Lynn Lake

Site Description

Location

Water designation number (WDN)	22-0010-00
Legal description	T123N-R57W-Sec. 15, 16, 21, 22, 23, 26, 27, 34, 35
County (ies)	Day
Location from nearest town	6.0 miles west, 5.0 miles north, 1.0 mile west, and 2.0 miles north of Webster, SD

Survey Dates and Sampling Information

Survey dates	September 3-5, 2014 (FN, GN) September 24, 2014 (FE-WAE)
Frame net sets (n)	17
Gill net sets (n)	6
Electrofishing-WAE (min)	50

Morphometry (Figure 1)

Watershed area (acres)	37,978
Surface area (acres)	1,555
Maximum depth (ft)	26
Mean depth (ft)	12

Ownership and Public Access

Lynn Lake is a non-meandered lake and the fishery is managed by the SDGFP. Two public access sites are located on the lake: a private fee ramp located on the west shore that includes a metal boat ramp and landing dock; the other located on state-owned lands in the northeast corner of the lake is a primitive boat ramp (i.e., constructed using over-sized rock and gravel; Figure 1; Figure 2). Shore fishing access is available via foot traffic across state-owned lands or from flooded road rights of way on the north, south, and east side of the lake. Lands adjacent to Lynn Lake are under state and private ownership.

Watershed and Land Use

The 37,978 acre Lynn Lake sub-watershed (HUC-12) is located within the larger Pierpont Lake (HUC-10) watershed. Land use within the watershed is primarily agricultural with a mix of pasture or grassland, cropland, and scattered shelterbelts.

Water Level Observations

Water levels on Lynn Lake are not monitored by SDDENR.

Fish Management Information

Primary species	black crappie, muskellunge, walleye, yellow perch
Other species	black bullhead, bluegill, northern pike, rock bass, smallmouth bass, white bass, white sucker
Lake-specific regulations	walleye: 2 daily; minimum length 15”
Management classification	none
Fish consumption advisories	none

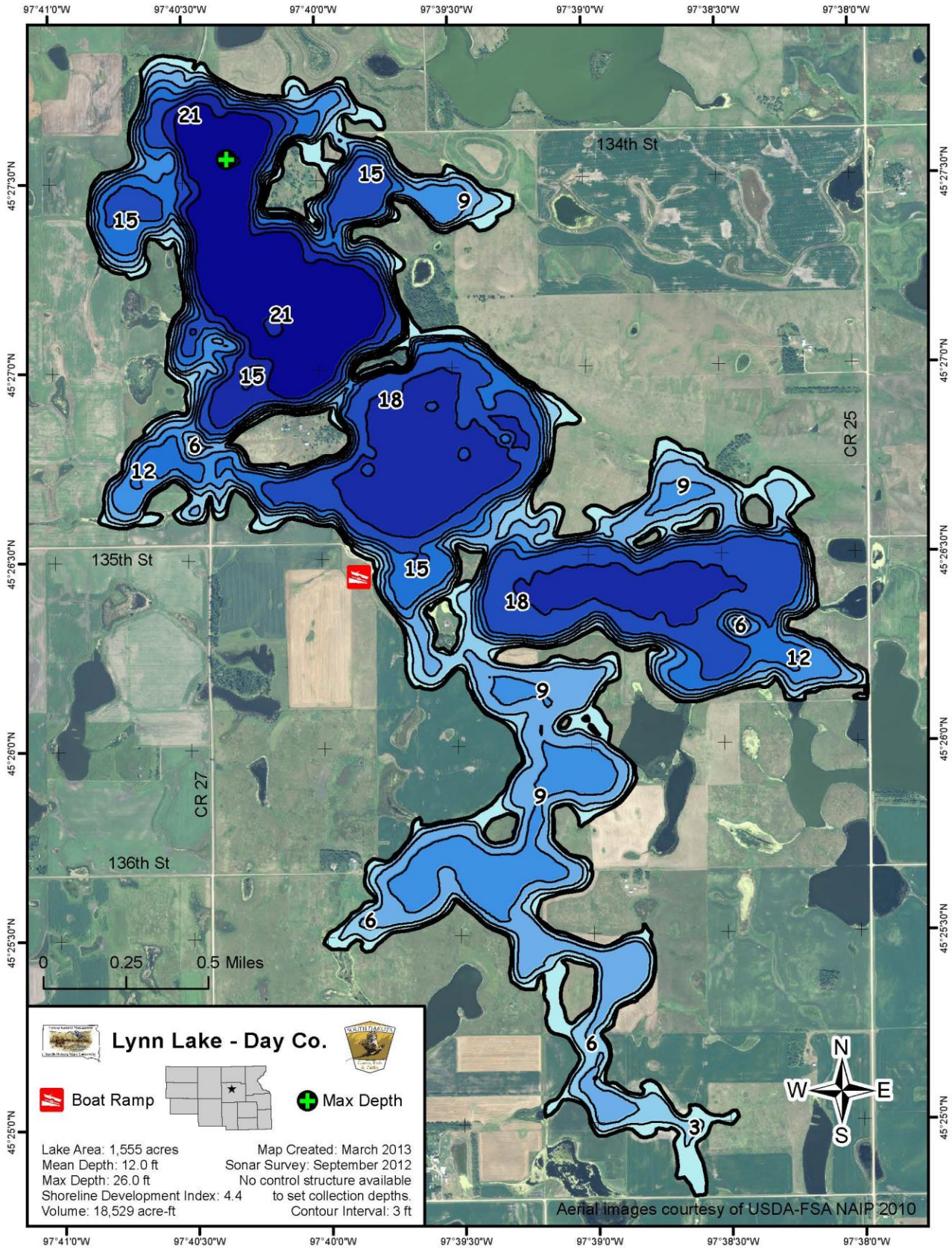

Figure 1. Map depicting access location and depth contours for Lynn Lake, Day County, South Dakota.

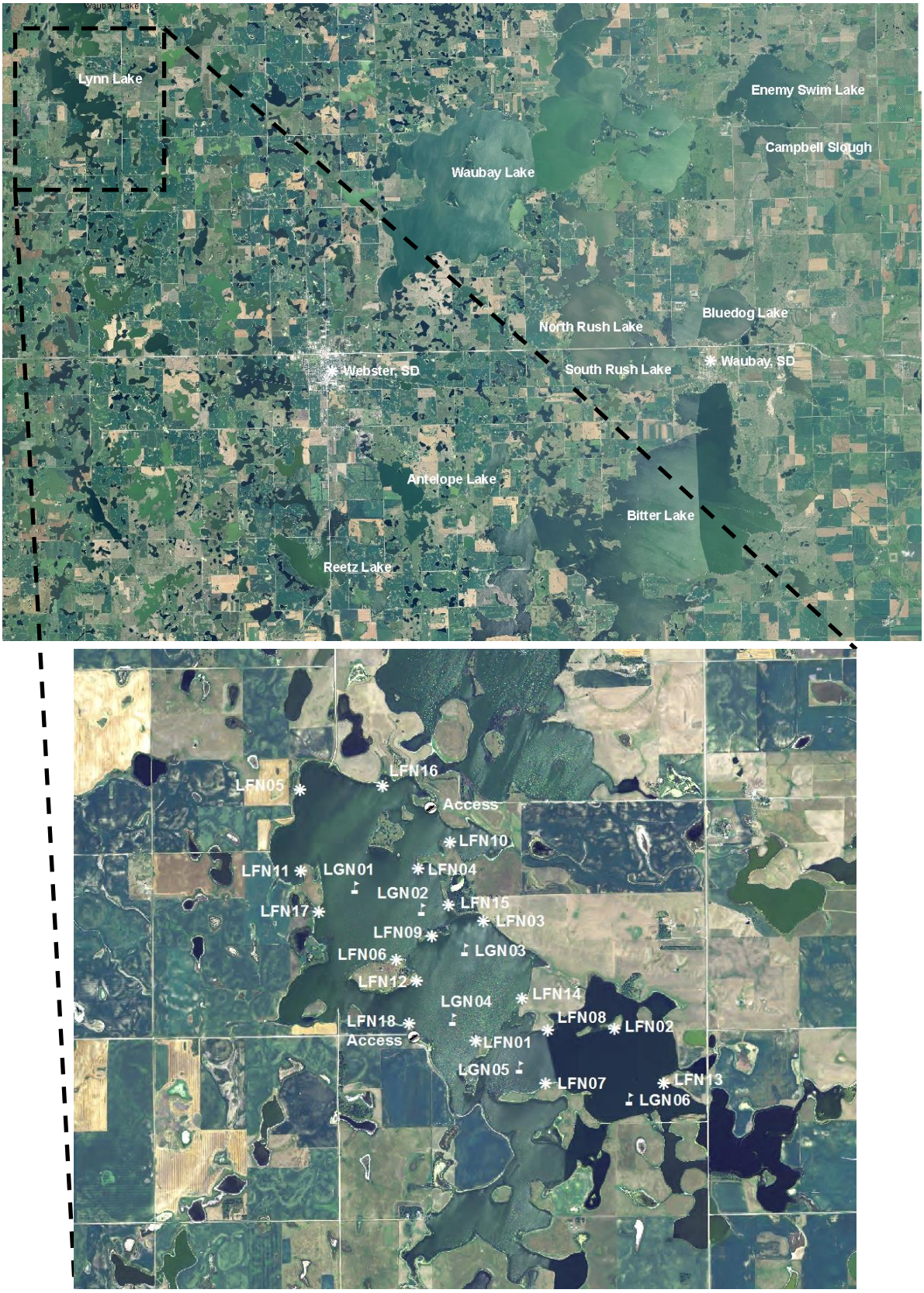

Figure 2. Map depicting geographic location of several Day County, South Dakota Lakes including Lynn (top). Also noted are public access and standardized net locations for Lynn Lake. LFN= frame nets; LGN= gill nets

Management Objectives

1) Maintain a mean frame net CPUE of stock-length black crappie ≥ 10, a PSD of 30-60, and a PSD-P of 5-10.

2) Maintain a frame net mean CPUE of stock-length bluegill ≥ 25, a PSD of 30-60, and a PSD-P of 5-10.

3) Maintain a low density muskellunge population (i.e., one 30-in fish/5 acres) to provide a unique angling opportunity in northeastern South Dakota.

4) Maintain a mean gill net CPUE of stock-length walleye ≥ 10, a PSD of 30-60, and a PSD-P of 5-10.

5) Maintain a mean gill net CPUE of stock-length yellow perch ≥ 30, a PSD of 30-60, and a PSD-P of 5-10.

Results and Discussion

Prior to above normal precipitation during the 1990's, Lynn Lake was a shallow cattail slough. Abundant precipitation and the resulting run-off increased water depth to levels capable of sustaining sport fish. The first SDGFP stocking of fish into Lynn Lake occurred in 1998 when saugeye and black crappie were stocked. Currently, Lynn Lake is managed as a panfish (i.e., black crappie, bluegill, and yellow perch), muskellunge, and walleye fishery.

Primary Species

Black Crappie: Strong year classes of black crappie were produced between 1998 and 2000 resulting in high population abundance. The high abundance led to an increased number of anglers targeting black crappie at Lynn Lake. However, since the initial "boom" black crappie relative abundance has declined as recruitment has become limited and black crappie from the initial year classes have succumbed to angling and natural mortality.

In 2014, the mean frame net CPUE of stock-length black crappie was 0.3 (Table 1) and below the minimum objective (≥ 10 stock-length black crappie/net night; Table 3). Since 2008, the mean frame net CPUE has ranged from a low of 0.3 (2014) to a high of 11.9 (2011; Table 2). Currently, relative abundance is low.

Frame net captured black crappie ranged in TL from 7 to 30 cm (2.8 to 11.8 in; Figure 3). Based on age estimates made by using otoliths, three year classes (2009-2010, and 2014) were present in the sample (Table 4). The naturally produced 2014 (age-0) cohort was the most abundant and comprised 87% of black crappie in the frame net catch (Table 4). Unfortunately, these fish have not survived their first winter of life

and are not considered recruited to the population; recruitment will be assessed in future surveys. Age-0 cohorts produced in both 2012 and 2013 have not been represented in subsequent surveys (i.e., 2013 and 2014; Table 4).

The Lynn Lake black crappie population has displayed moderate to fast growth; weighted mean TL at capture values for age-3 black crappie ranged from 204 to 289 mm (8.0 to 11.4 in) from 2009-2013 (Table 5). In 2014, sample size was low (i.e., five stock-length individuals) and few inferences can be made concerning size structure, growth, or condition.

Bluegill: The mean frame net CPUE of stock-length bluegill was 2.4 (Table 1) and below the minimum objective ($\geq$ 25 stock-length bluegill/net night; Table 3). The 2014 frame net CPUE represented a decrease from the 2013 CPUE of 7.1 and was the lowest recorded since 2008 (Table 2). Currently relative abundance is low.

Bluegill sampled in frame nets ranged in TL from 8 to 18 cm (3.1 to 7.1 in), had a PSD of 2 and a PSD-P of 0 (Table 1; Figure 4). The PSD and PSD-P were both below the management objective of 30-60; and 5-10 (Table 3; Figure 4).

Otoliths collected from a sub-sample of frame net captured bluegill revealed the presence of three year classes (2011, 2013, and 2014; Table 6). The 2013 cohort, which comprised 82% of bluegill in the frame net catch, had a weighted mean TL at capture of 110 mm (4.3 in) at age 1 (Table 6; Table 7). Condition of frame net captured bluegill was high with mean Wr values that exceeded 100 for all cm-length groups represented. The majority of individuals were in the stock-quality length category, which had a mean Wr of 111.

Muskellunge: Lynn Lake is one of two lakes in northeast South Dakota managed for muskellunge. Muskellunge were introduced into Lynn Lake in 2001 and subsequently stocked in 2003, 2004, 2006, 2010, 2012 and 2014 (Table 10). Muskellunge stockings are scheduled to take place on a biennial basis in conjunction with Amsden Dam, but the frequency of stockings depends upon availability. The goal is to maintain a low-density muskellunge population (one 30-inch fish/5 acres) to provide anglers a diverse and unique opportunity.

Lynn Lake has been used as an egg source for walleye spawning operations in recent years; both large and small frame nets were used to collect walleye broodstock and muskellunge for an extended period of time following ice out during 2013 and 2014. In 2014, 94 muskellunge that ranged in TL from 79 to 122 cm (31.1 to 48.0 in) were sampled, most in large frame nets (Figure 5). Approximately 16% of the sampled muskellunge exceeded the 1,016-mm (40-in) minimum length restriction. Individual muskellunge had Wr values that ranged from 71-103.

During annual mid-summer fish community surveys, which occur during early-September, muskellunge have proven difficult to sample (Table 2). In 2014, no muskellunge were captured in the gill net or frame net catch (Table 1).

Walleye: The mean gill net CPUE of stock-length walleye was 8.7 (Table 1) and below the minimum objective (≥ 10 stock-length walleye/net night; Table 3). Since 2005, the mean gill net CPUE has fluctuated from a low of 7.0 (2011) to a high of 37.3 (2005). The 2014 gill net CPUE represented a slight increase from the 2013 CPUE of 8.5 (Table 2). Based on the 2014 gill net CPUE, relative abundance is considered moderate.

Walleye in the gill net catch ranged in TL from 11 to 72 cm (4.3 to 28.3 in; Figure 6). The PSD was 69 and the PSD-P was 29 (Table 1); both were above management objective ranges of 30-60 and 5-10 (Table 3). Approximately 25% of walleye in the gill net catch were above the 381-mm (15-in) minimum length restriction (Figure 6).

Both natural reproduction and stocking contribute to the walleye population in Lynn Lake. Based on age estimates made using otoliths, ten year classes (2002-2003, 2005 and 2008-2014) were present in the 2014 gill net catch (Table 8). Of year classes considered recruited to the population (i.e., > age-0), the 2011 and 2013 cohorts were the most abundant and collectively comprised 37% of walleye in the gill net catch (Table 8); both coincided with fry stockings (Table 10). Fry stocked in 2013 were marked with Oxytetracycline (OTC) so that the contribution of stocked fish could be evaluated. The estimated stocking contribution was 42% (Table 8). The capture of 71 individuals from the 2014 (age-0) cohort in the gill net catch coupled with a mean fall night electrofishing CPUE of 157.8 (Table 1) suggests that a strong natural year class was produced; however, recruitment is currently unknown and will be assessed in future surveys.

Walleye in Lynn Lake tend to grow fast and attain quality-length (38cm; 15 in) by age 2 or 3 (Table 9). Since 2005, the weighted mean TL at capture for age-2 walleye has ranged from 325 to 425 mm (12.8 to 16.7 in); while the weighted mean TL at capture for age-3 fish has ranged from 381 to 470 mm (15.0 to 18.5 in; Table 9). In 2014, the weighted mean TL at capture of age-2 and age-3 individuals was 326 and 381 mm (12.8 and 15.0 in), respectively (Table 9). Stock-length walleye in the gill net catch had a mean Wr of 84 (Table 1) and no length related trends were apparent.

Yellow Perch: The mean gill net CPUE of stock-length yellow perch was 24.7 (Table 1) and slightly below the minimum objective (≥ 30 stock-length yellow perch/net night; Table 3). Since 2005, the mean gill net CPUE has fluctuated from a low of 5.5 (2008) to a high of 95.2 (2011; Table 2). Based on the 2014 gill net CPUE, relative abundance is moderate.

Gill net captured yellow perch ranged in TL from 13 to 24 cm (5.1 to 9.4 in), with most being < quality length (i.e., 20 cm; 8 in). The PSD was 1 and the PSD-P was 0; both were below management objective ranges of 30-60 and 5-10 (Table 3; Figure 7).

Since 2009, otoliths have been collected from a sub-sample of gill net captured yellow perch; with the exception of the 2012 cohort recruitment has been relatively consistent in recent years (Table 11). In 2014, four year classes (2009, 2011-2013) were present (Table 9). The 2013 cohort was the most abundant and comprised 93% of the yellow perch in the gill net catch (Table 11).

Yellow perch in Lynn Lake display moderate to fast growth and typically approach or surpass quality-length (20 cm; 8 in) by age 2 (Table 12). However, the weak 2012 cohort has experienced slower growth than previous year classes. In 2014, the weighted mean TL at capture was 180 mm (7.1 in) at age 2; compared to weighted mean TL at capture values of age-2 individuals that ranged from 195 to 239 mm (7.7 to 9.4 in) from 2009-2013 (Table 12). As with most populations, males tend to be smaller at a given age than females, particularly at older ages (Table 12). Condition of gill net captured yellow perch was high with mean Wr values > 100 for most 10-mm length groups sampled.

Other Species

Northern Pike: The mean gill net CPUE of stock-length northern pike was 0.2 (Table 1), as five stock-length individuals that ranged in TL from 60 to 78 cm (23.6 to 30.7 in) were captured. The 2014 gill net CPUE represented a decrease from the 2013 CPUE of 1.5 (Table 2). Currently, relative abundance appears to be low.

No age or growth information was collected. Few inferences can be made concerning size structure and condition due to the low sample size.

Other: Black bullhead, rock bass, and smallmouth bass were other fish species captured in low numbers during the survey (Table 1).

Management Recommendations

1) Conduct fish community assessment surveys on an annual basis (next survey scheduled in summer 2015) to monitor fish relative abundance, fish population size structures, fish growth, and stocking success.

2) Collect otoliths from black crappie, bluegill, walleye, and yellow perch to assess the age structure and growth rates of each population.

3) Conduct annual spring trap netting using large frame nets to monitor muskellunge population parameters (e.g., abundance, size structure, etc).

4) Stock 1,500 muskellunge fingerlings on a biennial basis, in an effort to maintain a low density population which provides a unique angling opportunity in northeastern South Dakota.

5) Maintain statewide 1,016-mm (40-in) minimum length restriction on muskellunge in an effort to develop a unique trophy fishery.

6) Conduct fall night electrofishing on an annual basis to monitor age-0 walleye relative abundance.

7) Stock walleye at (≈500 fry/acre) to establish additional year classes if fall night electrofishing CPUE of young-of-the-year walleye and gill netting results warrant [i.e., low gill net CPUE of sub-stock (i.e., < 25 cm (10 in) walleye and/or fall night electrofishing CPUE of age-0 walleye < 75 fish/hour].

8) Maintain the 381-mm (15-in) minimum length limit and daily limit of two on walleye. The regulation is designed to protect smaller fish from harvest, increase average fish size, and provide a more equitable distribution of the walleye harvest (Lucchesi and Blackwell 2009).

9) Improve access via enhancements (e.g., installation of landing dock) to the primitive boat launch and parking area.

Table 1. Mean catch rate (CPUE; gill/frame nets = catch/net night, electrofishing = catch/hour) of stock-length fish, proportional size distribution of quality- (PSD) and preferred-length (PSD-P) fish, and mean relative weight (Wr) of stock-length fish for various fish species captured in experimental gill nets, frame nets, and electrofishing in Lynn Lake, 2014. Confidence intervals include 80 percent (± CI-80) or 90 percent (± CI-90). BLB= black bullhead; BLC= black crappie; BLG= bluegill; NOP= northern pike; ROB= rock bass; SMB= smallmouth bass; WAE= walleye; YEP= yellow perch

	Abundance		Stock Density Indices				Condition	
Species	CPUE	CI-80	PSD	CI-90	PSD-P	CI-90	Wr	CI-90
Frame nets								
BLB	0.1	0.2	50	50	50	50	111	---
BLC	0.3	0.2	100	0	100	0	111	6
BLG	2.4	0.8	2	5	0	---	112	<1
NOP	0.2	0.2	100	0	25	59	78	15
ROB	0.2	0.2	25	59	25	59	119	1
SMB	0.1	0.1	100	---	100	100	100	---
WAE	1.2	0.5	75	17	30	18	89	2
YEP	0.2	0.1	0	---	0	---	94	27
Gill nets								
BLB	0.2	0.2	100	---	100	100	105	---
NOP	0.8	0.5	100	0	60	52	78	5
ROB	0.3	0.3	0	---	0	---	110	<1
SMB	0.3	0.5	0	---	0	---	107	20
WAE	8.7	3.4	69	11	29	11	84	1
YEP	24.7	7.8	1	2	0	---	104	<1
Electrofishing								
WAE[1]	157.8	91.2	---	---	---	---	---	---

[1] Fall night electrofishing-WAE; catch rate (CPUE) represents age-0 walleye not stock length.

Table 2. Historic mean catch rate (CPUE; gill/frame nets = catch/net night, electrofishing = catch/hour) of stock-length fish for various fish species captured in experimental gill nets, frame nets, and electrofishing in Lynn Lake, 2005-2014. BLB= black bullhead; BLC= black crappie; BLG= bluegill; MUE= muskellunge; NOP= northern pike; ROB= rock bass; SMB= smallmouth bass; WAE= walleye; YEP= yellow perch

	CPUE									
Species	2005	2006[1]	2007[1]	2008	2009	2010	2011	2012	2013	2014
Frame nets										
BLB	---	---	---	0.1	0.0	0.1	0.7	2.1	0.9	0.1
BLC	---	---	---	0.4	1.7	1.7	11.9	5.2	1.7	0.3
BLG	---	---	---	3.6	20.6	6.8	22.4	8.7	7.1	2.4
NOP	---	---	---	0.1	0.1	0.1	0.1	0.2	0.6	0.2
ROB	---	---	---	0.0	0.3	0.1	0.4	0.2	1.5	0.2
SMB	---	---	---	0.0	0.1	0.1	0.6	0.2	0.2	0.1
WAE	---	---	---	2.8	1.5	2.2	1.6	0.8	1.2	1.2
YEP	---	---	---	0.4	1.7	2.7	18.7	4.6	3.8	0.2
Gill nets										
BLB	0.0	1.2	0.7	0.0	0.0	0.0	0.3	0.7	0.2	0.2
BLC	3.2	4.8	0.2	0.2	0.5	0.3	6.5	0.8	0.2	0.0
BLG	1.0	5.3	0.5	0.3	0.2	0.5	0.7	0.8	0.0	0.0
MUE	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.0
NOP	0.3	0.5	0.0	0.0	0.2	0.0	1.7	2.8	1.5	0.8
ROB	0.0	0.0	0.0	0.0	0.0	1.0	0.3	0.0	0.3	0.3
SMB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3
WAE	37.3	7.7	14.3	12.2	20.5	28.3	7.0	9.5	8.5	8.7
YEP	9.8	42.5	23.2	5.5	8.2	29.5	95.2	93.2	37.0	24.7
Electrofishing										
WAE [2]	8.7	708.5	988.5	99.4	127.1	0.0	143.0	4.0	315.0	157.8

[1] Monofilament gill net mesh size change (0.75”, 1.00”, 1.25”, 1.50”, 2.00” and 2.50”)

[2] Fall night electrofishing-WAE; catch rate (CPUE) represents age-0 walleye not stock-length

Table 3. Mean catch rate (CPUE; catch/net night) of stock-length fish , proportional stock density of quality- (PSD) and preferred-length (PSD-P) fish, and relative weight (Wr) for selected species captured in experimental gill nets and frame nets in Lynn Lake, 2005-2014. BLC= black crappie; BLG= bluegill; WAE= walleye; YEP= yellow perch

Species	2005	2006[1]	2007[1]	2008	2009	2010	2011	2012	2013	2014	Objective
Frame nets											
BLC											
CPUE	---	---	---	<1	2	2	12	5	2	<1	≥ 10
PSD	---	---	---	86	55	62	45	98	97	100	30-60
PSD-P	---	---	---	86	16	21	22	28	90	100	5-10
Wr	---	---	---	110	121	120	114	114	109	111	---
BLG											---
CPUE	---	---	---	4	21	7	22	9	7	2	≥ 25
PSD	---	---	---	2	13	37	40	45	12	2	30-60
PSD-P	---	---	---	0	0	7	19	11	6	0	5-10
Wr	---	---	---	115	116	116	120	111	107	112	---
Gill nets											
WAE											
CPUE	37	8	14	12	21	28	7	10	9	9	≥ 10
PSD	97	100	66	55	35	22	95	86	27	69	30-60
PSD-P	9	30	19	30	14	4	7	11	8	29	5-10
Wr	95	86	85	89	90	93	87	89	88	84	---
YEP											
CPUE	10	43	23	6	8	30	95	93	37	25	≥ 30
PSD	100	62	35	18	45	31	69	36	49	1	30-60
PSD-P	58	50	14	3	2	7	9	6	9	0	5-10
Wr	107	105	106	104	108	100	101	98	105	104	---

[1] Monofilament gill net mesh size change (0.75”, 1.00”, 1.25”, 1.50”, 2.00” and 2.50”)

Table 4. Year class distribution based on the expanded age/length summary for black crappie sampled in frame nets from Lynn Lake, 2011-2014.

	Year Class											
Survey Year	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
2014	34				2	3						
2013	---	71		1	18	7	4					
2012	---	---	246		76	12	5	1				
2011	---	---	---		152	30	18				2	

Table 5. Weighted mean TL (mm) at capture for black crappie sampled in frame nets (expanded sample size) from Lynn Lake, 2011-2014.

	Age							
Year	0	1	2	3	4	5	6	7
2014	88(34)				288(2)	304(3)		
2013	87(71)	---	175(1)	268(18)	310(7)	328(4)	---	---
2012	89 (246)	---	229 (76)	287 (12)	312 (5)	342 (1)	---	---
2011	---	184(152)	249(30)	289(18)	---	---	---	327(2)
2009	69(3)	146(11)	197(11)	204(4)	251(3)	311(1)	298(2)	

Table 6. Year class distribution based on the expanded age/length summary for bluegill sampled in frame nets from Lynn Lake, 2011-2014.

	Year Class							
Survey Year	2014	2013	2012	2011	2010	2009	2008	2007
2014	6	34		1				
2013	---	6	103	9	10	1		
2012	---	---	2	89	62	5	3	
2011	---	---	---		241	116	44	2

Table 7. Weighted mean TL (mm) at capture for bluegill sampled in frame nets (expanded sample size) from Lynn Lake, 2011-2014.

	Age				
Year	0	1	2	3	4
2014	92(6)	110(34)	---	182(1)	---
2013	85(6)	106(103)	142(9)	208(10)	244(1)
2012	81(2)	107(89)	183(62)	227(5)	243(3)
2011	---	119(241)	192(116)	220(44)	247(2)

Table 8. Year class distribution based on the expanded age/length summary for walleye sampled in gill nets and associated stocking history (# stocked x 1,000) from Lynn Lake, 2010-2014.

	Year Class													
Survey Year	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001
2014[1]	71	24	2	27	2	11	2			2		1	1	
2013	---	57	2	38	4	5								
2012	---	---		13	4	36	2	3				1		1
2011	---	---	---	12	2	37				1				
2010	---	---	---	---	6	131	21	11		1		2	1	
# stocked														
fry		750[2]		700					1500				1500	1500
sm. fingerling														
lg. fingerling														

[1] Older walleye were sampled, but are not reported in this table

[2] Stocked walleye were OTC marked; 21 of 50 otoliths collected from fall electrofished age-0 walleye exhibited marks for an estimated stocking contribution of 42%.

Table 9. Weighted mean TL at capture (mm) for walleye age-0 through age-10 sampled in experimental gill nets (expanded sample size) from Lynn Lake, 2005-2014. Note: sampling was conducted at approximately the same time during each year allowing comparisons among years to monitor growth trends.

	Age										
Year	0	1	2	3	4	5	6	7	8	9	10
2014[1]	121(71)	218(24)	326(2)	381(27)	461(2)	526(11)	538(2)			609(2)	
2013[1]	127(57)	248(2)	325(38)	466(4)	495(5)	---	---	---	---	---	---
2012[1]	---	258(13)	422(4)	461(36)	534(2)	486(3)	---	---	---	636(1)	---
2011[1]	137(12)	346(2)	411(37)	---	---	---	628(1)	---	---	---	---
2010	197(6)	339(131)	425(21)	470(11)	---	571(1)	---	511(2)	511(1)	---	577(3)
2009	174(94)	301(37)	356(48)	422(7)	498(6)	---	484(2)	517(6)	546(2)	516(13)	669(1)
2008	172(11)	260(38)	361(8)	453(4)	---	514(4)	519(8)	485(1)	539(20)	599(1)	---
2007	---	257(41)	406(6)	---	459(11)	500(13)	---	518(27)	---	---	653(1)
2006	---	---	---	447(9)	462(11)	---	512(27)	---	---	---	---
2005	195(3)	---	396(65)	432(63)	435(4)	483(91)	550(1)	---	---	---	---

[1] Older walleye were sampled, but are not reported in this table

Table 10. Stocking history including size and number for fishes stocked into Lynn Lake, 2000-2014. BLC= black crappie; MUE= muskellunge; WAE= walleye; YEP= yellow perch

Year	Species	Size	Number
2000	WAE	fry	1,000,000
2001	MUE	fingerling	1,625
	WAE	fry	1,500,000
2002	WAE	fry	1,500,000
2003	MUE	fingerling	2,000
2004	BLC	fingerling	16,324
	MUE	fingerling	500
2006	WAE	fry	1,500,000
	MUE	fingerling	1,250
2010	MUE	juvenile	770
2011	WAE	fry	700,000
2012	MUE	large fingerling	3,018
2013	WAE	fry	750,000
2014	MUE	large fingerling	1,600

Table 11. Year class distribution based on the expanded age/length summary for yellow perch sampled in gill nets from Lynn Lake, 2010-2014.

	Year Class								
Survey Year	2014	2013	2012	2011	2010	2009	2008	2007	2006
2014		138	8	1		1			
2013	---	647	5	152	52	12			
2012	---	---		348	122	90			
2011	---	---	---	25	171	382	7	11	
2010	---	---	---	---	9	157	12	7	1

Table 12. Weighted mean TL (mm) at capture by gender for yellow perch captured in experimental gill nets (expanded sample size) from Lynn Lake, 2009-2014.

	Age					
Year	0	1	2	3	4	5
2014						
Male	---	154(47)	171(4)	---	---	244(1)
Female	---	174(93)	199(2)	230(1)	---	---
Combined	---	168(138)	180(8)	230(1)	---	244(1)
2013						
Male	101(387)	173(4)	187(78)	217(24)	247(9)	---
Female	99(175)	175(1)	205(81)	240(20)	281(4)	---
Combined	101(647)	174(5)	195(152)	226(52)	258(12)	---
2012						
Male	---	151 (225)	211 (43)	236 (72)	---	---
Female	---	155 (129)	227 (70)	259 (20)	---	---
Combined	---	153 (348)	222 (122)	241 (90)	---	---
2011						
Male	96(21)	164(70)	212(193)	246(1)	248(1)	---
Female	95(4)	174(78)	239(222)	302(1)	316(5)	---
Combined	95(25)	174(171)	227(382)	254(7)	279(11)	---
2010						
Male	109(4)	179(68)	219(4)	---	---	---
Female	103(5)	195(90)	257(7)	289(7)	281(1)	---
Combined	106(9)	188(157)	239(12)	289(7)	281(1)	---
2009						
Male	96(314)	154(7)	213(2)	---	---	---
Female	96(131)	149(25)	234(20)	---	---	---
Combined	96(442)	146(35)	232(22)	---	---	---

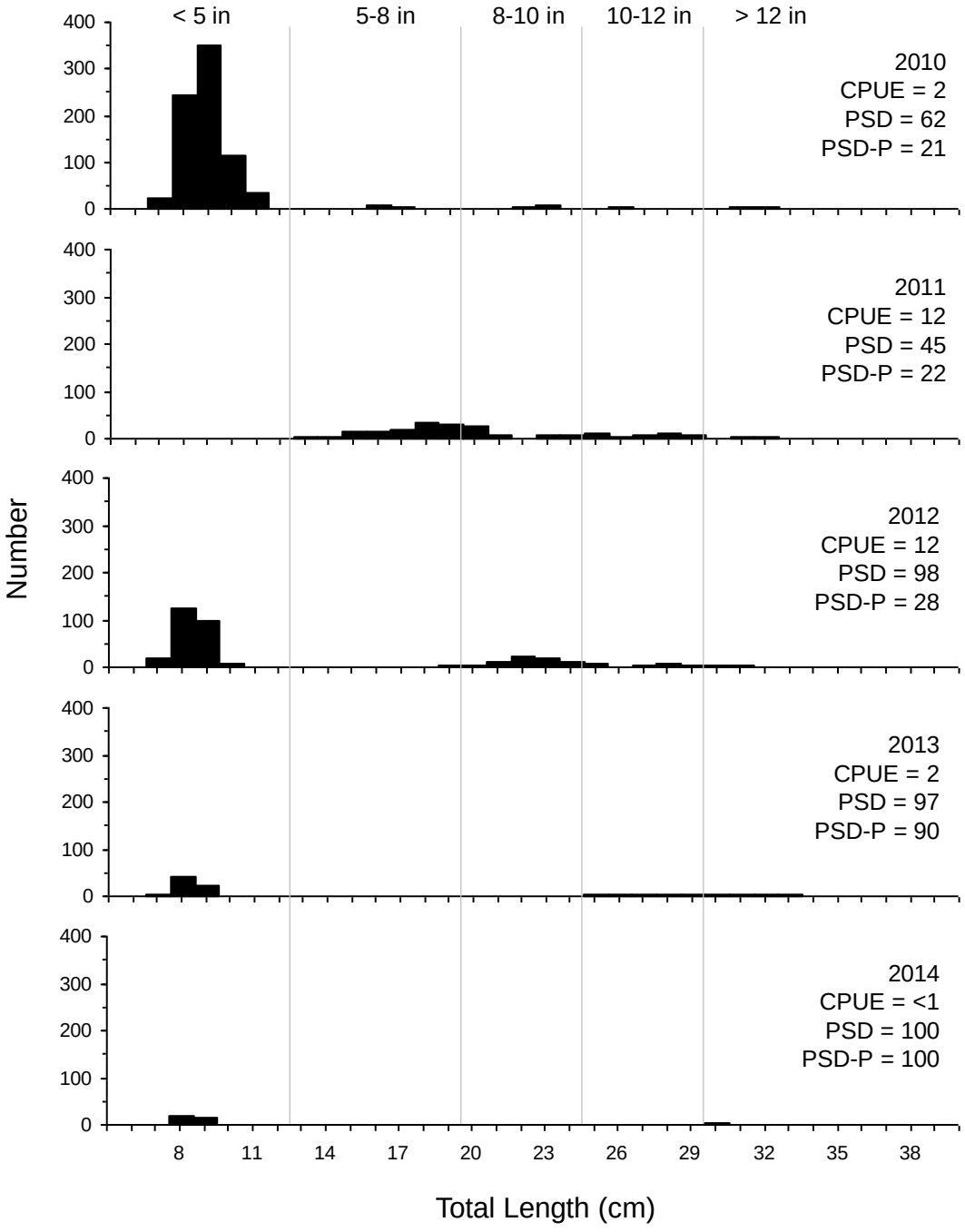

Figure 3. Length-frequency histogram, catch rate of stock-length fish (CPUE), proportional size distribution of quality- (PSD) and preferred-length (PSD-P) fish for black crappie captured using frame nets in Lynn Lake, 2010-2014.

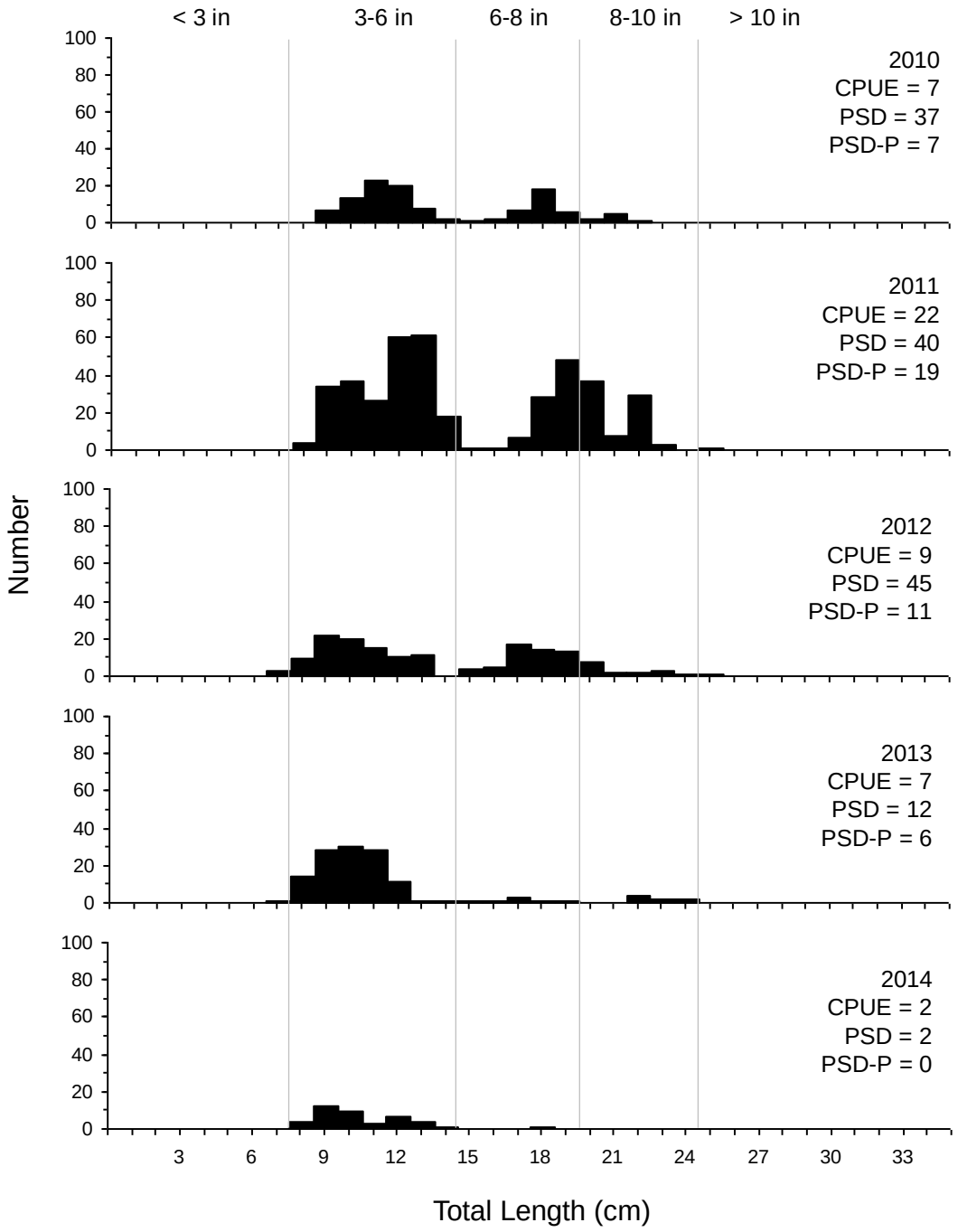

Figure 4. Length-frequency histogram, catch rate of stock-length fish (CPUE), proportional size distribution of quality- (PSD) and preferred-length (PSD-P) fish for bluegill captured using frame nets in Lynn Lake, 2010-2014.

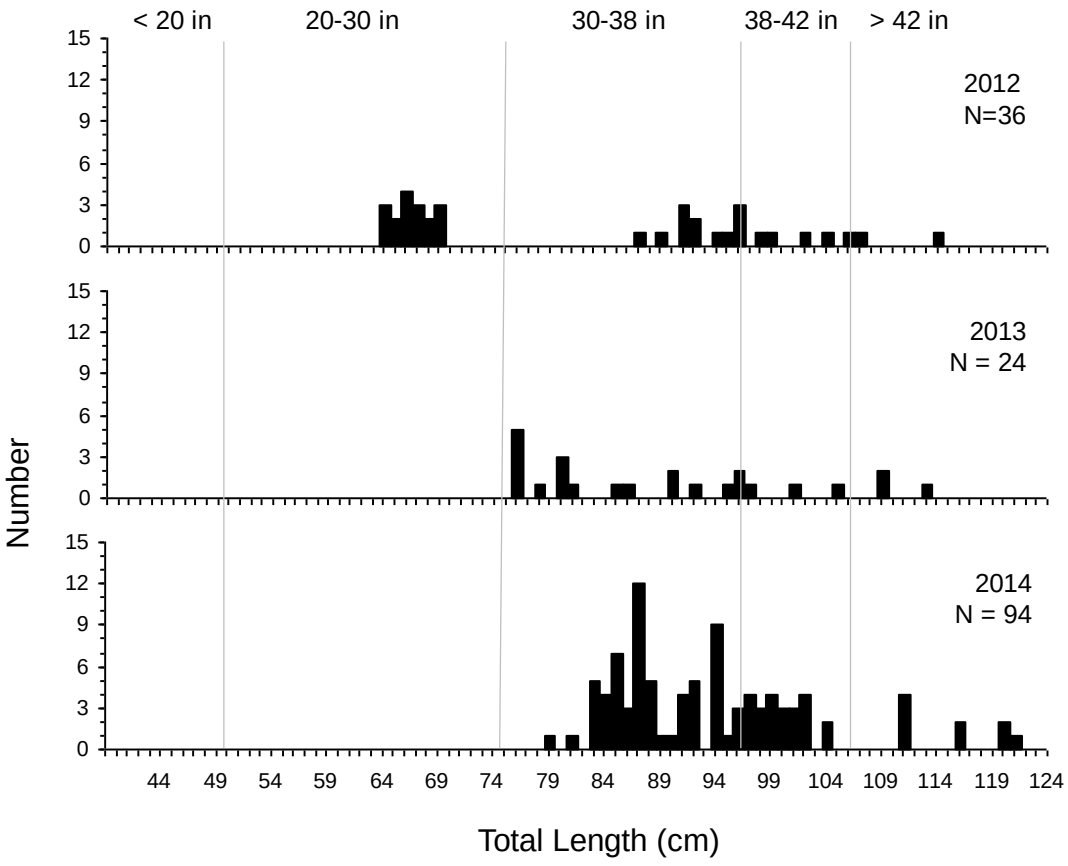

Figure 5. Length-frequency histogram of muskellunge captured using spring frame nets during walleye spawning efforts at Lynn Lake, 2012-2014. Small frame nets were used in 2012 and both small and large frame nets were used in 2013-2014.

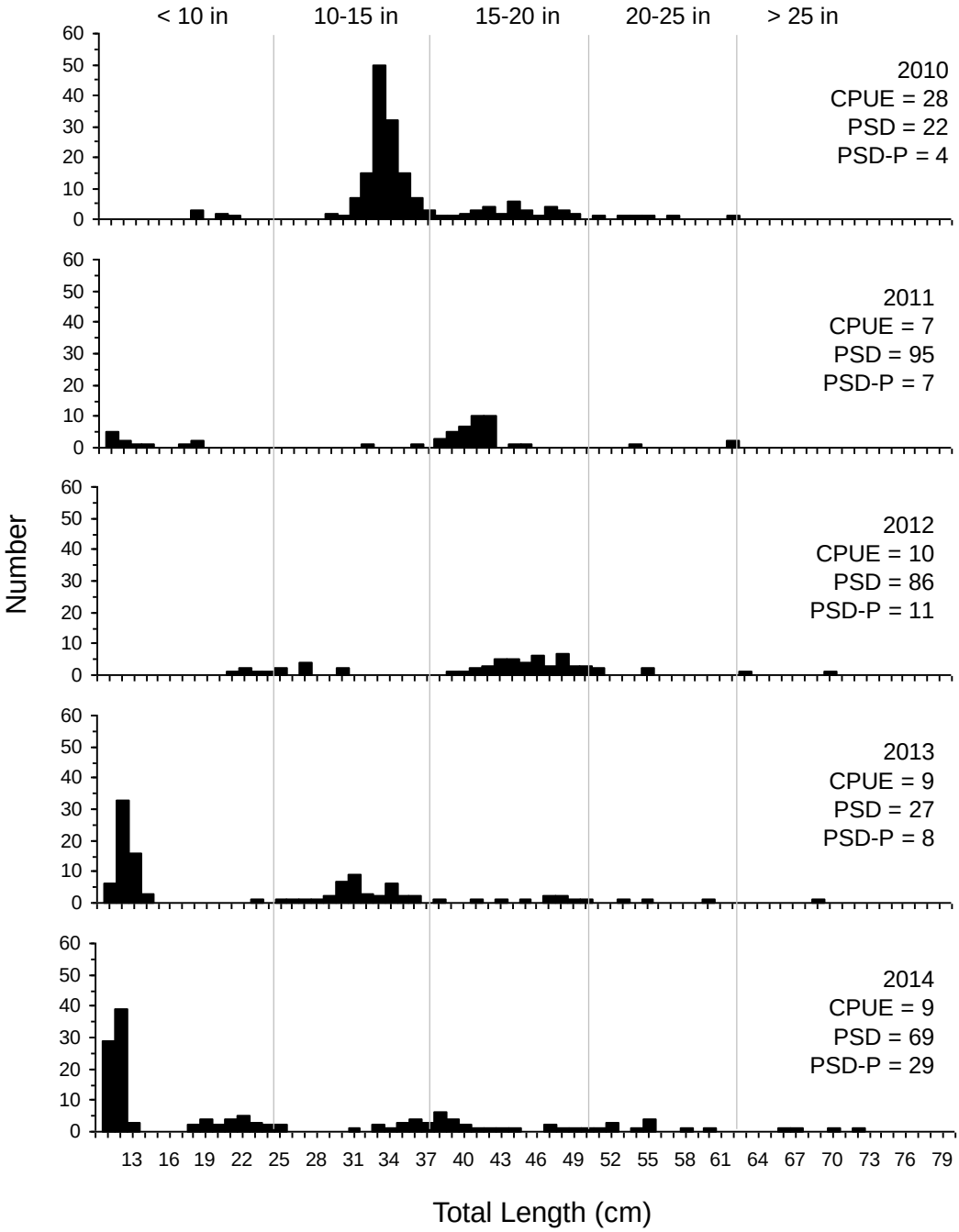

Figure 6. Length-frequency histogram, catch rate of stock-length fish (CPUE), proportional size distribution of quality- (PSD) and preferred-length (PSD-P) fish for walleye captured using experimental gill nets in Lynn Lake, 2010-2014.

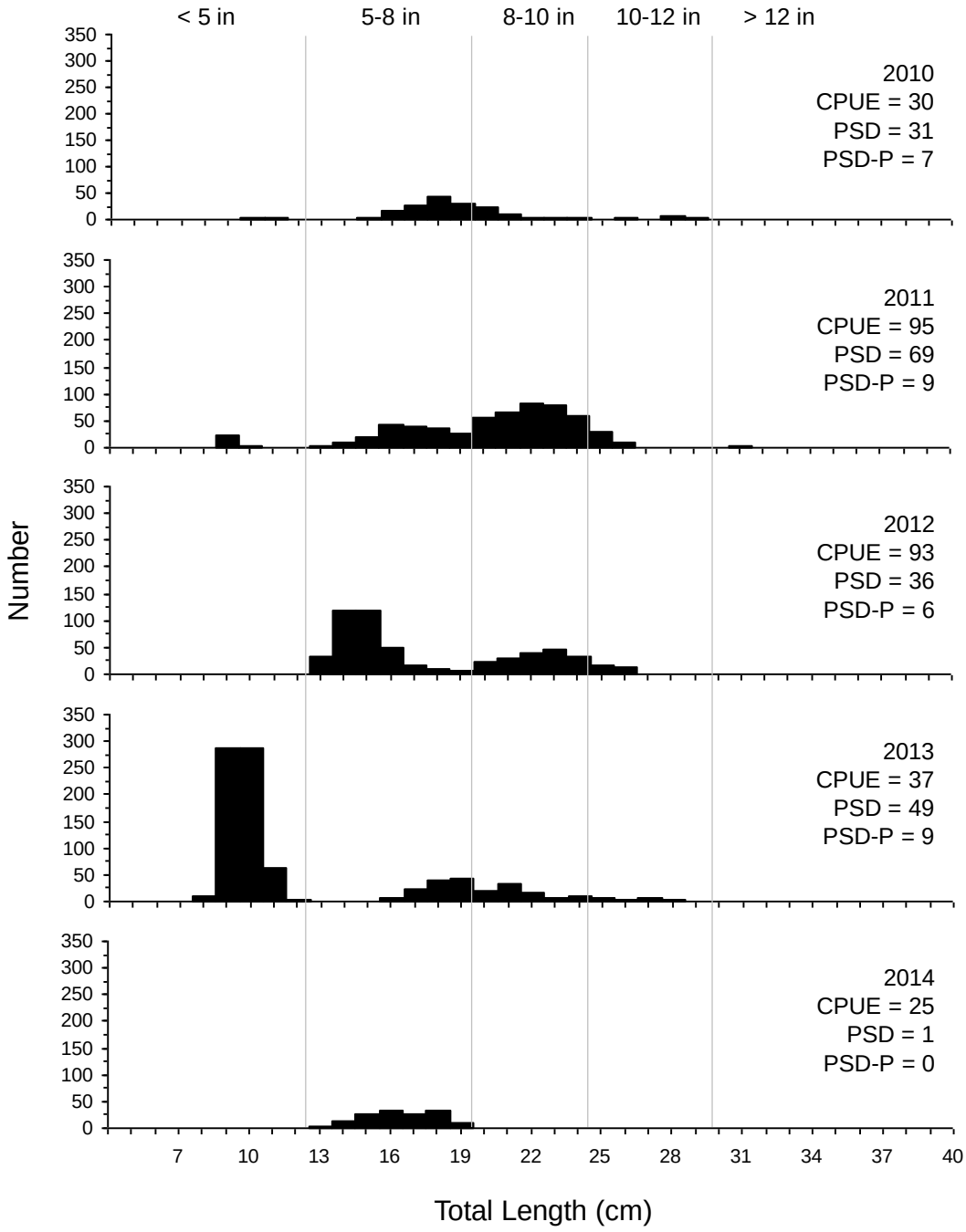

Figure 7. Length-frequency histogram, catch rate of stock-length fish (CPUE), proportional size distribution of quality- (PSD) and preferred-length (PSD-P) fish for yellow perch captured using experimental gill nets in Lynn Lake, 2010-2014.