

SOUTH DAKOTA STATEWIDE FISHERIES SURVEY

2102-F-21-R-46

Name: Dry Hole #3 **County(ies):** Lyman
Legal Description: T107N-R79W-Sec. 32 **GPS:** 44°01'23.2"N 100°19'38.2"W
Location from nearest town: 22.5 miles S and 0.5 miles W of Ft. Pierre

Date of present survey: June 11-12, 2013 (netting)

Date of last survey: None known

Most recent lake management plan: None done

Management classification: Unknown

Primary Game Species	Secondary and Other Species
Bluegill	Northern Pike
Largemouth Bass	

PHYSICAL DATA

Dry Hole #3 Dam is located in Lyman 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. Dry Hole #3 Dam is a 3.2 acre pond that had a maximum depth at the time of the survey of about 8 feet. Water level was full.

Submergent vegetation was marginal with the main species being coontail. No emergent vegetation was present. 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

Field observations of water quality and pollution problems:

No pollution problems were evident at the time of the survey. Water clarity was poor with a secchi disc reading of 16 inches. A temperature and dissolved oxygen profile was the only other water quality measurements done this survey and the results can be found in Table 1.

Table 1. Water chemistry results from Dry Hole #3, Lyman County, June 12, 2013.

Station	Depth (ft)	Temp (F)	DO (ppm)
A	0	69.8	7.0
A	2	69.8	6.9
A	4	69.8	6.7
A	6	69.6	6.4
A	8	69.6	6.8

BIOLOGICAL DATA

Methods:

Dry Hole #3 Dam was sampled on June 11-12, 2013, with two 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 season. Fish indices and statistics were completed using Winfin.

Results and Discussion:

Trap Net Catch

Table 2. Total catch of two, overnight ¾-inch frame nets at Dry Hole #3 Dam, Lyman County, June 11-12, 2013.

Species	#	%	CPUE	80% C.I.	Mean CPUE*	PSD	RSD-P	Mean Wr
Bluegill	157	95.2	78.5	± 82.2	0.0	46	6	94
Largemouth Bass	6	3.6	3.0	± 3.1	0.0	--	--	99
Northern Pike	2	1.2	1.0	± 0.0	0.0	--	--	85

*First year sampled

Bluegill

Bluegills are by far the dominant species sampled in Dry Hole #3. The CPUE of 78.5 fish per net night is pretty high. Figure 1 illustrates the length frequency histogram for the fish sampled this survey and a pretty good range of sizes does exist. Growth is slow with means below statewide, regional and SLI means (Table 3). Several year classes are represented in the population indicating that the fish have been in the dam for several years. Condition is good with a mean Wr of 94. A little bump in the predators to thin a few bluegills down and the dam could contain a quality population that would be targeted by anglers.

Figure 1. Length frequency histogram for bluegill sampled from Dry Hole #3, Lyman County, 2013.

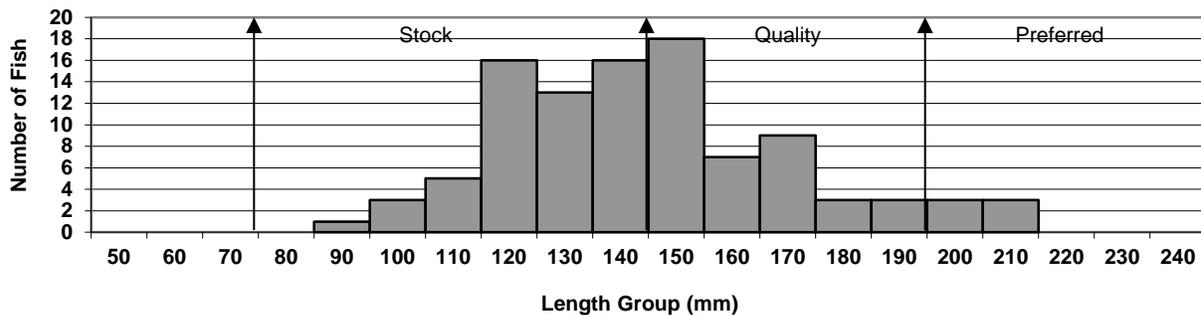


Table 3. Average back-calculated lengths (mm) for each age class of bluegill sampled from Dry Hole #3 Dam, Lyman County, 2013.

Year Class	Age	N	Back-calculated Age								
			1	2	3	4	5	6	7	8	9
2010	3	14	54	87	120						
2009	4	32	48	77	102	135					
2008	5	30	44	70	99	122	145				
2007	6	11	47	76	109	139	158	172			
2006	7	6	44	73	104	128	156	167	177		
2005	8	4	45	79	114	146	167	179	189	196	
2004	9	2	44	73	115	134	148	169	184	194	203
All Classes		99	47	76	109	134	155	172	183	195	203
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

Other species

Largemouth bass and northern pike were the only other species sampled this inventory survey. Six largemouth bass were sampled for a CPUE of 3.0. This does not seem high, but it actually is fairly good as bass generally do not sample in trap nets unless there is a decent population. Electrofishing would help to get a better handle on this population. As for the northern pike, with only two fish sampled, it is hard to make any inferences about the populations other than some do exist. They will make a nice secondary predator to help control the panfish population.

RECOMMENDATIONS

1. Resurvey, when time allows, to further monitor the fish populations present.
2. Attempt to electrofish to see what type of largemouth bass population exists.
3. Make any stockings of either a panfish or largemouth bass to help out the populations if necessary.