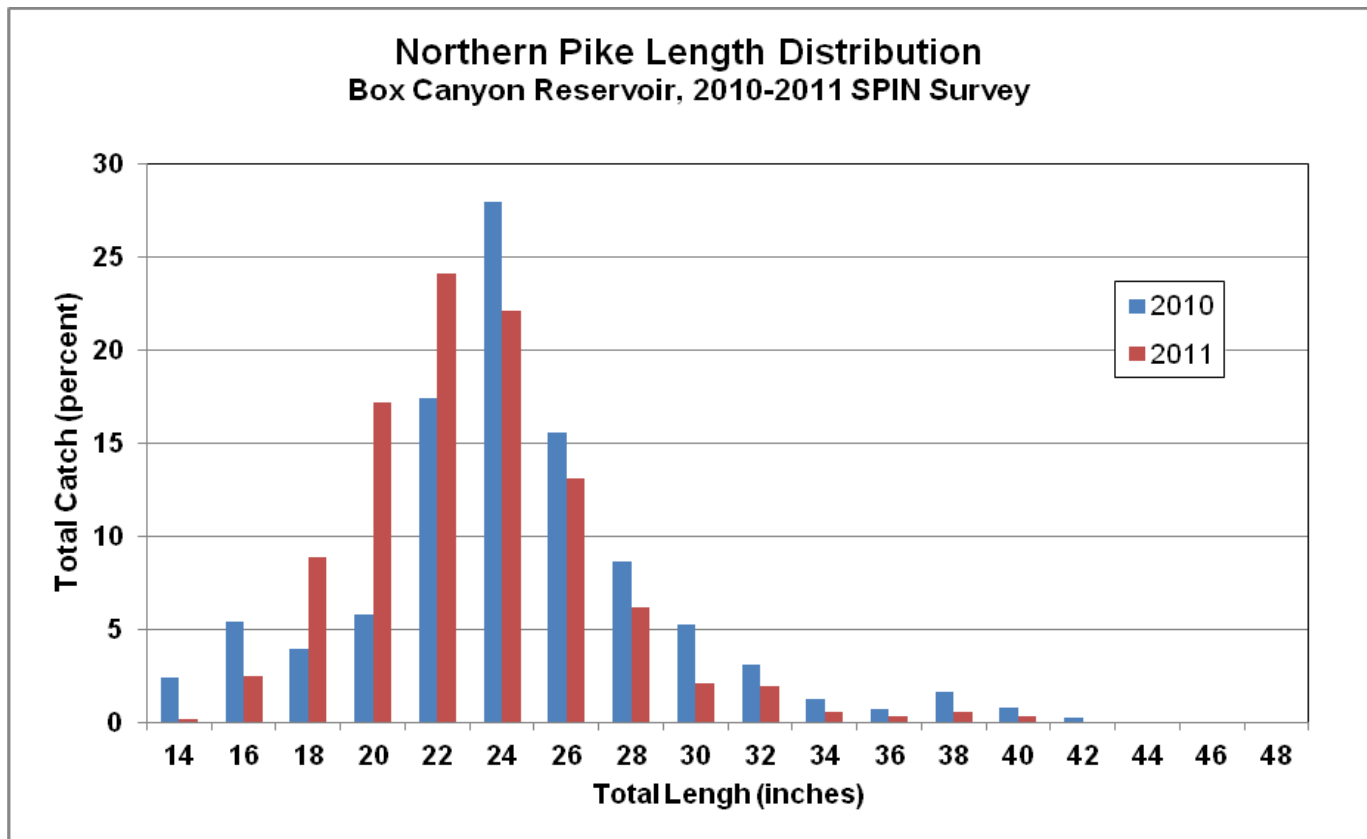


SPIN Summary (2010-2011)

The Spring Pike Index Netting (SPIN) survey is a gill-net survey conducted on an annual basis to monitor the northern pike population in Box Canyon Reservoir. Gillnetting is the standard method used to sample northern pike throughout their range, both native and non-native, across the country. Nets used in the SPIN survey are specifically designed to capture northern pike that are 14 inches and larger. This survey provides biologists with an accurate representation of size structure, condition, sex ratio, and relative abundance of northern pike in the reservoir. Because the nets are designed specifically to catch northern pike, this survey results in relatively little bycatch (other species of fish captured in the gill nets).

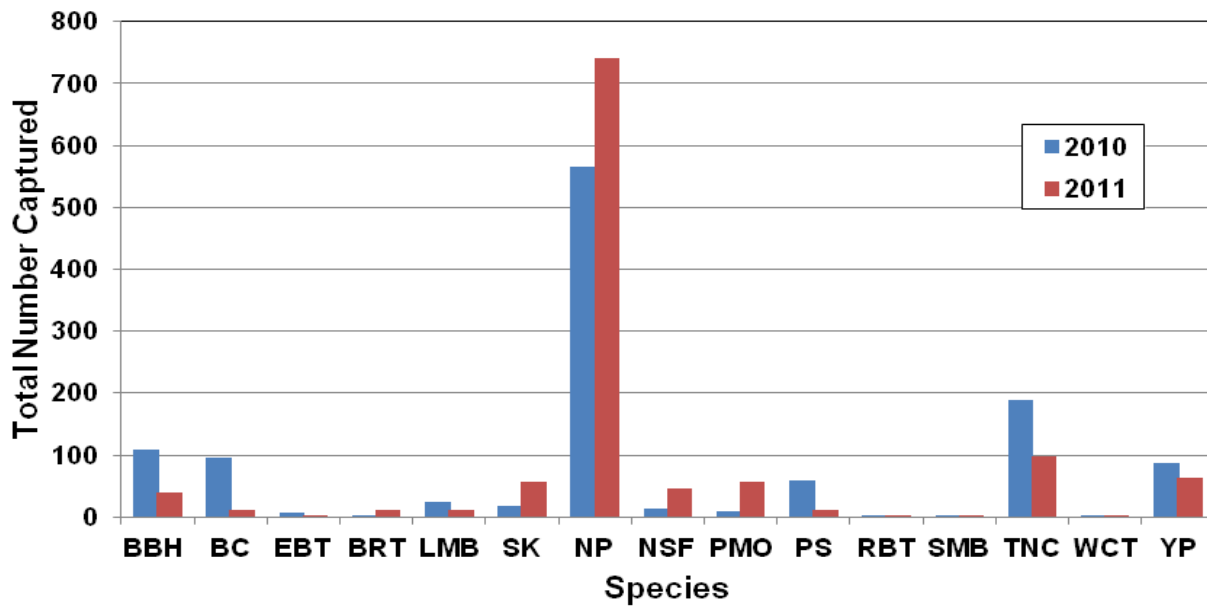
The first year for the SPIN survey was 2010. Sampling was conducted May 3rd-7th. WDFW and KNRD set a total of 60 gill nets in the southern half of Box Canyon Reservoir (south of Riverbend), capturing 755 northern pike. The average catch rate for northern pike was 12 fish per net. Twelve additional nets were set north of Riverbend, averaging 3 northern pike per net. The average size of northern pike in 2010 was 25 inches, and 89% of those captured were less than 30 inches in length.

In 2011, the SPIN survey was expanded to the entire reservoir. Sampling was conducted April 25th-29th. Sixty gill nets were deployed throughout Box Canyon Reservoir (Pioneer Park to Box Canyon Dam), capturing 566 northern pike. Overall, gill-net catch averaged 9.4 northern pike per net. However, the catch rate per net was negatively influenced by the equal proportion of nets set north of Riverbend (northern pike density is lower in the northern half of the reservoir). The average gill-net catch south of Riverbend was 13.2 northern pike per net, an increase of 1.2 per net over the catch rate for that area in 2010. The average size of northern pike in 2011 was 24 inches, and 94% of those captured were less than 30 inches in length.



Northern pike length distribution from both the 2010 and 2011 Box Canyon Reservoir “Spring Pike Index Netting” surveys. The X-axis (horizontal) shows the total length of captured northern pike in two-inch categories. The Y-axis (vertical) shows the numbers in each size category that were captured, as a percent of the total catch. The graph shows a shift to smaller fish from 2010 to 2011 (there are fewer large fish and more small fish).

Bycatch Species Captured by Number Box Canyon Reservoir, 2010-2011 SPIN Survey



Total number of each species captured during the 2010 and 2011 Box Canyon Reservoir “Spring Pike Index Netting” surveys. The X-axis (horizontal) shows each species that was captured during the surveys. The Y-axis (vertical) shows the total number of each species captured during the surveys. BBH = brown bullhead, BC = black crappie, EBT = eastern brook trout, BRT = brown trout, LMB = largemouth bass, SK = largescale/long-nose suckers, NP = northern pike, NSF = northern pikeminnow, PMO = peamouth, PS = pumpkinseed sunfish, RBT = rainbow trout, SMB = smallmouth bass, TNC = tench, WCT = westslope cutthroat, YP = yellow perch. This graph illustrates the relatively small amount of bycatch (species other than pike) due to the specific design of the SPIN nets.