

June Sucker

(*Chasmistes liorus*)—Endangered

Description

The coloration of the June sucker is black or brown above, fading to a flat white on the belly. The most distinguishing characteristics of adult fish are weakly developed lips, with widely separated lower lobes and an oblique subterminal mouth. The body is robust and the head is large. Scales are very large, numbering 55 to 62 in the lateral series. There are 10 to 12 rays in the dorsal fin and 7 rays in the anal fin. Breeding males may have a red lateral stripe. June suckers are typically slow growing and long lived. Historically, adults reach lengths of approximately 2 feet and may weigh up to 6 pounds. Current age and growth data for June sucker are not available.

Distribution and Habitat

June suckers occur only in Utah Lake and its major tributary, the Provo River. Utah Valley settlers provided valuable insight into characteristics of the lake's June sucker population. Early accounts

indicated that Utah Lake was a pristine lake that supported an enormous population of these fish. In the 1850s, June sucker were caught during their spawning runs and were widely utilized as fertilizer and food. Native Americans and white settlers, captured and dried spawning fish for food.

Except during spawning, adult June sucker remain in Utah Lake at depths of 12 to 14 feet. Historically, June sucker probably inhabited the entire lake and were found throughout the water column. Current populations, especially young, are much reduced and inhabit more restricted areas of the lake.

Life History

June suckers primarily spawn in one section of the Provo River below the Tanner Race diversion. This diversion creates a permanent upstream barrier. Peak spawning activity is over a brief period of time between June 1 and June 29 when water temperatures exceed 55 degrees F.

Spawning activity is greatest during midday from approximately 11 a.m. to 2 p.m.

June suckers have been observed resting in the deeper pools of the lower Provo River and moving into shallow riffles to spawn. Spawning occurs by small groups of three to six individuals, generally a female accompanied by several males. The females release eggs and males fertilize them. Water depths at spawning sites range from 1 to 25 feet, with a mean depth of 1.7 feet. Substrate in spawning areas is a mixture of coarse gravel and cobble-sized stones. June sucker do not spawn in sand, silt, or calm backwater areas. During spawning, mean daily water temperatures range from 53 degrees to 55 degrees F. Eggs of June sucker are pale yellow, with a mean diameter of 0.02 inches. At a mean temperature of 70 degrees F, they hatch in 4 days. Newly hatched larvae, averaging 0.3 inches in length, remain on the bottom and enter the water column approximately 10 days after hatching. Larval and juvenile June sucker remain near the mouth of the Provo River during June and July. Areas frequented are shallow, calm backwaters with depths of 3 to 8 inches. Larvae form large schools of several hundred to several thousand. They begin to range into swifter, deeper water after changing to adult forms.

Data on the food habits of the June sucker are lacking. It is probably an opportunistic omnivore, feeding on zooplankton, aquatic insects, and algae.

Threats and Reasons for Decline

The first major reductions in the number of June sucker were noted in association with the



Photo courtesy of Utah Division of Wildlife Resources

development of Utah Valley. In the late 1800's, an estimated 1,500 metric tons of spawning suckers were killed when about 21 miles of the Provo River was dewatered. Hundreds of tons of suckers were also lost when Utah Lake was nearly drained dry during a 1932-35 drought. After the drought, sucker populations gradually increased. Due to the combined impacts of drought, over exploitation, and habitat destruction, the population has never returned to its historical level.

The species was federally listed as an endangered species with critical habitat in 1986. Included as critical habitat was the lower 4.9 miles of the main channel of the Provo River, from the Tanner Race diversion downstream to Utah Lake. The species had a documented wild population of fewer than 1,000 individuals at the time of listing. The current population is estimated at approximately 300 individuals.

The June sucker was federally listed as endangered due to: a) their localized distribution; b) failure to recruit new adult fish; and c) threats to their continued survival. Decline in abundance of June suckers can be attributed to habitat alteration through dewatering stream channels and degrading water quality, competition and predation by nonnative species, commercial fishing, and killing of adults during the spawning run.

Recovery Efforts

The June sucker was listed by the U.S. Fish and Wildlife Service as an endangered species in 1986. The U.S. Fish and Wildlife Service has given the species a high recovery priority. This species has a high threat of extinction, a low recovery potential, and the presence of conflict. Water development and sport fish management are the primary impediment to June sucker recovery.

The recovery of these fishes and the ecosystem they depend upon will require the input and coop-

eration of numerous federal, state, county, city, as well as local organizations and individuals who own or manage land and water resources. Implementation of this Recovery Plan may improve

sport fishing management and opportunities within Utah Lake, enhance aquatic resources, including trout populations, in the Provo River, and benefit wetland, riparian, and other water-related resources in the Utah Lake area.



June Sucker distribution.



References

- Sigler, W.F., and S. W. Sigler. 1996. *The Fishes of Utah*. University of Utah Press, Salt Lake City, UT.
- "U.S. Fish and Wildlife Service Division of Endangered Species" *US Listed Vertebrate Animal Species Index*: 06/04/98. <<http://www.fws.gov/r9endspp/lspinfo.html>> (4 June 1998).