

Box Butte Reservoir 2008 Creel Survey Summary

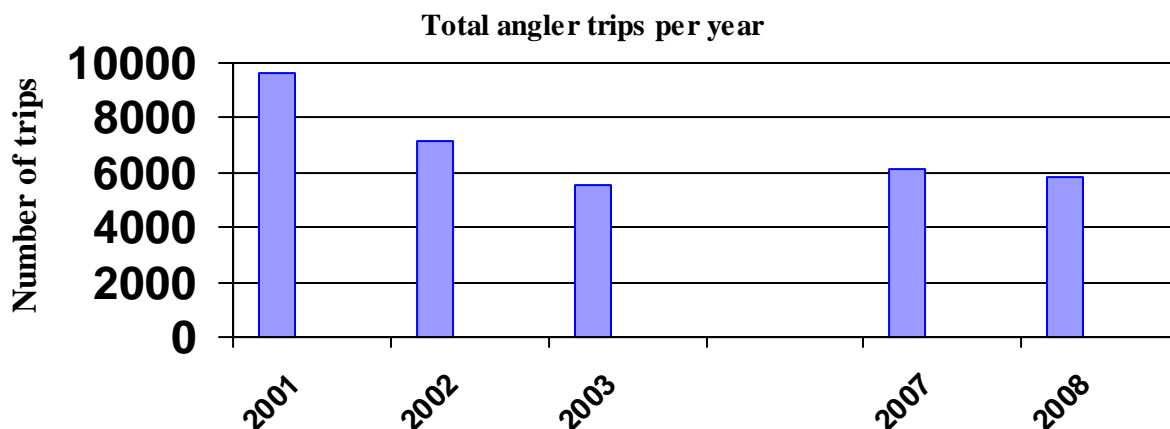


Nebraska Game and Parks Commission
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Fisheries staff recently completed a two year angler creel survey on Box Butte Reservoir located in the panhandle of Nebraska running from January 1, 2007 through December 31, 2008. During this time period, anglers were counted and interviewed on ten randomly selected days per month, six during the week and four on weekends. The information gathered from this survey provided estimates of angling pressure, catch and harvest, size structure of the fish caught, and catch per hour. These estimates also allow fishery managers valuable insight and helps monitor new fishing regulations that are implemented on these water bodies. One example of this is the new protected slot length limit imposed for northern pike at Box Butte Reservoir in January 1, 2007.

The following text and graphs provide summaries of the 2008 survey data with comparison to the 2001-2003 and 2007 creel survey conducted on Box Butte.

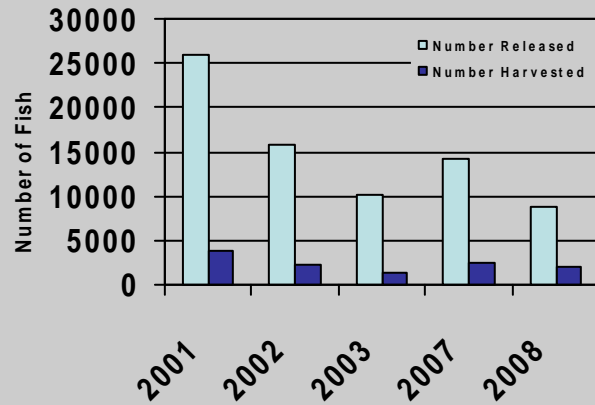
In 2001, lake levels at Box Butte Reservoir were at the highest recorded level since 1969. A gradual trend of lower water levels since this peak in 2001 have contributed significantly to lower angler use and fish production. An estimated 5,817 angler trips were made to Box Butte Reservoir in 2008. This is slightly lower than the 6,120 angler trips from the 2007 creel survey. Anglers have spent an estimated 29,811 hours fishing in 2008, with the average trip lasting just under 5 hours. Six percent of Box Butte anglers either sought walleye or northern pike on their fishing trips while 4% sought largemouth bass, 2% sought bluegill, and 79% fished for any species available. Anglers from 26 counties fished Box Butte in 2008 with the local counties of Box Butte (48%) and Scotts Bluff (12%) making up the majority of fisherman. Non-residents from six states visited the lake in 2008 and accounted for almost 10.3% of the total anglers with the majority of those fisherman from Colorado.



Northern Pike

The 2008 total catch for northern pike was the lowest level of any creel period. Eighty percent of the estimated 10,794 pike caught in 2008 were released. In comparison, in the survey period of 2001-2007, an average of 86% of the pike were released. The average length of pike harvested was 19.4 inches compared to the previous average from 2001-2007 of 20.9 inches. The catch rate for anglers seeking northern pike was 0.69 fish per hour and took home an average of 0.37 fish per hour. This was an increase from the 2007 survey.

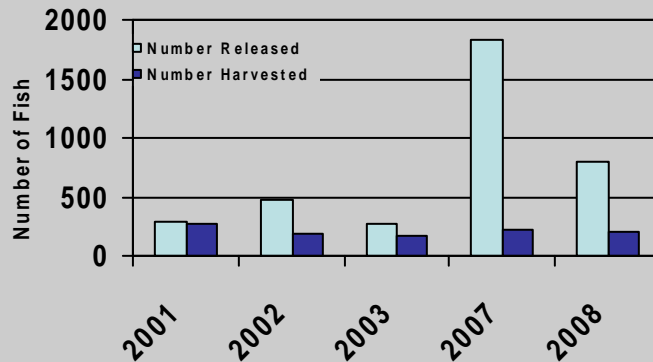
Northern Pike Caught Per Year



Walleye

The walleye catch during 2008 was about half of the record high catch in 2007. Despite lower total catch, walleye fisherman harvested about the same number of fish (208) as in 2007. The average harvested walleye was about 17.7 inches in length and weighed 2.4 pounds. The catch rate for anglers seeking walleye dropped in 2008 from 0.46 fish per hour to 0.07, and the harvest rate stayed low at 0.03 fish per hour which was comparable to 2001-2007 survey estimates.

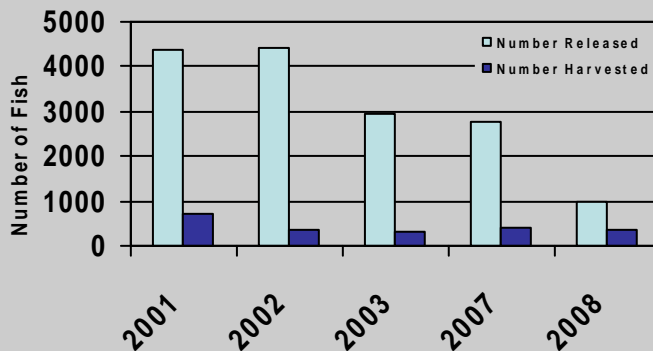
Walleye Caught Per Year



Largemouth Bass

Largemouth bass fisherman continue to see a decline in catch rates at Box Butte Reservoir. A total of 1,341 bass were caught with 74% of those fish released and 350 bass harvested. Previous creel survey showed an average release rate of 89%. The average length of bass harvested was about 16.4 inches. Catch rates for fisherman targeting bass also fell to 0.14 fish per hour in 2008.

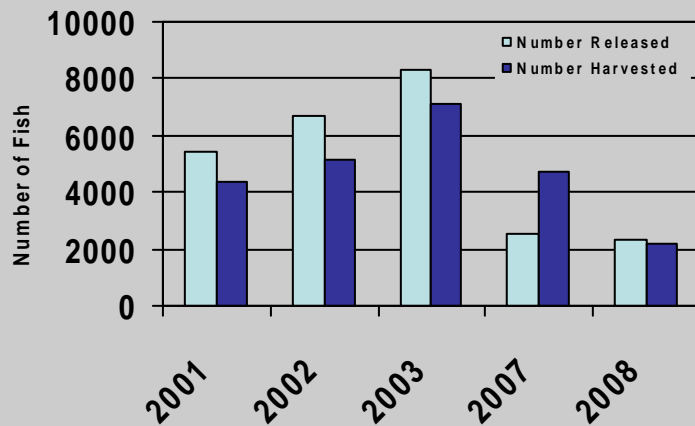
Largemouth Bass Caught Per Year



Bluegill

The high number of bluegill produced during the high water years of 2000-2001 continue to contribute to the fishery in 2008 by producing good sized bluegill. Overall numbers of bluegill are down from previous years but the average length of harvested bluegill was much greater at 8.5 inches compared to a 7.6 inch average in the earlier creel survey periods. The total estimated number of bluegill caught in 2008 was 4,532 fish. Catch rates for anglers seeking bluegill was 0.36 fish per hour and harvest rates were 0.22 fish per hour.

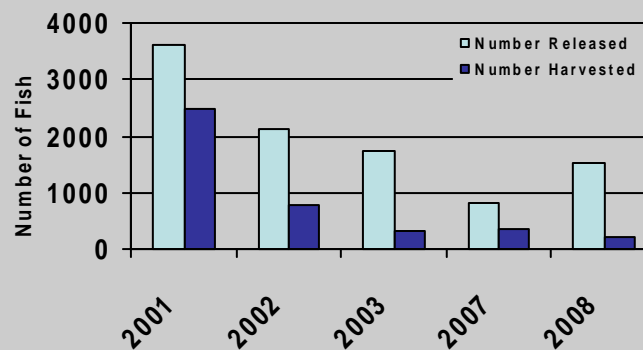
Bluegill Caught Per Year



Yellow Perch

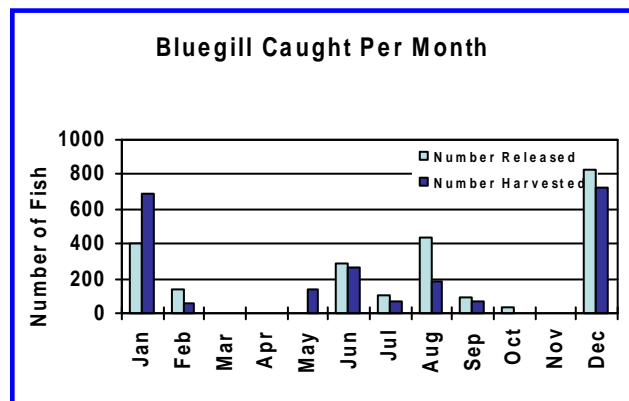
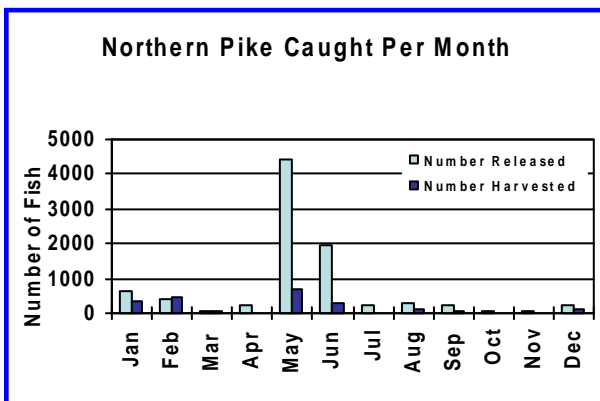
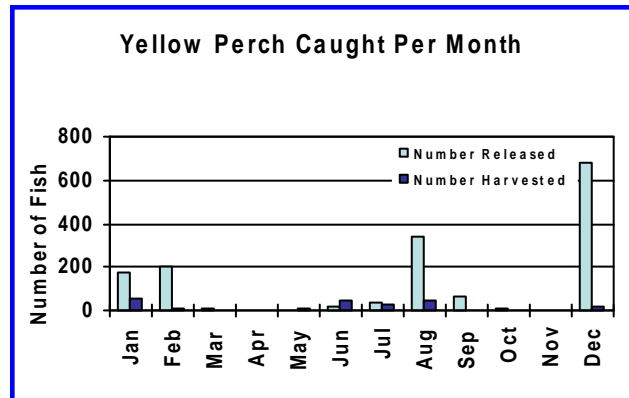
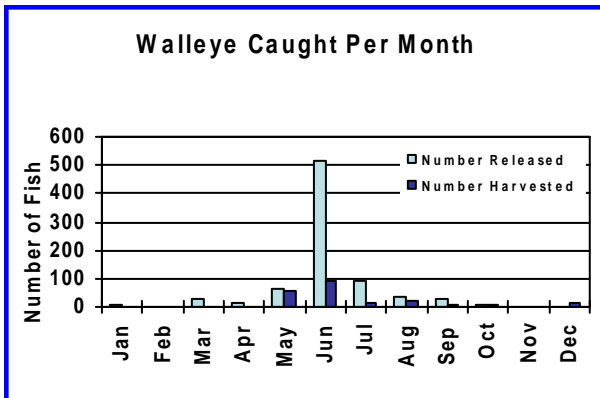
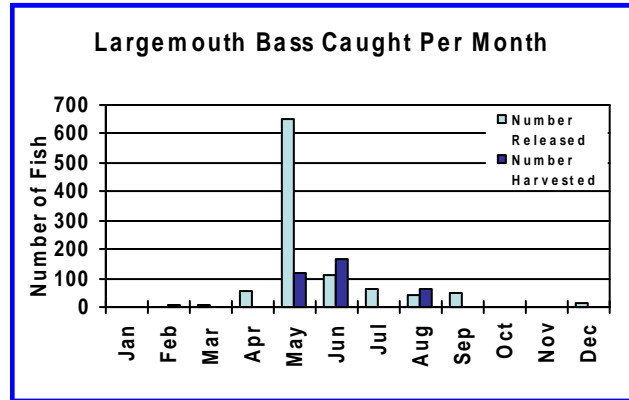
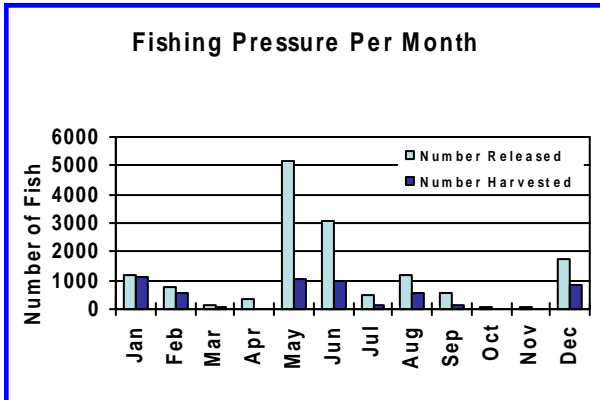
The yellow perch numbers showed an upward trend in 2008 with an estimated 1,754 fish caught at Box Butte. The average length of perch harvested was about 8.6 inches. Yellow perch numbers have responded poorly to declining water levels since the peak water year observed in 2001. Catch rates were not calculated for yellow perch because there were not enough anglers seeking perch during the survey period.

Yellow Perch Caught Per Year



Monthly Estimates

The following graphs show monthly estimates of fishing pressure and angler catch by species at Box Butte Reservoir in 2008. Fishing pressure peaked during the late spring and summer months of May and June and slowly tapered off into fall. Ice anglers were able to fish at Box Butte during the winter months of December through February and this was reflected in the panfish catch estimates for species such as bluegill and yellow perch shown below. Walleye and northern pike anglers had peak catch rates in May and June, but a substantial amount of pike harvest came from pre-spawn ice fishing in January and February. Fishing for warm water species like largemouth bass warms up with the water temperature in May and June and then slowly tapers off into fall.



For additional information about fisheries management in the panhandle, please contact the NGPC Alliance office at 308-763-2940 or by email at the addresses listed below.

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