

Attracting Nesting Smallmouth Bass to your Shoreline

In order to attract nesting bass to your shoreline, you have to know a little about the life history of bass. Getting bass to spawn successfully is only half the battle. Helping the fry survive is the other challenge. Food and shelter is the name of the game. In late May and early June, male bass congregate in rocky shoreline areas of the lake, vying for clean gravel areas in which to build a nest. The male creates a nest by cleaning away dirt and sediment with his tail. Temperatures between 13 and 20 degrees Celsius are typically required for the initiation of nest-building and spawning behavior.



Smallmouth bass usually build their nests beside a large object called an

A male bass guarding its nest

“initiator”. This is often a large rock or rock face and sometimes a large log. Dock cribbing works good also. Nest depth is usually in one metre (3') of water or less and typically on a gravel bottom.



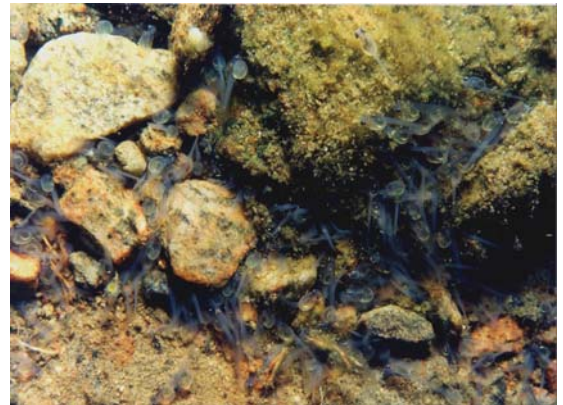
Bass eggs incubating on clean gravel.

The male entices a female into the nest and spawning takes place. As the eggs do not mature in the female all at once, the female may spawn two or three times before being spent. The male may entice two or three females into the nest before mating is complete, thereby increasing the genetic diversity of the brood.

The male protects the nest aggressively from the time of its construction, but especially once spawning is complete. When the eggs hatch four to ten days later, they are clear and remain on the bottom of the nest.

Eggs hatch in a week to ten days and form black larval schools which begin rising off the nest. Larval bass are especially vulnerable to predators at this stage.

At about fourteen days, the larvae go through a metamorphosis and become “fry”; their body shape changes, coloring turns light brown to near colorless, and the head enlarges. At this stage, broods become aware of their surroundings, sending them scurrying for cover when a predator approaches. As the fry mature, they wander further and further from the nest. The school of fry the male is trying to guard becomes less well defined and harder to protect. Eventually, protection becomes impossible and the male returns to deeper water and fry are left to fend for themselves.



Bass sac fry resting at the bottom of their nest



Stones around a nest provides good cover for bass fry to escape predators. A large boulder, rock face, submerged log or even dock cribbing acts as a good “initiator” of nest construction activity.

If you own shoreline property, you may want to consider providing suitable habitat for smallmouth bass to nest along your shoreline. The instructions on the following page, will demonstrate how to create a bass nest.



A male bass guarding fry (the black spots) in its nest.

1. Select a shoreline site in approximately 1.0 metre (3') or less of water depth on a rocky or gravel bottom. Ideally, an "initiator structure" (large boulder, rock face, dock cribbing) should be present. In the absence of a natural "initiator", begin your nest structure with a large boulder. Shorelines that are sheltered from strong prevailing winds are best and will help to ensure that nests will not be destroyed by heavy wave action. If your shoreline does not meet these criteria, then bass nest construction is probably not suitable. **NOT ALL SHORELINES ARE SUITABLE FOR BASS NEST CONSTRUCTION.**
2. **"IMPORTANT"**: Ensure that the nest is not located where it will be subject to disruptive boat traffic or excessive wave action. A good rule of thumb is to not build it any further from shore than the furthest extent of docks in the vicinity of your shoreline. Bass nests are typically quite close to shore.
3. In one metre of water depth or less, add or move around existing stones to create a open sided ring (horseshoe shaped) of stones with approximately 60 – 70 cm (2 feet) inside diameter. It should look like a campfire pit, but with one side open (see photo on front page). If possible, move existing substrate to create a shallow depression within the ring structure.
4. Add clean, pea sized gravel to a depth of approx. 6-10 cm (2 to 4") in the centre of the rock ring. The pea gravel creates an ideal substrate for bass spawning, egg incubation and fry rearing. A lower row of stones across the open side of the nest will help to keep the gravel in. Arrange the rocks to create as stable a structure as possible. *(Note: Pea gravel is delivered in 50 lb. bags. One to two nests can be made per bag..)*

Enjoy your accomplishment and know that your efforts can help make a difference in protecting and enhancing the fisheries of your local area for many years to come.

It is very important for the Stewardship Council to assess the success of your project. If you have not signed a 'participants list' (normally present at the cottage association meeting), then please advise Eric McIntyre, council coordinator at Eric.McIntyre@Ontario.ca that you are a participant in the project. The following spring you will receive a brief questionnaire inquiring how many of the nests you created were actually used.

Factoid: Large male bass are a vital component for spawning success to the fry stage. Larger males are more likely to entice females to spawn with them and they provide a higher degree of protection to the young they are guarding. Catch-and-release angling for large bass during the open season will contribute to reproductive success the following year.

Factoid: It is illegal to fish for bass on a catch-and-release basis prior to season opening. Guarding male bass are extremely vulnerable to angling at this time due to their aggressive nature in protecting their brood. Catching and releasing guarding males affords nest predation, contributes significantly to nest abandonment and can compromise the health of the fish. Do not fish for bass on a catch-and-release basis prior to season opening.

For more information on this and other fisheries enhancement, protection and rehabilitation initiatives being undertaken by the "Eastern Georgian Bay Fisheries Stewardship Council" please check out our website at <http://www.helpourfisheries.com>.



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