How to Inventory the Fish Population in Your Pond

The population structure of bass-bluegill ponds can be determined by using a "seine survey". A seine survey involves working a small seine along the edges of the pond, then examining the sizes and numbers of fish caught. A 4-foot by 6-foot seine with 1/8 to 1/4 inch mesh is the standard seine sold as a minnow seine.

Population checks should only be made in June or July, soon after bass and bluegill have spawned. Spawning time will vary due to water temperature, but usually both species have spawned by the end of June.

One person can usually work a small minnow seine. For a longer seine, it is usually easier if two people work together on opposite ends of the net. One person should stay on shore while the other goes into the water.

With the seine fully extended perpendicular to the shore, steadily walk in tandem, pulling the seine along the edge of the pond for a distance of 20 feet or so. Move the net through the water as quickly as possible so that the fish are unable to swim away from the advancing net. Be sure to keep the "lead line" (weighted bottom of the net) on the pond bottom during this process. Otherwise, smaller fish will evade capture by sneaking under the net. The fish are also more likely to remain in the net if the person in the water stays a few steps ahead of the person on shore.

To bring in the catch, the person in the water should arc the net toward the shore, while the person on shore remains in place. Bring the net slowly out of the water by pulling it up on shore, being careful not to lose the fish. Unless the shoreline is free of vegetation and debris, the net will invariably get caught in something as it is pulled in. It helps if each person takes hold of the lead line and guides it over obstructions.

At least three seine hauls should be made, each at a different location around the pond. Seine only the edges of the pond, especially in shallow areas where there are plants in the water or vegetation hanging over the bank. It is not necessary to seine in deep water, because the analysis will be based on the smaller fish present.

Use Analyzing Farm Pond Populations as a key to determine the population structure of the pond. The key was developed by H.S. Swingle, PhD, of the Alabama Cooperative Extension Service. When using this method, disregard any fish caught that are larger than intermediate size.