SOUTH DAKOTA STATEWIDE FISHERIES SURVEY

2102-F-21-R-48

Name: Dog Ear Lake **County(ies):** Tripp
Legal Description: T96N-R77W-Sec. 1, T96N-R76W-Sec. 6, T97N-R77W-Sec. 31 & 36
GPS: 43°10'13.54"N 99°54'19.16"W
Location from nearest town: 13 miles S and 2 miles W of Winner

Date of present survey: June 15-17, 2015 (netting)
Date of last survey: June 14-16, 1999 (netting)
Most recent lake management plan: F-21-R-39 (January 1, 2007 to December 31, 2011)
Management classification: Warmwater marginal

Primary Game Species	Secondary and Other Species
Yellow Perch	Black Bullhead
Bluegill	Green Sunfish
	Northern Pike

PHYSICAL DATA

Surface Area: 254 acres **Watershed:** 14,080 acres
Maximum Depth: 8 ft **Mean Depth:** 4.5 ft
Lake elevation at time of survey (field observations): 1 ft low
Contour map: No **Date:** NA

Ownership of lake and adjacent lakeshore properties:

Dog Ear Lake is a 254-acre natural body of water located 13 miles south and 2 miles west of Winner in southern Tripp County. Dog Ear is the only natural lake in Tripp County. The southern half of Section 36, Township 97, Range 77 is owned by the South Dakota Department of Game, Fish and Parks. The remainder of the land adjacent to the shoreline is privately owned. Dog Ear Lake is classified as a meandered body of water, so the lake bed has no ownership and is held in trust to the State of South Dakota.

Watershed condition with percentages of land use types:

The watershed of Dog Ear is approximately 14,080 acres or 22 square miles that is almost entirely privately owned agriculture and grass land. Land use in the watershed is 70% native grasses utilized as pasture and hay land, 15% cultivated agricultural land, 10% scattered hardwoods, and 5% roads, farmsteads, and tree belts.

Fishing access:

A concrete boat ramp is located at the lake but is only usable during high-water conditions. The lake is also hard to fish in the summer months due to extreme amounts of submergent vegetation growth. Good ice fishing opportunities exist.

Condition of all structures (i.e. spillway, boat ramps, level regulators, etc.):

A boat ramp is the only structure located at Dog Ear Lake and is only usable during high-water conditions. No other structures are found at the lake.

Field observations of aquatic vegetation condition:

A dense mat of submergent vegetation is found throughout the entire lake and is comprised of mainly common milfoil, sago pondweed and a few other pondweed species. Emergent vegetation consists of cattails and rushes and is found around most of the shoreline.

CHEMICAL DATA

Field observations of water quality and pollution problems:

No pollution problems were evident at the time of the survey. Water clarity was good with a secchi disc reading of 4.5 feet. Other water quality characteristics were measured in the field on June 15, 2015, using a HACH water quality kit and a Hanna multiparameter meter. Results are found in Table 1.

Presence of a thermocline and depth from surface: No
Station for water chemistry located on attached map: No

Table 1. Water chemistry results from Dog Ear Lake, Tripp County, June 15, 2015.

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	76.1	9.52	0.0	302	598	10.8	546	273	0.26	-8.3	4.5
A	5.0	[illegible]	3.72	26.4	302	204	9.5	544	272	0.26	-3.9	

BIOLOGICAL DATA

Methods:

Dog Ear Lake was sampled on June 15-17, 2015, with ten 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 ten, overnight ¾-inch frame nets at Dog Ear Lake, Tripp County, June 15-17, 2015.

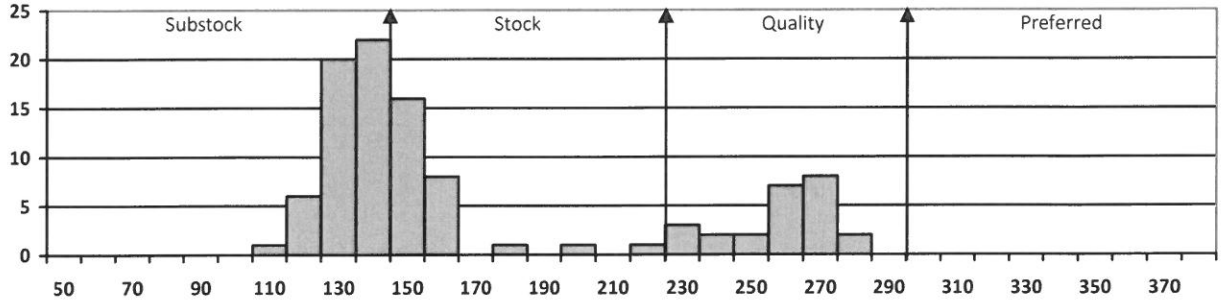
Species	#	%	CPUE	80% C.I.	Mean CPUE*	PSD	RSD-P	Mean Wr
Black Bullhead	188	54.0	18.8	± 8.9	9.9	47	0	83
Yellow Perch	114	32.8	11.4	± 7.3	0.5	37	26	95
Bluegill	35	10.1	3.5	± 3.1	42.9	29	3	121
Northern Pike	6	1.7	0.6	± 0.5	0.5	--	--	88
Green Sunfish	5	1.4	0.5	± 0.6	8.5	--	--	148

* One year mean (1999)

Black Bullhead

Black bullheads were the dominant species sampled this survey in Dog Ear Lake. The CPUE was 18.8 fish per net night, which is a fairly low density population for bullhead standards. Figure 1 illustrates the length frequency histogram for the fish sampled this survey. The population appears to be dominated by two age groups of fish. Condition is fine with a mean Wr of 83.

Figure 1. Length frequency histogram for black bullhead sampled from Dog Ear Lake, Tripp County, 2015.



Yellow Perch

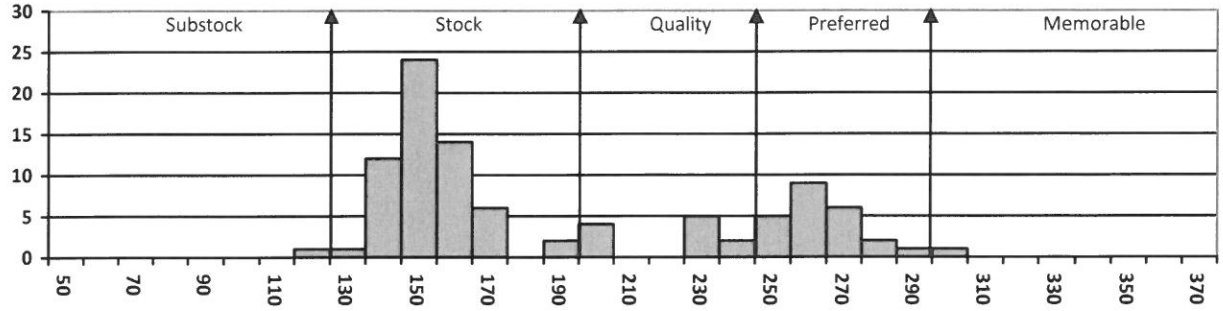
The yellow perch population in Dog Ear Lake is what sparked the need for a fish survey to take place again after a 15 year break. The CPUE was 11.4 fish per net night, which is up from the 1999 survey of 0.5 (Table 2). Figure 2 illustrates the length frequency histogram for the fish sampled this survey. The population is comprised of various sizes with fish reaching up to almost 12 inches. This size structure is what has been drawing ice anglers to the lake the last couple years. Growth is good with means right on with statewide, regional and SLI means (Table 3). Condition is good with a mean Wr of 95.

Table 3. Average back0-calculated lengths (mm) for each age class of yellow perch sampled from Dog Ear Lake, Tripp County, 2015.

			Back-calculated Age						
Year Class	Age	N	1	2	3	4	5	6	7
2013	2	56	82	139					
2012	3	6	73	142	181				
2011	4	6	82	143	196	221			
2010	5	1	66	126	187	223	227		
2009	6	23	80	140	188	223	250	262	
2008	7	3	71	132	182	212	240	262	275
All Classes		**95**	**75**	**137**	**187**	**220**	**239**	**262**	**275**
Statewide Mean			86	145	190	220	242		
Region II Mean			91	152	196	219	242		
SLI* Mean			87	142	185	205	219		

*Small Lakes and Impoundments

Figure 2. Length frequency histogram for yellow perch sampled from Dog Ear Lake, Tripp County, 2015.



Bluegill

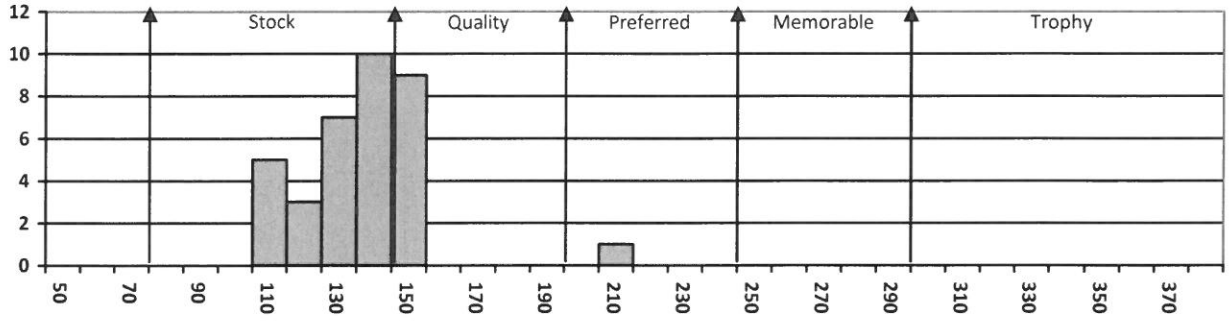
Dog Ear Lake also contains a fair bluegill population. The CPUE was only 3.5 fish per net night, but the population is dominated by one year class of young fish. There must be a few adults in the lake to produce a decent year class like this. Figure 3 illustrates the length frequency histogram for the fish sampled this survey. Growth appears to be good, albeit a small sample size, with means right on too slightly above statewide, regional, and SLI means (Table 4). Condition is good with a mean Wr of 121.

Table 4. Average back-calculated lengths (mm) for each age class of bluegill sampled from Dog Ear Lake, Tripp County, 2015.

			Back-calculated Age				
Year Class	Age	N	1	2	3	4	5
2013	2	34	51	121			
2010	5	1	53	130	164	187	205
All Classes		**35**	**52**	**125**	**164**	**187**	**205**
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

Figure 3. Length frequency histogram for bluegill sampled from Dog Ear Lake, Tripp County, 2015.



Other species

Northern pike and green sunfish were the only other species sampled this survey. Only 6 pike and 5 sunfish were sampled, so no inferences about their populations can be made at this time.

RECOMMENDATIONS

1. Resurvey again in 2018 to continue to monitor the fishery that has developed in Dog Ear Lake.