

FISH SURVEY AND MANAGEMENT DATA

Mandi Brandt - Aquatic Biologist (Brush) mandi.brandt@state.co.us

General Information: North Sterling Reservoir is a 2,880 acre water (at full capacity). The reservoir provides excellent fishing for Walleye, Saugeye, and Crappie, and quality fishing for Wiper and Channel Catfish. Please visit the state park website at: http://cpw.state.co.us/placestogo/Parks/northsterling for updated water and fishing conditions.

Location: Logan County. From I-76 take Exit 125 and head 12 miles north on CR 39 to CR 46. Take CR

46 2 miles west to the reservoir.

Recreational Management: Colorado Parks and Wildlife

Fishery Management: Warmwater angling

Purchase a Fishing License: http://cpw.state.co.us/buyapply/Pages/Fishing.aspx

Amenities

- Informational kiosks
- Marina
- Boat ramps
- Picnic areas
- Modern restrooms
- Showers
- RV hook-ups
- Designated tent camping
- Hiking trails
- Fishing (open water and ice)
- Hunting
- Wildlife viewing

Regulations

- Min. size for Walleye and Saugeye is 15" (only 1 can exceed 21").
- Min. size for Wiper is 15" (only 1 can exceed 25").
- Min. size for Largemouth Bass is 15".
- Min. size for Smallmouth Bass is 12".
- Min. size for Crappie is 10".
- Statewide bag and possession limits also apply.
- Entry requires a Colorado State Parks Pass, which is available on site.

Previous Stocking

2021

Walleye and Saugeye Largemouth Bass Channel Catfish Black Crappie Bluegill Rainbow and Cuttbow Trout

2020

Largemouth Bass Channel Catfish Black Crappie Bluegill

2019

Walleye and Saugeye Largemouth Bass Channel Catfish Black Crappie Bluegill

<u>2018</u>

Walleye and Saugeve Largemouth Bass Channel Catfish Black Crappie Bluegill Redear Sunfish

Sportfishing Notes

Walleye and Saugeye

- Fish the dam during early spring when the water temperature is 40-50°F.
- Boat anglers do well jigging, trolling or casting shad raps, and trolling wally divers during late spring and early summer.
- Fish rocky areas, drop-offs, and flats in each arm of the reservoir at other times.

Wiper

- Fish the inlet when the reservoir is filling and fish open water at other times.
- Fish are often found chasing shad, so use shad imitations and follow the seagulls.
- Green mussels as bait work well.

Channel Catfish

- Fish coves and reservoir arms, especially during August and September.
- Cut shad, cut carp, and shrimp as bait work well.



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About the Reservoir...

North Sterling Reservoir, once known as Point of Rocks Reservoir, was built by the Empire Construction Company between 1909 and 1911, making the reservoir approximately 113 years old. Water used to fill North Sterling Reservoir is taken from the South Platte River near the town of Snyder, and flows down a 62-mile long earthen canal before reaching the reservoir. Due to water breeching the inlet canal in several places, the reservoir was not filled until 1912. The reservoir was stocked with Black Bass and Yellow Perch before it officially opened in 1913. In 1915, Black Crappie were also stocked.

Since the primary function of North Sterling Reservoir is to store irrigation water, water levels routinely drop during the irrigation season. During a typical year, water levels can fluctuate by approximately 40 ft, reducing the reservoir's volume to about one-seventh of its capacity (Figure 1). Unfortunately, the reservoir

is drawn down while panfish are spawning, limiting recruitment of critical prey species such as Bluegill and Gizzard Shad. These young fish seek refuge in littoral habitat, but this habitat is lost as the

water level begins to drop, increasing their vulnerability to predation. The risk of being consumed is heightened as the water level continues to drop and fish are concentrated into a

successively smaller pool. Young fish of other species such as Walleye, Saugeye, Wiper, and Crappie are also negatively impacted by reservoir draw down.

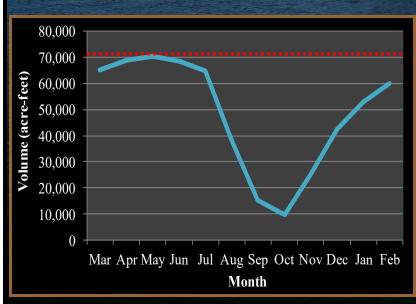


Figure 1. Water level fluctuation at North Reservoir during a typical year. Prior to the irrigation season, which usually starts in May, the reservoir is usually at full capacity (red dotted line). During the irrigation season (May-October) the reservoir is routinely drawn down, often to approximately one-seventh of its capacity. Refilling usually begins near the end of October and continues through the winter months (December-February) when possible. The reservoir is then topped off in the spring (March-April).



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In 2012, the reservoir's water level was drastically reduced due to severe drought conditions. The low water level, in combination with decaying organic matter from an earlier blue-green algae bloom, created a perfect storm that resulted in a mid-September fish kill. High winds turned the reservoir over, forcing decaying organic matter from the bottom of the lake up to the top of the water column, deple-





ting oxygen that the fish were depending on to survive. Colorado Parks and Wildlife crews found at least one fish of every species that inhabits the reservoir dead along the shoreline. Though the reservoir did not suffer a complete fish kill, catch-per-unit-effort decreased by 80% from the 2011 to 2012 annual survey. While some primary predators such as Walleye were not drastically effected by the partial summerkill, other primary



were. While it was terrible to lose so many predatory sportfish, the loss allowed panfish species to flourish, which has helped create excellent Black Crappie, White Crappie, Yellow Perch, and Bluegill fisheries.



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About the Fish...

Tables 1-2. Data collected on fish captured during 162.86 hours of netting with four Colorado Parks and Wildlife warmwater gill nets and four American Fisheries Society warmwater gill nets during the 2021 fall survey.

			Mea	n, Minimum	and Maximun	Length and Wei	ght			
	Total	Min cut	Max cut	Total	Length (inches)				Weight (lb)	
Species	Catch	inch	inch	Used	Mean	Minimum	Maximum	Mean	Minimum	Maximum
BLACK CRAPPIE	3			3	8.62	4.02	13.58	0.68	0.03	1.68
CHANNEL CATFISH	15			15	23.85	14.37	29.61	6.03	0.26	10.93
COMMON CARP	11			11	13.88	5.47	25.12	2.19	0.08	6.66
FRESHWATER DRUM	11			11	13.45	8.58	16.89	0.83	0.23	1.44
GIZZARD SHAD	1148			1148	6.33	4.57	19.17	0.12	0.02	6.58
NORTHERN PIKE	1			1	23.39	23.39	23.39	3.06	3.06	3.06
QUILLBACK	86			86	16.47	8.46	21.97	2.46	0.32	5.71
RAINBOW TROUT	1			1	14.37	14.37	14.37	0.95	0.95	0.95
RIVER CARPSUCKER	24			24	16.47	5.12	22.09	2.84	0.06	6.40
SAUGEYE (WALLEYE X SAUGER HYBRID)	37			37	16.43	8.11	19.13	1.74	0.15	3.31
SMALLMOUTH BASS	1			1	12.60	12.60	12.60	1.01	1.01	1.01
PALMETTO BASS (WIPER)	7			7	18.32	6.93	29.02	5.15	0.15	15.30
WALLEYE	269			269	19.07	7.24	26.02	2.98	0.12	8.30
WHITE CRAPPIE	17			17	8.74	4.13	12.24	0.38	0.03	1.09
WHITE SUCKER	2			2	14.31	14.17	14.45	1.13	1.08	1.17
YELLOW PERCH	4			4	7.48	6.10	10.39	0.12	0.07	0.20

Relative Abundance and Catch/Unit Effort										
Species	Total Catch	Min.Cut inch	Max.Cut inch	Total used	Weight Lbs	Percent Number Weight		Catch per Unit Effort Number/Effort Lbs/Effort		
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BLACK CRAPPIE	3			3	2.03	0.18	0.14	0.02	0.01	
CHANNEL CATFISH	15			15	90.41	0.92	6.23	0.09	0.56	
COMMON CARP	11			11	24.07	0.67	1.66	0.07	0.15	
FRESHWATER DRUM	11			11	9.17	0.67	0.63	0.07	0.06	
GIZZARD SHAD	1148			1148	129.28	70.13	8.92	7.05	0.79	
NORTHERN PIKE	1			1	3.06	0.06	0.21	0.01	0.02	
QUILLBACK	86			86	211.64	5.25	14.60	0.53	1.30	
RAINBOW TROUT	1			1	0.95	0.06	0.07	0.01	0.01	
RIVER CARPSUCKER	24			24	68.25	1.47	4.71	0.15	0.42	
SAUGEYE (WALLEYE X SAUGER HYBRID)	37			37	64.51	2.26	4.45	0.23	0.40	
SMALLMOUTH BASS	1			1	1.01	0.06	0.07	0.01	0.01	
PALMETTO BASS (WIPER)	7			7	36.06	0.43	2.49	0.04	0.22	
WALLEYE	269			269	800.50	16.43	55.20	1.65	4.92	
WHITE CRAPPIE	17			17	6.40	1.04	0.44	0.10	0.04	
WHITE SUCKER	2			2	2.25	0.12	0.16	0.01	0.01	
YELLOW PERCH	4			4	0.49	0.24	0.03	0.02	0.00	



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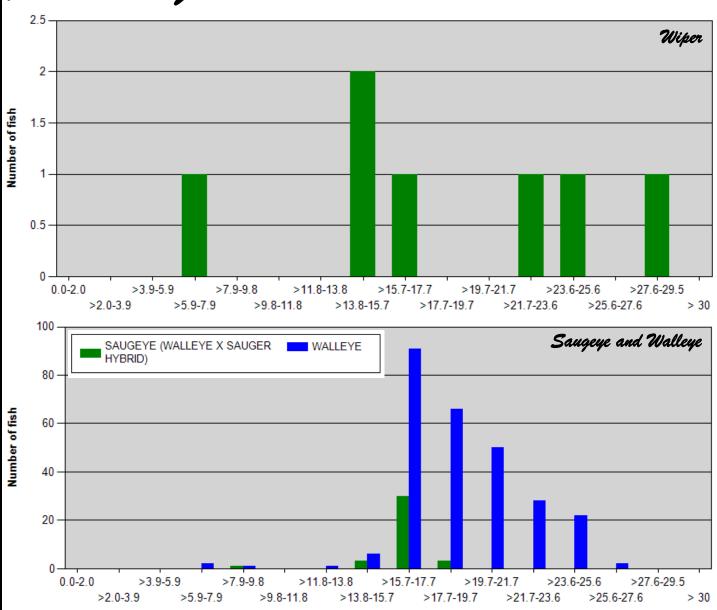


Figure 2. Length frequency histograms of Wiper (top) and Saugeye and Walleye (bottom) caught during the 2021 fall survey. The survey included 162.88 hours of netting with four Colorado Parks and Wildlife warmwater gill nets and four American Fisheries Society warmwater gill nets.

Length (inch)



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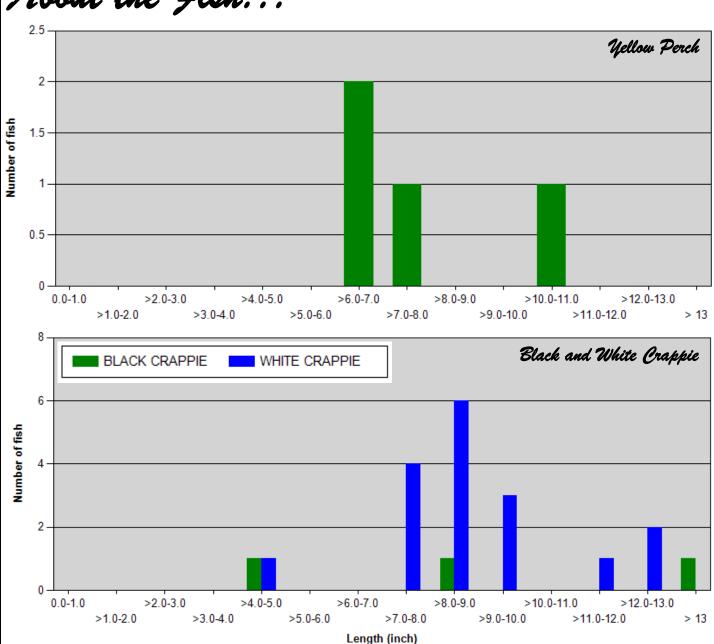


Figure 3. Length frequency histograms of Yellow Perch (top) and Black and White Crappie (bottom) caught during the 2021 fall survey. The survey included 162.88 hours of netting with four Colorado Parks and Wildlife warmwater gill nets and four American Fisheries Society warmwater gill nets.



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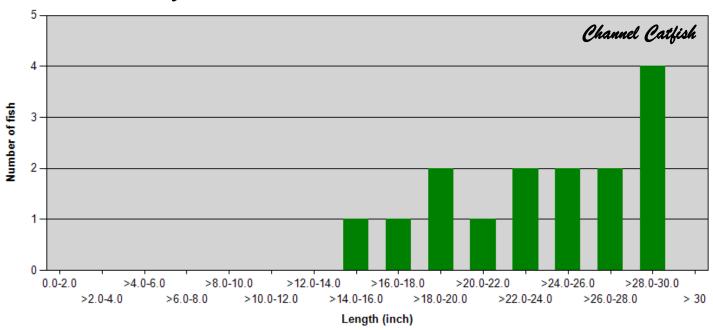


Figure 4. Length frequency histogram of Channel Catfish caught during the 2021 fall survey. The survey included 162.88 hours of netting with four Colorado Parks and Wildlife warmwater gill nets and four American Fisheries Society warmwater gill nets.

