

***Pennsylvania Fish & Boat Commission Biologist Report***

**Presque Isle Bay**  
Erie County

**Spring 2012 Trapnet Survey**



*Some nice yellow perch ready to spawn in Presque Isle Bay.*

Presque Isle Bay is a 3,300 acre embayment of Lake Erie formed by a 7 mile long peninsula. The peninsula that forms Presque Isle Bay is contained within Presque Isle State Park which is operated by the Pennsylvania Department of Natural Resources (PA DCNR). There are 4 boat launch areas located in the Park. There is no limitation on boat horsepower, however, many areas of the Bay are designated as no-wake zones. For more information on recreational opportunities in Presque Isle State Park visit the PA DCNR website at <http://www.dcnr.state.pa.us/stateparks/findapark/presqueisle/index.htm>.

There are distinct habitat differences between Presque Isle Bay and Lake Erie which yields differences in fish communities that inhabit in each. However, to avoid confusion, Presque Isle Bay's fisheries are managed under the same regulations as Lake Erie; see the Summary Book that comes with your fishing license for all regulations

governing Lake Erie and Presque Isle Bay. In addition to a fishing license, a Lake Erie permit is also required to fish in Presque Isle Bay.

The fish populations of most interest to anglers include northern pike, largemouth bass, yellow perch, black crappie, bluegill and musky. Other species sought by anglers in Presque Isle Bay are seasonal fisheries for smallmouth bass and steelhead. Presque Isle Bay is stocked annually with steelhead smolts, brown trout fingerlings and muskellunge fingerlings by the Pennsylvania Fish and Boat Commission.

Biologists from the Area 1 office set trapnets during the weeks of April 2<sup>nd</sup> and April 30<sup>th</sup>, 2012 to evaluate the status of the Bay's fishery and the success of our muskellunge stocking program. Our sampling effort consisted of 30 overnight sets. Presque Isle Bay maintains a very diverse fish community. We captured a total of 33 species including 3 species that are endangered or threatened in Pennsylvania and 4 that are considered Aquatic Invasive Species (Tables 1 & 2).

Our primary targets during sampling were northern pike and panfish (Table 1). Northern pike continue to rebound from an unexplained mortality event in 2003. Our trapnet catches in 2006 and 2012 show numbers continue to increase slowly as the population rebuilds itself through natural reproduction.



*Tim Wilson with a 37 inch northern pike in Presque Isle Bay.*

Presque Isle Bay has a well deserved reputation for good panfish fishing. Our trapnet catches for bluegill, yellow perch and black crappie were very good (See Table 1). Bluegill are the dominant species, however, black crappie and yellow perch were present in good numbers with plenty of quality size fish available for harvest.

**Table 1.** Species, number, and size range of sport fish captured during trapnet sampling in Presque Isle Bay by Fisheries Management Area 1 personnel from April 2 – March 28, 2012.

<b>Species</b>	<b>Number</b>	<b>Size Range (inches)</b>
Northern Pike	45	18 - 37
Bluegill	1,631	2 – 8
Pumpkinseed	93	3 – 8
Yellow Perch	574	4 – 14
Black Crappie	211	3 - 12
Rock Bass	79	2 - 10
Muskellunge	4	30 - 38
Spotted Gar*	72	15 - 28
Longnose Gar	13	21 - 36
Bowfin	31	9 - 31

\* - Pennsylvania state endangered species

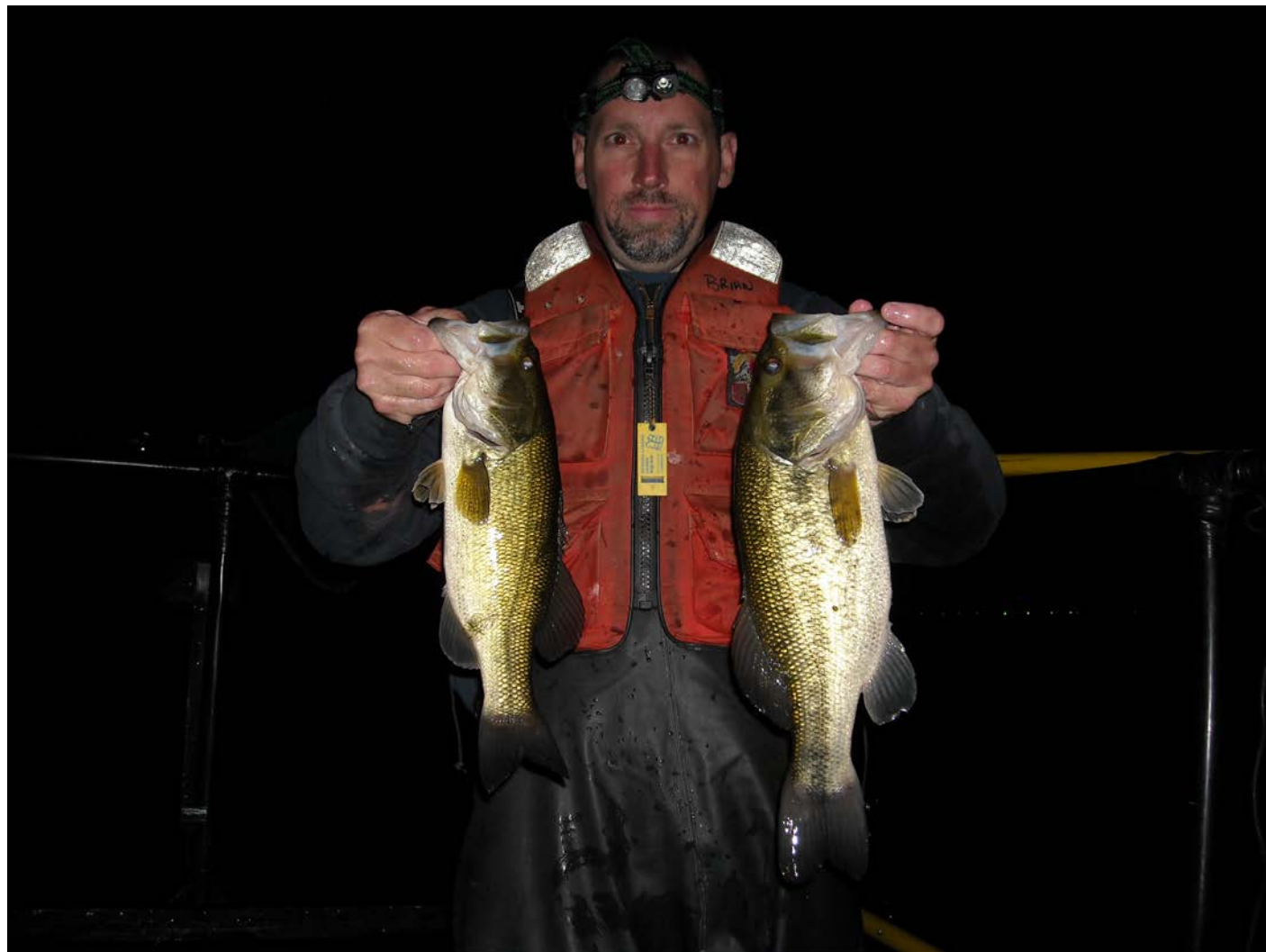
**Table 2.** Species and numbers of forage fishes and other species captured during trapnet sampling of Presque Isle Bay from March 22 through April 1, 2011.

<b>Species</b>	<b>Number</b>
Quillback	753
Gizzard Shad	164
Golden Shiner	58
Freshwater Drum	29
Common Carp**	21
Steelhead	20
Brown Bullhead	20
Largemouth Bass	17
Round Goby**	17
Spottail Shiner	16
Rudd**	11
Yellow Bullhead	6
White Sucker	5
Smallmouth Bass	4
White Perch**	4
Warmouth*	4
Northern Hogsucker	2
Bluntnose Minnow	2
Spotted Sucker*	1
White Crappie	1
Golden Redhorse	1
Silver Redhorse	1
Walleye	1

\* - Pennsylvania state endangered or threatened species

\*\* - Invasive Species

Over the years we have not been very successful in capturing muskellunge with trapnets from the Bay, which suggests we need to re-evaluate this stocking program and will consider terminating muskellunge stocking in Presque Isle Bay.



*Fisheries Biologist Brian Ensign with a couple of nice Presque Isle Bay largemouth bass.*

We returned to Presque Isle Bay during the week of May 28<sup>th</sup>, 2012 to sample the largemouth bass population with night electrofishing. Over three nights we made 12 runs totaling 4.2 hours of effort. Comparisons of the historic catch rates for largemouth bass are presented in Table 3 and Figure 1. While the 2012 catch rates are considered good, the catch rates for all size categories of largemouth bass fell considerably from 2008, when catch rates for largemouth bass reached an all-time high. It appears that the quantity and quality of the bass population has fallen substantially from 2008, especially for bass between 12 and 15 inches.

We attempt to schedule our night electrofishing surveys in Presque Isle Bay to occur before the aquatic vegetation becomes too thick to maneuver our boat in shallow water. Our sampling was hindered by dense aquatic vegetation whose development was advanced considerably ahead of normal due to the early warm weather we experienced this spring. Our sampling efficiency was reduced as vast beds of submerged aquatic vegetation clogged many areas we

electrofishing. We will return to Presque Isle Bay in 2013 to sample largemouth bass again to monitor the changes in the Bay's bass population

Table 3. Night electrofishing catch rates for Largemouth Bass from Presque Isle Bay.

Year	1993	1994	1995	1996	1997	1998	1999	2001	2003	2004	2005	2007	2008	2012
Catch Per Hour	17.5	37.6	88.1	61.2	58.6	49.6	142.1	80.8	116.5	81.8	104.9	103.0	220.8	70.7
CPH LMB >12"	11.0	8.3	20.8	18.4	26.3	26.5	32.7	30.3	43.0	17.3	55.7	43.4	109.6	32.6
CPH LMB >15"	3.7	1.5	15.0	14.0	11.4	4.5	3.0	16.2	21.0	6.1	5.7	7.3	25.3	12.4

Figure 1. Graphic comparison of night electrofishing catch rates for three size classes of largemouth bass captured in Presque Isle Bay.

