

Creel and Lake Information

Lake Information

Lake Name: Buffalo South
Lake Code: UJA-Lake-917-000
Surface Area: 854.65 Hectares
County: Marshall
Start Date: 1/15/2017
End Date: 3/24/2017
Months Included: January, February, March

Table 1. Percent of angling parties interviewed primarily targeting a species (or any species) by month and overall for Buffalo South during 2016 - 2017. Any Species (ANY), Black Bullhead (BLB), Black Crappie (BLC), Bluegill (BLG), Largemouth Bass (LMB), Northern Pike (NOP), Smallmouth Bass (SMB), Walleye (WAE), Yellow Perch (YEP).

Year	Month	# of Interviews	Percent of Anglers Targeting								
			ANY	BLB	BLC	BLG	LMB	NOP	SMB	WAE	YEP
2017	January	26	19.2	0.0	0.0	23.1	0.0	11.5	0.0	34.6	11.5
	February	29	31.0	0.0	0.0	41.4	0.0	6.9	0.0	13.8	6.9
	March	9	33.3	0.0	0.0	0.0	0.0	44.4	0.0	22.2	0.0
	Overall	64	26.6	0.0	0.0	28.1	0.0	14.1	0.0	23.4	7.8

Table 2. Monthly and overall number of interviews, angler hours, angler days, mean trip length, mean party size, percent of parties interviewed that were South Dakota residents, percent of angling activity from a boat or shack and percent of angling activity that occurred on weekends and holidays at Buffalo South (80% confidence interval).

Year	Month	# Interviews	Angler Hours	Angler Days	Trip Length (h)	Party Size	% SD Residents	% Boat or Shack	% Weekend/Holidays
2016-2017	January	26	0		3.88 (0.27)	1.97 (0.17)	77	54	92
	February	29	5,920 (2,184)	1,143	5.18	1.96 (1.00)	48	41	66
	March	9	7,074 (1,333)	2,876	2.46	1.72	67	0	89
	Overall	64	15,315 (2,660)	3,612	4.24 (0.06)	1.89 (0.35)	63	41	80

Table 3. Estimated fishing pressure (angler hours) by month during the summer season 2017 daylight period on Buffalo South (80% confidence interval).

Lake	Month
	Total
South Buffalo	0

Table 4. Estimated number of fish harvested, by species and month, for the summer season 2017 daylight period on Buffalo South (80% confidence interval).

Species	Month
	Total
Black Bullhead	0
Black Crappie	0
Bluegill	0
Largemouth Bass	0
Northern Pike	0
Smallmouth Bass	0
Walleye	0
Yellow Perch	0
Total	0

Table 5a. Estimated monthly and overall angler catch rate per hour fished (C/h) for all anglers by species at Buffalo South (80% confidence interval). Abbreviations for species are as follows: Black Bullhead (BLB), Black Crappie (BLC), Bluegill (BLG), Largemouth Bass (LMB), Northern Pike (NOP), Smallmouth Bass (SMB), Walleye (WAE), Yellow Perch (YEP) and other species (Other).

Year	Month	BLB	BLC	BLG	LMB	NOP	SMB	WAE	YEP
		C/h	C/h	C/h	C/h	C/h	C/h	C/h	C/h
2016- 2017	January	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	February	0.01	0.04	0.30	0.01	0.06	<0.01	0.03	0.69
	March	0.07	0.00	<0.01	0.01	0.06	0.00	0.01	0.07
	Overall	0.04	0.02	0.12	<0.01	0.05	<0.01	0.02	0.30

Table 5b. Estimated monthly and overall angler harvest rate per hour fished (H/h) for all anglers by species at Buffalo South (80% confidence interval). Abbreviations for species are as follows: Black Bullhead (BLB), Black Crappie (BLC), Bluegill (BLG), Largemouth Bass (LMB), Northern Pike (NOP), Smallmouth Bass (SMB), Walleye (WAE), Yellow Perch (YEP) and other species (Other).

Year	Month	BLB	BLC	BLG	LMB	NOP	SMB	WAE	YEP
		H/h	H/h	H/h	H/h	H/h	H/h	H/h	H/h
2016- 2017	January	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	February	0.01	0.03	0.10	0.00	0.03	<0.01	0.01	0.02
	March	0.02	0.00	<0.01	0.01	0.06	0.00	0.01	0.01
	Overall	0.01	0.01	0.04	<0.01	0.04	<0.01	<0.01	0.01

Table 6a. Estimated monthly and overall angler catch rate per hour fished (C/h) only for anglers primarily targeting a species at Buffalo South. (80% confidence interval). Abbreviations for species are as follows: Black Bullhead (BLB), Black Crappie (BLC), Bluegill (BLG), Largemouth Bass (LMB), Northern Pike (NOP), Smallmouth Bass (SMB), Walleye (WAE), Yellow Perch (YEP) and Other Species (Other).

Year	Month	BLB	BLC	BLG	LMB	NOP	SMB	WAE	YEP
		C/h	C/h	C/h	C/h	C/h	C/h	C/h	C/h
2016- 2017	January	0.00	0.00	0.20 (0.14)	0.00	0.18 (0.49)	0.00	0.05(0.12)	0.37
	February	0.00	0.00	1.26 (0.51)	0.00	0.42	0.00	0.74	0.35
	March	0.00	0.00	0.00	0.00	0.13 (0.17)	0.00	0.00	0.00
	Overall	0.00	0.00	1.04 (0.41)	0.00	0.24 (0.11)	0.00	0.34(0.05)	0.36

Table 6b. Estimated monthly and overall angler harvest rate per hour fished (H/h) only for anglers primarily targeting a species at Buffalo South. (80% confidence interval). Abbreviations for species are as follows: Black Bullhead (BLB), Black Crappie (BLC), Bluegill (BLG), Largemouth Bass (LMB), Northern Pike (NOP), Smallmouth Bass (SMB), Walleye (WAE), Yellow Perch (YEP) and Other Species (Other).

Year	Month	BLB	BLC	BLG	LMB	NOP	SMB	WAE	YEP
		H/h	H/h	H/h	H/h	H/h	H/h	H/h	H/h
2016- 2017	January	0.00	0.00	0.15 (0.09)	0.00	0.18 (0.27)	0.00	0.00	0.00
	February	0.00	0.00	0.58 (0.23)	0.00	0.20	0.00	0.00	0.00
	March	0.00	0.00	0.00	0.00	0.12 (0.14)	0.00	0.00	0.00
	Overall	0.00	0.00	0.49 (0.18)	0.00	0.16 (0.08)	0.00	0.00	0.00

Table 7a. Estimated monthly and overall angler catch (C) for all anglers by species at Buffalo South (80% confidence interval). Abbreviations for species are as follows: Black Bullhead (BLB), Black Crappie (BLC), Bluegill (BLG), Largemouth Bass (LMB), Northern Pike (NOP), Smallmouth Bass (SMB), Walleye (WAE), Yellow Perch (YEP) and other species (Other).

Year	Month	BLB	BLC	BLG	LMB	NOP	SMB	WAE	YEP
		C	C	C	C	C	C	C	C
2016-2017	January	0	0	0	0	0	0	0	0
	February	82	234	1,760	34	338	10	199	4,077
	March	503	0	18	36	449	0	36	485
	Overall	585	234	1,778	70	787	10	235	4,562

Table 7b. Estimated monthly and overall angler harvest (H) for all anglers by species at Buffalo South (80% confidence interval). Abbreviations for species are as follows: Black Bullhead (BLB), Black Crappie (BLC), Bluegill (BLG), Largemouth Bass (LMB), Northern Pike (NOP), Smallmouth Bass (SMB), Walleye (WAE), Yellow Perch (YEP) and other species (Other).

Year	Month	BLB	BLC	BLG	LMB	NOP	SMB	WAE	YEP
		H	H	H	H	H	H	H	H
2016- 2017	January	0	0	0	0	0	0	0	0
	February	62	167	611	0	205	10	31	110
	March	126	0	18	36	413	0	36	36
	Overall	187	167	629	36	618	10	66	146

Table 8. Estimated number and rate (number per hour) of Black Bullhead (BLB), Black Crappie (BLC), Bluegill (BLG), Largemouth Bass (LMB), Northern Pike (NOP), Smallmouth Bass (SMB), Walleye (WAE), Yellow Perch (YEP) caught and harvested by anglers during the summer and winter fisheries on Buffalo South, (80% confidence interval).

Black Bullhead

Season	Year	Catch	Harvest	Catch Rate	Harvest Rate
Winter	2016-2017	585	187	0.04	0.01

Black Crappie

Season	Year	Catch	Harvest	Catch Rate	Harvest Rate
Winter	2016-2017	234	167	0.02	0.01

Bluegill

Season	Year	Catch	Harvest	Catch Rate	Harvest Rate
Winter	2016-2017	1,778	629	0.12	0.04

Largemouth Bass

Season	Year	Catch	Harvest	Catch Rate	Harvest Rate
Winter	2016-2017	70	36	<0.01	<0.01

Northern Pike

Season	Year	Catch	Harvest	Catch Rate	Harvest Rate
Winter	2016-2017	787	618	0.05	0.04

Smallmouth Bass

Season	Year	Catch	Harvest	Catch Rate	Harvest Rate
Winter	2016-2017	10	10	<0.01	<0.01

Walleye

Season	Year	Catch	Harvest	Catch Rate	Harvest Rate
Winter	2016-2017	235	66	0.02	<0.01

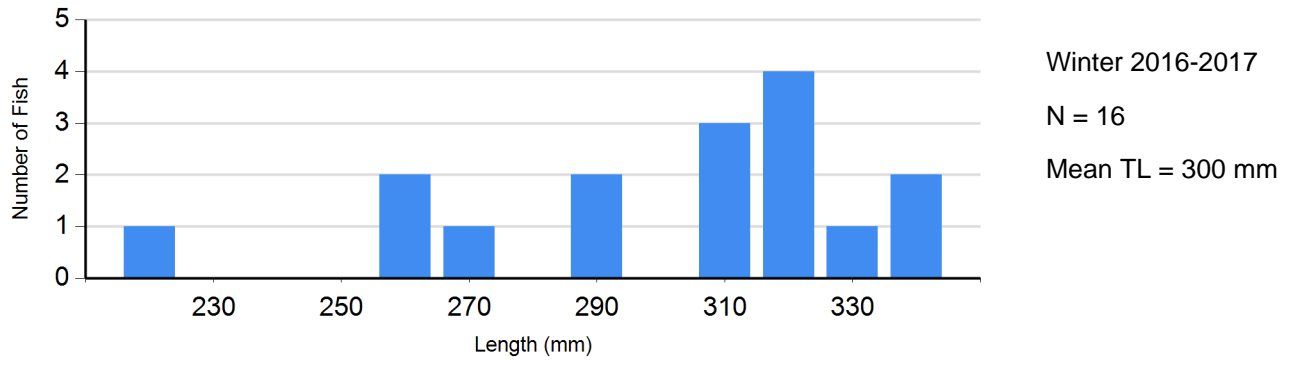
Yellow Perch

Season	Year	Catch	Harvest	Catch Rate	Harvest Rate
Winter	2016-2017	4,562	146	0.30	0.01

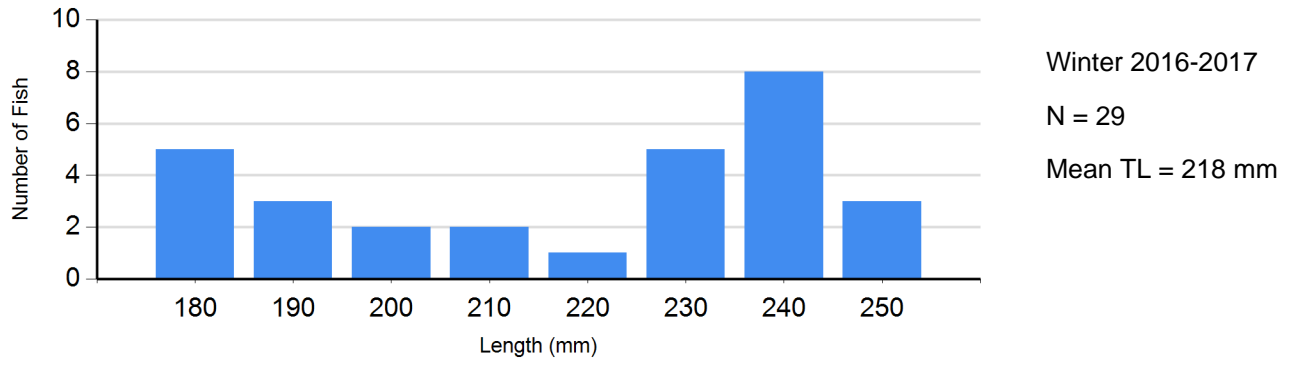
Table 9. The number of fish harvested with each species by length group (mm) for the winter and summer fisheries at Buffalo South. Abbreviations for species are as follows: Black Bullhead (BLB), Black Crappie (BLC), Bluegill (BLG), Largemouth Bass (LMB), Northern Pike (NOP), Smallmouth Bass (SMB), Walleye (WAE), Yellow Perch (YEP).

Winter 2016-2017								
Length Group (mm)	BLB (N=9)	BLC (N=16)	BLG (N=29)	LMB (N=2)	NOP (N=38)	SMB (N=1)	WAE (N=12)	YEP (N=6)
180			5					
190			3					
200			2					2
210			2					
220		1	1					1
230			5					2
240			8					
250			3	1				
260		2						
270	1	1						
280								1
290	1	2		1				
300	4						3	
310	2	3						
320		4					1	
330	1	1						
340		2						
350								
360								
370							2	
380								
390								
400							1	
410							1	
420						1	1	
430								
440							3	
490					1			
500					3			
510								
520					5			
530					3			
540					3			
550					2			
560					2			
570					4			
580					5			
590								
600					4			
610					3			
620								
630					2			
640								
650					1			

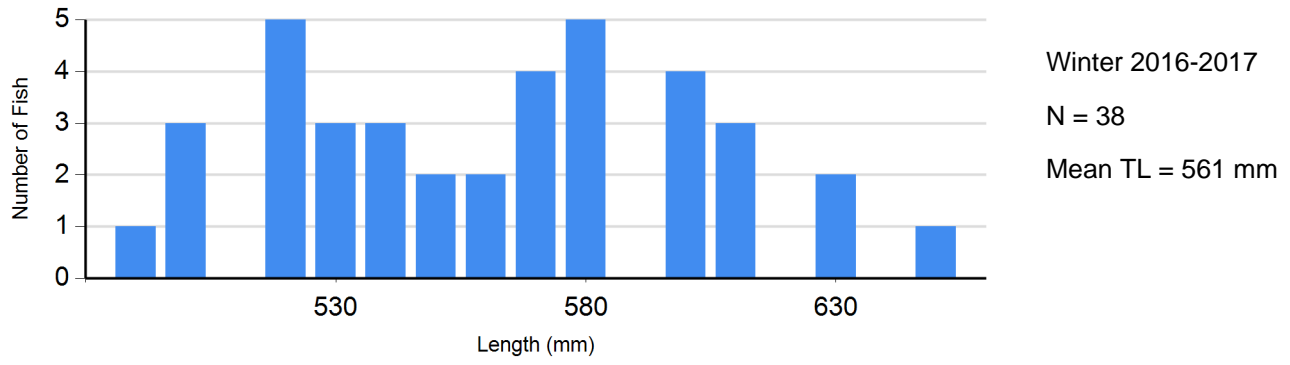
Length frequency of angler-harvested Black Crappie measured by the creel clerk during creel surveys on Buffalo South.



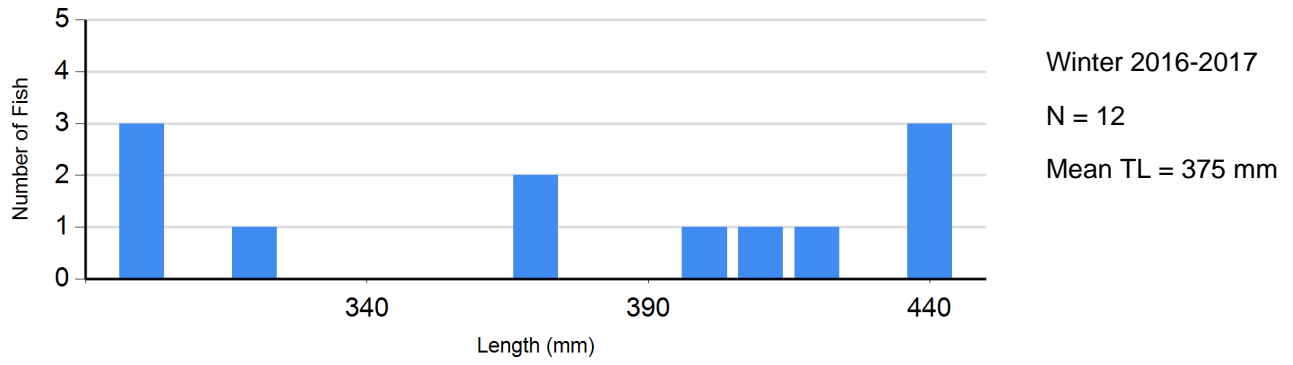
Length frequency of angler-harvested Bluegill measured by the creel clerk during creel surveys on Buffalo South.



Length frequency of angler-harvested Northern Pike measured by the creel clerk during creel surveys on Buffalo South.



Length frequency of angler-harvested Walleye measured by the creel clerk during creel surveys on Buffalo South.



South Dakota county of residence for winter and summer resident anglers fishing Buffalo South, South Dakota between January 2017 and March 2017.

Winter 2016-2017

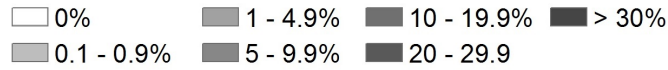
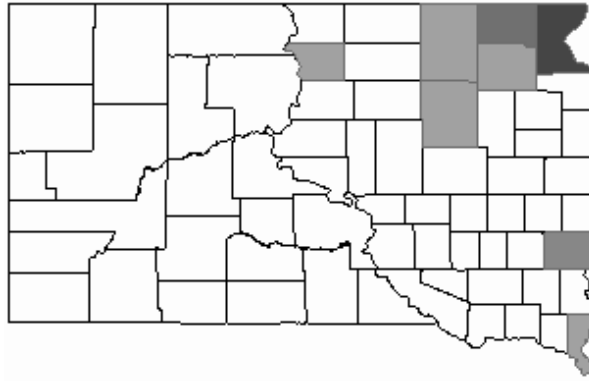


Table 10. Number of parties or anglers interviewed that harvested (or caught) a specified number of fish total over selected strata for a species.

Angler Harvest	Count							
	BLB (n=0)	BLC (n=0)	BLG (n=53)	LMB (n=30)	NOP (n=30)	SMB (n=0)	WAE (n=0)	YEP (n=0)
0.00	0	0	0	0	0	0	0	0
0.33	0	0	0	0	1	0	0	0
0.43	0	0	0	0	3	0	0	0
1.00	0	0	1	0	0	0	0	0
1.50	0	0	3	0	0	0	0	0
2.00	0	0	12	0	14	0	0	0
2.50	0	0	0	0	5	0	0	0
3.00	0	0	3	0	3	0	0	0
4.00	0	0	4	0	4	0	0	0
5.00	0	0	5	0	0	0	0	0
8.33	0	0	25	0	0	0	0	0

Table 11 The number (N) and percent of total interviews in supplemental-response categories by question asked during interviews at Buffalo South.

Question: Considering all factors, how satisfied are you with your fishing trip today?

Response	Winter 2016-2017 (n = 62)
Moderately Dissatisfied <input type="checkbox"/>	2%
Moderately satisfied/no min. (4 daily)/oppose <input type="checkbox"/>	32%
Neutral/other <input type="checkbox"/>	15%
Slightly Dissatisfied/no opinion <input type="checkbox"/>	10%
Slightly Satisfied/no min. (2 daily)/no opinion <input type="checkbox"/>	5%
Very Dissatisfied <input type="checkbox"/>	8%
Very Satisfied/15" min. (4 daily)/support <input type="checkbox"/>	29%

Question: Which of the following walleye harvest regulation options would you prefer on this lake?

Response	Winter 2016-2017 (n = 62)
Moderately satisfied/no min. (4 daily)/oppose <input type="checkbox"/>	42%
Neutral/other <input type="checkbox"/>	5%
Slightly Dissatisfied/no opinion <input type="checkbox"/>	26%
Very Satisfied/15" min. (4 daily)/support <input type="checkbox"/>	27%