

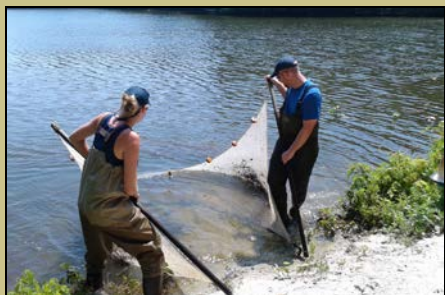
Management of Delaware's Public Fishing Ponds



14ft electrofishing boat used to catch game fish to evaluate their populations



A well balanced fish population has a range of fish sizes and ages



Seining to catch young-of-year fish to assess reproduction



A tree-pallet structure used to add habitat to deeper pond areas

The Division of Fish and Wildlife manages the fish populations of over 30 public ponds ranging in size from 4.8 acres (Tubmill Pond) to nearly 200 acres (Lums Pond). Delaware's ponds are managed for moderate densities of game fish including Largemouth Bass and panfish (Bluegill, Black and White Crappie, Pumpkinseed, Redear, White Perch, and Yellow Perch). Other species often targeted by anglers, such as Yellow and Brown Bullheads and Chain Pickerel also occur in the ponds.

Each pond is surveyed at least once every five years to evaluate the fish community and determine if it is balanced. An electrofishing boat is used to collect the fish and hold them in an on-board live well until they are examined, weighed and measured. The size distribution (balanced populations have a variety of sizes) and relative weight (a measure of condition or 'plumpness') is calculated for each gamefish from the length and weight measurements. These measurements can indicate if there is sufficient food resources to support growth and good condition, or if there is overcrowding. Species that tend to produce high numbers of young, such as Crappie, can reach a point where there is too much competition for resources resulting in poor condition and slow growth. In that scenario, the Division may remove a portion of these 'stunted' fish to benefit the population.

The abundance of each fish species is also measured using 'Catch per Unit of Effort' (CPUE). This is calculated by dividing the number of fish caught during the electrofishing survey by the survey time. CPUE is used to compare abundance of that species between years and between similar water bodies. If the CPUE is extremely high, a portion of that species may be removed from the pond and placed downstream of the spillway to alleviate overcrowding. Conversely, if the CPUE is low stocking may be conducted. If the survey reveals that there are low numbers of juvenile fish, particularly Largemouth Bass and Bluegill, additional sampling to assess reproduction will be scheduled. This involves using a beach seine to capture young-of-year (less than 1 year old) fish between July and September. If natural reproduction is poor, supplemental stocking may be conducted.

Another important aspect of managing game fish communities is to ensure there is enough habitat. Although each species has specific habitat requirements, all game fish need adequate spawning areas and places to seek shelter and to forage for food. Many game fish species have an affinity for in-water 'structure' which is naturally provided by aquatic vegetation and various types of woody debris (tree deadfalls, brush piles, etc.). If there is a general lack of in-water structural elements, the Division will install deadfalls or brush piles (typically comprised of evergreen trees and weighed down by cinder blocks) in shallow areas or near the shore. In deeper areas, pallet/tree structures are installed to provide more complex structure.

Good water quality is essential for a healthy aquatic food web, and essential for the condition, growth and survival of gamefish. Residents that live along the shoreline of the ponds (and within the watershed) should implement best management practices that protect water quality. These include maintaining natural shoreline vegetation to filter stormwater run-off, minimizing the use of fertilizers and chemicals used on their property, implementing stringent erosion control measures if disturbing the soil, and not dumping lawn waste into the ponds.

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For more information on the fish communities in Delaware's public ponds go to:
<https://dnrec.alpha.delaware.gov/fish-wildlife/fishing-ponds/>.