

Why improve smallmouth bass spawning sites?

Smallmouth bass are nest builders. Males construct a large circular depression in the bottom sediments into which the female lays eggs. The males then guard these nests and protect the fry.

When given a choice, the male will most often choose a nest site with a firm gravel bottom near some form of isolated cover. This cover is usually a large object or structure such as a boulder, log, or support for a dock or shore station.



View from above of Half-Log with nest under (photo courtesy of DNR).

On many of our waters there is a lack of this kind of quality spawning cover for smallmouth bass. Research using half-log structures in suitable areas has increased the numbers of smallmouth bass nests and improved nesting success. This type of cover provides an easy spot for adult bass to defend and provides them with cover from larger predators.



ABOVE: View from side of structure (photo courtesy of Eric Engbretson). FRONT COVER: Smallmouth bass with fry under half-log (photo courtesy of DNR).



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NESTING COVER FOR SMALLMOUTH BASS



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Nesting Cover Devices

An easy to build and maintain structure that has been used to successfully increase smallmouth bass nest abundance in lakes is called a half-log. By following the guidance in this publication and working with your local fisheries biologist you can provide habitat that may be lacking in your local lake and improve the smallmouth fishery.



Loading of half-logs into boat for placement in the lake (photo courtesy of DNR).

Constructing Half-Logs

A half-log consists of an eight foot long section of log cut in half lengthwise with a masonry block bolted to each end. The logs used should be green oak or other hardwood species. This will make them easier to sink and ensure they rot very slowly when submerged. The logs should be at least ten inches wide to provide meaningful overhead protection for smallmouth bass and to hide the spacer blocks. The blocks used must be 10 to 12 inches in height to allow enough space under the log for smallmouth bass to swim yet avoid making the structure top heavy. The blocks are attached to the logs using high quality stainless steel bolts and hardware.

Placement

Each half-log must be placed in a precise location for it to work properly. Water depth, orientation to shore, substrate and distance to other cover are all factors that need to be considered. We suggest placing the half-logs in between five to nine feet of water. Bass typically build their nests in water less than nine-feet deep. Structures placed in less than five feet of water are vulnerable to the damaging effects of wave action and ice. Placing the logs perpendicular to shore is also advised to provide a range of depths for nest construction. The best substrate to locate half-logs is on firm gravel with a thin layer of sand. This allows a bass to fan out a suitable nest.

Half-logs should be placed at least fifty feet from each other and any other substantial cover. Males defending a nest site will not tolerate another male bass in their territory. This spacing of structures will avoid the problem and maximize your nest potential. Having too much near-by cover also provides hiding sites for potential nest predators.



Half-log side view with nesting smallmouth underneath (photo courtesy of Eric Engbretson).

Maintenance

Prior to the spawning season each spring the half-logs must be inspected to ensure that they are lying upright and in the proper depth of water. Tipped structures can be easily righted from a boat using a long hooked pole. This same pole can be used to drag half-logs into the desired depth range.

If you follow all these recommendations your half-logs will provide meaningful cover for smallmouth bass and other species. More detailed construction diagrams and guidance is available in a companion document to this brochure by contacting your local DNR office or going online at dnr.wi.gov.