

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 miles west and 3 miles south of Roslyn, SD |

Survey Dates and Sampling Information

| | |
|----------------------------------|--|
| Survey dates | May 19-20, 2009 (GN-MUE) September 1-3, 2009 (FN, GN) September 3, 2009 (EF-WAE) |
| Gill net sets (n) | 6 |
| Frame net sets (n) | 18 |
| Fall electrofishing-WAE (min) | 56 |
| Short-term gill net sets-MUE (n) | 6 |

Morphometry (Figure 1)

| | |
|------------------------|---------|
| Watershed area (acres) | unknown |
| Surface area (acres) | 1,390 |
| Maximum depth (ft) | ≈25 |
| Mean depth (ft) | unknown |

Ownership and Public Access

Lynn Lake is a non-meandered lake managed by the SDGFP. A single boat ramp is located on the west shoreline and is a private fee ramp; shore fishing access is available on dead-end roads on the north, south, and east side of the lake (Figure 1). Lands adjacent to Lynn Lake are generally under state and private ownership.

Watershed and Land Use

Land use within the Lynn Lake watershed is primarily agricultural with a mix of pasture or grassland, cropland, and woodland.

Water Level Observations

No Ordinary High Water Mark has been established by the South Dakota Water Management Board on Lynn Lake. The elevation of Lynn Lake on April 28, 2009 was 1769.2 fmsl and indicated an increase from the fall 2008 elevation of 1767.6 fmsl. By September 22, 2009 the water level had declined to an elevation of 1768.6 fmsl.

Aquatic Nuisance Species Monitoring

Plant Survey

Submersed vegetation is prevalent and rims the majority of the shoreline of Lynn Lake. No aquatic nuisance plant species were encountered during the 2009 survey.

Macro-Invertebrate/Mussel Survey

No aquatic nuisance macro-invertebrate or mussel species were sampled in 2009.

Fish Community Survey

No aquatic nuisance fish species were captured during the 2009 survey.

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 | NE Panfish Management Area: 10 daily; 50 possession Walleye: 2 daily; minimum length 16" |
| Management classification | none |
| Fish Consumption Advisories | none |

Lynn Lake

Lake Properties
Area: 1390 acres
Perimeter: 24.7 miles

Lynn Lake (2001)
Lake elevations and features are a reflection of data obtained from digital elevation models from aerial photography taken on October 6, 1997. The lake elevation was generated at 1771.4 feet above sea level.

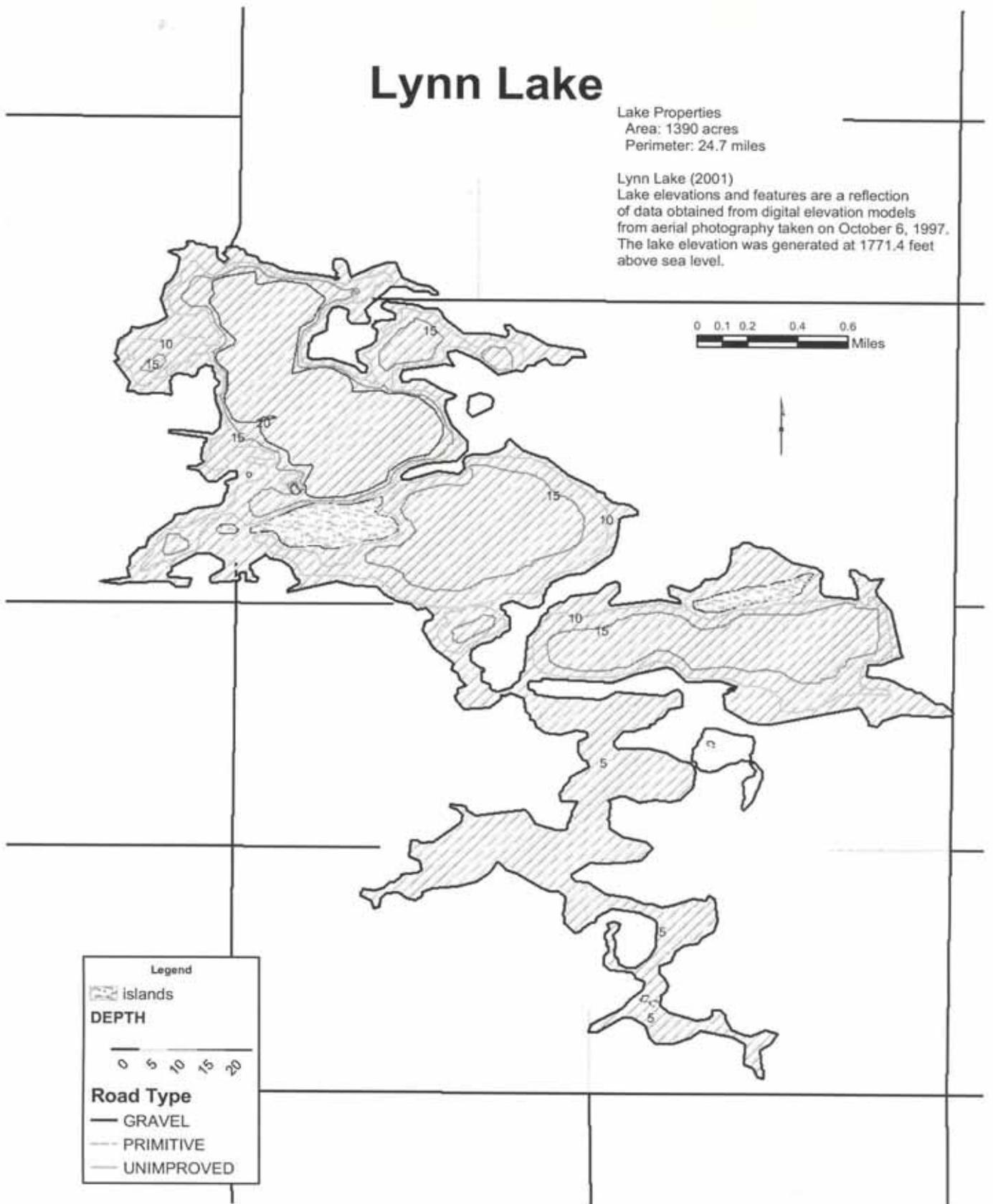


Figure 2. Map depicting depth contours for Lynn Lake, Day County, South Dakota.



Figure 2. Map depicting access location and standardized net locations for Lynn Lake, Day County, South Dakota.

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 low density muskellunge population to provide a unique angling opportunity in northeastern South Dakota.
- 3) Maintain a mean gill net CPUE of stock-length walleye ≥ 10 , a PSD of 30-60, and a PSD-P of 5-10.
- 4) 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 heavy precipitation during the 1990's, Lynn Lake was a shallow cattail slough. Heavy precipitation and resulting run-off resulted in increased water levels capable of sustaining fish life. The first known SDGFP stocking of fish into Lynn Lake occurred in 1998 when saugeye and black crappie were stocked (Table 6). Currently, Lynn Lake is managed as a black crappie, muskellunge, walleye, and yellow perch fishery.

Primary Species

Black crappie: Strong year-classes of black crappie were produced between 1998 and 2000 resulting in relatively high black crappie abundance. The high black crappie abundance led to an increased number of anglers targeting black crappies 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 (1998-2000) have succumbed to angling and natural mortality.

Prior to 2008, the Lynn Lake black crappie population was assessed using frame nets during mid to late May. In 2008, the timing of frame netting was adjusted and completed in conjunction with gill netting in early-September. The mean frame net CPUE of stock-length black crappie in 2009 was 1.7 (Table 1) and below the minimum objective (≥ 10 stock-length black crappie/net night (Table 3). The 2009 frame net CPUE represented a slight increase from the 2008 CPUE of 0.4 (Table 2), but relative abundance was still considered low.

Black crappie captured in the 2009 frame net catch ranged in total length from 7 to 31 cm (2.8 to 12.2 in), had a PSD of 55, and a PSD-P of 16. The 2009 PSD was within the management objective of 30-60; while the PSD-P was above the management objective of 5-10 (Table 3).

Otoliths were collected from a sub-sample of frame net captured black crappie in 2009. Age structure information suggests that black crappie in Lynn Lake exhibit consistent recruitment, as 7 consecutive year classes (2003-2009) were present in the frame net catch (Table 4). However, magnitude of recruitment is low resulting in the low CPUE. Year classes produced in 2007 and 2008 were the most represented and combined comprised approximately 63% of black crappie in the frame net catch (Table 4).

Although sample size is low, growth rates of black crappie in Lynn Lake appears to be fast. The weighted mean length at capture for age-2 black crappie was 197 mm (7.8 in; Table 5). Mean W_r values for black crappie in the 2009 frame net catch exceeded 105 for all length categories sampled. The mean W_r for stock-length black crappie was 121 (Table 1) and a slight decreasing trend in W_r values was apparent as total length increased.

Muskellunge: Lynn Lake is one of two lakes in northeastern SD managed for muskellunge. Muskellunge were first introduced into Lynn Lake in 2001, and subsequently stocked in 2003, 2004 and 2006 (Table 7). Muskellunge stockings are scheduled to take place on a biennial basis in conjunction with Amsden Dam, but depend upon availability. The goal is to maintain a low-density muskellunge population (one 30-inch fish/5 acres) that would provide anglers a diverse and unique opportunity in NE South Dakota.

In 2009, short-term gill netting was utilized to sample muskellunge during mid-May (May 19-20, 2010). Six 3-hour gill net sets resulted in the capture of a single muskellunge with a total length of 876 mm (34.5 in). No muskellunge were captured during the 2009 standard fish community survey at Lynn Lake; however, muskellunge were reported in the angler creel. Anglers caught an estimated 156 muskellunge during the summer period (May-August) 2009 (personal communication, Brian Blackwell). Anecdotal angler reports indicate that muskellunge exceeding the 1,016-mm (40-inch) minimum length restriction are present in the population.

Walleye: The 2009 mean gill net CPUE of stock-length walleye in Lynn Lake was 20.5 (Table 1) and above the minimum objective (≥ 10 stock-length walleye/net night; Table 3). Since 2002, the mean gill net CPUE has ranged from a low of 7.7 (2006) to a high of 51.8 (2003; Table 2). The 2009 gill net CPUE represented a substantial increase from the 12.2 observed in 2008 (Table 2) and indicated high relative abundance.

Walleye captured in the 2009 gill net catch ranged in total length from 15 to 66 cm (5.9 to 26.0 in), had a PSD of 35 and a PSD-P of 14 (Figure 4). The 2009 PSD was within the objective range of 30-60; while the PSD-P was above the objective range of 5-10 (Table 3).

Otoliths were collected from a sub-sample of gill net captured walleye in 2009. Ten walleye year classes were present (1999-2003, 2005-2009) with the 2007-2009 cohorts being the most represented (Table 6). Year classes produced in 2007 and 2008 were naturally produced and comprised approximately 70% of stock-length walleye in the 2009 gill net catch (Table 6). Walleye from the 2009 year class (age-0) were well represented in both the 2009 gill net catch (15.7/gill net) and during fall night

electrofishing (127.1/hour); however, the recruitment of this cohort to the adult population is currently unknown and will be assessed in future surveys. Recruitment of the 2006 year class appeared to be strong in 2007, but few walleye from this year class were captured in subsequent surveys conducted in 2008 and 2009 indicating poor recruitment to older ages (Table 6).

Walleye in Lynn Lake tend to grow fast and typically exceed quality-length (38cm; 15 in) by the end of their fourth growing season (age-3; Table 8). Since 2005, the weighted mean total length at capture for age-3 walleye has ranged from 422 to 453 mm (16.6 to 17.8 in; Table 8). Mean Wr values of walleye captured in the 2009 gill net catch ranged from 84 to 103 for all length categories sampled with the mean Wr of stock-length walleye being 90 (Table 1).

Yellow Perch: The mean gill net CPUE of stock-length yellow perch in 2009 was 8.2 (Table 1) and below the minimum objective (≥ 30 stock-length yellow perch/net night; Table 3). Since 2002, the mean gill net CPUE of stock-length yellow perch has fluctuated from a low of 5.3 (2003) to a high of 42.5 (2006) with the 2002-2009 average being 17.3 (Table 2). Based on the 2009 gill net catch, relative abundance appears to be moderate.

Yellow perch captured in the 2009 gill net catch ranged in total length from 8 to 24 cm (3.1 to 9.4 in) with the majority being less than stock-length (Figure 5). Yellow perch in the 2009 gill net catch had a PSD of 45 and a PSD-P of 2 (Table 1). The 2009 PSD was within the management objective; while the PSD-P was below the management objective of 5-10 (Table 3).

Otoliths were collected from a sub-sample of gill net captured yellow perch in 2009. Age structure information indicated that year classes produced in 2007-2009 comprised the entire sample, with the 2009 (age-0) year class being the most represented (Table 9). The weighted mean total length at capture for age-2 male yellow perch was 213 mm (8.4 in; Table 10). The weighted mean total length at capture for age-2 female yellow perch was 234 mm (9.2 in; Table 10). Mean Wr values of gill net captured yellow perch in 2009 ranged from 99 to 117 for all length categories sampled with the mean Wr of stock-length yellow perch being 108 (Table 1).

Other Species

Bluegill: Although not abundant, bluegills in Lynn Lake proved attractive to many anglers in the early to mid 2000's as many of the bluegills exceeded memorable-length (250 mm). However, in recent years the size structure has declined (Figure 6). Prior to 2008, the Lynn Lake bluegill population was assessed using frame nets during mid to late May. In 2008, the timing of frame netting was adjusted and completed in conjunction with gill netting in early-September.

The 2009 mean frame net CPUE of stock-length bluegill was 20.6 (Table 1). The 2009 frame net CPUE represented a substantial increase from the 2008 CPUE of 3.6 and indicated moderate relative abundance. Bluegill sampled in frame nets during 2009 ranged in total length from 8 to 21 cm (3.1 to 8.3 in), had a PSD of 13 and a PSD-P of 0 (Figure 6).

No growth information was collected in 2009; however, frame net captured bluegill were in good condition with mean W_r values that exceeded 110 for all length categories sampled. The mean W_r for stock-length fish bluegill was 116 (Table 1).

Other: Northern pike, rock bass, and smallmouth bass were other fish species captured in low numbers during the 2009 fish community survey on Lynn Lake (Table 1).

Management Recommendations

- 1) Conduct fish community assessment surveys on an annual basis (next survey scheduled in early fall 2010) 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 spring frame netting/experimental gill netting near peak of spawning activity (49 to 60° F) annually to monitor muskellunge relative abundance and size structure.
- 4) Stock 500 (\approx 12-inch) 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-inch) 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 walleye young-of-the-year abundance.
- 7) Stock walleye at (\approx 1,000 fry/acre) to establish additional year classes if the fall night electrofishing CPUE of young-of-the-year walleye and gill netting results warrant (i.e., low gill net CPUE of < 250-mm (10-inch) walleye and/or fall night electrofishing CPUE of age-0 walleye < 75 fish/hour).
- 8) Evaluate walleye population dynamics and implement regulations to benefit the population and comply with tool box options.
- 9) Establish a public boat ramp and parking area on Lynn Lake.

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 fall electrofishing in Lynn Lake, 2009. Confidence intervals include 80 percent (\pm CI-80) or 90 percent (\pm CI-90). BLC= black crappie; BLG= bluegill; NOP= northern pike; ROB= rock bass; SMB= smallmouth bass; WAE= walleye; YEP= yellow perch

| Species | Abundance | | Stock Density Indices | | | | Condition | |
|--------------------------|-----------|-------|-----------------------|-------|-------|-------|-----------|-------|
| | CPUE | CI-80 | PSD | CI-90 | PSD-P | CI-90 | Wr | CI-90 |
| <i>Frame nets</i> | | | | | | | | |
| BLC | 1.7 | 0.8 | 55 | 0 | 16 | 0 | 121 | 2 |
| BLG | 20.6 | 10.7 | 13 | 3 | 0 | --- | 116 | 1 |
| NOP | 0.1 | 0.1 | 100 | 0 | 50 | 50 | 91 | 11 |
| ROB | 0.3 | 0.3 | 33 | 43 | 0 | --- | 111 | 5 |
| SMB | 0.1 | <0.1 | 100 | --- | 100 | --- | 119 | --- |
| WAE | 1.5 | 0.4 | 96 | 4 | 85 | 12 | 90 | 2 |
| YEP | 1.7 | 0.9 | 23 | 14 | 3 | 6 | 98 | 3 |
| <i>Gill nets</i> | | | | | | | | |
| BLC | 0.5 | 0.5 | 0 | --- | 0 | --- | 127 | <1 |
| BLG | 0.2 | 0.2 | 0 | --- | 0 | --- | 136 | --- |
| NOP | 0.2 | 0.2 | 100 | --- | 0 | --- | 97 | --- |
| WAE | 20.5 | 4.8 | 35 | 7 | 14 | 5 | 90 | <1 |
| YEP | 8.2 | 1.5 | 45 | 12 | 2 | 3 | 108 | 1 |
| <i>Electrofishing</i> | | | | | | | | |
| WAE ¹ (age-0) | 127.1 | --- | --- | --- | --- | --- | --- | --- |

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 fall electrofishing in Lynn Lake, 2002-2009. BLB= black bullhead; BLC= black crappie; BLG= bluegill; MUE= muskellunge; NOP= northern pike; ROB= rock bass; SMB= smallmouth bass; WAE= walleye; WHS= white sucker; YEP= yellow perch

| Species | CPUE | | | | | | | | Mean |
|--------------------------|------|------|------|------|-------------------|-------------------|------|-------|-------|
| | 2002 | 2003 | 2004 | 2005 | 2006 ¹ | 2007 ¹ | 2008 | 2009 | |
| <i>Frame nets</i> | | | | | | | | | |
| BLB | --- | --- | --- | --- | --- | --- | 0.1 | 0.0 | 0.1 |
| BLC | --- | --- | --- | --- | --- | --- | 0.4 | 1.7 | 1.1 |
| BLG | --- | --- | --- | --- | --- | --- | 3.6 | 20.6 | 12.1 |
| NOP | --- | --- | --- | --- | --- | --- | 0.1 | 0.1 | 0.1 |
| ROB | --- | --- | --- | --- | --- | --- | 0.0 | 0.3 | 0.2 |
| SMB | --- | --- | --- | --- | --- | --- | 0.0 | 0.1 | 0.1 |
| WAE | --- | --- | --- | --- | --- | --- | 2.8 | 1.5 | 2.2 |
| YEP | --- | --- | --- | --- | --- | --- | 0.4 | 1.7 | 1.1 |
| <i>Gill nets</i> | | | | | | | | | |
| BLB | 2.3 | 1.8 | 1.0 | 0.0 | 1.2 | 0.7 | 0.0 | 0.0 | 0.9 |
| BLC | 4.5 | 0.2 | 1.7 | 3.2 | 4.8 | 0.2 | 0.2 | 0.5 | 1.9 |
| BLG | 0.8 | 0.3 | 0.5 | 1.0 | 5.3 | 0.5 | 0.3 | 0.2 | 1.1 |
| MUE | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 |
| NOP | 1.7 | 0.2 | 0.3 | 0.3 | 0.5 | 0.0 | 0.0 | 0.2 | 0.4 |
| ROB | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| WAE | 39.8 | 51.8 | 46.2 | 37.3 | 7.7 | 14.3 | 12.2 | 20.5 | 28.7 |
| YEP | 24.2 | 5.3 | 19.3 | 9.8 | 42.5 | 23.2 | 5.5 | 8.2 | 17.3 |
| <i>Electrofishing</i> | | | | | | | | | |
| WAE ² (age-0) | --- | --- | --- | 8.7 | 708.5 | 988.5 | 99.4 | 127.1 | 386.4 |

¹ Monofilament gill net mesh size change (.75", 1", 1.25", 1.5", 2" and 2.5")

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, 2002-2009. BLB= black bullhead; BLC= black crappie; BLG= bluegill; WAE= walleye; YEP= yellow perch

| Species | 2002 | 2003 | 2004 | 2005 | 2006 ¹ | 2007 ¹ | 2008 | 2009 | Average | Objective |
|-------------------|------|------|------|------|-------------------|-------------------|------|------|---------|-----------|
| <i>Frame nets</i> | | | | | | | | | | |
| BLB | | | | | | | | | | ≤ 100 |
| CPUE | --- | --- | --- | --- | --- | --- | <1 | 0 | 0 | --- |
| PSD | --- | --- | --- | --- | --- | --- | 100 | --- | 100 | --- |
| PSD-P | --- | --- | --- | --- | --- | --- | 100 | --- | 100 | --- |
| Wr | --- | --- | --- | --- | --- | --- | 80 | --- | 80 | --- |
| BLC | | | | | | | | | | ≥ 10 |
| CPUE | --- | --- | --- | --- | --- | --- | <1 | 2 | 1 | 30-60 |
| PSD | --- | --- | --- | --- | --- | --- | 86 | 55 | 71 | 5-10 |
| PSD-P | --- | --- | --- | --- | --- | --- | 86 | 16 | 51 | --- |
| Wr | --- | --- | --- | --- | --- | --- | 110 | 121 | 116 | --- |
| BLG | | | | | | | | | | --- |
| CPUE | --- | --- | --- | --- | --- | --- | 4 | 21 | 13 | --- |
| PSD | --- | --- | --- | --- | --- | --- | 2 | 13 | 8 | --- |
| PSD-P | --- | --- | --- | --- | --- | --- | 0 | 0 | 0 | --- |
| Wr | --- | --- | --- | --- | --- | --- | 115 | 116 | 116 | --- |
| <i>Gill nets</i> | | | | | | | | | | |
| WAE | | | | | | | | | | ≥ 10 |
| CPUE | 40 | 52 | 46 | 37 | 8 | 14 | 12 | 21 | 29 | ≥ 10 |
| PSD | 47 | 80 | 71 | 97 | 100 | 66 | 55 | 35 | 69 | 30-60 |
| PSD-P | 2 | 3 | 1 | 9 | 30 | 19 | 30 | 14 | 14 | 5-10 |
| Wr | 86 | 91 | 95 | 95 | 86 | 85 | 89 | 90 | 90 | --- |
| YEP | | | | | | | | | | ≥ 30 |
| CPUE | 24 | 5 | 19 | 10 | 43 | 23 | 6 | 8 | 17 | ≥ 30 |
| PSD | 42 | 75 | 53 | 100 | 62 | 35 | 18 | 45 | 54 | 30-60 |
| PSD-P | 17 | 28 | 37 | 58 | 50 | 14 | 3 | 2 | 26 | 5-10 |
| Wr | 112 | 116 | 107 | 107 | 105 | 106 | 104 | 108 | 108 | --- |

¹ Monofilament gill net mesh size change (.75", 1", 1.25", 1.5", 2" and 2.5")

Table 4. Year class distribution based on the expanded age/length summary for black crappie sampled in frame nets from Lynn Lake, 2009.

| Survey Year | Year Class | | | | | | |
|-------------|------------|------|------|------|------|------|------|
| | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 | 2003 |
| 2009 | 3 | 11 | 11 | 4 | 3 | 1 | 2 |

Table 5. Weighted mean total length (mm) at capture for black crappie sampled in frame nets (expanded sample size) from Lynn Lake, 2009.

| Year | Age | | | | | | |
|------|--------|----------|----------|---------|---------|---------|---------|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 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 walleye sampled in gill nets and associated stocking history (Number stocked x 1,000) from Lynn Lake, 2005-2009.

| Survey Year | Year Class | | | | | | | | | | | | |
|-------------------|------------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 | 2003 | 2002 | 2001 | 2000 | 1999 | 1998 | 1997 |
| 2009 | 94 | 37 | 48 | 7 | 6 | | 2 | 6 | 2 | 13 | 1 | | |
| 2008 | --- | 11 | 38 | 8 | 4 | | 4 | 8 | 1 | 20 | 1 | | |
| 2007 ¹ | --- | --- | | 41 | 6 | | 11 | 13 | | 27 | | | 1 |
| 2006 ¹ | --- | --- | --- | | | | 9 | 11 | | 27 | | | |
| 2005 | --- | --- | --- | --- | 3 | | 65 | 63 | 4 | 91 | 1 | | |
| # stocked | | | | | | | | | | | | | |
| fry | | | | 1500 | | | | 1500 | 1500 | 1000 | 910 | | |
| sm. fingerling | | | | | | | | | | | | 5 | |
| lg. fingerling | | | | | | | | | | | | | |

¹ Monofilament gill net mesh size (.75", 1", 1.25", 1.5", 2" and 2.5").

Table 7. Stocking history including size and number for fishes stocked into Lynn Lake, 1998-2009. No fish stockings were made by SDGFP personnel prior to 1998.

| Year | Species | Size | Number |
|------|---------|------------|-----------|
| 1998 | BLC | fingerling | 80,100 |
| | SXW | fingerling | 1,762 |
| | SXW | juvenile | 3,150 |
| 1999 | SXW | fry | 910,000 |
| 2000 | WAE | fry | 1,000,000 |
| | YEP | adult | 1,500 |
| 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 |
| 2006 | MUE | fingerling | 500 |
| | WAE | fry | 1,500,000 |
| | MUS | fingerling | 1,250 |

Table 8. Weighted mean total length at capture (mm) for walleye sampled in experimental gill nets (expanded sample size) from Lynn Lake, 2005-2009. Note: sampling was conducted at approximately the same time during each year allowing comparisons among years to monitor growth trends.

| Year | Age | | | | | | | | | | |
|------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 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) | --- | --- | --- | --- |

Table 9. Year class distribution based on the age/length summary for yellow perch sampled in gill nets from Lynn Lake, 2009.

| Survey Year | Year Class | | | | | |
|-------------|------------|------|------|------|------|------|
| | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 |
| 2009 | 442 | 35 | 22 | | | |

Table 10. Weighted mean total length (mm) at capture by gender for yellow perch captured in experimental gill nets (expanded sample size) from Lynn Lake, 2009.

| Year | Age | | | | | |
|----------|----------|----------|----------|-----|-----|-----|
| | 0 | 1 | 2 | 3 | 4 | 5 |
| 2009 | | | | | | |
| Male | 96 (314) | 154 (7) | 213 (2) | --- | --- | --- |
| Female | 96 (131) | 149 (25) | 234 (20) | --- | --- | --- |
| Combined | 96 (442) | 146 (35) | 232 (22) | --- | --- | --- |

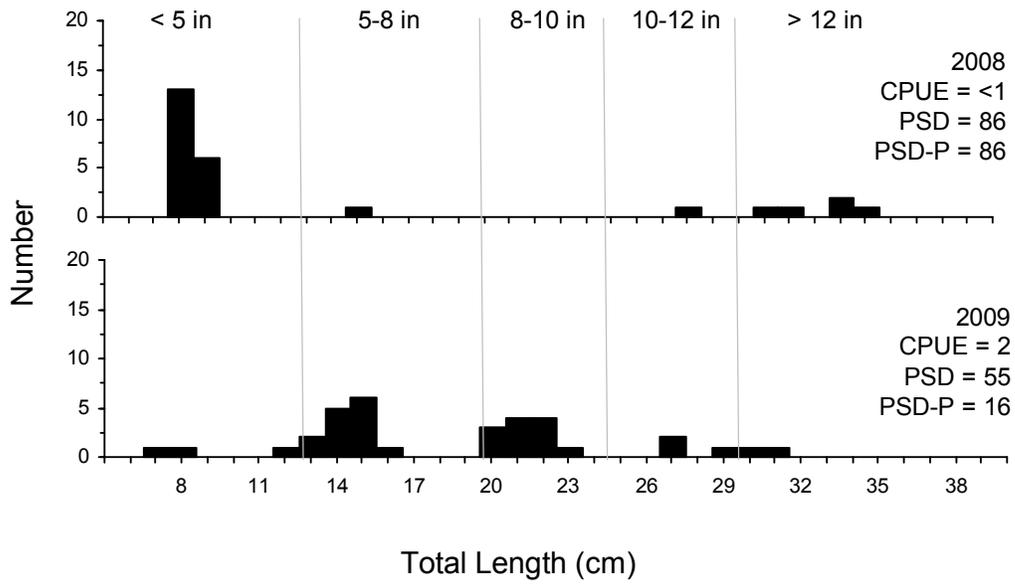


Figure 3. Length-frequency histogram, catch rate of stock-length fish (CPUE), proportional size distribution of quality- (PSD) and preferred-length (PSD-P fish for black crappie captured by frame nets in Lynn Lake, 2008-2009.

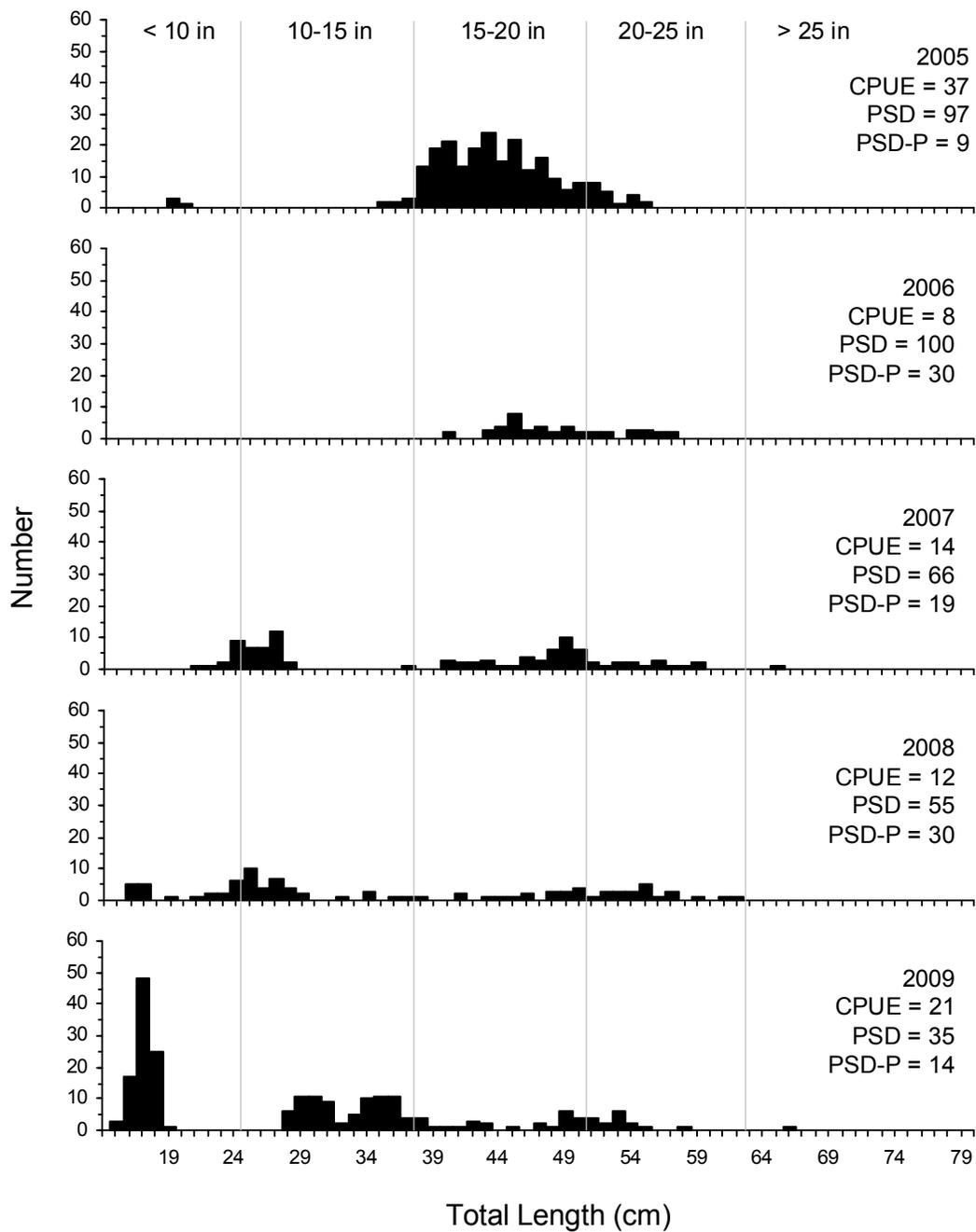


Figure 4. Length-frequency histogram, catch rate of stock-length fish (CPUE), proportional size distribution of quality- (PSD) and preferred-length (PSD-P) fish for walleye captured using experimental gill nets in Lynn Lake, 2005-2009.

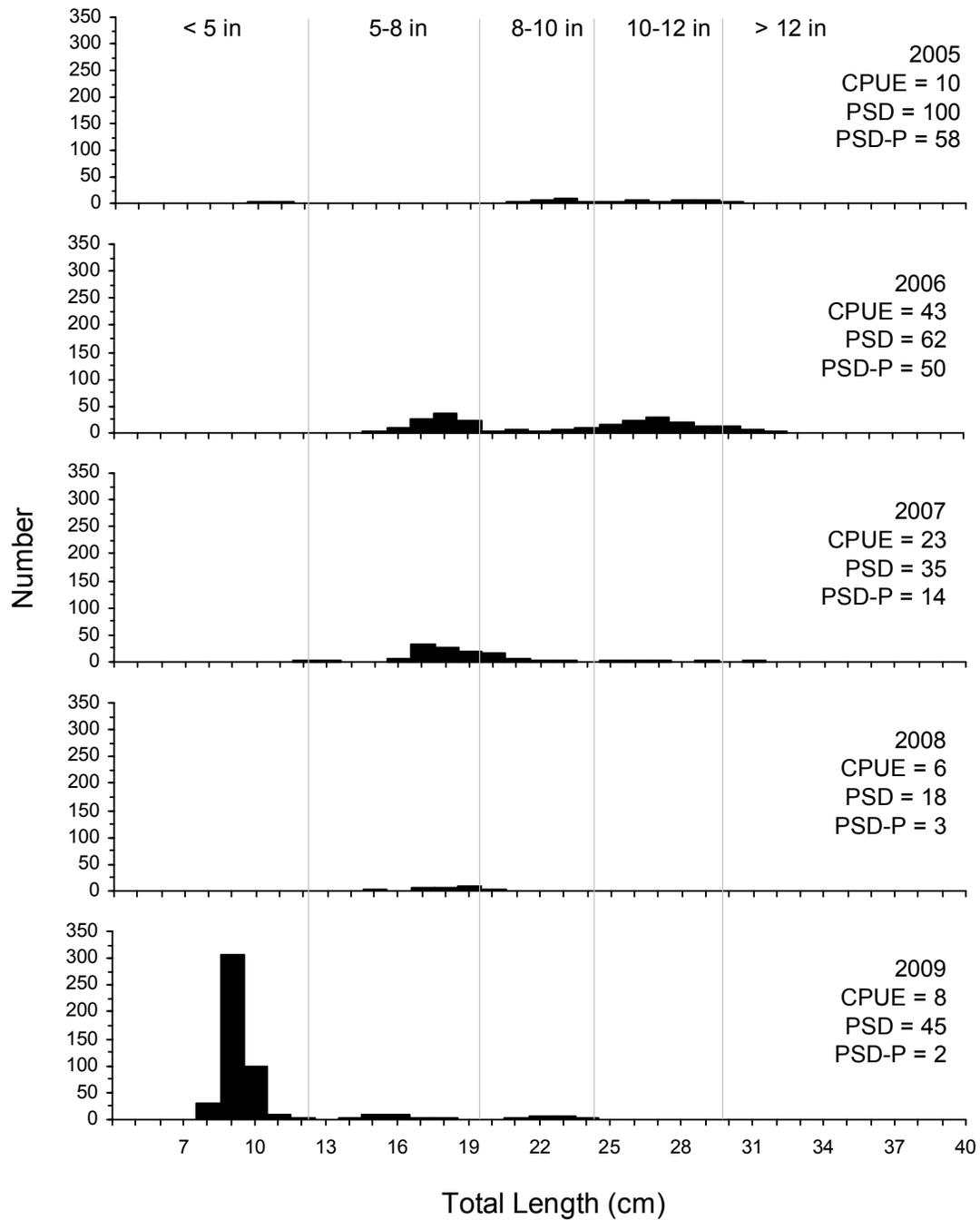


Figure 5. Length-frequency histogram, catch rate of stock-length fish (CPUE), proportional size distribution of quality- (PSD) and preferred-length (PSD-P) fish for yellow perch captured using experimental gill nets in Lynn Lake, 2005-2009.

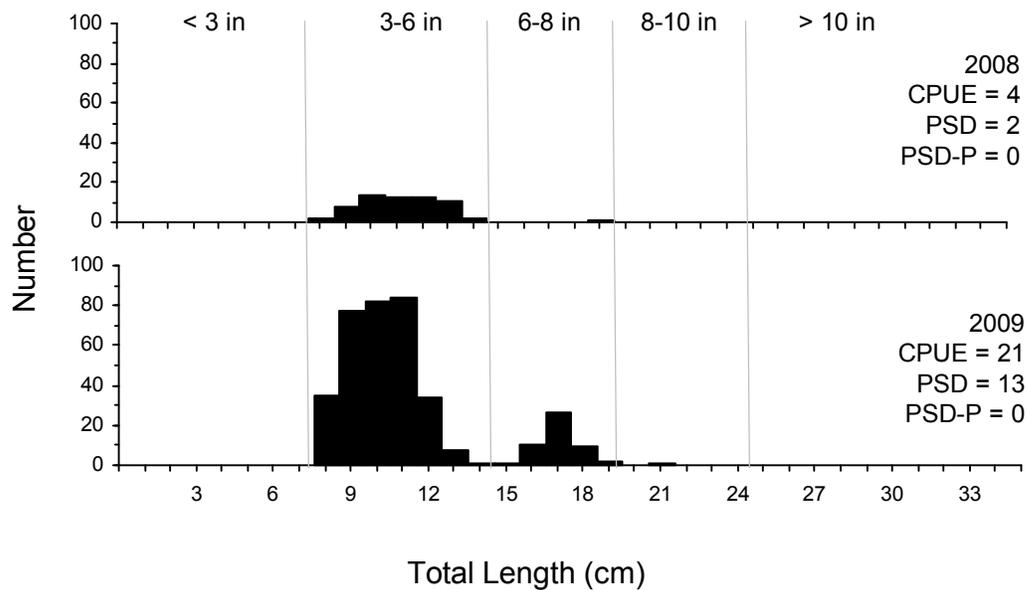


Figure 6. Length-frequency histogram, catch rate of stock-length fish (CPUE), proportional size distribution of quality- (PSD) and preferred-length (PSD-P fish for bluegill captured by frame nets in Lynn Lake, 2008-2009.