Hodenpyl Dam Pond
Wexford County
Last surveyed 2011, Manistee River Watershed

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Environment

Hodenpyl Dam Pond (Fig. 1) is an impoundment on the Manistee River near Mesick, MI, in northwestern Wexford County. Hodenpyl Dam Pond was created in 1924 -1925 when Hodenpyl Dam (originally called "County Line Dam") was constructed. Hodenpyl Dam Pond is approximately four and a half miles long and at full pool, it has a surface area of 2,025 acres and creates a normal head of 71 feet (Lawler, Matusky, and Skeller (LMS), Binder 29, 1991). Average discharge below Hodenpyl Dam is 1,253 cfs (LMS, Binder 29, 1991). Hodenpyl Dam Pond has a recharge rate of once every 16 days, or about 22 times per year (Fusilier 2004). Hodenpyl Dam inundates what was once some of the highest gradient water on the Manistee River (11 feet/mile; Rozich, 1998). The hydroelectric dam is operated by Consumers Energy and is regulated by the Federal Energy Regulatory Commission (FERC). The current operating license was issued in 1994 and will expire in 2034.

The majority of the land surrounding Hodenpyl Dam Pond is owned by Consumers Energy. The remainder of the land is either private or owned by the U. S. Forest Service (USFS) as part of the Manistee National Forest. The primary boat launch on Hodenpyl Dam Pond is at the Northern Exposure Campground (Fig. 2; formerly known as the Mesick Trailer Park), which is one of several private campgrounds on Hodenpyl Dam Pond. Seaton Creek Campground, a rustic campground on the eastern shore of Hodenpyl Dam Pond is administered by the USFS. There are also several parks and day-use areas on Hodenpyl Dam Pond. Lions Park, just off M-115 at the upper end of Hodenpyl Dam Pond, offers a handicapped-accessible fishing pier.

The terrain surrounding Hodenpyl Dam Pond is characterized as hilly with a mix of hardwoods and conifers. Briar Hill, which has the second-highest elevation in the lower peninsula, is located about five miles east of Hodenpyl Dam Pond. The Manistee River channel defines the physical nature of the pond, with the deeper portions of the pond being the old river channel. Bottom types consist mainly of sand, organic muck (particularly in the coves), and some gravel. The upper portion of the impoundment has depths up to 30 feet in the river channel, and shallow flats adjacent to the river channel. Submerged stumps and woody debris which once defined the flood plain now offer fish cover. These same stumps can also present navigational hazards. In the "main body" of the pond, depths range up to 50 feet, with large flat off-channel areas having depths less than 20 feet. The basin near the dam is characterized by very steep dropoffs and depths exceeding 60 feet.

A number of Designated Trout Streams flow into Hodenpyl Dam Pond, the largest of which is Fletcher Creek. Fletcher Creek flows into the northern (upstream) end of Hodenpyl Dam Pond from the northwest and supports good populations of brown and brook trout. A number of other tributaries enter Hodenpyl Dam Pond from the east, flowing off the slopes of Briar Hill. These streams are characterized by very high gradient and cold temperatures. They include Seaton Creek, Small Creek, Preston Creek, Cripple Creek, and several unnamed streams. These streams mostly host a mix of brown and brook trout, although a few have only brook trout.

History

The first recorded fish stocking of Hodenpyl Dam Pond took place in 1929 (Table 1), when bluegill and largemouth bass were stocked by the Michigan Department of Conservation (MDOC; the precursor to today's Department of Natural Resources (MDNR)). Walleye fry were first stocked in 1930. From then until the mid- 1940s, stockings included smallmouth bass, largemouth bass, walleye, yellow perch, bluegill, and rainbow trout. After 1944, no fish were then stocked until 1962, when channel catfish were stocked for three successive years. After that, the next stocking effort was a small walleye plant in 1980. Channel catfish stocking was resumed in 1988, and they've since been stocked in 1991, 1998, 2000, 2003, 2008, and 2009. Walleye were stocked in 1989, 1992, 1999, and 2001.

The first known fisheries survey of Hodenpyl Dam Pond was conducted by MDOC in 1947, when seines and gill nets were used. Seine/gill net surveys were also conducted by MDOC in 1948 and 1951. Fish species captured in the these early surveys included northern pike, yellow perch, walleye, smallmouth bass, rock bass, bluegill, pumpkinseed sunfish, white sucker, redhorse (not identified to species), common carp, bluntnose minnow, logperch, blacknose shiner, blackchin shiner, mimic shiner, spottail shiner, common shiner, Iowa darter, and johnny darter. Other species not captured in the surveys but recorded as "reported" included rainbow trout, lake trout, largemouth bass, and bowfin.

Another MDNR fisheries survey was conducted in 1965, using gill nets, fyke nets, and trap nets. Two new species not seen in the previous surveys were captured in this survey, black crappie and bullhead (not identified to species). A 1970 MDNR survey included gill nets, trap nets, fyke nets and boom shocking. In the 1970 survey, the first channel catfish was caught, as well as the first largemouth bass observed in a fisheries survey of Hodenpyl Dam Pond. Of the 191 walleye caught in the 1970 survey, 164 were smaller than 14 inches in length and age 3 or younger. Natural reproduction of walleye was significant in the late 1960s. Growth for the younger walleye was slow at that time, which may have indicated some density dependent growth suppression occurring, due to the abundance of young walleye. The written analysis from the 1970 survey indicates an "extreme overabundance of rough fish", and noted that the lake is known for its large northern pike and offers fair to good fishing for smallmouth bass.

A short electrofishing survey was completed by MDNR in late August of 1979 with a boomshocking boat. In that survey, only four species were caught; rock bass, smallmouth bass, walleye, and yellow perch. In particular, walleye were found to be abundant, with 35 caught in 2.5 hours of electrofishing. The majority of those caught were between 7 and 10 inches, likely indicating a strong 1978 year class.

In early June of 1985, a two-week netting survey with gill and fyke nets was conducted by MDNR on Hodenpyl Dam Pond. Good populations of walleye, northern pike, black crappie, and rock bass were documented. Smaller populations of smallmouth bass, bluegill, pumpkinseed sunfish, and yellow perch were seen. Species not seen in previous fisheries surveys included one brown trout and all three species of bullhead (black, brown, yellow). Of the 65 walleye caught in the 1985 survey, 43 were in the 9 to 14 inch range, indicating good natural reproduction in the several years prior, since no fish were stocked in those years. No channel catfish were caught in the 1985 survey.

As part of the relicensing effort for Hodenpyl Dam, a fisheries survey was conducted on Hodenpyl Dam Pond in 1990 by a consultant retained by Consumers Energy (LMS, Binder 12, 1991). The only method used was seining. New species not seen in previous surveys included golden shiner and greenside darter (likely misidentified, as they are only found in the southeastern portion of Michigan). Two types of redhorse were keyed out to species; they included silver redhorse and golden redhorse.

Another MDNR fisheries survey of Hodenpyl Dam Pond took place in the summer of 2000 (Tonello 2004). The survey gear consisted of gill nets, small mesh fyke nets, and large mesh fyke nets set over a four-day period from 5/15/2000 to 5/19/2000, and a boat electroshocking effort on 9/12/2000.

Panfish species captured in the survey included 12 black crappies from 5-13 inches, 130 bluegills from 1-9 inches in length, 33 pumpkinseed sunfish from 2-6 inches in length, 188 rock bass from 1-10 inches in length, and 383 yellow perch from 1-12 inches in length. Growth for the panfish species in the 2000 survey was good, with most species growing at or near the State average.

Gamefish captured in the survey consisted of seven largemouth bass up to 17 inches in length and representing four age classes, 28 smallmouth bass up to 17 inches in length and representing nine different age classes, 10 northern pike up to 25 inches in length and representing six age classes, and 60 walleye from 4-28 inches in length and representing ten different age classes. From the netting portion of the survey, not enough largemouth bass, northern pike, or smallmouth bass were captured of any one age class to make inferences regarding age and growth. Age-5 walleye exceeded the state of Michigan average length at age by 0.5 inches. From the boomshocking effort, age-3 smallmouth bass were 2.2 inches below the State of Michigan average length at age, and age-1 and age-2 walleye were 0.9 inches less than the State of Michigan average length-at-age. A total of 41 channel catfish ranging from 11-26 inches in length were also caught in the survey. Most were in the 13-15 inch range, and were likely stocked in 1998, although they were not aged.

Other species encountered during the 2000 survey included bluntnose minnow, brown bullhead, golden shiner, Iowa darter, shorthead redhorse, silver redhorse, spottail shiner, trout-perch, white sucker, and yellow bullhead. Trout-perch had not been recorded in Hodenpyl Dam Pond prior to this survey.

Because most of the walleye caught in the 2000 survey originated from non-stocking years, the recommendation was made to cease walleye stocking in Hodenpyl Dam Pond (Tonello 2004). In addition, further justification for cutting walleye stocking included the slow growth rates seen in younger walleye and the large amount of spawning habitat in the Manistee River upstream of the pond. The report also recommended continuing to stock channel catfish.

One species that has not been captured in any fisheries surveys but is known to inhabit Hodenpyl Dam Pond and the Manistee River upstream of Hodenpyl Dam Pond is the lake sturgeon. Several have been caught by anglers, and others are seen on a fairly regular basis. Lake sturgeon are native to the Manistee River watershed, and prior to the construction of the dams, the Manistee River hosted annual spawning runs of these fish. One particular fish caught in 1987 was estimated to have been born in 1945, well after the construction of the dam. According to Rozich (1998), some lake sturgeon were likely trapped above Hodenpyl Dam after its construction, and they must have been able to survive in the impoundment and reproduce in the Manistee River above the impoundment. No knowledge exists as to the size of the population of lake sturgeon above Hodenpyl Dam. Reports of sturgeon sightings

have been submitted as recently as the summer of 2004. There are also some anecdotal reports of sturgeon spawning in the Manistee River off the mouths of Buttermilk and Soper Creeks. Buttermilk and Soper Creeks are Manistee River tributaries located 10-15 miles upstream of Hodenpyl Pond.

There have been ten entries into the MDNR Master Angler program from Hodenpyl Dam Pond in recent years (Table 2). Species entered include two rock bass, four bluegill, one smallmouth bass, one walleye, and two northern pike. The walleye was particularly impressive, a 13.7 lb fish caught in 2006. Also impressive was a 22. 44 lb northern pike caught in 1995.

Current Status

The most recent comprehensive fisheries survey of Hodenpyl Dam Pond was conducted in the summer of 2010. Status and trends netting protocols (Wehrly et al. 2009) were used for the survey. The netting portion of the survey took place from May 31 through June 3. Gear used included six large-mesh fyke net (18 net-nights), 2 trap nets (6 net-nights), and four experimental graded-mesh inland gill nets (13 net-nights). Seining and electrofishing were conducted on July 20, 2011. A total of six seine hauls were completed, along with three ten-minute electrofishing transects conducted with an 18 foot boomshocking boat. The purpose of this survey was to investigate the status of the fish community in Hodenpyl Dam Pond, with the additional purpose of examining the walleye and channel catfish populations.

During the netting portion of the 2011 survey, a total of 806 fish were caught, representing 16 different species (Table 3). Rock bass were the most frequently collected species, with a total of 258 caught (from 4-10 inches), representing 32% of the total catch by number. Channel catfish were also very abundant, with 208 caught from 9-28 inches in length. Channel catfish represented 25.8% of the catch by number and 57.9% of the catch by weight. Panfish species present in the 2011 netting catch (Table 3) included black crappie (37 from 4-13 inches), bluegill (50 from 4-10 inches), pumpkinseed sunfish (23 from 6-8 inches), and yellow perch (2 from 7-8 inches). Game fish species caught in the netting portion of the 2011 survey included smallmouth bass (24 from 7-16 inches), walleye (14 from 7-26 inches), northern pike (14 from 14-27 inches) and largemouth bass (3 from 7-14 inches).

During the July seining and electrofishing portion of the 2011 survey of Hodenpyl Dam Pond, a total of 411 fish were caught, representing 21 different species (Table 4). The most frequently collected species during seining and electrofishing included yellow perch (93 from 3-4 inches), smallmouth bass (63 from 1-14 inches), bluegill (78 from 1-9 inches) and bluntnose minnow (51 from 1-3 inches). Other nongame species present in smaller numbers included brown bullhead, emerald shiner, golden shiner, Iowa darter, Johnny darter, logperch, mimic shiner, shorthead redhorse, silver redhorse, spottail shiner, white sucker, and yellow bullhead. Other panfish and gamefish species captured included channel catfish, largemouth bass, pumpkinseed sunfish, rock bass, smallmouth bass, walleye, and yellow perch. Of the twelve walleye caught by electrofishing in the 2011 lake survey, eleven were 11 inches or smaller in length and either age-1 or age -2.

In the netting portion of the survey, most panfish species caught showed average or above-average growth (Table 5), with the exception being rock bass. Age-4, -6, and-7 bluegill were growing 0.1 inches faster than the State of Michigan average length at age. Age-5, -6, and -7 black crappie were

growing 0.9 inches faster than the state average, while pumpkinseed sunfish of ages-5 and -6 were growing 1.2 inches faster than the state average length at age.

Gamefish species however, from the netting portion of the 2011 survey were growing slower than State averages (Table 5). Channel catfish were growing 1.7 inches slower than the State average. Smallmouth bass of ages-4 and -5 were growing 2.1 inches slower than the State average length at age. Age-4 northern pike were also growing slowly, at 0.6 inches slower than the State average. Not enough (fewer than five of any one age class) largemouth bass or walleye were collected in the netting portion of the 2011 survey to make statistical inferences regarding age and growth. In the electrofishing/seining portion of the survey, age-3 bluegill were growing 0.5 inches slower than the State of Michigan average length at age (Table 6). Age-1 and -2 smallmouth bass were growing 1.2 inches slower than the state average. Age-1 walleye were growing 0.1 inches faster than the state average, and age -2 yellow perch were growing 1.2 inches slower than the state average.

Fish species that were not caught in the 2011 survey of Hodenpyl Dam Pond but had been reported in previous surveys included blackchin shiner, blacknose shiner, brown trout, common shiner, and trout perch (Table 7). Species caught in the 2011 survey which had not been seen in previous surveys of Hodenpyl Dam Pond included emerald shiner and yellow bullhead.

Shoreline data was collected on Hodenpyl Dam Pond by DNR Fisheries personnel on July 20 and August 3, 2011 (Table 8). Data collected included the number of docks, submerged trees, and houses found per kilometer of shoreline, as well as how much of the shoreline is armored or hardened with a structure in order to prevent erosion. Hodenpyl Dam Pond averaged 2.0 docks per kilometer, 8.7% shoreline armoring, 39.7 submerged trees per kilometer, and 0.3 houses per kilometer.

Analysis and Discussion

An exceptional number of channel catfish were caught in the 2011 survey. The majority of fish were aged at -8, -10, -11, and -12 years of age. Because the aging of older catfish can be difficult, we suspect that most of the channel catfish were stocked fish that came from the 2003, 2000, and 1998 stocking efforts. It is not believed that channel catfish naturally reproduce in Hodenpyl Dam Pond. Few younger catfish were captured in the survey, possibly indicating weak survival of the 2008 and 2009 stocking efforts. It is possible that the slow growth observed in channel catfish in the 2011 survey is a density-dependent phenomenon due to the high abundance of adult channel catfish currently in the system. Channel catfish in Hodenpyl Dam Pond seem to be long lived, with many individuals present that are older than 10 years of age. Currently, Hodenpyl Dam Pond offers an outstanding opportunity for catching large channel catfish. While channel catfish are not rare statewide, there are not many inland lakes where they can be caught in the northwestern lower peninsula. Thus Hodenpyl Dam Pond offers a unique angling experience not often found in this part of the State.

Catches for other gamefish species in the 2011 survey were relatively low, and growth rates were below average for the most part. It is possible that the large number of channel catfish present in Hodenpyl Dam Pond are suppressing both the population levels and growth of the other gamefish species. Panfish catch numbers for the 2011 survey were also fairly low (with the exception of rock bass), although the size distributions tended toward larger fish. Growth for most panfish species was above average. As with the gamefish, the panfish populations may also be influenced by the channel

catfish population. The fewer numbers, larger size, and good growth rates of panfish from Hodenpyl Dam Pond may be a result of predation pressure from channel catfish. As the catfish prey heavily on panfish, those that remain grow very well and reach larger sizes, where they are then safer from predation.

Walleye, in particular, are a very popular species for Hodenpyl Dam Pond anglers. Therefore, the relatively small walleye catch in the 2011 survey was disappointing. We have been receiving some angler complaints about poor walleye fishing in Hodenpyl Dam Pond in recent years. While successful walleye natural reproduction is clearly occurring in most years, it does not appear to be sufficient to support population levels desired by the angling public. Again, this may be due in part to the large population of channel catfish present in Hodenpyl Dam Pond.

Hodenpyl Dam Pond is much less heavily developed with docks and dwellings than other lakes in Michigan (Table 8). Hodenpyl Dam Pond had 0.3 dwellings per kilometer, compared to 9.2 dwellings per kilometer for other large deep lakes in Michigan. Hodenpyl Dam Pond also had 2.0 docks per kilometer of shoreline, while the average large deep lake in Michigan had 4.3 docks per kilometer (Wehrly et al. 2010). Hodenpyl Dam Pond also had much more submerged woody debris (39.7 trees/km) than other large lakes in Michigan (average =8.4 trees/km). Hodenpyl Dam Pond also had substantially less shoreline armoring (8.7%) than other large, deep, inland lakes in Michigan (average=24.2%). The lack of development on Hodenpyl Dam Pond is linked to the fact that much of the shoreline is owned either by the USFS or by Consumers Energy and has been kept in a relatively natural state by those two entities.

Management Direction

At this point, stocking of channel catfish into Hodenpyl Dam Pond should be suspended for the time being, and walleye stocking should resume. Because natural reproduction is occurring in most years, walleye stocking efforts should be 50 spring fingerlings per acre (100,000 fish) every-other year. Walleye stocking should begin again in 2013. In years when walleye are stocked, the stocking success should be monitored by conducting fall electrofishing surveys (Serns 1982, 1983). After the next netting survey is conducted, further management decisions regarding the possible resumption of channel catfish stocking can be made. If channel catfish stocking is reinstated, it should probably be at lower levels and less frequently than in recent years.

Netting surveys of Hodenpyl Dam Pond should be conducted more frequently. Conducting a netting survey every five years or so allows fisheries personnel to keep tabs on the fish population dynamics occurring in the Pond. However, current budgetary and personnel constraints on DNR Fisheries Division will likely not allow for more frequent sampling in the near future. Unless major changes occur within Fisheries Division, it is unlikely that another netting survey will be conducted on Hodenpyl Dam Pond within the next ten years.

Any remaining riparian wetlands adjacent to Hodenpyl Pond should be protected as they are critical to the continued health of the lake's aquatic community. Future unwise riparian development and wetland loss may result in deterioration of the water quality and aquatic habitat. Healthy biological communities in inland lakes require suitable natural habitat. Human development within the lake watershed, along the shoreline, and in the lake proper has a tendency to change and diminish natural

habitat. Appropriate watershed management is necessary to sustain healthy biological communities, including fish, invertebrates, amphibians, reptiles, birds and aquatic mammals. Generally for lakes this includes maintenance of good water quality, especially for nutrients; preservation of natural shorelines, especially shore contours and vegetation; and preservation of bottom contours, vegetation, and wood structure within a lake. Guidelines for protecting fisheries habitat in inland lakes can be found in Fisheries Division Special Report 38 (O'Neal and Soulliere 2006).

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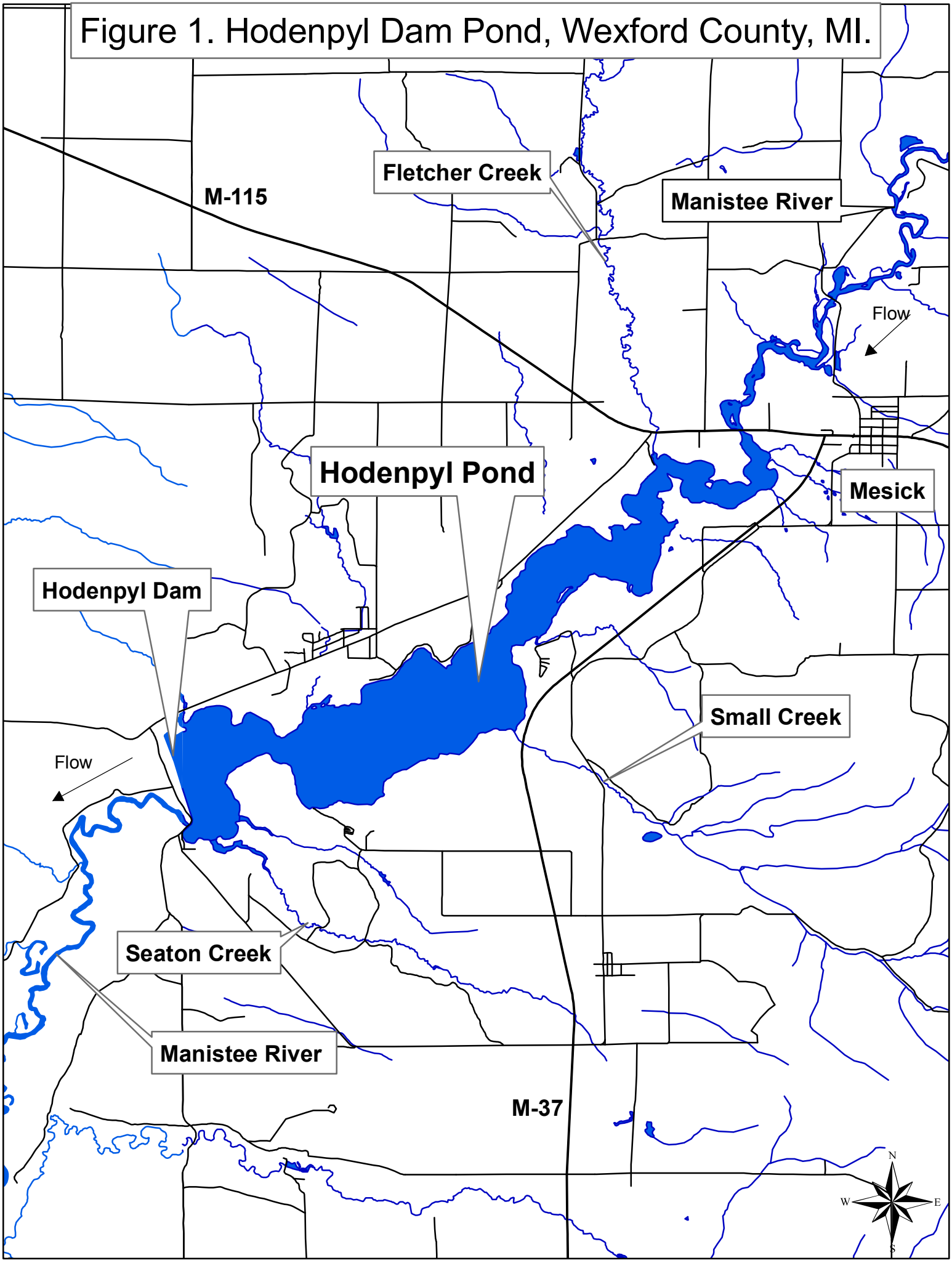
Figure 1. Hodenpyl Dam Pond, Wexford County, MI.
Fletcher Creek
M-115
Manistee River
Flow
Hodenpyl Pond
Mesick
Hodenpyl Dam
Small Creek
Flow
Seaton Creek
Manistee River
M-37
N
W
E
S

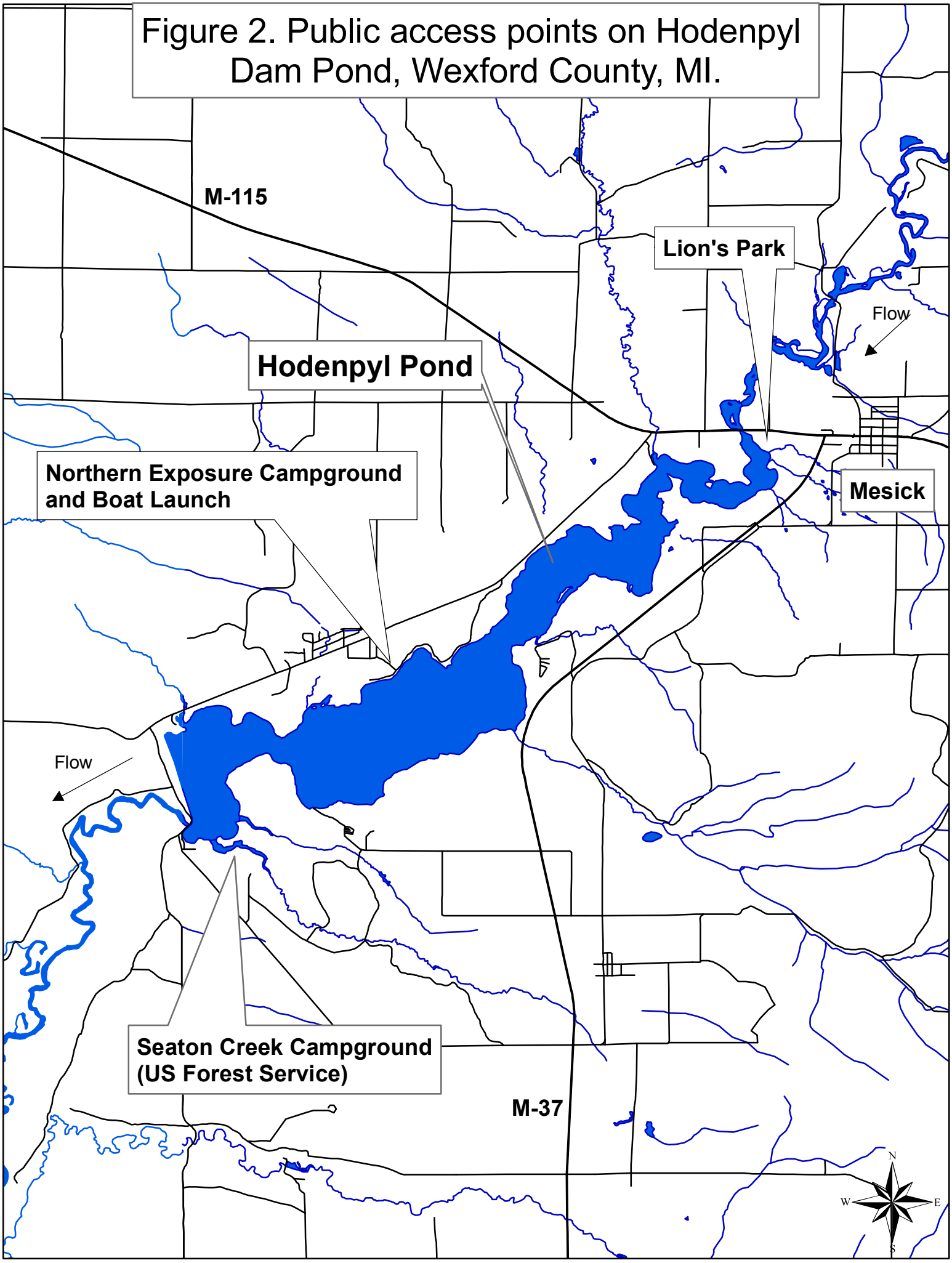
Figure 2. Public access points on Hodenpyl Dam Pond, Wexford County, MI.
M-115
Lion's Park
Flow
Hodenpyl Pond
Northern Exposure Campground and Boat Launch
Mesick
Flow
Seaton Creek Campground (US Forest Service)
M-37
N
W
E
S

Table 1. Fish stocked in Hodenpyl Dam Pond, Wexford County, 1929-2011.

Year	Species	Number	Size/age	Strain
1929	bluegill	7,000	4-5 mo.	
	largemouth bass	600	4 mo.	
1930	bluegill	4,000	unknown	
	walleye	300,000	fry	
1932	largemouth bass	1,200	unknown	
1933	bluegill	13,500	unknown	
	largemouth bass	2,000	unknown	
	smallmouth bass	900	unknown	
	walleye	600,000	fry	
1934	bluegill	12,500	unknown	
	largemouth bass	250	unknown	
	smallmouth bass	150	unknown	
	yellow perch	15,000	unknown	
1935	bluegill	14,000	unknown	
	walleye	255,000	fry	
	yellow perch	25,000	unknown	
1936	walleye	450,000	fry	
1937	bluegill	20,000	fry	
	smallmouth bass	3,000	fingerlings	
	walleye	300,000	fry	
1938	bluegill	25,200	fingerlings	
	walleye	300,000	fry	
	yellow perch	100,000	fry	
1939	bluegill	80,000	4-5 mo.	
	rainbow trout	158	adults	
	smallmouth bass	2,375	5 mo.	
	walleye	300,000	fry	
	yellow perch	30,000	5 mo.	
1940	bluegill	500	yearlings	
	smallmouth bass	1,200	4-7 mo.	
	walleye	280,000	fry	
1941	bluegill	59,000	4 mo.	
	smallmouth bass	350	fingerlings	
	yellow perch	23,000	5 mo.	
1942	bluegill	10,000	4 mo.	
	smallmouth bass	500	4 mo.	
	walleye	300,000	fry	
1943	smallmouth bass	1,000	4 mo.	
1944	bluegill	2,000	4 mo.	
	smallmouth bass	1,000	4 mo.	
1962	channel catfish	25,000	legal	
1963	channel catfish	25,000	sublegal	
1964	channel catfish	50,000	fingerlings	
1980	walleye	1,455	spring fingerlings	
1988	channel catfish	22,154	yearlings	
1989	walleye	46,347	spring fingerlings	Muskegon
1991	channel catfish	25,000	spring fingerlings	
1992	walleye	51,200	fall fingerlings	Bay De Noc

Table 1. continued

1998	channel catfish	20,053	yearlings	
1999	walleye	42,237	spring fingerlings	
2000	channel catfish	22,040	yearlings	
2001	walleye	63,350	spring fingerlings	Muskegon
2003	channel catfish	20,012	yearlings	
2008	channel catfish	7,423	yearlings	
2009	channel catfish	18,801	yearlings	

Table 2. Michigan DNR Master Angler awards issued for fish caught from Hodenpyl Dam Pond, Wexford County, 1994-2011.

Species	Number of Master Angler awards issued
Bluegill	4
Northern pike	2
Rock bass	2
Smallmouth bass	1
Walleye	1
Total:	10

Table 3. Number, weight, and length of fish collected from Hodenpyl Dam Pond with large mesh fyke nets, trap nets, inland gillnets, during May 31- June 3, 2011.

Species	Number	Percent by number	Weight (lbs)	Percent by weight	Length range (inches)[1]	Average length	Percent legal size[2]
black bullhead	38	4.7	27.5	2.1	8-13	11.5	100 (7")
black crappie	37	4.6	27.2	2.1	4-13	10.5	92 (7")
bluegill	50	6.2	17.6	1.3	4-10	7.7	88 (6")
brown bullhead	22	2.7	17.6	1.3	8-13	11.9	100 (7")
channel catfish	208	25.8	764.1	57.9	9-28	22.1	99 (12")
common carp	2	0.2	29.4	2.2	29-34	32.0	
largemouth bass	3	0.4	2.1	0.2	7-14	10.2	33 (14")
northern pike	14	1.7	41.2	3.1	14-27	23.3	43 (24")
pumpkinseed sunfish	23	2.9	7.7	0.6	6-8	7.2	100 (6")
rock bass	258	32.0	99.2	7.5	4-10	7.9	93 (6")
shorthead redhorse	48	6.0	72.0	5.5	11-20	15.2	
silver redhorse	47	5.8	142.0	10.8	16-24	20.9	
smallmouth bass	24	3.0	23.3	1.8	7-16	11.9	25 (14")
walleye	14	1.7	24.2	1.8	7-26	15.8	36 (15")
white sucker	16	2.0	24.2	1.8	8-18	15.1	
yellow perch	2	0.2	0.5	0.0	7-8	8.0	100 (7")
Total	806	100	1,319.8	100			

[1]Note some fish were measured to 0.1 inch, others to inch group: e.g., "5"=5.0 to 5.9 inch, 12=12.0 to 12.9 inches; etc.

[2]Percent legal size or acceptable size for angling. Legal size or acceptable size for angling is given in parentheses.

Table 4. Number, weight, and length of fish collected from Hodenpyl Dam Pond by seining and electrofishing on July 20, 2011.

Species	Number	Percent by number	Weight (lbs)	Percent by weight	Length range (inches)[1]	Average length	Percent legal size[2]
bluegill	78	19.0	3.2	7.8	1-9	3.3	4 (6")
bluntnose minnow	51	12.4	0.4	1.0	1-3	2.7	
brown bullhead	4	1.0	2.7	6.6	8-13	11.7	100 (7")
channel catfish	3	0.7	0.9	2.2	9-11	10.5	0 (12")
emerald shiner	5	1.2	0.1	0.2	3-4	4.1	
golden shiner	2	0.5	0.1	0.2	4-4	4.5	
Iowa darter	1	0.2	0.0	0.0	2-2	2.5	
Johnny darter	3	0.7	0.0	0.0	2-2	2.5	
largemouth bass	9	2.2	1.7	4.1	1-14	4.6	17 (14")
logperch	21	5.1	0.2	0.5	1-3	3.2	
mimic shiner	12	2.9	0.1	0.2	2-2	2.5	
pumpkinseed sunfish	12	2.9	0.5	1.2	2-3	3.0	0 (6")
rock bass	27	6.6	3.7	9.0	2-9	4.8	37 (6")
shorthead redhorse	3	0.7	2.6	6.3	11-13	12.8	
silver redhorse	3	0.7	4.0	9.7	10-17	15.2	
smallmouth bass	63	15.3	11.2	27.3	1-14	5.9	2 (14")
spottail shiner	2	0.5	0.0	0.0	0-2	1.5	
walleye	12	2.9	5.0	12.2	7-18	9.9	8 (15")
white sucker	4	1.0	0.8	1.9	2-9	6.8	
yellow perch	93	22.6	2.6	6.3	3-4	3.8	0 (7")
yellow bullhead	3	0.7	1.3	3.2	8-11		100 (7")
Total	411	100	41.1	100			

[1]Note some fish were measured to 0.1 inch, others to inch group: e.g., "5"=5.0 to 5.9 inch, 12=12.0 to 12.9 inches; etc.

[2]Percent legal size or acceptable size for angling. Legal size or acceptable size for angling is given in parentheses.

Table 5. Average total weighted length (inches) at age, and growth relative to the state average, for fish sampled from Hodenpyl Dam Pond with trap nets, fyke nets, and inland gill nets, May 31- June 1, 2011. Number of fish aged is given in parenthesis. A minimum of five fish per age group is statistically necessary for calculating a Mean Growth Index, which is a comparison to the State of Michigan average.

	Age														Mean Growth
Species	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	Index
Black crappie		5.1 (3)	8.2 (1)	9.6 (4)	10.4 (10)	11.5 (8)	12.0 (5)	12.3 (4)		13.8 (1)					+0.9
Bluegill			4.8 (2)	5.7 (5)	6.0 (3)	7.6 (12)	8.7 (12)	9.2 (3)		10.1 (1)					+0.1
Channel catfish	6.5 (1)			13.1 (1)			26.7 (1)	19.9 (25)		22.6 (34)	22.8 (16)	24.6 (13)	26.4 (1)		-1.7
Largemouth bass		8.0 (2)	14.0 (1)												-
Northern pike		14.6 (1)	21.7 (2)	23.8 (7)	23.0 (1)	26.2 (2)									-0.4
Pumpkin-seed				6.8 (4)	7.4 (8)	8.0 (6)	8.8 (2)								+1.2
Rock bass		4.9 (1)	5.1 (3)	6.1 (15)	7.2 (9)	7.7 (10)	8.2 (7)	8.6 (10)	9.2 (6)	9.5 (2)	9.8 (5)				-0.6
Smallmouth bass		7.3 (2)	8.9 (2)	10.9 (7)	12.8 (9)	14.5 (2)	15.9 (1)	16.1 (1)							-2.1
Walleye	7.1 (1)	9.8 (1)	12.9 (1)	13.5 (2)	14.4 (4)	14.0 (1)			19.9 (2)	24.0 (1)				26.2 (1)	-
Yellow perch					7.5 (1)	8.2 (1)									-

Table 6. Average total weighted length (inches) at age, and growth relative to the state average, for fish sampled from Hodenpyl Dam Pond by electrofishing, July 20, 2011. Number of fish aged is given in parenthesis. A minimum of five fish per age group is statistically necessary for calculating a Mean Growth Index, which is a comparison to the State of Michigan average.

	Age										Mean Growth
Species	I	II	III	IV	V	VI	VII	VIII	IX	X	Index
Bluegill			4.9 (9)	5.7 (2)	6.6 (2)	9.3 (1)					-0.5
Largemouth bass		4.7 (2)		14.5 (1)							-
Pumpkinseed		4.2 (1)	4.7 (2)	6.4 (1)							-
Rock bass		4.4 (4)									-
Smallmouth bass	4.9 (20)	7.1 (9)	9.9 (2)	11.5 (3)	11.9 (2)		14.1 (1)				-1.2
Walleye	8.3 (7)	10.7 (4)			18.1 (1)						+0.1
Yellow perch	3.6 (1)	4.5 (13)	4.8 (3)	6.3 (1)	6.5 (1)						-1.2

Table 7. Presence/absence of fish species in historical fisheries surveys of Hodenpyl Dam Pond.

Species	1947	1948	1951	1965	1970	1979	1985	1990	2000	2011
black bullhead					x		x			x
black crappie				x			x	x	x	x
blackchin shiner			x					x		
blacknose shiner			x							
bluegill	x	x	x	x	x		x	x	x	x
bluntnose minnow	x	x	x						x	x
brown bullhead							x		x	x
brown trout							x			
bullhead (non-specific)				x						
channel catfish					x				x	x
common carp		x		x	x		x			x
common shiner			x							
emerald shiner										x
golden redhorse								x		
golden shiner								x	x	x
greenside darter*								x		
Iowa darter			x						x	x
Johnny darter	x	x	x							x
largemouth bass					x				x	x
logperch	x	x	x					x		x
mimic shiner			x							x
northern pike	x		x	x	x		x	x	x	x
pumpkinseed sunfish	x		x	x	x		x	x	x	x
redhorse (non-specific)	x	x	x	x	x		x		x	
rock bass	x	x	x	x	x	x	x	x	x	x
shorthead redhorse									x	x
silver redhorse								x	x	x
smallmouth bass	x	x	x	x	x	x	x	x	x	x
spottail shiner	x	x	x					x	x	x
trout-perch									x	
walleye	x	x	x	x	x	x	x	x	x	x
white sucker	x	x	x	x	x		x	x	x	x
yellow perch	x		x	x	x	x	x	x		x
yellow bullhead										x

* likely a misidentified Iowa darter

Table 8. Shoreline data for Hodenpyl Dam Pond, Wexford County. Sampling was conducted by DNR Fisheries personnel in July and August, 2011.

Total docks per km	Percent shoreline armoring	Submerged trees per km	Dwellings per km
2.0	8.7	39.7	0.3