

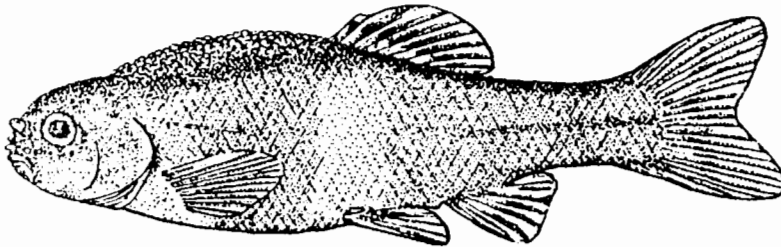
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Natural History Notes

MIKE DOMBECK grew up in the Moose Lake area, graduated from Hayward High School, and attended the University of Wisconsin-Stevens Point and the University of Minnesota. He has a B.S. degree in Biology and an M.S. degree in Aquatic Biology and Zoology. Mike has taught Zoology at the University of Wisconsin-Stevens Point and is now a fisheries biologist with the U.S. Forest Service, living in Park Falls, Wisconsin.

The Fathead



(breeding male)

The fathead minnow (*Pimephales promelas*) is a small fish that is well known among anglers who use live bait, for it is one of our most common bait fishes. It was initially cultured as a forage fish for bass and musky pond rearing operations. However, the ease of pond-rearing this fish has led to widespread fathead farming operations. Culture practices are widely known, and one source reported yields of up to 328 pounds of fatheads per surface-acre of water, or over 200,000 individual fish.

This fish is also an important forage species in our waters. It is near the bottom of the food chain, grazing on algae, organic bottom deposits, and other organisms which it converts into food for larger fish when it is eaten. Its value as a forage species is very high since many larger fishes, such as the walleye and bass, may be dependent upon the fathead as a food source. It is often considered the ideal forage fish since it is small, widely distributed, very prolific, and has an extended spawning period, providing small fatheads to predators all summer.

Spawning begins when the waters reach about 60° F. The male takes on a very dark, almost black color on his dorsal surface and head as the breeding season approaches. For this reason, this species is called the blackhead minnow in some areas. Spawning takes place in water two to three feet deep on the underside of logs, branches, rocks and, sometimes, lily pads. The male selects the spawning site and will herd a female into position

below the nest site. After spawning, the adhesive eggs incubate on the undersurface of the selected site for about five or six days. A male will seek out several females to spawn on his nest which he guards very aggressively, driving off all intruders. To assist in protection of his nest, the male develops sharp bumps on his head and snout called nuptial tubercles. The males grow larger than the females, which is somewhat unusual, for in fishes, where no nest guarding occurs, the female is usually larger. As previously mentioned, the fathead spawning season is extended and may last throughout the summer. Females often spawn repeatedly throughout the spawning season; one was reported to have produced over 4,000 young from twelve spawns in an eleven-week period. This species, however, has a serious disadvantage: many adult males die after spawning.

In spite of the short-lived nature of this fish, its success may be related to the wide range of habitat it is associated with. Fatheads are commonly found in small still ponds, flowing streams, warm muddy ditches, beaver ponds, and lakes. They also thrive in high salinity prairie lakes. Where food is abundant, growth is rapid. In southern waters fish hatched in May can spawn by late July when they have reached about two inches in length. In our northern waters, growth and development is slower. Fatheads usually do not live beyond two years. However, in this short time they function as a critical link in the food chain, and our recreational sport fisheries depend upon them.