



## Bradys Lake, Monroe County April 10– 12, Trapnetting and June 6, 2012 Night Electrofishing Surveys

Bradys Lake is a 229-acre manmade public impoundment located 2.8 miles north of State Route (SR) 0940 on [State Game Lands No. 127](#) in Coolbaugh Township, Monroe County. The lake is owned by the Pennsylvania Game Commission (PGC) and managed for waterfowl propagation and angling. Anglers and boaters (e.g., canoe, kayak, or electric motor only) can access the lake via a 3.3 mile gravel road in SGL 127 off SR940 near Pocono Lake Preserve. The lake was almost completely down beginning in 2003 to repair the dam and subsequently refilled in 2008, at which time a five-year fish-stocking program was initiated to rebuild fish populations to restore fisheries (Table 1). Since refilling the Pennsylvania Fish and Boat Commission has managed the lake under [Commonwealth Inland Waters](#) for all species; except yellow perch, black crappie, sunfish (i.e., bluegill and pumpkinseed), and largemouth bass, which are respectively managed in the special [Panfish Enhancement](#) and [Big Bass](#) regulation programs. Special regulations were implemented to protect developing sport fish populations while maintaining the lake open to public fishing. Historically, the lake's low productivity, acidic nature, and proliferation of aquatic vegetation had negatively impacted fish populations as evidenced by species exhibiting poor recruitment, slow growth rates, and highly variable population size structures. Fish stocking has been necessary to support the lake's fishery.

Biologists from Area 5 (Bushkill) fisheries management region conducted the first of three semi-annual spring trap net surveys (next in 2014 and 2016) to assess fish stockings since 2008. Trap netting found yellow perch and black crappie were the dominant panfish in the catch. Yellow perch and black crappie of legal size ( $\geq 9$  inch) comprised 82 and 42 percent of their respective species total catch, despite their low relative abundances (Table 2). Length frequency distributions for yellow perch and black crappie suggest that annual stockings in combination with probable persistence of resident fish following the drawdown are slowly rebuilding populations (Figure 1). Other fish in the catch of interest to anglers included yellow and brown bullheads, sunfish (i.e., bluegill and pumpkinseed), chain pickerel, and largemouth bass, which were also present in low numbers. To date PFBC stockings of yellow perch (fry), black crappie (fingerlings), and golden shiner (adults) as forage stock have produced modest catch results that are similar to pre-drawdown population assessments that found low densities of quality size sport fish in the lake. Bluegill and pumpkinseed fingerling were stocked after the spring 2012 survey and these stockings will be evaluated by trapnet in 2014 and 2016.

On June 6 Fisheries Management Area 5 personnel collected 28 largemouth bass ranging from 6 to 19 inches in 2.1 hours of nightboat electrofishing (Figure 2). Legal size bass (greater than or equal to 15 inches) accounted for 43 percent of the catch. Catch rates for bass over 12 inches (11.43 fish/hour) and 15 inches (5.71 fish/hour) exceeded the established catch guidelines for Big Bass lakes of 7 and 2 fish per electrofishing hour for the two respective length categories (Table 3). The low total largemouth bass catch rate of 13.33 fish/hr suggests poor recruitment of recently stocked bass evidenced by the presence of fewer fish < 12 inches long in the catch, which was dominated by larger adults. The absence of smallmouth bass in the catch suggests that the onetime 2010 plant was probably unsuccessful in establishing a viable population, although future fish community assessments will determine if smallmouth have become established.

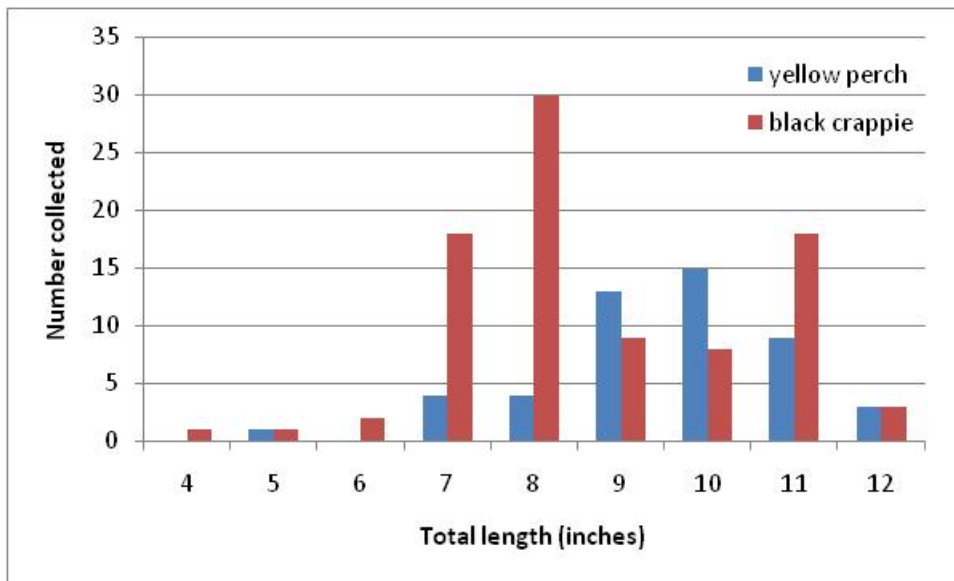
Table 1. Fish stocking history since 2008 for warm/cool water species planted in Bradys Lake located within Pennsylvania drainage sub-subbasin 02A.

year	Species	Life stage	Total Stocked
2012	Black Crappie	Fingerling	10347
2012	Bluegill	Fingerling	15000
2012	Largemouth Bass	Fingerling	17660
2012	Pumpkinseed	Fingerling	7500
2012	Yellow Perch	Fry	220000
2011	Black Crappie	Fingerling	3476
2011	Largemouth Bass	Fingerling	8000
2011	Yellow Perch	Fry	220000
2010	Black Crappie	Fingerling	45600
2010	Golden Shiner	Adult	22900
2010	Largemouth Bass	Fingerling	10000
2010	Smallmouth Bass	Fingerling	6931
2010	Yellow Perch	Fry	220000
2009	Black Crappie	Fingerling	60600
2009	Golden Shiner	Adult	11450
2009	Largemouth Bass	Fingerling	5010
2009	Yellow Perch	Fry	110000
2008	Black Crappie	Fingerling	6115
2008	Golden Shiner	Adult	2823
2008	Largemouth Bass	Fingerling	8000
2008	Yellow Perch	Fry	220000

Table 2. Number and size range of fish caught in trapnets fished April 10<sup>th</sup> to 12<sup>th</sup>, 2012 in Bradys Lake.

Fish Species	Number Caught	Size Range (inches)	Additional Comments
Creek Chubsucker	253	9 – 16	
Yellow Bullhead	133	7 – 16	
<b>Black Crappie</b>	<b>90</b>	<b>4 – 13</b>	<b>42% ≥ 9 inch MSL</b>
<b>Yellow Perch</b>	<b>49</b>	<b>5 – 13</b>	<b>82% ≥ 9 inch MSL</b>
Golden Shiner	33	4 – 12	Forage
Bluegill	32	7 – 10	100% ≥ 7 inch MSL
Brown Bullhead	67	8 – 12	
Chain Pickerel	21	13 – 25	29% ≥ 18 inch MSL
Redfin Pickerel	2	12 - 14	
Largemouth Bass	3	15 – 17	100% ≥ 15 inch MSL
Pumpkinseed	2	5 – 6	0% ≥ 7 inch MSL

Figure 1. Length frequency distributions of yellow perch and black crappie collected during April's 2012 trapnetting survey at Bradys Lake.





Four legal size panfish  
(From left to right: yellow perch  $\geq 9''$ , bluegill  $\geq 7''$ , and two black crappies  $\geq 9''$ )

Figure 2. Length frequency distribution of Largemouth bass collected in Bradys Lake on June 6<sup>th</sup>, 2012

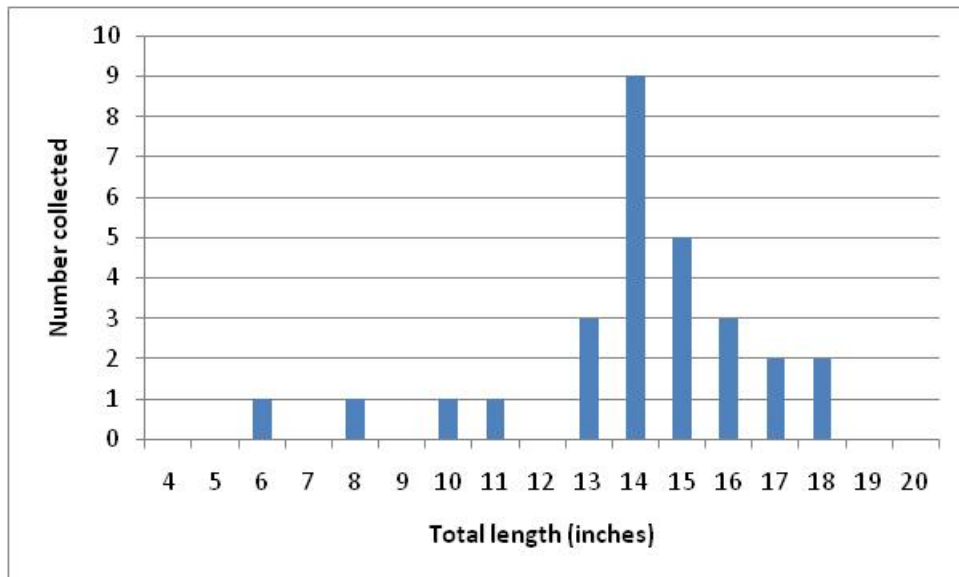


Table 3. Length frequency distributions and catch statistics for largemouth bass captured during night electrofishing surveys at Bradys Lake, Monroe County before (1981-2002) and after (2012) reconstruction of the dam . Note - no bass were collected during 1987 survey.

Length (inches)	6/8/81	7/6/87*	9/10/02	6/6/12
2			3	
3			6	
4			1	
5			3	
6			27	1
7			9	
8	2		9	1
9	3		4	
10	2		2	1
11			4	1
12			11	
13			7	3
14	1		3	9
15	1		4	5
16	2		1	3
17	2		2	2
18				2
19				0
20				0
Total Catch	13	0	96	28
Hours Electrofished	1.6	0.8	4.5	2.1
CPH	8.13	0.00	21.33	13.33
CPH >= 12 in	3.75	0.00	6.22	11.43
CPH >= 15 in	3.13	0.00	1.56	5.71
% >= 12 in	46	0	29	86
% >= 15 in	38	0	7	43





Two legal size largemouth bass



Chin barbels on brown bullhead (left) and yellow bullhead (right)



Golden shiner (adult)



Creek chubsucker