

SOUTH DAKOTA STATEWIDE FISHERIES SURVEY

2102-F-21-R-47

Name: Grass Creek Dam

County(ies): Stanley

Legal Description: T109N-R79W-Sec. 24

GPS: 44.22811°N 100.28486°W

Location from nearest town: 9 miles S and 2.5 miles E of Ft. Pierre

Date of present survey: June 24-25, 2014 (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	Yellow Perch
Bluegill	Black Bullhead

PHYSICAL DATA

Grass Creek Dam is located in Stanley County, South Dakota. The surrounding land and dam grade are owned and managed by the United States Department of Agriculture, Forest Service and is part of the Fort Pierre National Grasslands. Grass Creek Dam is a 4.2 acre pond that had a maximum depth of 6.5 feet at the time of the survey.

The main submergent vegetation was sago pondweed and largeleaf pondweed. The main emergent vegetation found was cattails. There is very limited boat access and would be limited 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 fair with a secchi disc reading of only 1.5 feet. A temperature and dissolved oxygen profile was the only other water quality measurements done this survey and the results are found in Table 1.

Table 1. Water chemistry results from Grass Creek Dam, Stanley County, June 24, 2014.

Station	Depth (ft)	Temp (F)	DO (ppm)
A	0	73.6	7.2
A	2	73.0	7.2
A	4	72.3	4.9
A	6	71.4	0.2

BIOLOGICAL DATA

Methods:

Grass Creek Dam was sampled on June 24-25, 2014, with three overnight trap net sets. The trap nets have 3ft x 5ft frames, 60ft leads, and 3/4 inch knotted mesh. No experimental gill nets or electrofishing was done this survey season. Fish indices and statistics were completed using Winfin.

Results and Discussion:

Table 2. Total catch of 3, overnight 3/4-inch frame nets at Grass Creek Dam, Stanley County, June 24-25, 2014.

Species	#	%	CPUE	80% C.I.	Mean CPUE*	PSD	RSD-P	Mean Wr
Bluegill	103	85.8	34.3	± 11.7	0.0	96	0	--
Largemouth Bass	7	7.5	2.3	± 1.7	0.0	44	33	--
Black Bullhead	4	4.2	1.3	± 1.3	0.0	--	--	--
Yellow Perch	3	2.5	1.0	± 1.1	0.0	--	--	--

*First year survey

The survey on Grass Creek Dam was an inventory survey to see what was actually in the dam. After setting three nets for one night, a number of fish from four species were sampled. Table 2 shows the numbers from those three net sets. The largest numbers were from the bluegills. They actually were of a decent size that anglers would be interested in catching. Figure 1 illustrates the length frequency histogram for the bluegill sampled this survey. Growth rates are good with means right around statewide, regional and SLI means (Table 3).

There were seven largemouth bass, four black bullhead and three yellow perch sampled. None of these had enough to make any inferences about their populations. An electrofishing survey would be very useful to shed better light on a potentially good bass population.

Figure 1. Length frequency histogram for bluegill sampled from Grass Creek Dam, Stanley County, 2014.

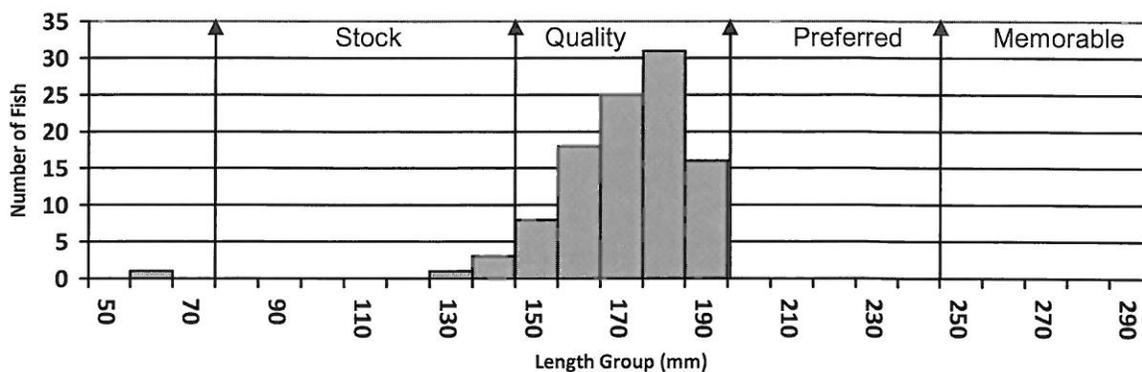


Table 3. Average back-calculated lengths (mm) for each age class of bluegill sampled from Grass Creek Dam, Stanley County, 2014.

Year Class	Age	N	Back-calculated Age					
			1	2	3	4	5	6
2011	3	4	40	82	130			
2010	4	13	45	81	117	142		
2009	5	61	48	85	127	153	170	
2008	6	24	51	101	134	162	174	183
All Classes		102	46	87	127	153	172	183
Statewide Mean			55	103	141	166	180	
Region II Mean			52	97	134	164	180	
SLI* Mean			53	101	138	163	180	

*Small Lakes and Impoundments

RECOMMENDATIONS

1. Resurvey, when time allows to further monitor the existing fish populations to start to get trend data.
2. Attempt to electrofish to see what type of largemouth bass population exists.
3. Stock largemouth bass to supplement the existing population if it is determined necessary to improve the numbers.