



FISH

Status: Common, Native

BLUEGILL

(*Lepomis macrochirus*)

Description

The bluegill's name is derived from the *iridescent* blue markings on its gill covers and lower jaws. Bluegills have disc-shaped bodies and, in South Dakota, average 4 to 5 inches (10-13 cm) in length. Color varies according to water clarity. Fish in murky waters usually have dark backs and sides, which fade into a yellowish abdomen. Those that live in clear water tend to have blue-green backs and whitish bellies.

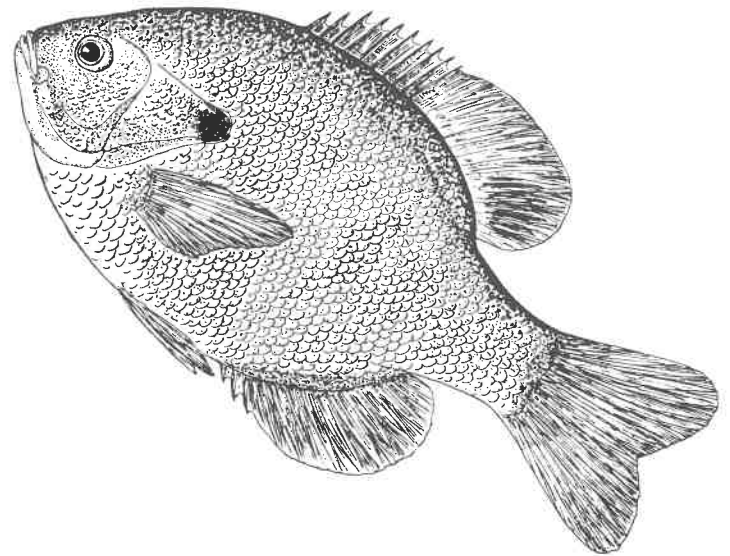
The dorsal fin is *continuous* and has a small dark spot near the *posterior* end of the fin. The long pointed *pectoral* fin is located on the side of the fish just behind the gill. The pelvic fins are located below the *pectoral* fins on the ventral surface of the fish. There is considerable sexual *dimorphism* during spawning season. Males are brightly colored with bright orange breasts, while females are mottled green.

Distribution

Bluegills were native to lakes and slow moving streams in the eastern part of the state, but have been widely introduced in suitable waters. They are now found in almost all waters of the state with the exception of some of the lakes and streams of the Black Hills.

Natural History

Adult bluegills prefer warm waters with rooted aquatic vegetation. The bluegills' compressed shape and the arrangement



of the fins on the body surface make these fish highly maneuverable and allow them to feed throughout the *water column*. They feed mainly on aquatic insects and fish, but will attempt to eat almost anything that will fit in their mouths. The teeth are located on the small *pharyngeal* bones in the throat.

Bluegills begin spawning when the water temperature reaches 65 to 67°F (18-20°C). Spawning usually begins in late May and continues through August. Males will move into shallow, sandy bays and begin fanning out nests with their tails. Suitable nesting habitat may contain dozens of individual nests; each of which is vigorously defended by the

male. Females will move through the nesting area and select a male with which to spawn. Individual females may spawn with several different males. A sexually mature female will produce an average of 12,000 eggs. Large females may have as many as 30,000 to 40,000 eggs. The eggs are guarded by the male until they hatch in about two to five days. The male will continue to guard the newly hatched fry for another day after which the male may begin to feed on the fry.

Significance

Bluegills are highly prized as a sport fish in South Dakota. Their wide distribution and eagerness to bite anything that moves make them a natural choice for anglers. These highly adaptable fish probably provide more angling recreation than any other species of fish in the state. Bluegills also play an important role in the food chain by providing

abundant *forage* for large predatory fish such as northern pike, walleye and largemouth bass.

Management Considerations

The major management consideration for bluegill populations is to prevent overpopulation that will result in *stunted* fish. A liberal bag limit of 25 fish per angler per day allows harvest of fish at a level designed to prevent overpopulation. Size limits may also be imposed on predatory fish to insure that the most effective predators will remain in the population to prey on bluegills. Removal of aquatic vegetation to limit the amount of escape cover available makes bluegills more vulnerable to predation. In extreme cases of overpopulation, fish may be removed by trapping or netting and transferred to other waters.

Glossary

Continuous - uninterrupted.

Dimorphism - differences in primary and secondary sexual characteristics.

Forage - food.

Iridescent - brilliant or colorful in effect or appearance.

Pectoral - located on or near the chest.

Pharyngeal - located in the throat.

Posterior - toward the rear.

Stunted - slowed growth.

Water column - from the bottom to the top of the body of water.

References

- Beem, Marley D., Robert L. Hanten and David W. Willis, 1990. *Managing South Dakota Ponds for Fish and Wildlife*. S.D. Department of Game, Fish and Parks. Pierre, SD.
- Eddy, Samuel, and James C. Underhill, 1983. *How to Know the Freshwater Fishes*. 5th Edition. William C. Brown Company Publishers. Dubuque, IA.
- Snow, Howard E., Arthur Ensign and John Klingbiel, 1978. *The Bluegill: Its Life History, Ecology and Management*. Wisconsin Department of Natural Resources. Madison, WI.

Resources for Teachers

Managing South Dakota Ponds for Fish and Wildlife. by Beem, Marley D., Robert L. Hanten and David W. Willis, 1990. S.D. Department of Game, Fish and Parks. Pierre, SD.

Written by:

Cleghorn Spring Fish Hatchery Staff, Game, Fish and Parks Office, 3305 W. South Street, Rapid City, SD 57002. © 1995.

Illustration by:

Ned Fogle, S.D. Department of Game, Fish, and Parks, Pierre, SD 57501.

Reviewed by:

Dr. Charles Scalet, Dept. of Wildlife and Fisheries Sciences, SDSU, Brookings, SD 57007.

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