2021 Survey Summary I-80 Lakes Lincoln and Dawson Counties



Jared Lorensen, Fisheries Biologist

There are 20 Interstate 80 (I-80) Lake fisheries in Lincoln and Dawson Counties that are actively managed by fisheries personnel from the North Platte District Office. These lakes range from 6 to 53 surface acres and primarily exist as Wildlife Management Areas (WMAs) but some areas are managed by Nebraska Department of Transportation and by local City Governments. For more information concerning I-80 Lakes consult our Fishing Across Nebraska publication and the 2022 Fishing Guide.

On average, five of these I-80 Lake Fisheries are sampled per year. During the spring, boat electrofishing is used to sample largemouth bass while modified fyke nets (aka trap nets) are used to sample other shoreline-oriented species such as bluegill and redear sunfish. The following text and graphs depict survey data that was collected during 2021. For historical survey information investigate Historical Survey Summaries on NGPC's website. For more explanation of what constitutes a fisheries survey read this article.

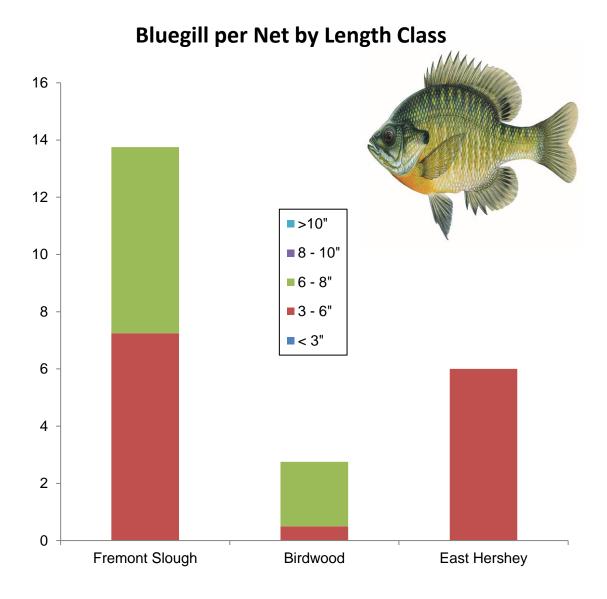
Please don't litter as there is no designated litter control method in place at many of these I-80 Lakes. Investigate WMA Regulations as camping has been prohibited or more stringently regulated at many of these locations. Investigate the 2022 Boating Guide for boating restrictions.



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Bluegill are prevalent in all I-80 Lakes and serve as the primary prey item for predatory species. For their size, bluegill are "scrappy" fighters especially on light tackle. Their tendency to inhabit near shoreline habitats make them a good target for bank anglers. Statewide regulations for bluegill apply to most I-80 Lakes but West Brady and East Hershey remain Catch and Release Only (C&R) For All Species.

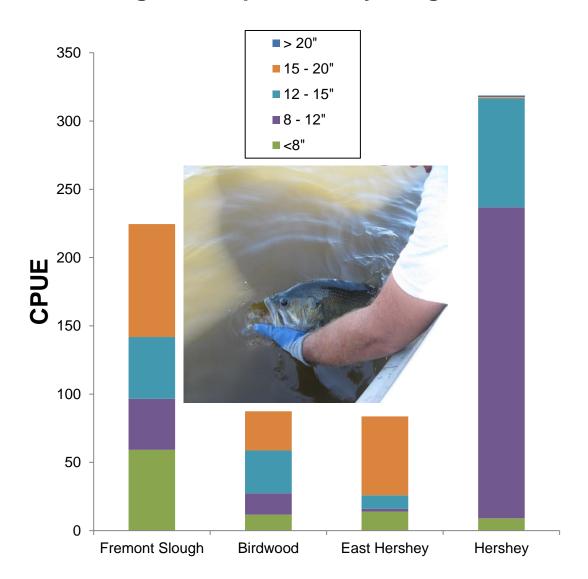
According to the 2021 survey data, Fremont Slough has a large bluegill population that consists of 53% 3-6" and 47% 6-8". Of these bluegill, average length was 5.7". Birdwood's survey indicates a much smaller population than anticipated. It does indicate bluegill reaching 7.2". East Hershey's survey was composed only of small individuals. Access <u>Historical I-80 Lake Information</u> to review survey data from other lakes.



Largemouth bass are the main predatory species in most I-80 Lakes. Statewide regulations for largemouth bass apply to most I-80 Lakes but West Brady and East Hershey remain catch and release (C&R) only for all species.

Hershey had the highest density population of 2021's surveyed I-80 Lakes. This population is strongly dominated by small individuals (<15") but two were measured near 20". East Hershey and Birdwood have smaller populations but some larger individuals (>15"). Fremont Slough's population displayed the most evenly distributed population with much diversity of sizes offering both small and large fish (>15"). Access <u>Historical Sampling Surveys</u> to view other largemouth bass survey reports.

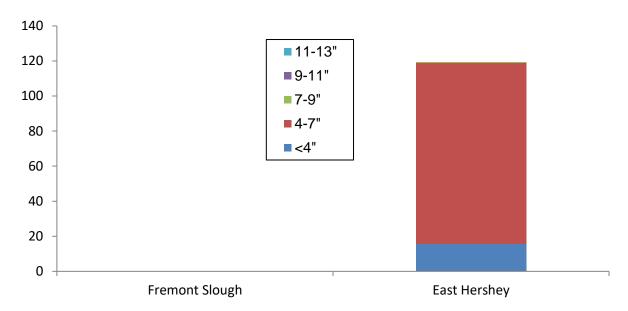
Largemouth per Hour by Length Class



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Redear sunfish offer another option for panfish anglers to pursue in many I-80 Lakes. They are a southern species that have found a niche in SW Nebraska. In several I-80 lakes like East Hershey they are quite numerous but don't reach quality lengths. In other lakes such as Fort McPherson, West Maxwell and West Brady they do quite well. During 2021, only 1 in total was captured at Fremont Slough. East Hershey's survey included 13% <4", 87% 4-7" and less than 1% 7-9" with a mean length of 4.5".

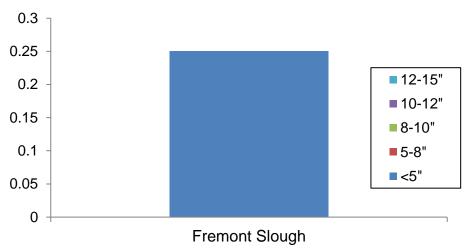
Redear sunfish per Net by Length Class





Crappie (species combined) offer a much less abundant target for anglers to pursue (note chart below). Many of these fish are present due to illegal stocking activity but others are due to NGPC's efforts. Only 1 black crappie in total was captured at Fremont Slough during 2021's survey. There are two species that include the white crappie (best suited to large reservoir habitat & gizzard shad prey) and black crappie (better suited to small lake habitat and invertebrate prey). Another experimental variety (hybrid triploid) has been stocked in three I-80 Lakes in Lincoln and Dawson Counties. These include East Gothenburg (2008), Brady (2011&2020) and West Brady (2020).

Crappie per Net by Length Class





Other species inhabit I-80 Lakes due to historical stockings, illegal stockings and flood events. These species include (but not limited to) flathead catfish, walleye, goldfish, gizzard shad, alewife, yellow perch, hybrid sunfish, green sunfish, brook silverside, white sucker, common carp, grass carp, and western mosquitofish. Too many species within one I-80 Lake generally decreases the fisheries potential. Below are some other species stocked by NGPC to provide angling opportunities and manage the fishery.

Smallmouth bass (SMB) were stocked into East Sutherland following renovation. This species will be the sole predatory fish. In the presence of largemouth bass, smallmouth lose. This scenario has been observed repeatedly. Smallmouth bass also exist at other I-80 Lakes due to illegal stockings.

Channel catfish (CCF) offer another angling opportunity in many I-80 Lakes. They are raised to 10" before being stocked to limit predation by largemouth bass and are stocked in many I-80 Lakes to maintain fishable populations. The statewide daily bag limit is five channel catfish.

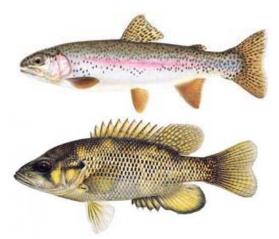
Rainbow trout (RBT) are stocked into Birdwood I-80 Lake each year to provide a unique winter fishery. Trout are stocked during October and December each year. A total of approximately 8,000 are stocked annually.

Rock bass (ROB) is a unique species that thrives in some I-80 Lakes such as Hershey and East Hershey.

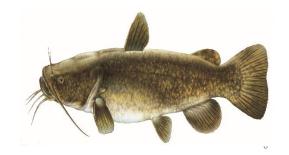
Tiger muskellunge (TGM) is a hybrid between northern pike and muskellunge. This species has been stocked into Pawnee Slough during 2020 and 2021 to provide an aggressive predator.

Flathead catfish were stocked into Brady during 2020. This species was stocked to supplement predation.









Stockings

For more details and previous year's stockings visit the <u>NGPC Fish Stockings</u> website. The below table contains stocking data (quantity and length) from 2021. Abbreviations for species of fish are those used in the <u>2022 Fishing Guide</u>.

	TGM	CCF	RBT	SMB	YEP	HSF	CRP	BLG	ROB	WAE	LMB
East Sutherland				1,112 5"	2,255		.				
West Hershey											
Hershey									57 6"		
East Hershey											
Birdwood			7,165 9.75-13"								46 15"
North Platte I-80 City		1,328 4.25"									
Fremont Slough										89 8"	
Pawnee Slough	1,500 3.5"										
West Maxwell											
Crystal Maxwell Rest Stop		106 10"									
Fort McPherson		900 10"					3,077 1"				
West Brady											
Brady		625 10"									
West Gothenburg		375 10"									
East Gothenburg		375 10"				1,000 4.5-6"					
Willow Island											
West Cozad								6,794 1-2"			2,130 4" 36 13"
Cozad		900 10"									10 15"
Dogwood East		175 10"									. 3

Fish Attractors



Cedar and Russian olive trees were cut on site and sunk in two lakes during 2021. These trees will congregate game species for anglers to target. When prudent, trees are removed from shorelines to improve bank angler access.

Site	Coordinate					
Pawnee Slough	N 41°04'54.8" W 100°32'30.8"					
Pawnee Slough	N 41°04'55.5" W 100°32'31.0"					
Pawnee Slough	N 41°04.926" W 100°32.450"					
Brady	N 40°59.875' W 100°22.160'					
Brady	N 40°59.884' W 100°22.185'					
Brady	N 40°59.917' W 100°22.409'					
Brady	N 40°59.921' W 100°22.273'					
Brady	N 40°59.912' W 100°22.441'					

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Fishery renovations occurred during 2021. These occurred at East Sutherland and West Cozad I-80 Lakes and were deemed successes. Effort was made to salvage largemouth bass at each lake prior to renovation. Some smaller quantity values observed in stocking data can be contributed to these actions. Following a fishery renovation, three years of growth typically need to occur prior to anglers observing "quality" sized fish.

At **East Sutherland**, the primary factor behind fishery renovation was an expanding common carp population. This renovation occurred on September 15, 2021 utilizing liquid rotenone, boats and several NGPC personnel. To diversify angling opportunities, smallmouth bass and yellow perch were stocked. These populations will be closely monitored and need for subsequent stockings will be evaluated. A stocking request for rock bass and grass carp will be made for 2022's schedule.





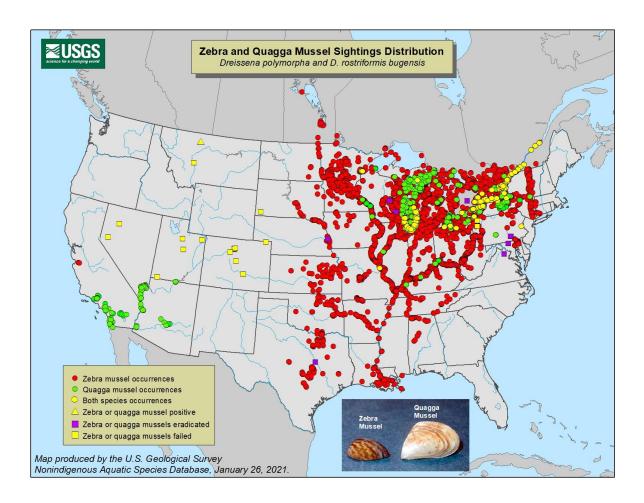
At **West Cozad** the primary factor behind the renovation was abundance of gizzard shad. This species along with others had entered the lake when the Platte River flooded several years ago and their detrimental behaviors had taken a toll on the fishery. Measures were taken to prevent low level floodwater from entering the lake prior to the renovation. On September 9th the renovation occurred utilizing liquid rotenone, a boat and NGPC personnel. Largemouth bass and bluegill were reintroduced on October 7th.





If you have questions or concerns about Lincoln and Dawson Counties' I-80 fisheries please contact

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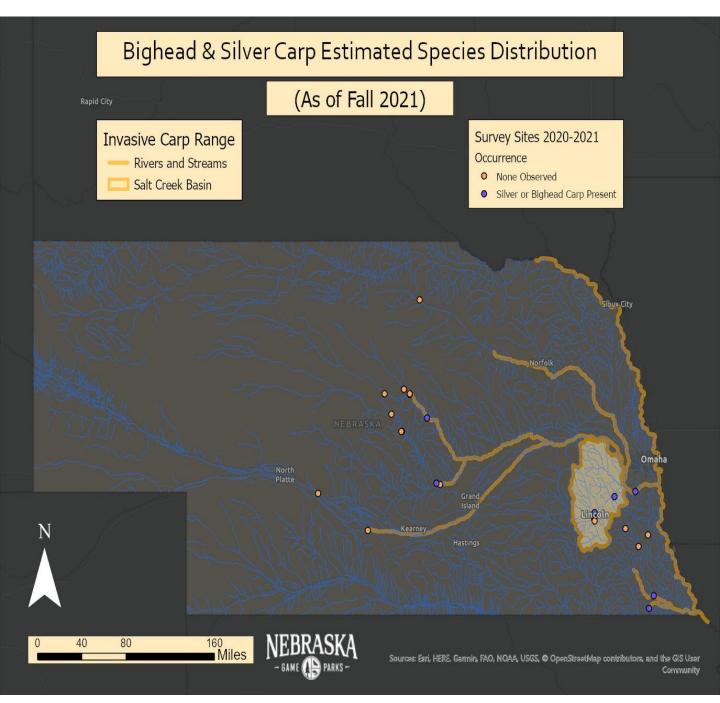
- Distribution of <u>zebra mussels</u> surrounding Nebraska is expanding, especially in Kansas and South Dakota. Currently the only waterbodies in Nebraska with confirmed zebra mussel infestations are the Missouri River, Lewis and Clark Lake, and Offutt Base Lake.
- NGPC employs technicians every year to inspect watercraft for AIS with the goal of preventing infestations into Nebraska waterbodies. In 2021 over 2,000 watercraft were inspected and four were infested with live zebra mussels.
- Eurasian watermilfoil is an invasive aquatic plant is now found in 18 waterbodies across Nebraska including East Hershey I-80 Lake and Ironhorse City Park Lake (North Platte I-80). This plant spreads through tiny fragments of leaves and can grow up to 20 feet deep. New infestations are often caused by boaters not following the **Clean, Drain, and Dry** protocol and introducing fragments into new lakes. Make sure you clean all aquatic vegetation from your boat to prevent this invasive aquatic plant from spreading to new waterbodies.
- To report AIS utilize 402-471-7602\ngpc.ais@nebraska.gov





Eurasian watermilfoil is an invasive aquatic plant and is now found in 18 waterbodies across Nebraska including East Hershey I-80 Lake and Ironhorse City Park Lake (North Platte I-80). This plant spreads through tiny fragments of leaves and can grow up to 20 feet deep. New infestations are often caused by boaters not following the **Clean, Drain, and Dry** protocol and introducing fragments into new lakes. Make sure you clean all aquatic vegetation from your boat to prevent this invasive aquatic plant from spreading to new waterbodies.

Silver & Bighead carp have found their way into every tributary of the Missouri River in Nebraska, including the Platte, Elkhorn, Loup and Nemaha rivers. Obstacles to their continued spread are vital as these species cause substantial damage. These obstacles include physical structures and angler awareness. Silver carp have invaded the Platte to Lexington, NE as the below known distribution map indicates.





According to Nebraska State Law, it is illegal for watercraft to enter a Nebraska waterbody or leave a launch area while containing water. This includes all containers, compartments, and equipment that are permanently attached to the watercraft.

AND

All aquatic vegetation must be removed from watercraft and trailers before leaving a launch area.

Protect Your Waters—Remember to CLEAN, DRAIN, and DRY!

