

SOUTH DAKOTA STATEWIDE FISHERIES SURVEY

2102-F-21-R-45

Name: Williams Dam **County(ies):** Stanley
Legal Description: T109N-R77W-Sec. 30 & 31 **GPS:** 44°12'37.57"N 100°07'51.72"W
Location from nearest town: 10 miles S and 11 miles E of Fort Pierre

Date of present survey: July 9-10, 2012 (netting)

Date of last survey: None known

Most recent lake management plan: None done

Management classification: Unknown

Primary Game Species	Secondary and Other Species
Largemouth Bass	
Bluegill	

PHYSICAL DATA

Williams Dam is located in Stanley County, South Dakota. The surrounding land and the dam grade are owned and managed by the United States Department of Agriculture, Forest Service and is part of the Fort Pierre National Grasslands. Williams Dam was about 2-3 feet low at the time of the survey with a maximum depth of 8 feet in 2012. The dam grade was also repaired in 2009.

Williams Dam was fairly void yet of aquatic vegetation after several years of being dry. There was a little emergent vegetation that consisted of sedges and rushes and was found mainly in the creek arms. Submergent vegetation was found mainly in the creek arms and consisted of a few species. Fishing access is very limited to boat access to a canoe or small duck boat that can be loaded and unloaded by hand. Good ice fishing opportunities do exist. No contour map or depth contour has ever been done.

CHEMICAL DATA

No pollution problems were evident at the time of the survey. Water clarity was poor with a secchi disc reading of 1.5 feet. Other water quality characteristics were measured in the field on July 9, 2012, using a HACH water quality kit and a Hanna multiparameter meter. Results are found in Table 1.

Table 1. Water chemistry results from Williams Dam, Stanley County, July 9, 2012.

Station	Depth (ft)	Temp (F)	DO (ppm)	CO2 (ppm)	ALK (mg/L)	HRD (mg/L)	pH	Cond. (µS/cm)	TDS (ppm)	Sal.	ORP	Secchi (ft)
A	Surface	79.2	9.57	27.4	139	144	8.51	413	207	0.20	117.5	1.5
A	8	76.8	1.75	22.6	153	134	7.76	425	213	0.20	111.3	

BIOLOGICAL DATA

Methods:

Williams Dam was sampled on July 9-10, 2012, with four overnight trap net sets. The trap nets have 3ft x 5ft frames, 60ft leads, and ¾ inch knotted mesh. No experimental gill nets or electrofishing was done during this survey. Fish indices and statistics were completed using Winfin.

Results and Discussion:

Trap Net Catch

Table 2. Total catch of four, overnight ¾-inch frame nets at Williams Dam, Stanley County, July 9-10, 2012.

Species	#	%	CPUE	80% C.I.	Mean CPUE*	PSD	RSD-P	Mean Wr
Bluegill	360	96.5	90.0	± 34.6	0.0	12	0	97
Largemouth Bass	13	3.5	3.3	± 1.0	0.0	18	9	106

* First time survey

Bluegill

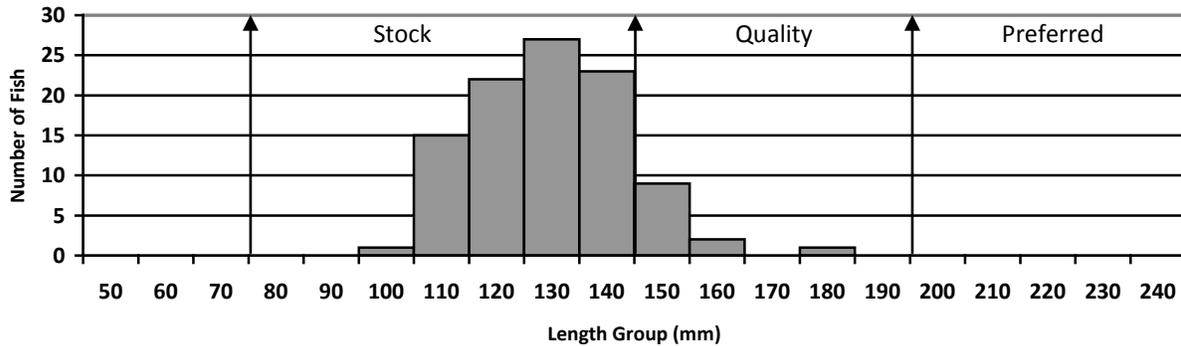
Williams Dam contains a high density bluegill population. The CPUE of 90.0 fish per net night is fairly high. No comparison data is available as this is the first recorded survey. Condition is good with a mean Wr of 97 (Table 2). Growth is slow with means slightly below statewide, regional and SLI means (Table 3). Figure 1 illustrates the length frequency histogram for the fish sampled this survey. Size structure is on the small side, which is to be expected with the population just getting restocked a couple years prior to the survey after the dam was repaired.

Table 3. Average back-calculated lengths (mm) for each age class of bluegill sampled from Williams Dam, Stanley County, 2012.

Year Class	Age	N	Back-calculated Age			
			1	2	3	4
2009	3	95	43	97	128	
2008	4	5	51	79	125	153
All Classes		100	47	88	126	153
Statewide Mean			55	103	141	166
Region II Mean			52	97	134	164
SLI* Mean			53	101	138	163

* Small Lakes and Impoundments

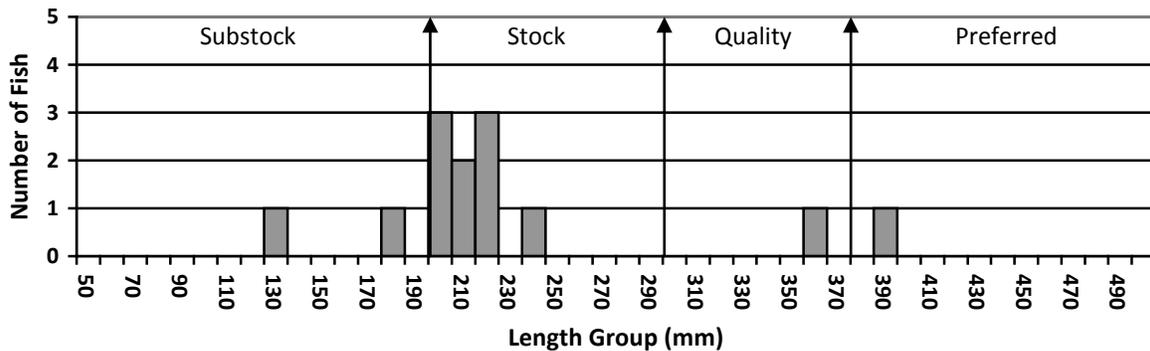
Figure 1. Length frequency histogram for bluegill sampled from Williams Dam, Stanley County, 2012.



Largemouth Bass

Williams Dam contains a largemouth bass population that may be higher than anticipated. The trap net CPUE of 3.3 fish per net night is fairly high for largemouth bass. This is high as usually largemouth bass do not trap net very well at all. The numbers are still too low to make any inferences about the population. Figure 2 illustrates the length frequency histogram for the fish that were sampled. Condition is good with a mean W_r of 106.

Figure 2. Length frequency histogram for largemouth bass sampled from Williams Dam, Stanley County, 2012.



RECOMMENDATIONS

1. Resurvey, when time allows, to further monitor the fish populations and to continually collect trend data on the pond.
2. Attempt to electrofish to see what type of largemouth bass population exists.
3. Make any stockings or transfers out if needed to help the fish populations.