

2011 Lewis and Clark Lake Fishery Projections



Annual fisheries surveys take place on Lewis and Clark Lake to monitor trends in fish populations. Electrofishing, gill netting, hoop netting, and seining are used to collect information that helps biologists monitor trends in numbers and sizes of fish of each species. Angler surveys are conducted during some years to gather information on angler use and harvest. These long-term trends in fish population status and angler use are used by biologists to make management decisions and determine regulations.



Walleye/Sauger/Hybrid



Did you know that the spawning seasons of walleye and sauger naturally overlap and they sometimes spawn together, forming hybrids? Walleye/sauger hybrids can also spawn. Of the four Missouri River reservoirs in South Dakota, Lewis and Clark Lake has the highest percentage of walleye/sauger hybrids. This means many of the fish caught by anglers in Lewis and Clark Lake that look like pure walleye or sauger are in fact hybrids.

Regulations for Lewis and Clark Lake Walleye/Sauger/Hybrid

Regulations apply to waters of the Missouri River from Gavins Point Dam upstream to Fort Randall Dam.

- **4 fish daily/8 fish in possession**
- **Minimum length limit of 15 inches year-round***
- **High-grading or culling of walleye/sauger/saugeye is prohibited**

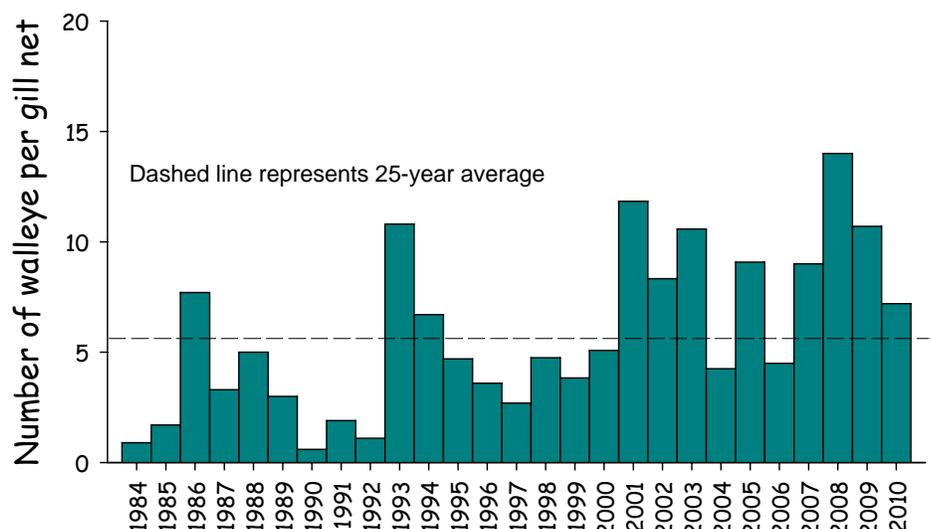
* From the Nebraska border upstream to Fort Randall Dam, anglers are allowed only one fish in the daily limit 20" or longer and there is NO minimum length restriction in July and August for this portion of the reservoir.

Walleye trends for 2011

Walleye abundance is monitored through an annual September gill net survey. The average number of walleye per gill net is compared with the data from previous years to detect changes in abundance. The overall trend in Lewis and Clark Lake has been a slow increase in abundance over the last 20 years, with the highest abundance occurring in 2008. Although abundance has dropped for the last two years, 2010 was still above the 25-year average.

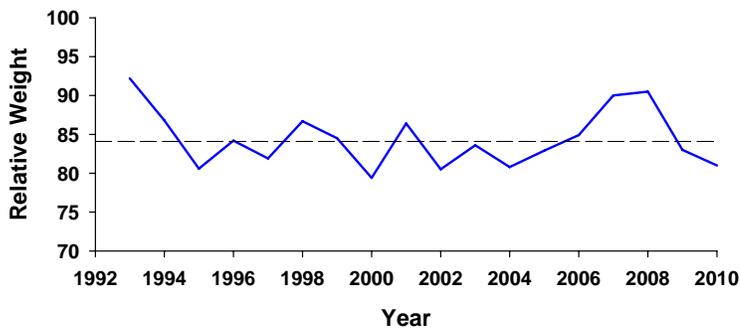
The young walleye produced during each year are referred to as that year's year-class of fish. The majority of the current population is from the 2007, 2008, and 2009 year-classes with a few fish from older year-classes. The 2007 and 2008 year-classes were especially strong. These fish provided much of the angling opportunity in the summer of 2010.

Walleye Relative abundance 1984 - 2010

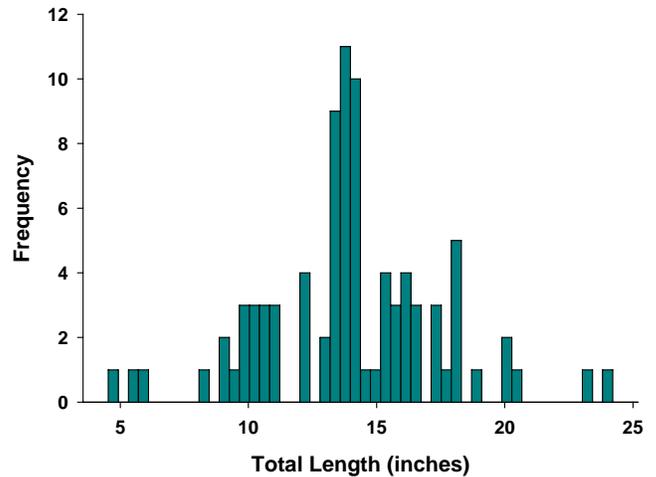


Relative weight is an index used to describe if fish are in good condition. High values indicate that the fish are plump and healthy, while low numbers can indicate an imbalance between walleye and its prey. Walleye relative weight values in Missouri River reservoirs are generally between 80 and 90 and only approach 100 when prey species are overly abundant. The relative weights observed in 2010 were on the lower end of the normal range for Lewis and Clark Lake, but still comparable to previous years. Relative weights for fish in 2011 will depend on prey abundance.

Walleye condition decreased slightly from 2009 to 2010



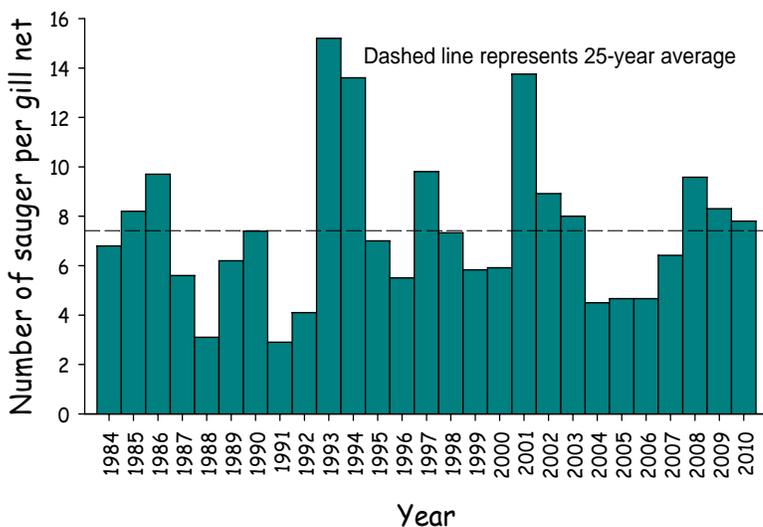
About one third of the walleyes sampled in 2010 were longer than the 15 inch minimum size limit!



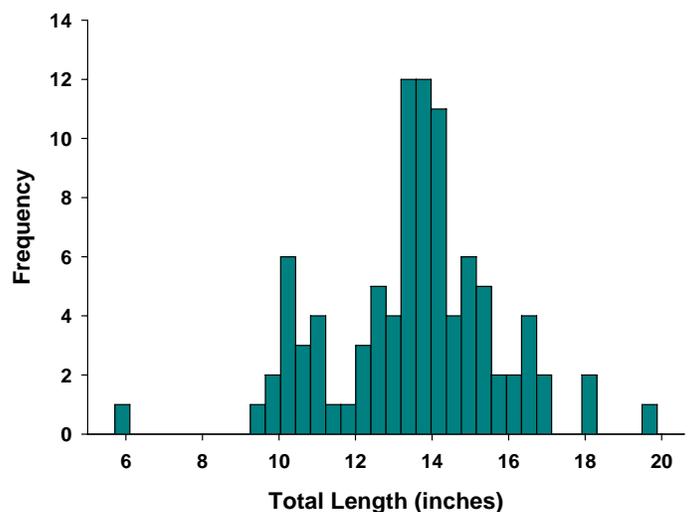
Sauger trends for 2011

Lewis and Clark Lake contains the most abundant sauger population in the state. The number of sauger caught per gill net in 2010 was above average and the sample had a balanced age distribution, indicating the relative stability of the population. As with walleye, sauger relative weights in 2010 were within the standard range. About one quarter of the sauger sampled in 2010 were above the 15 inch minimum. Fish from a large year-class in 2008 will be reaching harvestable size in 2011, and anglers this year should once again find a large percentage of the sauger population over 15 inches.

Sauger relative abundance 1984 - 2010



About 25% of the sauger sampled in 2010 were longer than the 15 inch minimum size limit!





Flathead and Channel Catfish

Regulations for Lewis and Clark Lake Channel and Flathead Catfish

These regulations apply to waters of the Missouri River from Gavins Point Dam upstream to the SD-Nebraska border where the river becomes entirely in SD.

- **5 fish daily/10 fish in possession (each)***

*There is no daily or possession limit on catfish from the Nebraska border upstream to Fort Randall Dam.

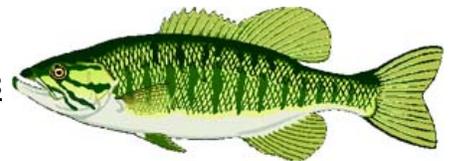
Channel catfish may be the best kept secret of the Missouri River reservoirs! Lewis and Clark Lake is no exception with excellent numbers and sizes present. Channel catfish were sampled up to 32 inches long and weighing over 15 pounds during 2010. The relative weight of channel catfish sampled in 2010 was above average, indicating plump and healthy fish. Angling opportunities for channel catfish are available throughout the entire Lewis and Clark reservoir system.

Flathead catfish are also present in Lewis and Clark Lake and can provide angling opportunities for those willing to search for them. During 2010, flathead catfish up to 26 inches in length and over 7 pounds were sampled. Past surveys have shown even larger catfish roam the waters of Lewis and Clark Lake!

Remember, harvesting channel and flathead catfish instead of walleye will help protect our walleye population as fishing pressure continues to increase.



Largemouth and Smallmouth Bass



Regulations for Lewis and Clark Lake Largemouth and Smallmouth Bass

These regulations apply to waters of the Missouri River from Gavins Point Dam upstream to Fort Randall Dam.

- **5 fish daily/10 fish in possession (in any combination)**
- **There are no minimum length restrictions on bass in Lewis and Clark Lake.**

Largemouth bass were sampled by electrofishing backwater areas in the Niobrara Delta. Number of largemouth per hour of electrofishing was about average and included fish near 18 inches long. Traditionally, the best largemouth bass angling on Lewis and Clark Lake has been found in areas of the Niobrara Delta containing aquatic vegetation. Largemouth bass should be in excellent condition if anglers choose to target them.

Smallmouth bass are abundant throughout the reservoir from Gavins Point Dam to the Fort Randall tailwaters. Most of the population is young and tends to be on the small side; however, some smallmouth bass near 18 inches were sampled in 2010.

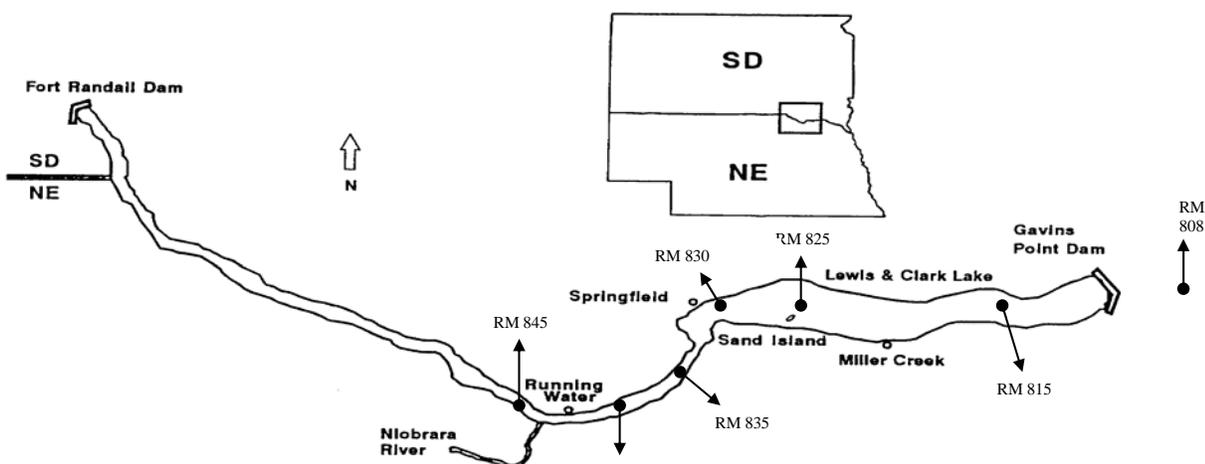
Points to Ponder

In 2011, anglers should continue to enjoy quality fishing for walleye and sauger in Lewis and Clark Lake. However, surveys in 2010 indicated that a smaller than average year class was produced. This, in combination with low recruitment from the 2009 year class, may result in depressed populations and reduced angling success in upcoming years. The low number of age-0 walleye and sauger observed in Lewis and Clark Lake may be a result of the extremely high discharge rates that were experienced at Gavins Point Dam for a good part of 2010. Above average precipitation in 2010 filled the Missouri River reservoirs to near-capacity, and necessitated large releases from Gavins Point Dam throughout the summer and fall to evacuate the flood waters. When water releases from Gavins Point Dam are at this level, all of the water within the reservoir can be replaced in only a few days. It is likely that large numbers of baitfish and newly hatched game fish are also flushed from the reservoir, which could be negatively affecting recruitment. Whether or not a strong year-class will be produced and recruited to the population in 2011 will be dependent upon precipitation, reservoir releases, and a host of other variables.

Key Issues in 2011 for Lewis and Clark Lake

- Sedimentation is the most influential process occurring on Lewis and Clark Lake. Large amounts of sediment are deposited by the Niobrara River which contributes to the growing delta area near Springfield. As the physical characteristics of Lewis and Clark Lake change over time, anglers will need to adjust their fishing strategies.
- Annual netting surveys indicate a trend of decreasing walleye abundance. Due to the strong 2008 year-class there should be a large proportion of walleye available to anglers in the 15 to 22 inch range during 2010.
- The Lewis and Clark Lake sauger population continues to boast a quality size structure with one quarter of the sauger sampled during fall gill netting above 15 inches in length. The strong 2008 year-class should provide good numbers of harvestable-sized sauger to anglers in 2011.
- Channel catfish numbers were down slightly in 2010 but remained near the 5-year average. Size structure indicates fish should be in excellent condition.

Lewis and Clark Lake



For further information, please contact:

Missouri River Fisheries
1550 East King Avenue
Chamberlain, SD 57325
(605) 734-4530
www.sdgfp.info