

Presque Isle Bay

Erie County

2025 panfish and black bass surveys



Area Fisheries Manager Tim Wilson with a 34-inch Northern Pike.

Spring Trap Net Survey

During the weeks of April 28 and May 5, 2025, Fisheries Management Area 1 staff conducted a trap net survey in Presque Isle Bay to monitor panfish populations. A total of 32 overnight sets were conducted, capturing 3,714 fish from 32 species. All fish were counted, gamefish species were measured (Table 1), and some panfish were used for age-and-growth analysis.

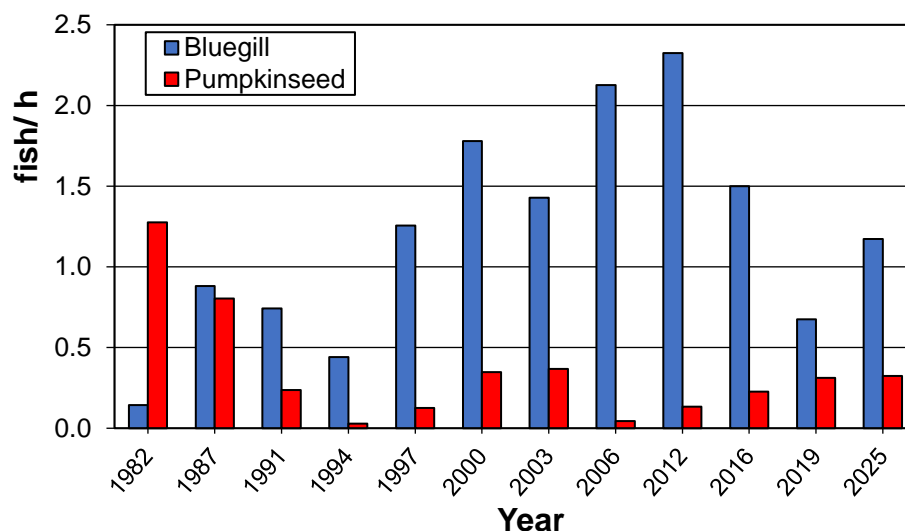
Table 1: Popular fish species, number caught (n), and length range (in) in trap net survey of Presque Isle Bay, spring 2025.

Species	n	Length Range (in)
Bowfin	129	12-18
Channel Catfish	5	7-27
steelhead	1	26
Northern Pike	5	31-34
Muskellunge	2	41-43
White Perch	45	3-13
White Bass	4	7-15
Rock Bass	266	2-11
Pumpkinseed	281	2-8
Bluegill	880	2-9
Smallmouth Bass*	34	13-20
Black Crappie	71	5-12
Yellow Perch	95	5-13
Walleye	3	18-25

****Smallmouth Bass are generally not caught well by trapnets, but the large number of bass migrating from Lake Erie this time of year led to several catches in our nets.***

While Presque Isle Bay hosts a diverse fishery with many migratory species, its resident panfish are among the most popular with anglers. Bluegill and Pumpkinseed are numerous, with many preferred-size individuals available. Catch rates of these two species are up from the most recent survey in 2019 (Figure 1).

Figure 1: Bluegill and Pumpkinseed catch per trap net hour (fish/ h) at Presque Isle Bay, 1982 – 2025.





Quality-length Yellow Perch (top) and Black Crappie (bottom) from Presque Isle Bay.

Black Crappies are another popular panfish present in the bay. Trap net catch rates of Black Crappies have been steadily increasing since 2016 but remain low compared to the previous decade. Yellow Perch provide a popular fishery in the winter and spring. Many of these perch are migrants from Lake Erie and most of the larger individuals had spawned and returned to Lake Erie prior to the beginning of our survey, but we still captured a few large individuals, like the 12-inch fish pictured above.

Other panfish species that are available in good numbers include Rock Bass, White Perch, Brown Bullhead, and Yellow Bullhead.

Anglers in search of bigger fish may be interested in the Northern Pike and Muskellunge populations. Our nets captured five preferred-length Northern Pike and two Muskellunge.



Area Fisheries Manager Tim Wilson with a 43-inch Muskellunge on display.

Bowfins are abundant in Presque Isle Bay. This unique, hard-fighting species presents an underutilized angling opportunity. Steelhead (i.e., migratory Rainbow Trout) are another large fish to target. They can be found in the bay from October through March, but we caught one late runner in our nets on April 30th.



One of many Bowfins captured in our nets, displaying spawning colors.

Table 2: Other species and number caught (n) in trap net survey of Presque Isle Bay, 2025.

Species	n
Spotted Gar	106
Longnose Gar	230
Gizzard Shad	22
Goldfish	6
Common Carp	24
Golden Shiner	68
Bluntnose Minnow	1
Rudd	43
Quillback	401
White Sucker	4
Smallmouth Buffalo	1
Smallmouth Redhorse	1
Yellow Bullhead	383
Brown Bullhead	574
Warmouth	10
Largemouth Bass	6
Freshwater Drum	13

A wide variety of fish species inhabit Presque Isle Bay (Table 2). Many of these fish are invasive species, such as Goldfish and Rudd (pictured below). It is especially important to avoid transporting live fish and other aquatic life from water to water when fishing Presque Isle Bay, to avoid further spread of potentially harmful invasive species.



This Rudd is an example of a non-native species that has become established in the bay.

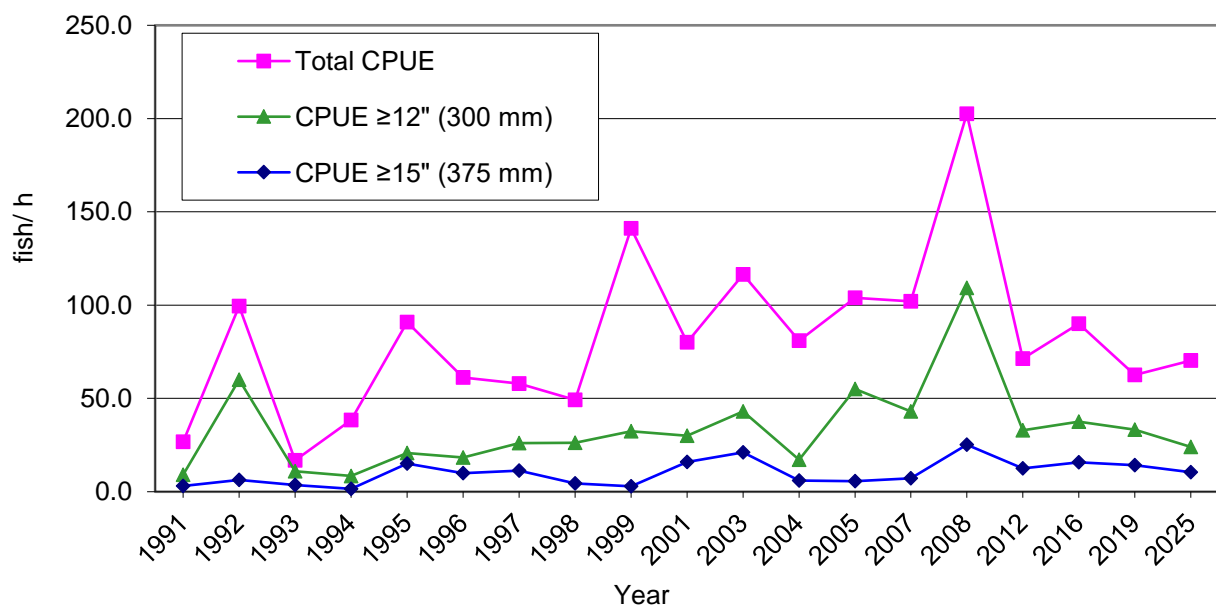


A 20-inch Smallmouth Bass captured in a trap net.

Spring Black Bass Night Electrofishing Survey

During the weeks of May 19 and 26, 2025, Fisheries Management Area 1 staff conducted a night electrofishing survey in Presque Isle Bay to monitor black bass populations. This survey targeted black bass, capturing 353 Largemouth Bass and 38 Smallmouth Bass. All fish were counted, measured, and scales were taken for age-and-growth analysis.

Figure 2: Largemouth Bass boat electrofishing catch per hour (fish/ h) at Presque Isle Bay from 1991 – 2025.



Largemouth Bass catch rates are up slightly from the last survey in 2019 (Figure 2). While these catch rates are low compared to previous decades, this year's catch rate of 70.4 fish/hour is high relative to other large Pennsylvania lakes and provides high-quality bass fishing opportunities. The longest Largemouth Bass caught was approximately 19 inches (Figure 3).

Figure 3: Length-frequency distribution of Largemouth Bass and Smallmouth Bass at Presque Isle Bay, 2025.

