

COLORADO PIKEMINNOW FINGERLING PRODUCTION
San Juan River
2003

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SOW COMPLETION REPORT

Objectives

- 1) Continue data collection on induced spawning Colorado pikeminnow under controlled conditions;
- 2) Produce 300,000 fingerlings (50 mm TL) for stocking in the San Juan River during November, 2003;
- 3) Evaluate distribution methods of transporting 300,000 Colorado pikeminnow fingerlings from Dexter NFH & TC to the San Juan River.

Results

Four attempts to spawn Colorado pikeminnow during May and June of 2003 resulted in good to very poor egg production. On May 21, a total of 15 Colorado pikeminnow females (1991 year-class) spawned approximately 24 hours after receiving one intraperitoneal injection of 2.0 mg carp pituitary per pound of body weight (4.4 mg/kg body weight). Females had a mean length of 620 mm and a mean weight of 2.2 kg. Average number of eggs per female was 54,916.

Eggs were inventoried and placed in Heath incubators at a water temperature of 70 F (21 C). Eggs commenced hatching at 96 hours and were completely hatched by 144 hours. Newly hatched larvae were transferred to fiberglass holding tanks and held until swim-up occurred, about 120 hours after hatching.

Two earthen ponds ranging in size from 0.80 to 0.88 surface acres (0.32-0.36 ha) were stocked with 207,600 fry. Ponds received weekly fertilizer treatments (six treatments) to promote a plankton bloom. Fry were also given a daily supplemental diet of artificial feed.

On May 28, a total of eight (8) Colorado pikeminnow females (1981 year-class) spawned

approximately 24 hours after receiving one intraperitoneal injection of 2.0 mg carp pituitary per pound of body weight. Females had a mean length of 763 mm and a mean weight of 4.1 kg. Average number of eggs per female was 142,568.

Eggs were inventoried and placed in Heath incubators at a water temperature of 70 F (21 C). Unfortunately, water flow was lost to the hatching system during the critical time, 90-96 hours after incubation, which resulted in total mortality of eggs and newly hatched fry.

Additional attempts were conducted to spawn Colorado pikeminnow females on June 11 and June 25, with little success obtaining fertilized eggs.

The fish stocked, in the two ponds previously mentioned, were cultured for 153-157 days. Overall survival for the two ponds were 84.7% for a return of 175,928 fingerlings.

Hauling methods consisted of two (2) double compartment fiberglass tanks and a single compartment fiberglass tank. One double compartment tank had capacities of 325 and 375 gallons (1,230 and 1,420 liters) and the other 100 gallons (376 liters) per compartment. The single compartment tank had a capacity of 300 gallons (1,136 liters).

On 11/06/03, personnel from Dexter NFH & TC transported and stocked 175,928 Colorado pikeminnow averaging 2.0 inches (50 mm) and weighing 547 pounds (248.1 kg) to several locations on the San Juan River. Of this number, a total of 20,164 fingerlings had been marked with Calcein. Stocking efforts were coordinated with Dale Ryden of the Grand Junction CRFP Office.