

## Lake Francis Case 2009 Fishing Forecast

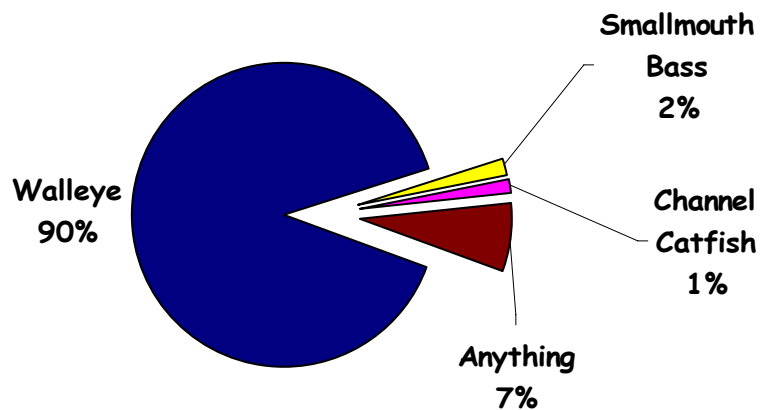
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Biologists working on Lake Francis Case annually survey both the fish populations and angler use and harvest of those fish populations. Information collected from these surveys provides trends in fish populations and the angler use and harvest of those populations. This long-term data helps biologists evaluate the effectiveness of past management efforts and predict how fishing will be in the future. Angling use of Lake Francis Case has remained stable over the past five years while walleye harvest has declined to a level more sustainable than the high harvest that occurred during the late 1990's.

Year	Hours of Fishing	Walleye Harvest
2004	659,184	113,813
2005	554,905	101,322
2006	639,335	202,437
2007	562,447	105,506
2008	553,822	86,352

It is no secret that anglers come to South Dakota to enjoy the fantastic walleye fishing opportunities our great state has to offer. Lake Francis Case is no exception. A vast majority of anglers fishing Lake Francis Case are targeting walleye. Results from the 2008 April-September creel survey showed that 90% of the anglers fished primarily for walleye. While many other fish species provide excellent angling opportunities and great table fare, only a small percentage of anglers specifically target these species.

**Percentage of Lake Francis Case  
Anglers that fish for...**

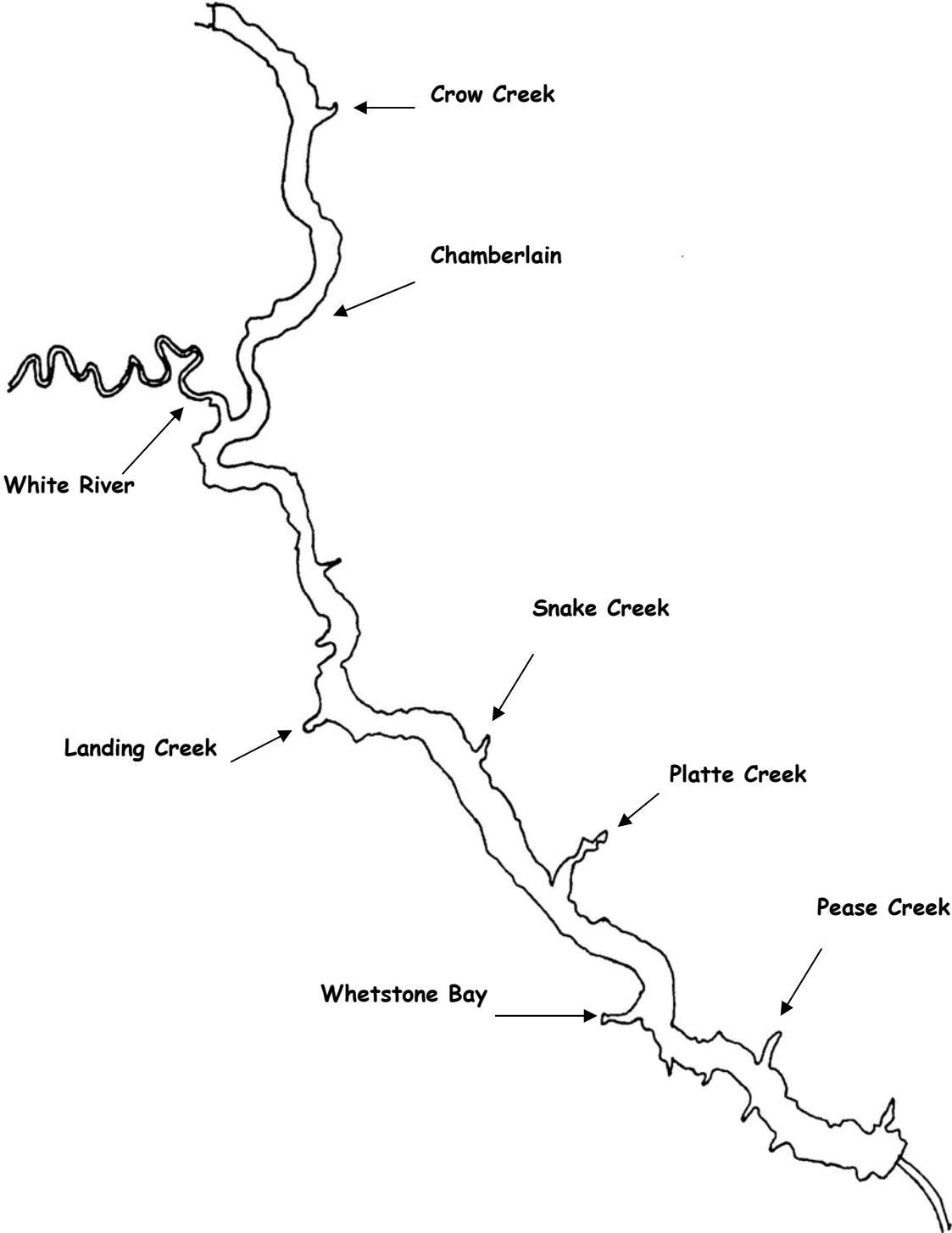


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>Click on links to the right for information on each fish species.  
>Scroll down for general information for Lake Francis Case.

- Walleye
  - Catfish
  - Smallmouth Bass
  - White Bass
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# Lake Francis Case



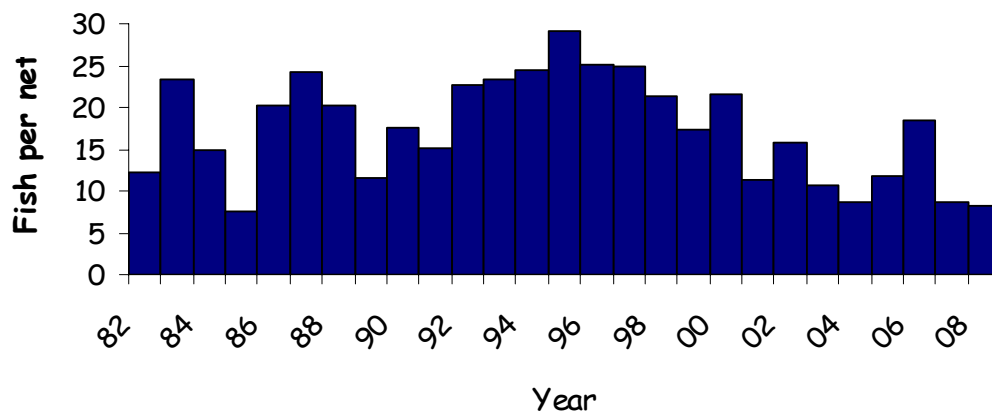
# Lake Francis Case Walleye/Sauger or Hybrids

**Lake Francis Case Walleye Regulations** (For specifics, see pages 20-23 in the 2009 Fishing Handbook)

- 4 fish daily/8 in possession
- Minimum walleye length limit is 15 inches and is in effect from Jan. 1-June 30 and Sept. 1-Dec. 31, annually (all months of the year except July and August).
- Anglers are allowed only one walleye/sauger 20 inches or longer per day in their daily limit, year round.
- High-grading or culling of walleye/sauger/saugeye is prohibited.
- The area between the railroad bridge and the I-90 causeway in Brule and Lyman counties is closed to fishing during January, February, March, April and December, except that shore-fishing is allowed from the Brule County side year-round.
- When anglers are fishing through the ice in the area from the northern Gregory-Charles Mix county line downstream to Ft. Randall Dam, size restrictions do not apply and anglers are required to keep the first four walleye/sauger they catch.

The abundance of harvestable sized walleye (those  $\geq 15$  inches) in the 2009 Lake Francis Case walleye population is similar to what was present in the reservoir in 2008. Poor walleye production from 2001 to 2004 has resulted in fewer fish over 15 inches in the current population. Good walleye production occurred in 2005, 2006, and 2008. As a result, anglers should expect good catches of walleye in the 13 to 16 inch size range during 2009. Fish produced in 2005 and 2006 have begun surpassing the 15 inch minimum length and will support most of the sportfish harvest during 2009. Good fishing in future years will require that anglers be conservative in the number of walleye they choose to harvest in 2009, not only on a given day, but throughout the entire fishing season.

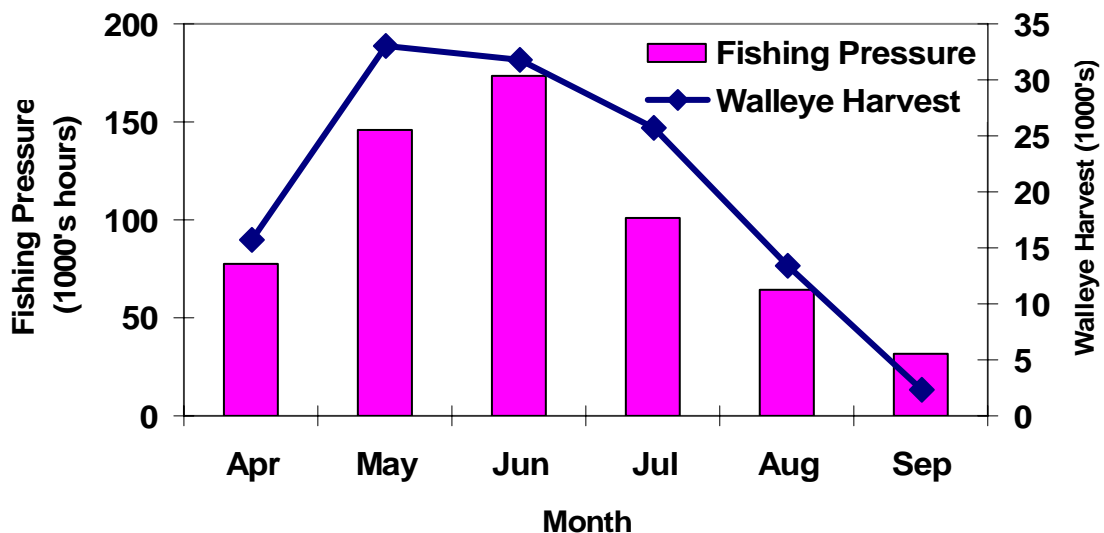
Lake Francis Case Walleye



## Lake Francis Case Fishing Use and Walleye Harvest

For anglers unfamiliar with Lake Francis Case walleye, fish can be found year-round throughout the reservoir. However, the typical yearly pattern has a majority of the spawning size walleye moving into the upper 1/3 of the reservoir in late fall/early spring. After spawning in mid/late April, walleye begin to disperse throughout the reservoir. As water temperatures rise, walleye fishing can be good throughout the entire reservoir. Lake Francis Case typically sees most of its fishing use during the May-July time period. Consequently, this is also the time period when a majority of the walleye harvest occurs. When you have more people on the lake fishing, more fish are harvested, as shown in the chart below.

**Average Fishing Pressure and Walleye Harvest by Month for Lake Francis Case 2004-2008**



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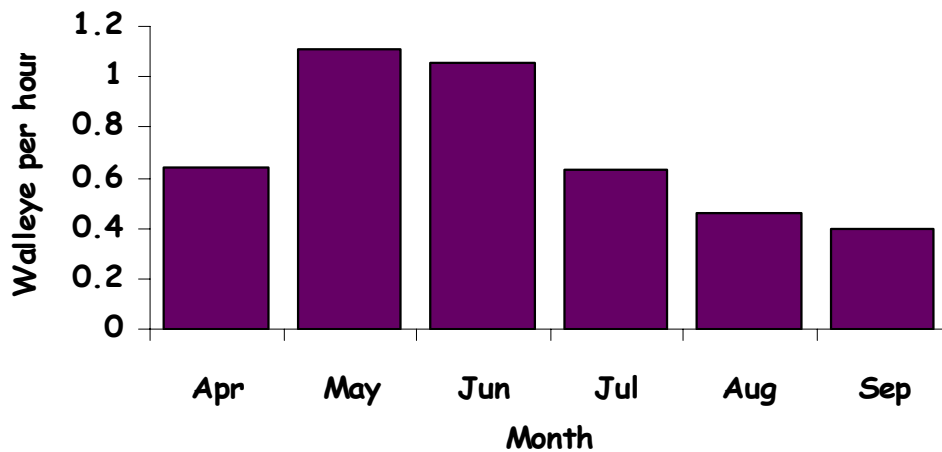
### What do Lake Francis Case walleye eat?



The primary forage fish species in Lake Francis Case is gizzard shad. Due to gizzard shad being intolerant of cold water temperatures for extended periods, a majority of the young gizzard shad in Lake Francis Case die each winter. Fortunately, there are enough warm water refuges, associated with numerous artesian wells located throughout the reservoir, to over-winter a sufficient number of adult shad to produce a year class of shad each spring. Other forage fish species found in Lake Francis Case include emerald and spottail shiners, yellow perch, white bass and a host of different minnows, shiners and darters.

Biologists often use catch rates to help determine the quality of a fishery. A catch rate is the number of fish caught per hour of fishing. For example, a walleye catch rate of 0.5 walleye/hour means it takes an average of 2 hours for an angler to catch a walleye. Catch rates of walleye and other sport fish that depend on young gizzard shad for food are typically highest in May and June as food resources are limited due to the die-off of young gizzard shad during winter. Gizzard shad begin spawning in late May or early June. Newly hatched gizzard shad reach a size desirable to walleye by about mid July, at which time catch rates of walleye typically decline on Lake Francis Case due to food being plentiful. The chart below helps illustrate how angler success on Lake Francis Case is influenced by prey-fish abundance.

**Average Monthly Walleye Catch Rate 2004-2008**  
**Lake Francis Case**

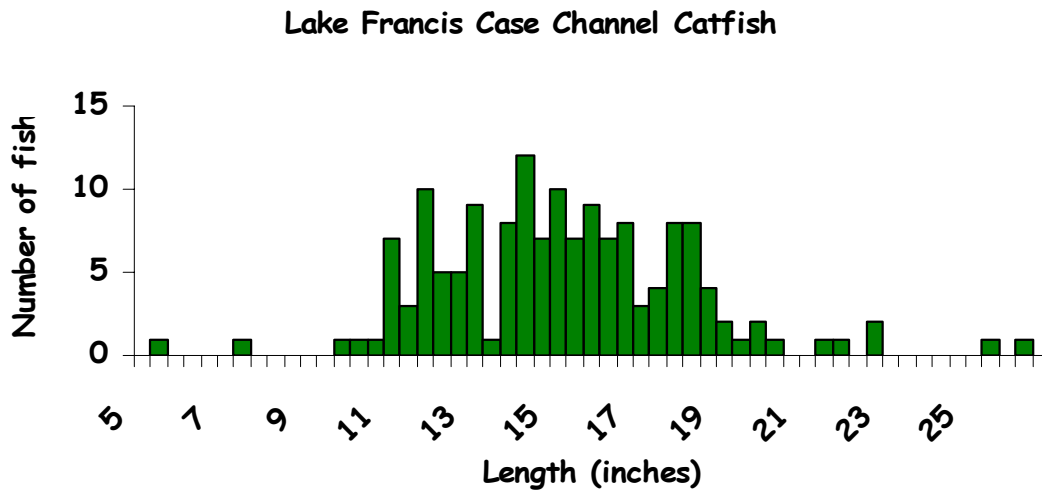


# Lake Francis Case Channel Catfish



**Lake Francis Case Channel Catfish Regulations:** There is no daily or possession limit on channel catfish on Lake Francis Case.

**Channel catfish** are found throughout Lake Francis Case. They are plentiful, but overlooked by most anglers. Lake Francis Case channel catfish are slow growing and long lived. Channel catfish in the angler harvest during 2008 averaged over 17 inches long. Shore fishing with live, cut, or stink bait is an effective method to catch channel catfish, especially in the summer. Fishing in the backs of large bays and on mud-flats with a variety of baits such as night crawlers, minnow, and commercially prepared baits has proven successful. Most channel catfish caught on Lake Francis Case are incidental catches by walleye anglers. Anglers willing to change a few tactics and specifically target channel catfish are in for a great fishing trip. Channel catfish are easy to catch and excellent to eat! The chart below illustrates the sizes of channel catfish in the Lake Francis Case population.



**Keeping white bass, channel catfish and other species INSTEAD OF WALLEYE will help maintain our walleye population during periods of low reproduction and recruitment.**

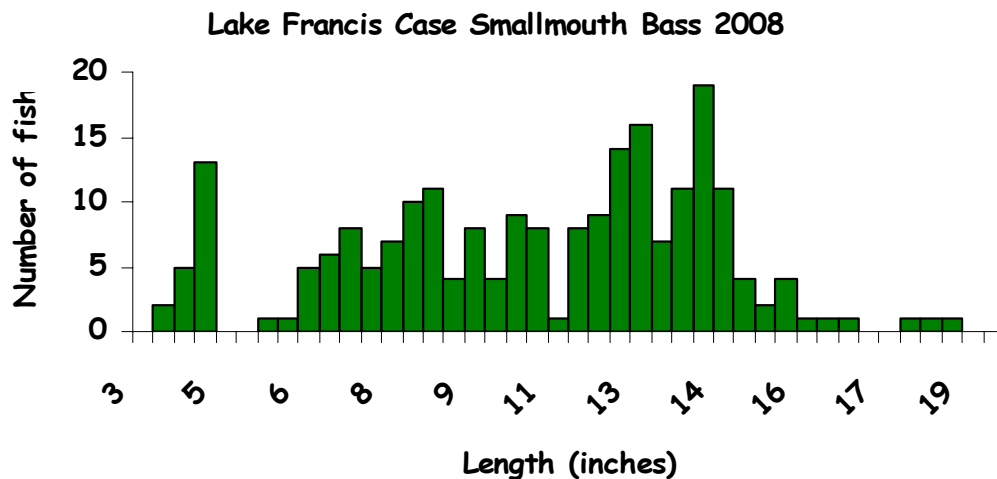
# Lake Francis Case Smallmouth Bass



**Lake Francis Case Smallmouth Bass Regulations:** Daily limit of 5 fish and possession limit of 10. There are no length restrictions for smallmouth bass on Lake Francis Case.

**Smallmouth bass** are found throughout Lake Francis Case with the best fishing usually found in the middle and lower portions of the reservoir. However, good shore fishing opportunities exist in the upper reservoir in May and June. Boat anglers often focus on rip-rap areas below Big Bend Dam or near Chamberlain; rocky areas and bays around Snake, Platte, and Pease Creeks; numerous bays around the North Point area; and the face of Ft. Randall Dam.

Smallmouth bass spawn in May and early June in Lake Francis Case. Males build nests in shallow water and attract females to the nests. Males will guard nests and newly hatched fry for sometime after hatching. After spawning, smallmouth bass will disperse from the shallows and occupy mud flats in search of food during summer months.



**Keeping white bass, channel catfish and other species INSTEAD OF WALLEYE will help maintain our walleye population during periods of low reproduction and recruitment.**

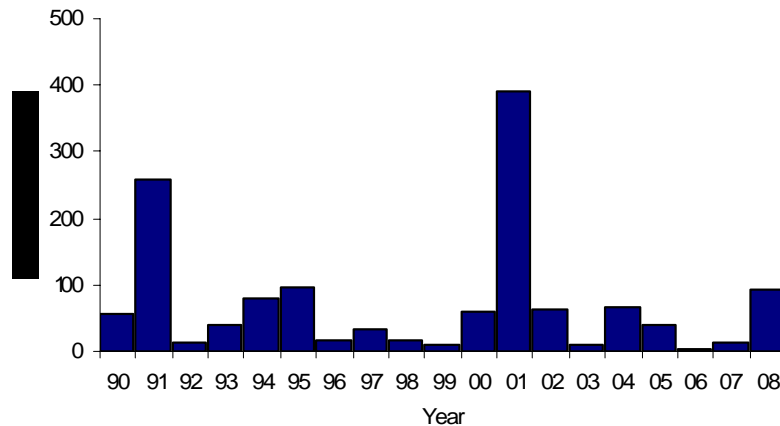
# Lake Francis Case White Bass



**Lake Francis Case White Bass Regulations:** Daily limit of 25 and possession limit of 50. There are no size restrictions for white bass on Lake Francis Case.

**White Bass:** White bass are common throughout the reservoir. Fishing for white bass in the upper third of the reservoir in May and June has proven very productive. Anglers often target the tailrace area for white bass. Good numbers of adult white bass in the 2009 population stems from good white bass production in 2004 and 2005. A large year-class of white bass was also produced during 2008. Trophy sized white bass from the 2001 year class are still lurking around Lake Francis Case waiting for a lucky angler's bait. Look for white bass on wind-blown shorelines. White bass feed effectively by working together to trap schools of prey fish against underwater structure (typically the shoreline) or the water's surface. During calm evenings, schools of white bass can often be seen chasing baitfish on the water's surface. White bass are excellent to eat if served fresh with the red meat trimmed from the fillets.

## Lake Francis Case Age-0 White Bass



**Keeping white bass, channel catfish and other species INSTEAD OF WALLEYE will help maintain our walleye population during periods of low reproduction and recruitment.**