

Kokanee Salmon



Kokanee salmon are genetically identical to sock-eye salmon, but because they spend their lives entirely in fresh water, they are somewhat smaller than their ocean-going relatives. The largest kokanee salmon spawning run in Colorado occurs each fall in the Gunnison Valley, when between 50,000–80,000 kokanee leave Blue Mesa Reservoir and swim up the Gunnison and East Rivers to the Roaring Judy Fish Hatchery near Almont.

The Glenwood Springs Hatchery typically incubates and hatches just over 1 million of the eggs collected at Roaring Judy. Hatchery technicians also help collect eggs at Wolford, Williams Fork and Granby Reservoirs to incubate and hatch. In total, this hatchery stocks around 2 million 1–2 inch kokanee each spring into several rivers and lakes throughout Colorado.

The CPW hatchery system stocks kokanee salmon in 26 lakes and reservoirs around the state. Overall, kokanee production and fishing contribute an estimated \$29 million annually to the Colorado economy.



Colorado River Cutthroat Broodstock

Three species of cutthroat trout are native to the Centennial State: Colorado River, greenback, and Rio Grande cutthroats. Colorado River cutthroat trout were originally found in the drainages west of the Continental Divide. The Glenwood Springs Hatchery currently maintains a brood stock of Colorado River cutthroat derived from Nanita Lake in Rocky Mountain National Park.

Each spring, hatchery technicians carefully strip eggs from “ripe” 3–4 year old females and fertilize them with milt (sperm) from 2- to 3-year-old males. On average, each female produces about 800 eggs. These “green” eggs are then treated with an iodine solution to disinfect the surface of the egg and then are transferred to the main hatchery building to be incubated. The resulting cutthroat trout are raised to between 1–2 inches and ultimately end up being stocked via truck, backpack plant or dropped from an airplane into streams and lakes throughout the mountains of the Colorado River drainage.



Glenwood Springs State Fish Hatchery

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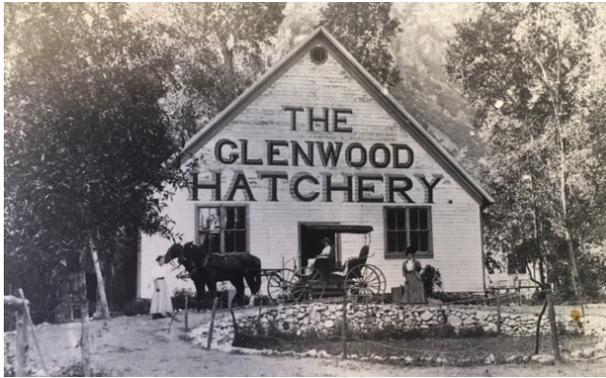


Eagle photo © Michael Ebert

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The Glenwood Springs Hatchery

The Glenwood Springs Hatchery is located on Mitchell Creek just one mile north of Glenwood Springs, Colorado. The Glenwood Springs Hatchery is the third oldest fish hatchery in the state, behind the Durango Hatchery and the Leadville Hatchery (operated by the U.S. Fish and Wildlife Service). It operated as a private fish hatchery in the late 19th century; Colorado Game & Fish (now Colorado Parks and Wildlife) began operating the hatchery in late 1905 and was deeded the property in early 1906 to be used strictly for fish propagation. The stone hatchery building currently in use was built in 1927.



Each year, the hatchery raises up to 300,000 1- to 3-inch rainbow trout, 500,000 1–3 inch cutthroat trout, 50,000 1–2 inch arctic grayling and 2.1 million 1–2 inch kokanee salmon. These fish are released in lakes, reservoirs, streams and rivers throughout Colorado. The Glenwood Springs Hatchery also maintains broodstocks of Colorado River cutthroat trout, whirling-disease-resistant rainbow and Gunnison River rainbow trout. The facility can provide up to 1 million cutthroat and 2 million rainbow eggs to the CPW hatchery system.

CPW operates 19 hatcheries that breed, hatch, rear and stock over 90 million fish per year. Many of the fish produced are to enhance angling opportunities, while others serve a critical role in native species recovery efforts. Colorado fish hatcheries support our angling pastime, which annually contributes 1.9 billion dollars to our state's economy!



Gunnison River Rainbow Trout

Hatchery personnel have assisted biologists in the spawning of wild Gunnison River rainbow trout at the East Portal near Montrose. The eggs have been used to establish a broodstock at the Glenwood Springs Hatchery. In addition to having characteristics suitable for survival in a wild river setting, Gunnison River rainbows have shown natural resistance to whirling disease (WD) and may be stocked statewide in the near future. In hopes of further increasing resistance to WD, many of the Gunnison River rainbow trout will be crossbred with the WD-resistant-strain rainbow trout (*see below*).



Whirling Disease (WD)-Resistant Rainbow Trout

Colorado Parks and Wildlife has developed several broodstocks of WD-resistant-strain rainbow trout at its various brood facilities, including the Glenwood Springs Hatchery. The strain in Colorado was established from a population of fish at a hatchery in Europe, where they had been exposed to WD. In fact, WD is caused by a parasite that came to the United States from Europe. The exposure caused this population to adapt and develop resistance to the parasite.

CPW has been using the strain to combat the negative impacts of WD on Colorado's wild rainbow trout populations by incorporating its genetics into other rainbow trout strains. By crossing this strain and Gunnison River rainbows, CPW hatcheries can stock fish with great resistance to WD and survivability in a wild river setting.