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My Bluegills are stunted - HELP!

The problem of stunted bluegills is one of the most often received complaints that we hear about Michigan inland pond and lake fishing. Though many other types of fish are also prone to stunting — such as bullheads, perch and crappie — stunted bluegills are the main problem. We recommend that these fish not be stocked in ponds.

To determine if the bluegills in your pond or lake are stunted, you need to determine their ages from scale samples and compare age to total length.

The mean sizes of bluegills in our region are:

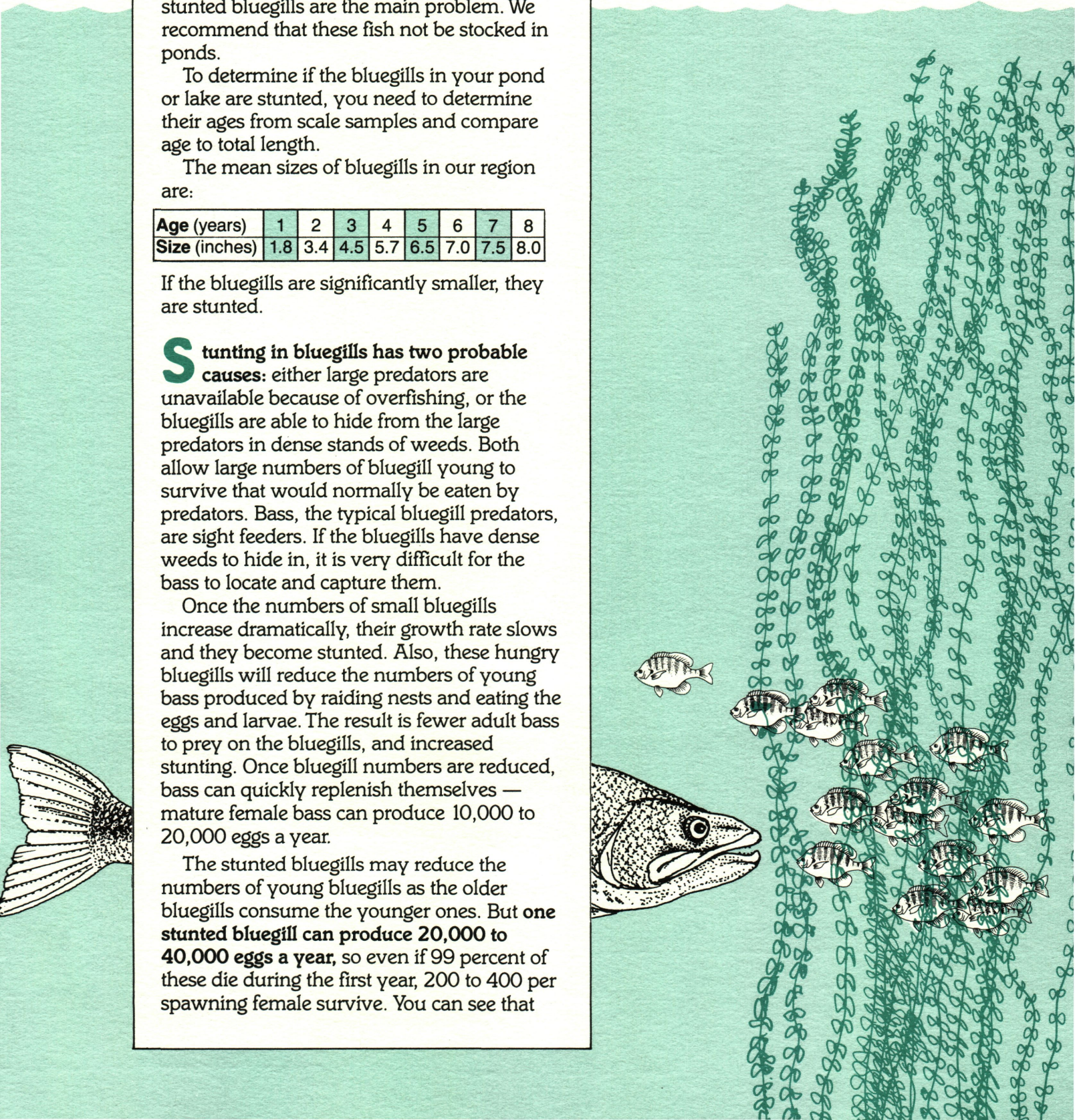
Age (years)	1	2	3	4	5	6	7	8
Size (inches)	1.8	3.4	4.5	5.7	6.5	7.0	7.5	8.0

If the bluegills are significantly smaller, they are stunted.

Stunting in bluegills has two probable causes: either large predators are unavailable because of overfishing, or the bluegills are able to hide from the large predators in dense stands of weeds. Both allow large numbers of bluegill young to survive that would normally be eaten by predators. Bass, the typical bluegill predators, are sight feeders. If the bluegills have dense weeds to hide in, it is very difficult for the bass to locate and capture them.

Once the numbers of small bluegills increase dramatically, their growth rate slows and they become stunted. Also, these hungry bluegills will reduce the numbers of young bass produced by raiding nests and eating the eggs and larvae. The result is fewer adult bass to prey on the bluegills, and increased stunting. Once bluegill numbers are reduced, bass can quickly replenish themselves — mature female bass can produce 10,000 to 20,000 eggs a year.

The stunted bluegills may reduce the numbers of young bluegills as the older bluegills consume the younger ones. But **one stunted bluegill can produce 20,000 to 40,000 eggs a year,** so even if 99 percent of these die during the first year, 200 to 400 per spawning female survive. You can see that



overfishing bluegills is highly unlikely.

The stunting problem is a function of carrying capacity. A lake supports a certain number of pounds of fish, typically around 200 to 400 pounds per surface acre. It doesn't matter if that is 200 one-pound fish or thousands of bluegill that weigh only a few ounces each. Basically, the more fish you have, the smaller portion of the food supply that each gets.

If you tried to feed the fish to get them larger, you would only add to the problem. More fish would survive and more nutrients would be added to the system. This would promote more weed growth, which would allow even **more** fish to survive.

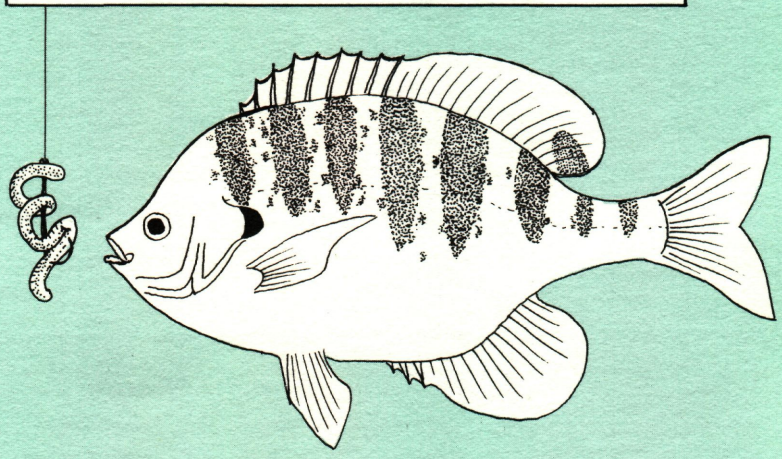
The problem is not simple to solve. You must drastically reduce the numbers of stunted bluegill so the fish that remain can grow to an acceptable size. **About 90 to 95 percent of the stunted fish should be removed.** In small lakes and ponds, baited winged hoop nets can be used to reduce bluegill numbers. Because this method requires a great deal of work, it is not suitable for lakes and larger ponds.

The easiest way to reduce bluegill numbers in larger lakes and ponds is by **partial poisoning.** The small fish, which are more sensitive to fish poisons, are found inshore. Rotenone at 0.25 ppm or another fish poison can be applied to about a 20-foot strip parallel to the shore and completely encircling the lake. (Use of nets or a fish toxicant may require a permit — contact your district DNR office before you use either technique.)

If available, **large predators** can be stocked to further reduce bluegill numbers. This may not be effective, however, especially if you don't reduce the number of weeds. Look at the palm of your hand with all your fingers together held about a foot in front of your face. Imagine that this is a stunted bluegill — then imagine the size of the predator's mouth that would be necessary to swallow a 3- to 5-inch stunted bluegill. Predators of this size are rarely available at affordable prices. Even if they are available, these predators would rather eat torpedo-shaped prey, such as small bass, than fish shaped like a bluegill. Each northern pike require 5 to 10 acres of lake area to support its feeding requirements. Pike should never be stocked in ponds or small lakes.

If weeds allow the bluegills to escape predation, the **weeds must be reduced** or the problem will continue. Weeds can be reduced by chemical, mechanical or biological means. (For further information on weed control, contact **Fisheries and Wildlife Extension, 9 Natural Resouces Building, MSU, East Lansing, MI 48824; (517) 355-7493).**

If your lake has public access, you should work with your DNR district fisheries biologist to correct the problem. If your lake is a low priority on the DNR work schedule, staff members will work with you or your lake association in a self-help program to clear up the problems. If your lake or pond is private, it will be your responsibility to correct the problems that led to stunting.



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