 2006, both the Upper and Lower Platte River Weirs were operated in much the same fashion as in 2005, however the adult coho returns were down significantly. In contrast to this, the number of returning coho jacks was 5 times higher than in 2005. The Lower Weir gates were installed on August 15, 2006 and removed for the season on November 13, 2006. As fish collected below the weir in sufficient numbers, coho salmon were passed upstream for egg take purposes, and surplus chinook, and coho, were harvested and removed from the river. Fish were passed upstream of the weir by raising the boat gate slightly and manually counting the number of fish, by species, that swam upstream under the gate. For harvest operations the pumps were turned on and fish were allowed into the holding pond, where they were later removed. Members of the Platte Lake Improvement Association were contacted prior to passing fish upstream and were invited to observe the operation.

In 2006, 557 chinook salmon, 9,014 coho salmon, 257 steelhead and 5 brown trout were passed upstream of the Lower Weir. In addition, a total of 2,691 chinook and 2,547 coho salmon were harvested at the Lower Weir and shipped to American Canadian Fisheries, Inc. of Bear Lake, Michigan. At the Bear Lake facility, MDNR staff conducted biological sampling of the season's run.

All of the dam boards for the Upper Weir were in place by August 15, 2006, and any migrating salmon were directed to the maturation ponds after this time. Coho egg take occurred between October 19 and October 26, 2006. There was no separate egg take for the Hinchinbrooke strain of coho in November, since this strain is being discontinued from hatchery rearing. After egg take all salmon were harvested. In 2006, a total of 148 chinook and 6,985 coho salmon were harvested from the Upper Weir and shipped to the contractor at the Bear Lake processing plant. The ponds were harvested for the final time, and weir operation was suspended for the season on December 15, 2006.

The total number of fish that were unaccounted for between the Lower and the Upper Platte River Weirs included 2,029 coho and 409 chinook salmon. It is assumed that these fish were either caught by anglers, or spawned and died in the river prior to reaching the Upper Weir.

Egg Take and Egg Incubation

The coho egg take operation occurred at the Platte River Hatchery between October 19 and October 26, 2006. A total of 4,301,124 coho eggs were taken and fertilized. This included 2,467,892 eggs (552 kg) for the Platte River State Fish Hatchery and 1,833,232 (410 kg) for other state agencies, including Wolf Lake Hatchery, Indiana and Illinois. A total of 149,670 (33.5 kg) coho salmon eggs were taken at the Boardman and Little Manistee Weirs and transferred to the Platte River Hatchery. These eggs were discarded in November 2006, as surplus.

Chinook salmon eggs were taken at the Little Manistee and Swan River Weirs and transferred to Platte River Hatchery in October 2006. A total of 3,770,820 eggs (925.5 kg) were incubated at the hatchery. During the course of incubation, 413.5 kg of coho and chinook egg mortalities were discarded out of the watershed, and 138.0 kg of newly, hatched eggs (fry) were fed to the yearling coho as feed.

Incubation at the hatchery occurred during the months of October, November and December. By early January all of the eggs had hatched and the fry were put into rearing units. In January 2006, 4,043,381 chinook and coho fry (1290 kg) were placed in the tanks for rearing.

Fish Production

During calendar year 2006, the Platte River State Fish Hatchery raised and stocked (planted) 830,322 (28,037 kg) coho salmon in the Platte River. In addition, 865,917 (26,437 kg) coho were raised and shipped out of the watershed. Also, 2,524,510 (10,416 kg) spring fingerling chinook salmon were raised and shipped to other locations outside the Platte River watershed. A total of 332,752 (622 kg) chinook and coho mortalities were removed from the hatchery and discarded at a certified landfill.

At the end of the calendar year the inventory of fish on hand in the hatchery included 962,124 (35,212 kg) yearling coho salmon, and approximately 4.5 million (1,663 kg) chinook and coho eggs and sac fry in incubation.

During the course of the year a total of 55,189 kg of feed was fed to the production lots of coho and chinook salmon. This feed was predominantly BioOregon BioDry 1000 LP and BioDiet Starter, and contained less than 1% phosphorous.

Waste Handling

Throughout the production cycle all egg and fish mortalities were removed from the incubators and rearing units on a daily basis. Mortalities were weighed or counted and disposed of at a certified landfill, or in the case of egg mortalities, to the salmon harvest contractor.

In an effort to improve incoming water quality and reduce waste handling, during the summer of 2006 (July 13 – Oct 25) the outside raceways were set up in a two-pass system, with coho in B and C series. Four raceways in A series and the A Filter Building were used as a settling basin and pre-filter for the incoming water. Baffles were removed from the A raceways and silt was allowed to settle out before the water passed through the disc filter. The sediment was periodically removed from the raceway. This resulted in much improved water quality and reduced waste for the clarifier and sludge tank.

Fish waste was removed daily from the rearing units either by manual cleaning or automatic filtering of the wastewater. The filtered waste was directed to a clarifier and finally a sludge tank where it was stored. The sludge storage tank was pumped by BioTech Agronomics, Inc. on November 20-21, 2006 and a total of 212,500 gallons of sludge was removed. All sludge was land applied per the Michigan Department of Environmental Quality's Manure, Paunch and Pen Waste Exemption guidelines.