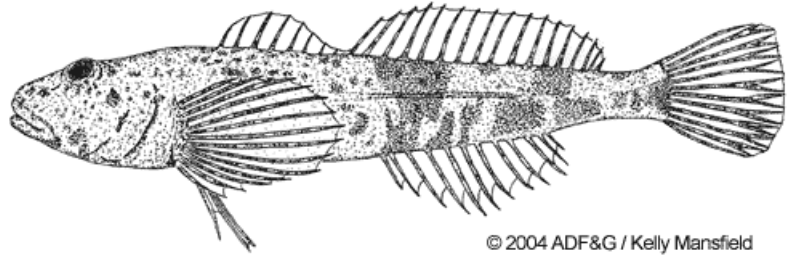




Slimy Sculpin

The **slimy sculpin** (*Cottus cognatus*), a bottom-dwelling fish, can be found throughout most of northern United States, Canada and Alaska. It is found in both streams and lakes, including the Great Lakes. The slimy sculpin is sometimes mistaken for a baby burbot.

General description: The slimy sculpin is a small fish that averages about three inches in length with eyes located on top of its head. It has a broad, flat head with an upper lip that protrudes past the lower lip with fine teeth on both jaws. The slimy sculpin has two dorsal fins, the front one shorter than the rear one. The caudal, or tail, fin is slightly rounded. It has small pelvic fins and a long anal fin. The pectoral fins are large and fan-like.



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The back and sides are a mottled dark brown to gray or sometimes green with some light banding on the upper body. The lower body is lighter occasionally with an orange tint on the underside. The caudal, anal and rear dorsal fins are lightly barred. The slimy sculpin blends in well with its surroundings, making it difficult to spot at first glance. During the breeding season, males turn a blackish color.

Slimy sculpins lack scales, have a short lateral line that ends near the rear dorsal fin, and have a pair of submandibular pores on the tip of the chin in addition to six other pores, three on each side of the jaw.

Life History: The slimy sculpin moves to shallower waters during the spawning season, which is in the spring, usually after break-up. Males establish a nesting spot under a rock or log and groom the area by fanning fine sediment and moving small pebbles with its mouth out of the area. Males are territorial and can be aggressive towards other males. A male courts a female until she deposits her eggs, which are yellow to pink, on the underside of the rock or log. The female does this from the upside-down position while the male fertilizes the eggs with his milt. The female leaves after egg deposition. A single male may spawn with several females. Once the eggs are fertilized, the male guards his nest until the young fish are ready to leave. During this time the male fans the eggs to remove silt and provide oxygen and keeps the nest clean. The eggs hatch about 30 days after being fertilized. The sac-fry stay in the nest, usually resting on the bottom. They remain there for about a week while the yolk is being absorbed. Once the yolk-sac is gone, the sculpin leave the nest as fry. Slimy sculpin reach sexual maturity at around two years of age. They typically live for about five years.

Ecology: The slimy sculpin is found in freshwater and sometimes brackish water in areas with rocky or gravel type bottoms. The slimy sculpin is a nocturnal fish that usually spends most of its time on the stream bottom and seeks shelter under rocks and logs, especially during spawning season. When it swims, it sometimes appears to be "hopping" along the bottom because of its inefficient ability to swim. This is partly due to the absence of a swim bladder, which normally gives buoyancy to a fish.

The slimy sculpin is an ambush predator. It feeds primarily on insects, but also eats crustaceans, fish eggs, and small fish.

The slimy sculpins' size and poor swimming ability makes it a great prey item for larger fish. Because of this, fly patterns that resemble or imitate sculpins have been created for fly fishing for trout and other fish.

Researchers are also interested in this fish species. The slimy sculpin has been studied in waters where there is current acidification (water that is more acidic). The sculpin were found to be less active and have lower rates of reproduction when found in these waters. For these reasons, the slimy sculpin has been identified as a good indicator species (a species that indicates a change in environment by a difference in behavior or population size) for acidification in lakes and ponds and possibly for streams.

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