



A Fisheries Enhancement for Lake Barcroft

Introduction of a Large Sportfish: Many anglers have expressed an interest in improving the sportfishing opportunities of Lake Barcroft. Stripers are popular with fisherman throughout our region and this big fish is exciting to catch. With the operation of our improved aeration/circulation system this fast growing fish should do well in our waters, is easier to catch than some other gamefish, and will not compete with existing sportfish for food or habitat. Catches of 10 to 15 lbs. are common.

The Top-Down Theory and Striped Bass

Top-Down nutrient control attempts to limit the frequency, duration and intensity of algal blooms in freshwater lakes through food web manipulation. This is accomplished from the top of the food chain (predators) down through lower trophic levels to the bottom (algae). Simply put, lakes dominated by adults of carnivorous fish can have clearer water.

- The most efficient phytoplankton (algae) grazers are the largest-sized species of zooplankton.
- Lake Barcroft currently has a burgeoning population of Gizzard Shad, which preferentially feed on the largest of these zooplankton.

–Gizzard Shad are new to Barcroft; they were found in the Lake five years ago and their numbers have since exploded.

- Three years ago thousands of Shad died as a result of thermal stress.
- At present there is no predator fish to limit the numbers of Shad.
- Largemouth Bass are not an effective predator because they inhabit different areas of the lake than this prey species.
- Striped Bass preferentially feed on Gizzard Shad.
- Large-bodied zooplankton should have a better chance to survive and proliferate because populations of their predators have been reduced, which can result in the reduction of some algae species.

Stocking Recommendations

An initial Spring stocking of 5000 fish, 6-8 inches in length. These fish will have adequate size to get a jump on the young Shad of '98. These fish and their impact on Shad will be evaluated for two years. A supplemental stocking may be required because Striped Bass will not reproduce in Lake Barcroft.

Look for additional information on this topic elsewhere in this issue of the Newsletter.