



Lake Arrowhead 2010

Lake Arrowhead is a 39 acre impoundment located in Page County near Luray, Virginia. The lake was constructed in 1971 by the USDA Soil Conservation Service as a flood control impoundment. The lake is owned by the Town of Luray and the Virginia Department of Game and Inland fisheries manages the fishery. Lake Arrowhead sits at the foot of the Blue Ridge Mountains offering a magnificent view of the Page Valley. Gradual sloping banks relatively clear water, and a maximum depth of forty-three feet best describes the physical make up of the lake. The lake basin was cleared of all structure during construction making underwater structure sparse. A local angling club, Page Valley Bass Anglers, has been active in adding brush fish attractors to the lake. In recent years overabundant aquatic vegetation (elodea) had become a problem in the shallow areas of the lake. The Town of Luray has gone to great effort by using herbicides and triploid grass carp to control the vegetation. Anglers have the opportunity to fish for largemouth bass, walleye, northern pike, bluegill, crappie, redear sunfish, and channel catfish at Lake Arrowhead.

Largemouth bass

DGIF typically only surveys the fish population at Lake Arrowhead every 3-5 years. This usually entails a night-time electrofishing survey where the entire shoreline of the reservoir is sampled. The water temperature that DGIF "targets" when sampling the reservoir is around 60° F. This is the temperature when largemouth bass begin to spawn and should be in shallow water where they can be captured by electrofishing gear. Some years biologists "hit" this temperature period right on the money, and other times they are a bit early or late. The timing of this sampling can often produce different results. If DGIF samples the reservoir after some of the bass have moved from the shallows into deeper water, the number of bass in the population can often be underestimated. This is just the nature of fisheries management in small impoundments. One can see the difference in bass densities by viewing the length frequencies of largemouth bass collected by biologists in 2001, 2005, and 2009 (Figure(s) 1, 2, & 3.). However, there has been little change in the proportion of bass >12" in the population across the same sample years. Recruitment or spawning success in small impoundments is often what controls the population. Water level fluctuations and drastic temperature changes in the spring influence bass recruitment the most. Over-harvest of bass by anglers can also "shape" the bass population. While the largemouth bass population has remained consistent for many years, the number of bass >15" has increased since 2005 (Figure 3.). Largemouth bass are slow growing in Lake Arrowhead with fish not reaching 12" until age 4 (Figure 4.). With these slow growth rates, anglers need to harvest some bass < 11 inches in order for the 11-16" slot limit to be successful in producing bass > 16 inches. Anglers should concentrate on downed trees, beaver lodges, and weedbed edges when targeting bass. Lake Arrowhead can become quite clear so anglers should use baits/tactics to match the conditions.

Figure 1. Length frequency of largemouth bass collected by electrofishig in spring 2001.

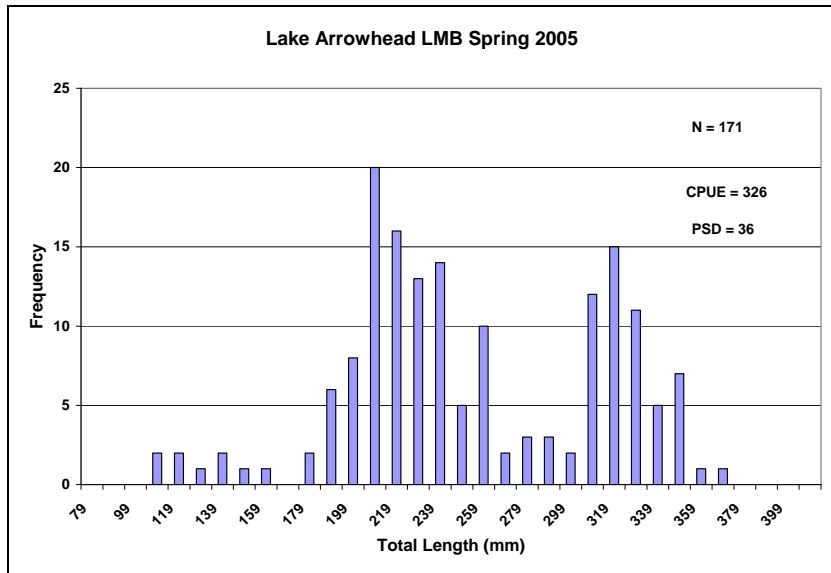
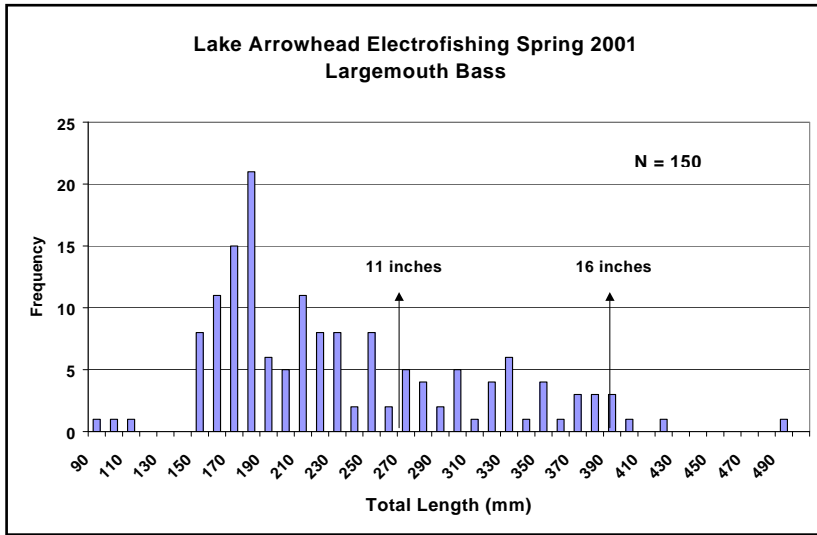


Figure 2. Length frequency of largemouth bass collected by electrofishing in spring 2005.

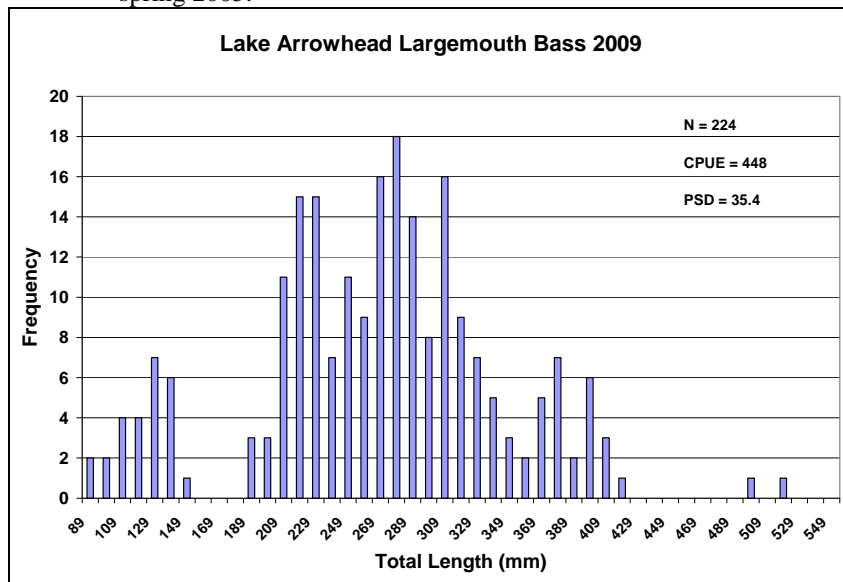


Figure 3. Length frequency of largemouth bass collected by electrofishing in spring 2009.

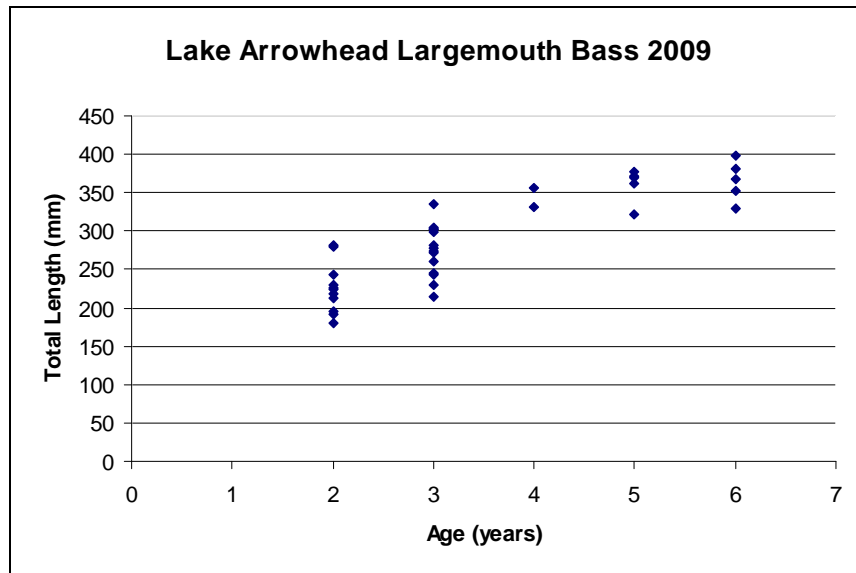


Figure 4. Growth rate of largemouth bass from Lake Arrowhead, spring 2009.



Figure 5. Largemouth bass and redear sunfish collected during DGIF night-time electrofishing survey May 2009.

Bluegill / Redear Sunfish

The sunfish population is well proportioned. The bluegill to redear sunfish ratio is about 2:1. Historically the sunfish in Lake Arrowhead were overpopulated and "stunted". While bluegill abundance is still very high, there has been a slight increase in the number of fish >6" in the population (Figure 6.) In addition, biologists did observe good numbers of quality sized redear sunfish in 2009 (Figure 5). These fish ranged from 145-260 mm. Anglers should find anywhere in the lake to be a good place to catch sunfish.

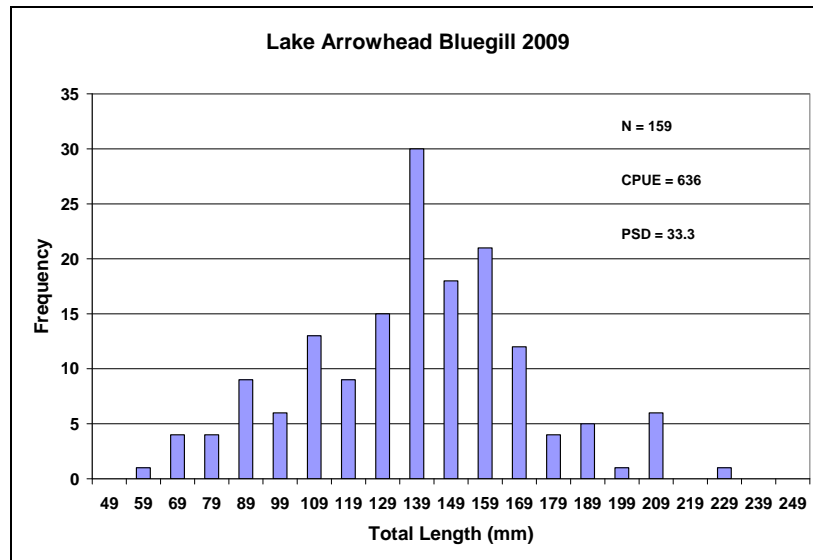


Figure 6. Length frequency of bluegill collected by electrofishing spring 2009.

Crappie

Lake Arrowhead exhibits a modest crappie fishery. The crappie population consists mostly of fish 7-9 inches. Anglers should look for woody structure like braver lodges and downed trees when targeting crappie. Crappie were not targeted in the May 2009 electrofishing survey and are best sampled with trap nets earlier in the spring. However, several black crappie were collected and they ranged from 180-230 mm in length.

Walleye

Walleye do not naturally reproduce in Lake Arrowhead and consequently are stocked annually by the Department. Walleye are stocked to provide angling diversity and as an additional predator to control sunfish numbers. The walleye population is small, but enough fish inhabit the lake to make a respectable fishery.

Northern Pike

There is a limited fishery for northern pike in Lake Arrowhead. Northern Pike do not naturally reproduce in the lake and are stocked by VDGIF annually. Pike are stocked to help keep sunfish from overpopulating and to provide angling diversity. Several pike were collected during the spring 2009 electrofishing survey.

Channel Catfish

Channel catfish spawning is limited in the lake so VDGIF stocks this species annually to maintain the population.

General

In addition to a valid Virginia Freshwater Fishing License, a fishing permit issued by the Town of Luray is also required. Permits can be obtained at the town office (540-743-5511). The use of gasoline boat motors is prohibited. Electric trolling motors are welcome.

FACILITIES

Lake Arrowhead is the focal point of the 134 acre Lake Arrowhead Park Recreation Area. The park is owned and operated by the Town of Luray. Boat access includes a concrete boat ramp w/ courtesy dock. Shoreline fishing access is excellent around roughly 70% of the lake. The lake also includes a large swimming area with a beautiful white sand beach. A fee is required to use the swimming area. A food concession stand operates next to the beach during the summer months. For the hiker, there are over two miles of marked trails throughout the park. Other facilities offered at the park include: Five picnic

shelters, playground areas, cook out grills, horseshoe pits, a softball field, and handicapped accessible restrooms.

MORE INFO

For more information about Lake Arrowhead fisheries management, please contact:

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For more information about Lake Arrowhead, Lake Arrowhead Park or the Town of Luray:

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