



Klamath Network Featured Creature

March 2012

Sacramento Pikeminnow (*Ptychocheilus grandis*)

General Description:

The Sacramento Pikeminnow (*Ptychocheilus grandis*) is a member of the Minnow Family, Cyprinidae. To most people, a minnow will immediately conjure the image of a small, silvery fish; probably only a couple of inches long. The Sacramento Pikeminnow shatters these preconceptions – the record for this species is 1.15 meters (45 inches) and 14.5 kilograms (32 pounds).



Image courtesy of www.usbr.gov

Large fish tend to be olive on the back and gold-yellow on the underside, but the smaller fish are indeed the typical shiny silver of most minnows.

They have large, flattened heads (more on that later), elongate bodies, and notably forked tails.

Feeding, diet, and evolution:

The large, flattened mouth with dagger-like pharyngeal teeth belie their role as gentle giants, feeding upon algae. True to their dental morphology, these giants are large, voracious piscivores, feeding upon other large, medium, and small sized fish. They have been regarded as a major predator of juvenile salmonids, especially beneath dams, that on one fish ladder, an electrocution device was installed and an operator would watch on television camera and selectively electrocute the Pikeminnow.

It has been suggested that the Pikeminnow is an example of convergent evolution – in California water ways millions of years ago, there was no large piscivore (e.g.,

catfishes, basses, or pikes) present. The Pikeminnow evolved to fill this absent niche, with its form evolving to match the torpedoe-like form of the Pike family (Esocidae), and it even developing similarly aggressive behavior (McGinnis 2006).

According to Moyle (2002), predation on salmonids is only a prevalent issue in artificial habitats, such as the backwaters beneath large dams. Ordinarily juvenile salmonids can avoid predation, but turbulent flows cause disorientation and Pikeminnows may aggregate for easy feeding. Ordinarily, Pikeminnows will feed on roach, suckers, crayfish, and even small rodents. (For the non-ichthyologists out there, roach and suckers are types of fish... not insects and gullible people).

Other Fun Facts:

- Pikeminnows are long-lived, perhaps 16 years or more.
- May be sedentary in smaller streams, but in larger rivers may migrate 400 kilometers!
- Will exhibit schooling behavior, with schools of 100s of individuals (about 7 - 9 in. fishes)
- One of four species of *Ptychocheilus*; the others are *P. lucius* (Colorado River), *P. umquae* (west-central Oregon), and *P. oregonensis* (Columbia River Basin).

Angling and tastiness

Big fish as they are, they put up a nice fight for the angler who happens to hook one – although they were probably hoping for a nice trout. Likewise, both McGinnis (2006) and Moyle (2002) report excellent tastiness, when prepared properly.

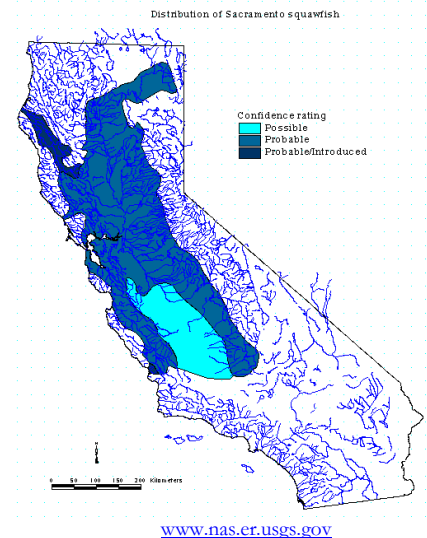
Etymology:

The Pikeminnow was formerly known as Squawfish, but the name was changed in 1998. The earlier name was derogatory name insulting to Native Americans, and called such because the Pikeminnow was a common food source for Native Americans.

The Latin name *Ptychocheilus* refers to “the skin of the mouth behind the jaws be folded” (Moyle 2002). *Grandis* means big, like really, really big.

Where to see in the Network:

Native to the Sacramento-San Joaquin River systems. Although not yet documented in the park, Pikeminnows can be found in the streams draining west from Lassen Volcanic National Park (Mill Creek, Deer Creek). Searching in lower Clear Creek at Whiskeytown might prove fruitful as well.



References and more info:

McGinnis, S.M. 2006. Field Guide to the Freshwater Fishes of California. University of California Press, Berkeley, CA.

Moyle, P.B. 2002. Inland Fishes of California: Revised and Expanded. University of California Press, Berkeley, CA.