



Hunting Run Reservoir 2009

Introduction and History

Hunting Run Reservoir is a 420-acre water supply impoundment owned and operated by Spotsylvania County. The 420 acres is a full pool measurement, and the reservoir has never reached full pool due to several issues and has typically been down about 8'. However; as of this writing, the lake had finally reached full pool. The recent inundation of previously unflooded acreage should generate a productivity surge in the reservoir.

Access is limited to a new county-maintained boat ramp and park near the reservoir's upper end off Elys Ford Road (Route 610) 2.1 miles north of Route 3. There is ample parking, a fishing pier and a boat ramp, and more amenities are planned. Anglers may launch canoes, jon boats and bass boats using electric motors only. Anglers may rent jon boat, electric motors and batteries but no other amenities are available such as bait and snacks. The lake is open in 2009 from March 7th – October 9th from 6 AM to 8 PM or sunset, whichever occurs first. A minimal fee is required to use the access site.

The reservoir was impounded in 2002 and stocked in 2003 by the Virginia Department of Game and Inland Fisheries (VDGIF) with bluegill and redear sunfish, largemouth bass and channel catfish. Repeat sunfish stockings were also made in 2005 (bluegill), and 2008 (redeer), while repeat channel catfish stockings were conducted in 2004 and 2005. Surplus walleye were stocked in 2006 and 2008. The current fishery is maintained entirely by natural reproduction (except walleye) and includes bluegill, black crappie, largemouth bass, redear sunfish, and channel catfish. Other species present in the lake from colonization (preexisting impounded waters or downstream transport) include pumpkinseed sunfish, green sunfish, brown bullhead, yellow bullhead, creek chubsucker and golden shiner. The lake was opened to fishing in September 2007.

State standard regulations apply to the harvest of most game and nongame fish (e.g., catfish), but largemouth bass harvest has been regulated by a 16-22" slot length limit since January 2008. Anglers are required to immediately release any bass between 16 and 22" (inclusive) and can creel only one bass per day over 22" and up to four bass per day under 16". Harvest of bass below the slot is beneficial to minimize stockpiling of small fish, increase growth and maintain an enhanced size structure.

Methods

Fish sampling at Hunting Run Reservoir by VDGIF biologists has occurred annually since 2004 (except 2007). Biologists use shoreline electrofishing to obtain estimates of population size structure and relative abundance. Abundance is usually described as a catch rate in number of fish per hour (CPUE, or Catch per Unit Effort). Also, numerical descriptors of length-frequency data such as Proportional Stock Density (PSD) and Relative Stock Density (RSD) are used when evaluating fish populations. PSD is calculated by

dividing the number of fish \geq minimum quality length by the number of fish \geq minimum stock length x 100. Quality length is defined as the minimum size of fish most anglers like to catch (these are national standards – for example, 12” for largemouth bass). Stock length is the minimum length at which a fish provides recreational value and/or is recruited to the fishery (e.g., 8” for largemouth bass). RSD is simply the percentage of any designated length group found within a population. RSD is calculated by dividing the number of fish \geq specified length by the number of fish \geq minimum stock length x 100.

Bass

Largemouth bass catch rate and population size structure fluctuated over the past five years and apparently reached a peak before declining by 2008:

Year	CPUE-P	CPUE-T	RSD-P
2004	3	98	10
2005	16	107	36
2006	37	173	32
2007	no	sample	Taken
2008	14	87	19

Catch rate (CPUE) of “preferred” (P) size bass (those fish 15” total length and longer – a national index) peaked in 2006 at 37 fish/hour which ranked this reservoir (at the time) in 2nd place out of 18 managed impoundments in the Northern Virginia District. Overall bass abundance (all sizes combined) peaked in 2006 when total catch (CPUE-T) was 173 fish/hour, which was very high. In 2008, CPUE-P was 14 which ranked 13th in the District. RSD-P followed a similar trend, although the maximum value for this index occurred in 2005. These data suggest that the population was composed of a much greater percentage of large fish in 2005-2006 and that size structure shifted downward in 2008. It is possible the bass population increased at a faster rate faster than the forage community could accommodate, and stunting (or stock piling) of bass under 12” occurred – 68% of the sample in 2008 was bass 8-12”. It is also possible that fluctuating water levels (documented over the first few years of the reservoir’s life) resulted in one or more poor year classes. There was only one bass sampled in the 12”-15” category in 2008 which is an anomaly not seen on any other District reservoir in 20 years, and there were fewer bass in the 15-17” range than in 2006. In any case, it was obvious that bass condition (especially of smaller fish) was fair, at best, indicating a paucity of forage and slow growth. A combination of sub-slot bass harvest, a productivity surge from the reservoir’s filling, and forage stockings should help alleviate the predator-heavy situation.

Panfish

The size structure of the bluegill population was excellent, but abundance was extremely low (38 fish/hr). Both of these findings are consistent with a bass-heavy scenario, as most bluegill are eaten (and not available to be sampled), but surviving fish grow quickly due to reduced competition and attain preferred (>8”) size. Preferred-size bluegill composed 25% of the sample making the size structure of this bluegill population one of the best in the

District among larger reservoirs. Black crappie (74 fish/hr) were more abundant than bluegill (which is unusual), and the population's size structure was poor (no fish were greater than 8.5"). This is also indicative of a predator-heavy community, as crappie are predominately piscivorous and compete with bass exacerbating poor growth and suboptimal size structure for both species. Redear sunfish were even less abundant (8 fish/hr), but size structure was good.

Management Outlook

Full pool elevation at Hunting Run Reservoir should be achieved for the first time in early 2009. The resulting productivity surge from this occurrence, along with supplemental forage stockings in 2008 and 2009, and increased harvest and/or removal of largemouth bass less than 16" should allow the size structure of the bass population to return to a more desirable level – reminiscent of the 2005/2006 samples. Anglers should also be encouraged to harvest black crappie (up to the State limit of 25 per day, any size). Walleye, and all other predator stockings, should be discontinued until such time that the predator/prey balance has been corrected. The fish community of the reservoir will be monitored with annual spring electrofishing.

For more information on Hunting Run Reservoir, please contact:

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