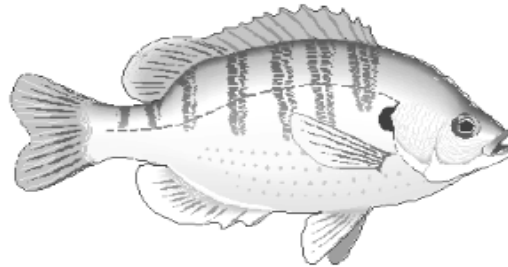


# Ohio Pond News



The Ohio State University



Summer 2009

Volume 8, Issue 3

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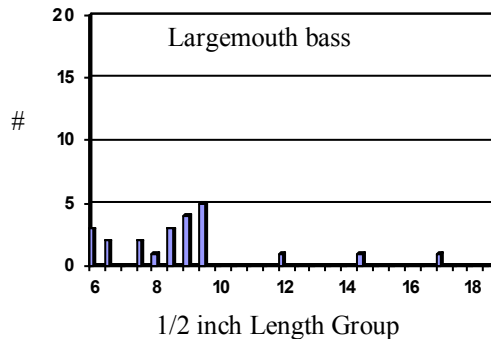
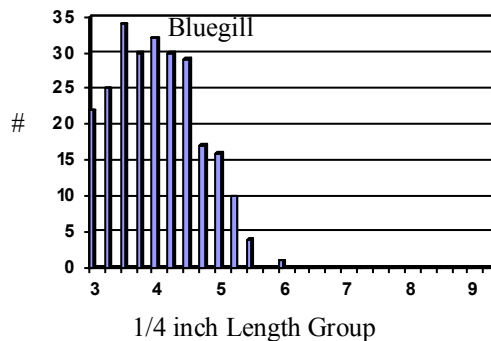
## Assessing Your Fish Populations—Part II

In the spring issue, I explained how a pond owner could collect angling data themselves that would prove useful in assessing their fish populations. This data can then be used to determine if the fish community is meeting the owner's goals and what adjustments might be needed to the community for a fishery goal not being met.

There are four management goals pond owners typically can choose from to manage their fish community. They are the "do nothing" strategy, the balanced fish community goal, the big bluegill goal, or the big bass goal. You can't manage for multiple goals. It is exceedingly rare for a pond to produce both big bass and big bluegills in large numbers. The owner needs to select one of the above and proceed from there. Keep in mind as you read on, that a fish species growth is inversely related to that species abundance. Put another way, if bluegills numbers are very high, then their growth rate will be low because more bluegills are sharing a finite amount of food.

### The "Do Nothing" Strategy

Pond owners who follow a do nothing approach to fish (and likely pond) management allow for uncontrolled harvest and typically have excessive amounts (> 30% coverage) of aquatic vegetation. The fishery is considered poor by most who would fish a pond managed in this manner. The fish community is best described as being dominated by many small, stunted bluegills and bass being few in number, small and often look undernourished. The length frequencies you can generate with your data would look something like the following.



### The Balanced Fishery Strategy

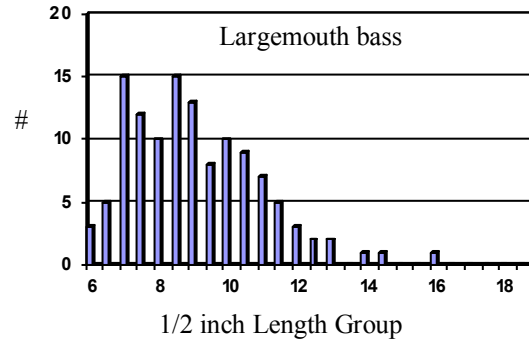
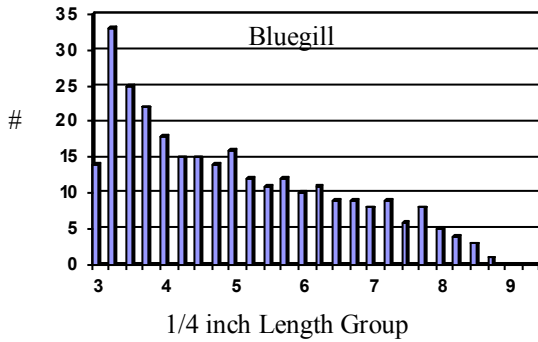
As the strategy's name implies, fish communities managed for this option are characterized by good numbers of all sizes of both bluegills and bass. While there is more smaller fish than bigger fish, bigger fish are present. Once a fish community is in balance, it can be difficult to maintain given that overharvest and increases in vegetation abundance can quickly cause the community to go out of balance. Maintaining a balanced fish community requires considerably more monitoring and timely (continued on page 2)

### Did You Know?

- There are three types of bottom aeration systems. Many are familiar with electric systems and windmill systems. It was only a matter of time until someone developed solar systems. That has now happened. If you consider a solar-powered bottom aeration system, ask about any battery that may accompany the system and how long the aeration system will run into the night.

# Assessing Your Fish Populations—Part II Continued

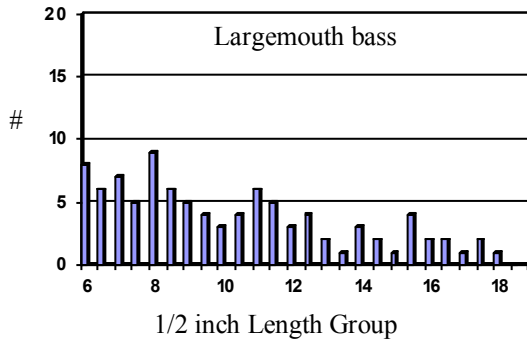
correction of vegetation and fish harvest problems than associated with other strategies. Balanced fish communities provide a decent children's and family fishery. If your fish community is in balance, length frequencies for bluegills and bass will resemble the following.



The big bluegill strategy is relatively easy to maintain by limiting bass and bluegill harvest and maintaining low amounts of aquatic vegetation.

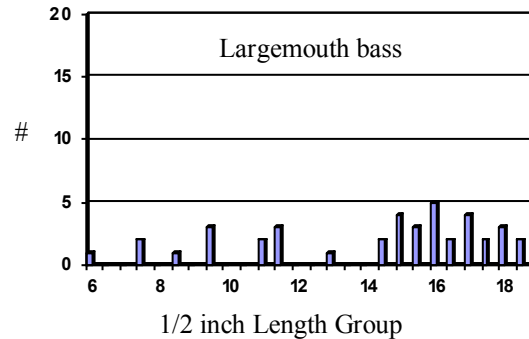
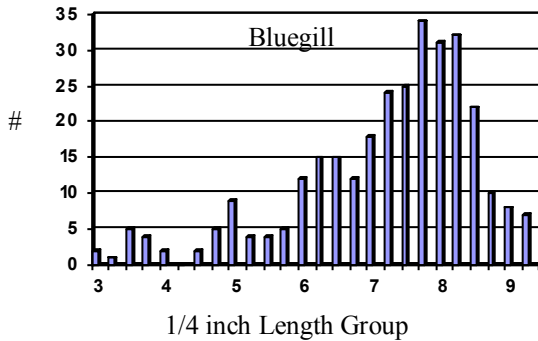
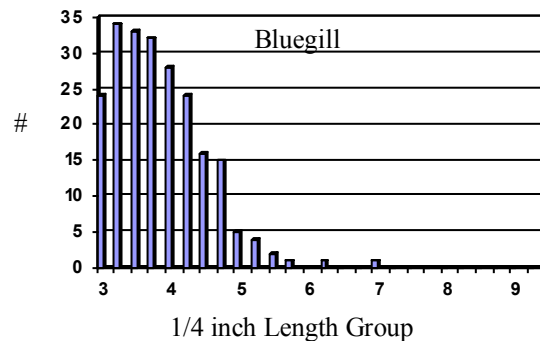
### The Big Bass Strategy

Some pond owners want to manage for large bass and are not in need of having large numbers of harvestable bluegills. These ponds are characterized by many small, stunted bluegills that provide an endless supply of food to the fewer bass present. Aquatic vegetation must be in low abundance so that the bass do not encounter any problems finding and capturing bluegills for food. To have a big bass fishery, your length frequencies should resemble the following.



### The Big Bluegill Strategy

This strategy provides an excellent children's and family fishery as the bluegill population is dominated by large, harvestable bluegills. Additionally, the large number of small to medium sized bass provides an additional, exciting fishery for children. Fish length frequencies will look like the following if the owner is successful in developing such a fishery.



Continued on page 4

# Summer Control of Aquatic Plants

Spring has rolled over into summer, with its accompanying higher water temperatures. Soon, maximum biomass of algae and submerged aquatic plants will occur. Already, many ponds have higher than desired levels of these plants and pond owners are wanting to treat and control the plants. **In a word—BE CAREFUL!** The risk of a major fish kill associated with controlling too much aquatic vegetation too quickly is rising almost daily. What can be safely controlled right now? Certainly, control of emergent vegetation poses little risk for a fish kill, so go ahead and control those cattails. The same applies for water lilies if they cover less than 1/4 of the pond. The tricky part is how much algae and submerged plants can be controlled during summer with minimal risk to the fish community. If the offending plant (s) only extend several feet from shore in a pond 1/2 acre or larger, they can be controlled now with minimal

risk for a fish kill. My rule-of-thumb is totally controlling aquatic plants when they inhabit (on top or under the surface) more than 10-15% of the pond's surface acreage carries a significant risk of a summer fish kill. I highly recommend spot treatments with a granular algicide or herbicide product after this point. Plan on treating no more than 20% of the vegetation every 2-3 weeks. Focus on your high priority areas first, like swimming areas. This minimizes oxygen consumption due to decomposition of dying plants and allows the surviving plants to produce oxygen to help mitigate oxygen losses associated with that decomposition. While spot treatments can be done with liquid formulations, most pond owners find it much easier to spot treat with granular products. Once we get to late-August, spot treatment can be discontinued as natural die-off of aquatic plants will begin shortly thereafter.

## Pond Factsheet Update

### Available

*Placing Artificial Fish Attractors in Ponds and Reservoirs:* OSUE Factsheet A-1.

*Pond Measurements:* OSUE Factsheet A-2.

*Controlling Filamentous Algae in Ponds:* OSUE Factsheet A-3.

*Chemical Control of Aquatic Weeds:* OSUE Factsheet A-4.

*Muddy Water in Ponds: Causes, Prevention, and Remedies:* OSUE Factsheet A-6.

*Understanding Pond Stratification:* OSUE Factsheet A-7.

*Winter and Summer Fish Kills in Ponds:* OSUE Factsheet A-8.

*Planktonic Algae in Ponds:* OSUE Factsheet A-9.

*Fish Species Selection for Pond Stocking:* OSUE Factsheet A-10.

*Cattail Management:* OSUE Factsheet A-11.

*Algae Control with Barley Straw:* OSUE Factsheet A-12.

*Ponds and Legal Liability in Ohio:* OSUE Factsheet ALS-1006.

*Ice Safety:* OSUE Factsheet AEX-392.

*Farm Pond Safety:* OSU Factsheet AEX-390.

*Notifying the Ohio EPA Prior to Applying Aquatic Herbicides:* OSUE Factsheet A-13.

*Duckweed and Watermeal: Prevention & Control:* OSUE Factsheet A-14.

*When to Apply Aquatic Herbicides:* OSUE Factsheet A-15.

*Pond Dyes and Aquatic Plant Management:* OSUE Factsheet A-16.

*Benefits & Problems of Aquatic Plants in Ponds:* Factsheet A-17.

*Note: these factsheets are available at [ohioline.osu.edu](http://ohioline.osu.edu).*

## 2009 Pond Clinic Schedule

These are currently the pond clinics scheduled for 2009. If you want a pond clinic scheduled in your county during 2009, contact your county OSU Extension or SWCD office and let them know of your desire. They are always appreciative of folks who offer their pond as a clinic site.

Sept. 22, Tuesday - Farm Science Review—numerous presentations

Sept. 23, Wednesday - Farm Science Review—numerous presentations

Sept. 24, Thursday - Farm Science Review—numerous presentations

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## Ohio Pond News Online!

Ohio Pond News is now available online at [http://senr.osu.edu/Extension/Ohio\\_Pond\\_Management/Ohio\\_Pond\\_News.htm](http://senr.osu.edu/Extension/Ohio_Pond_Management/Ohio_Pond_News.htm). The link is part of the new pond management website located on OSU's School of Environment and Natural Resources website. The pond management website is still a work in progress and to date, has focused primarily on fish management. Aquatic plant management information should become available this fall. We are also in the process of adding back issues of Ohio Pond News to the website.

## Assessing Your Fish—Continued

In the fall issue, I will provide more detailed management activities the pond owner can use to either maintain their desired fishery goal or to alter their fish community to achieve one of the goals. Items considered will include aquatic plant management strategies as well harvest recommendations for both bass and bluegills. If you have not yet collected your angling data and generated length frequencies, I'd recommend waiting until late September to do so. The heat of summer can cause different sizes of bluegills and bass to feed differently and a representative sample may not be forthcoming. For example, in very warm water, larger bass often switch to night feeding. Until next time . . . .

Visit Ohio State University Extension's WWW site "Ohioline" at <http://ohioline.ag.ohio-state.edu>

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Keith L. Smith, Associate Vice President for Ag. Administration and Director, OSU Extension.

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