# FISHERIES DIVISION MICHIGAN DEPARTMENT OF NATURAL RESOURCES

## West Lake Superior

### Management Unit



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### 2015-16 Western Lake Superior Management Unit Newsletter

The West Lake Superior Management Unit works as a combined staffing unit with the Northern Lake Michigan management unit with shared field technician staff who work out of the Crystal Falls DNR office. The following is a summary of the field work that has occurred during the last year.

#### What you'll find inside this newsletter

Page 2. New public land acquisition

Page 3. New sportfishing regulations

Page 4. Twin Lakes (Roland/Gerald) trout regulations

Page 5. Unit walleye rearing summary

Page 6. Hannah Web Lake

Page 7-9. Teal Lake fisheries survey summary

Page 10-11. Lake Angeline fisheries survey summary

Page 12-13. Help prevent the spread of invasive species

Page 14. Winter snow plowing of boat access sites

Page 15-16. Great Lakes commercial fishing nets

Page 17. Fisheries Division website

### **New Public Land**

#### Securing public fisheries for future generations

#### Silver Lake Basin acquisition:

At the May 7, 2015 Natural Resources Commission meeting, DNR Director Keith Creagh approved a 14.3-acre land acquisition that secures public assess to Marquette County's Silver Lake Basin. The goal of this purchase was to ensure public access to this waterbody for current and future generations. The existing lakeshore parcels around this lake were either private lands or corporate forest holdings and there was no guaranteed public access to the Silver Lake Basin.

Silver Lake is a 1,214 acre impoundment of the Dead River watershed. This acquisition serves as compensation for; damages to fisheries, recreation, and aquatic life; reduced public access to the post-event fishery resource; the presence of northern pike in Silver Lake; and the loss of a rare inland lake coldwater fishery.

The Plum Creek Land Company of Atlanta Georgia agreed to sell this parcel after years of discussion with the Michigan DNR Fisheries. Funds for this purchase were paid from a 2009 Upper Peninsula Power Company consent judgement related to the May 2003 failure of the fuse plug in the dike of the Silver Lake dam and subsequent Dead River flood.

Prior to the 2003 dam failure, the sport fishery of Silver Lake Basin was noted for quality trout, bass, and yellow perch populations. Stocking of brook trout and splake were enjoyed by anglers and this lake provided a coldwater trout fishery to Marquette County. The May 2003 fuse plug failure at the Silver Lake dam allowed for the downstream presence of northern pike to gain access to this lake, of which never before had northern pike had the opportunity to colonize this waterbody. The infestation of northern pike allowed the pike to consume trout as a forage source and consequently all stocking of trout has ceased.

Because of the extensive shallow stump-field shoals that provide spawning habitat for panfish, future management plans for this basin include the development of a bluegill fishery. We recognize there are not very many quality bluegill fisheries in Marquette County and the development of a panfish opportunity in this 1,200 acre lake will be a resource opportunity for area anglers to enjoy.

An additional public benefit from this acquisition is the preservation of secured access to the lake as a water source in the event of a wildland forest fire event.



### What's new!

#### Sportfish regulation changes for the western UP

Lake Gogebic walleye size limit: On November 5, 2015 new walleye sportfishing regulations for Lake Gogebic went into effect. At the November 5<sup>th</sup> Michigan Department of Natural Resources Commission (NRC) meeting, Commissioners unanimously approved special walleye sportfishing regulations for Saginaw Bay and for Lake Gogebic. This new regulation for Lake Gogebic will allow anglers the option of keeping two smaller walleyes — from 13 inches up to 15 inches — within their five-fish daily possession limit. The new rule change however will not require anglers to keep fish smaller than 15 inches.

This regulation change was a result of public input gained at a public meeting on July 22 in Marenisco Township. Michigan Department of Natural Resources Fisheries Division noted that Lake Gogebic is unique to other lakes because of the high level of natural reproduction of walleye that this lake annually produces. As a result of the strong natural reproduction of walleye, this lake has a dominance of small walleye, much more abundant than other lakes in Michigan. Analysis of the Lake Gogebic biological data as well as input from the public formed the basis for this new regulation change.

Walleye were introduced into Lake Gogebic in 1904. Fisheries Division will continue to monitor Lake Gogebic to help track the effects of this new sportfishing regulation.

**Walleye Regulations on Ontonagon River:** On November 5, 2015 the Michigan Natural Resources Commission also instituted more restrictive walleye regulations for the Ontonagon River (Ontonagon County) as only one (1) walleye in the daily possession limit may be possessed greater than 25 inches. This new sportfishing regulation went into immediate effect on the November 5th date. The portion of the Ontonagon River, near the town of Ontonagon, is known for large lake-run walleye that migrate into this river during the spring spawning season. Sport anglers enjoy seeing these big fish each spring and they wish to protect this special fishery from being overharvested.

Lake Angeline trout regulations: On April 1, 2016 the Type-B inland trout lake designation for Lake Angeline will be removed, thereby effectively changing the current 15"-inch minimum size limit for lake trout and splake to 8-inches. By removing the Type-B regulation, and having this lake be a non-classified inland trout water, the daily possession limit would become 5 fish of which no more than 3 may be of 15-inches or larger. Lake Angeline is located in the City of Ishpeming and is within bicycle or walking distance of most of the citizens of this community. The lake offers good shorefishing opportunities for smallmouth bass, black crappie, and yellow perch. A newly constructed (summer 2015) State boat launch now allows anglers to access Lake Angeline for lake trout, rainbow trout, and brown trout. The lake will be stocked annually with various species of trout and thus will certainly receive regular fishing pressure. Allowing an 8 inch minimum size fishing regulation will attract families and kids to enjoy this lake, and will allow new anglers to be able to catch a meal of fish to take home.

## What are your thoughts?

#### Sportfish regulation changes for the western UP

#### Twin Lakes (Lake Roland, Lake Gerald) trout regulations:

Located in 26 miles southwest of the cities of Houghton/Hancock, Lakes Roland and Gerald provide 552 acres of trout and panfishing opportunity. These lakes have been largely managed for walleye, bass, and panfish since the 1930's. Stocking of rainbow trout began in 1972. In recent years, trout survival has diminished, possibly due to warmer lake waters combined with increases in nutrient loading. Michigan DNR Fisheries stocks an average of 6,500 yearling rainbow trout on an annual springtime basis, with the stocked fish averaging 6-7 inches in length. In recent years lake trout have also been stocked into these lakes, often with these fish averaging 13-14 inches in length. Current sportfishing regulations for Lake Roland and Gerald allow for a minimum size limit of 12 inches for keeping rainbow trout and 15 inches for keeping lake trout.

With numerous cabin owners at these lakes, along with the 175 acre Twin Lakes State Park, fishing pressure is quite steady year round. Sublegal size rainbow trout and rainbow trout are often caught and released by novice anglers who put stress on these fish when handling them for the removal of hooks. This handling stress is particularly acute soon after springtime fish stocking when the trout are easiest to catch.

We would like your thoughts on possibly removing the current Type-B sportfishing regulations that set the 12 and 15 inch minimum size limits for rainbow and lake trout. By removing the Type-B regulation classification for these lakes, the new minimum size limit would be 8 inches for all species of trout. We do not think lowering the size limits on other trout lakes would be wise, however for a heavy-use fishery such at what occurs at Lake Roland and Gerald, this smaller size limit may allow for more trout to make it home to the frying pan. If you have thoughts regarding this idea, please contact our staff at the Baraga DNR Customer Service Center at 906-353-6651.



Twin Lakes State Park

### Unit Walleye Rearing

Walleye are stocked in a multitude of lakes and rivers across the State of Michigan. In late April of each year, fertilized walleye eggs are gathered from the wild and hatched during early May in our State hatcheries. These fish are then transferred to outdoor ponds for rearing during the months of May and June. By the end of June, the walleye within the ponds start becoming cannibalistic therefore the fish are harvested and stocked out to receiving waters. Most lakes and streams that are designated for walleye allocations receive June harvested spring fingerling 2.5 inch size fish. Conversely, some waters receive newly hatched fry rather than fingerlings. For the Western Upper Peninsula, spring fingerling walleye are reared in two ponds; one pond located near the town of Crystal Falls and the second pond located in northern Menominee County. Years of rearing information has shown that walleye that are reared in the warmer southern reaches of the UP are typically twice the size of walleye reared in ponds located closer to Lake Superior. For the reason of rearing larger and more quality size walleye, the fish that are stocked in the Western Lake Superior Management Unit will continue to come from the Crystal Falls and Menominee ponds.

The following is a list of the waters that received walleye in 2015;

| • | Otter Lake      | (Houghton County) | 9,170 fingerlings   |
|---|-----------------|-------------------|---------------------|
| • | Portage Lake*   | (Houghton County) | 100,000 fingerlings |
| • | Long Lake       | (Gogebic County)  | 10,966 fingerlings  |
| • | Huron Bay       | (Baraga County)   | 1,000,000 fry       |
| • | Ontonagon River | (Ontonagon Co)    | 1,100,000 fry       |
| • | Portage Lake*   | (Houghton County) | 1,200,000 fry       |

The following waters are scheduled for walleye stocking in 2016;

| • | Hannah Webb Lake  | (Iron County)      | 3,100 fingerlings   |
|---|-------------------|--------------------|---------------------|
| • | Teal Lake         | (Marquette County) | 1,000,000 fry       |
| • | Hoist Basin       | (Marquette County) | 27,500 fingerlings  |
| • | Portage Lake*     | (Houghton County)  | 100,000 fingerlings |
| • | Portage Lake*     | (Houghton County)  | 1,000,000 fry       |
| • | Sunday Lake       | (Gogebic County)   | 5,000 fingerlings   |
| • | Lake Independence | (Marquette County) | 10,000 fingerlings  |
| • | Vermilac Lake     | (Baraga County)    | 11,000 fingerlings  |
| • | Lac Labelle       | (Keweenaw County)  | 27,500 fingerlings  |
| • | Huron Bay         | (Baraga County)    | 1,000,000 fry       |

The actual amount of walleye to be stocked will depend on the production levels of the Crystal Falls and Menominee rearing ponds.

<sup>\*</sup> Portage Lake is on a 6-year intensive stocking program (2013—2018) to restore the walleye fishery that collapsed during the years of 2007—2012.

### Management of a Trout Lake

#### Hannah Webb Lake, Iron County

Hannah Webb Lake has been managed for trout since 1944. A quality sport fishery for trout existed in this lake until 1981 when the water quality deteriorated along with the occurrence of plankton blooms. Following 1981, fishing reports documented poor catch success. In 1984 yellow perch, white suckers, and black bullheads comprised 77% of the total biomass of the fishery. By 1987 yellow perch were abundant and black crappie began to show up in the fishery. The lake was reclaimed in 1988 and restocked with brook trout in 1989, however the fishery experienced a complete loss from a fish kill in October 1989. Rainbow trout stocking commenced through the 1990's, but by 1998 bluegill were present and yellow perch comprised 94% of the total biomass. The lake was re-treated in 2000 and restocked with rainbow trout and brook trout in 2001. By 2005 the fisheries survey report documented lots of pumpkinseed sunfish and bluegill, comprising 50% of the total biomass. A 2009 survey of the lake collected 40 rainbow trout (between 7-13 inches); however bluegill, pumpkinseed sunfish, yellow perch, walleye, and northern pike were also collected. Angler and homeowner comments since the 2009 survey reflect a very poor trout fishery combined the presence of northern pike, an abundance of yellow perch and panfish, and one fisherman caught a 44 inch muskellunge.

Beginning in 2016, fisheries management of this lake will be switched from a trout emphasis to a panfish/perch composition. A one-time stocking of walleye will be implemented during the 2016-2021 management period to introduce a predator species to this lake to help alleviate yellow perch stunting.

It is unfortunate to lose this trout fishery however history has shown that lake reclamation efforts provide only a temporary short window of success. Water quality conditions, whether from drought or climate warming or limnological changes, may be playing a role in reduced survival of trout here. A complete fisheries survey will be conducted on this lake during the spring of 2016.



Hannah Webb Lake

ISSUE 4

### Fisheries Survey Summary

PAGE 7



#### **Teal Lake Fisheries Survey**

#### June 1-4, 2015

**Introduction:** A summer Status and Trend protocol fisheries survey was conducted during the period of June 1-4, 2015. Data from this survey will be used to help evaluate the following hatchery stocking events that have occurred since the last Teal Lake fisheries netting effort and sucker removal of April/27/2005 – May/18/2005.

#### Recent walleye and muskellunge stocking history:

- · 2011 = 50,000 walleye fry OTC marked
- 2012 = 10,035 walleye fingerlings OTC marked
- 2014 = 1-million walleye fry, non-marked. 699 fall fingerling Great Lakes spotted muskellunge.
- 2015 = 699 fall fingerling, Great Lakes spotted muskellunge.

**History:** Teal Lake is a walleye, yellow perch, and smallmouth bass fishery located near the population centers of Marquette/Negaunee/Ishpeming. The lake has a history of producing and abundant population of white suckers, along with periods of good abundances of walleye and yellow perch. This lake receives tremendous fishing pressure when the angling catch results are good. When fishing is good, anglers quickly crop down the walleye and perch population and white suckers fill the vacant niche in the fishery.

The management of Teal Lake's fishery has traditionally focused on balancing the predator/prey relationship using tools such as sucker removals and walleye stockings. When the suckers become numerous the walleye/perch fishery collapses, the DNR conducts a sucker removal project and the walleye and perch once again become abundant. The boom and bust cycle is repetitive. Since 1982, seven manual removals (totaling over 100,000 lbs.) were conducted to reduce the abundance of suckers in this system. These removals have had (at best) only temporary effects on the fish community, so alternative management methods need to be considered. The DNR simply cannot net this lake often enough to stay on top of the sucker fishery.

The 2014 - 2019 management plan for Teal Lake calls for the biennial (every other year) stocking of walleye combined with the annual stocking of 700 fall fingerling great lakes spotted muskellunge. Muskies are intended as a management tool to utilize the white sucker forage base, which will help the lake's fishery stay in balance. In time, this lake could serve as a candidate lake for future spotted muskie egg take operations.

**Methods and Materials**: Status and Trend survey protocol was used; deploying two experimental mesh gill nets for 3 nights, four standard mesh (3/4") fyke nets for three nights, three small mesh (1/8") maxi-mini fyke nets for two nights, and a minnow seine pull at five shoreline sites. Additional survey work was conducted via three 10-minute boomshocker electrofishing stations.

**Discussion:** The most notable gamefish population was smallmouth bass with good numbers of legal size fish. Bass were spawning at the time the survey took place which could have lead to higher catch rate. Despite years of white sucker removals coupled with walleye stocking, the fish assemblage of this lake seems to be ever more moving in the direction of becoming a smallmouth bass dominated fishery. Comments of anglers who fish this lake substantiate that most of the smallmouth are caught-and-released with very few people actually keeping a bass.

Northern pike size ranges between 16-24 inches were steady, with seven fishes of 24 inches and larger (16%) being of legal size. Northern pike have not been present if past surveys and they began to first show a presence in Teal Lake in about 2010. Recent angler comments report that pike are being commonly caught.

#### Teal Lake continued....

The electrofishing effort documented a good abundance of 5 inch walleye yearlings along the north and west shorelines. These small walleye could be products from the 50,000 fry stocking from the previous spring. One walleye of 13 inches was caught, which may or may not be the product of the 50,000 fry that were stocked in 2011. The 2011 walleye fry were oxyetracycline (OTC) marked, so during the winter 2016 OTC reading will determine if this was a wild or stocked fish. Overall, there is lack of walleye after Age I, and this may be a result of heavy predation by smallmouth bass. This absence of small walleye does not answer if natural recruitment of walleye has been very strong since the last survey, however past surveys have suggested that natural recruitment has not been strong enough to maintain the walleye fishery. Mixed and emotional comment, for or against muskellunge stocking, has been voiced over the 2014 allocation of fish to this lake. Only one 9" Great Lakes spotted muskellunge was captured in this survey effort. Public meetings within Marquette County and the central Upper Peninsula have documented a stakeholder request for an additional muskellunge fishery in the central Upper Peninsula. Currently Craig Lake and Lake Michigamme provide the only other muskellunge fisheries within Marquette/Baraga Counties.

Recommendations: Walleye are an extremely popular and desired sportfish for the residents of Marquette County. With Teal Lake's past history of supporting a walleye fishery, continued biennial stocking of 1-million walleye fry will be maintained through 2020. Stocked walleye should be OTC marked to allow for evaluation of the contribution of stocked walleye to this fishery. As a stocking product, walleye allocations to Teal Lake can be conducted with fry stage fish or fingerling stage fish. Walleye fry are much more assured for supply than fingerlings because the fingerling lifestage is dependent on if the rearing ponds are successful or not. Walleye fry are readily available from the Michigan DNR Thompson Hatchery (near Manistique). A stocking evaluation survey should be conducted in 2021 to evaluate if the 2016, 2018, and 2020 walleye stocking efforts have been successful. If walleye stocking fails to develop a reasonable sport fishery by 2021, then the appropriate management for this lake may be to allow it to become a smallmouth bass dominated fishery.

Great Lakes spotted muskellunge stockings were instituted in Teal Lake in 2014 and are scheduled to be conducted annually through 2019. Continued stocking through this 2014 - 2019 timeline should be maintained to be able to assess if a muskellunge fishery can be developed in Teal Lake.



Fingerling muskellunge

#### Teal Lake Catch Summary

| Water            | Teal Lake T48N R27V       | V S31         |         |                 |               |          |             |              |                |              |
|------------------|---------------------------|---------------|---------|-----------------|---------------|----------|-------------|--------------|----------------|--------------|
| Survey           | 06/01/2015-08/24/201      |               |         |                 |               |          |             |              |                |              |
| Gear             | Electrofish, gill net, fy |               |         |                 |               |          |             |              |                |              |
| Effort meas.     | Various                   |               |         |                 |               |          |             |              |                |              |
| Species          | GL Spotted Muskie         | Northern pike | Walleye | Smallmouth bass | Black crappie | Bluegill | Pumpkinseed | Yellow Perch | Brown bullhead | White sucker |
| Legal size (in)  | >=42.00                   | >=24.00       | >=15.00 | >=14.00         | >=7.00        | >=6.00   | >=6.00      | >=7.00       | >=7.00         | >=           |
| Avg. length (in) | 9.5                       | 21.9          | 7.7     | 12.8            | 8.0           | 2.4      | 4.9         | 6.8          | 9.2            | 18.0         |
| Total            | 1                         | 43            | 28      | 100             | 2             | 15       | 23          | 38           | 24             | 24           |
| No. legal        | 0                         | 14            | 3       | 42              | 2             | 1        | 5           | 13           | 22             | 0            |
| Inch group       |                           |               | _       |                 | _             | -        |             |              |                | -            |
| 0                |                           |               |         |                 |               |          |             |              |                |              |
| 1                |                           |               |         |                 |               | 10       |             |              |                |              |
| 2                |                           |               |         | 2               |               | 2        | 1           |              |                |              |
| 3                |                           |               |         |                 |               | 1        | 3           | 1            |                |              |
| 4                |                           |               |         |                 |               |          | 9           | 1            |                |              |
| 5                |                           |               | 23      |                 |               | 1        | 5           | 6            | 1              |              |
| 6                |                           |               |         |                 |               | 1        | 5           | 17           | 1              |              |
| 7                |                           |               |         | 1               | 1             |          |             | 7            | 1              |              |
| 8                |                           |               |         | 9               | 1             |          |             | 5            | 4              | 1            |
| 9                | 1                         | 1             |         | 6               |               |          |             |              | 12             | 1            |
| 10               |                           | 1             |         | 14              |               |          |             | 1            | 5              |              |
| 11               |                           |               |         | 18              |               |          |             |              |                |              |
| 12               |                           |               |         | 5               |               |          |             |              |                |              |
| 13               |                           |               | 2       | 3               |               |          |             |              |                | 1            |
| 14               |                           |               |         | 12              |               |          |             |              |                |              |
| 15               |                           |               |         | 10              |               |          |             |              |                |              |
| 16               |                           | 1             |         | 8               |               |          |             |              |                |              |
| 17               |                           | 2             |         | 9               |               |          |             |              |                | 3            |
| 18               |                           | 3             |         | 3               |               |          |             |              |                | 10           |
| 19               |                           | 9             |         |                 |               |          |             |              |                | 4            |
| 20               |                           | 6             | 2       |                 |               |          |             |              |                | 2            |
| 21               |                           | 3             | 1       |                 |               |          |             |              |                | 1            |
| 22               |                           | 2             |         |                 |               |          |             |              |                | 1            |
| 23               |                           | 1             |         |                 |               |          |             |              |                |              |
| 24               |                           | 2             |         |                 |               |          |             |              |                |              |
| 25               |                           | 3             |         |                 |               |          |             |              |                |              |
| 26               |                           | 3             |         |                 |               |          |             |              |                |              |
| 27               |                           | 1             |         |                 |               |          |             |              |                |              |
| 28               |                           | 3             |         |                 |               |          |             |              |                |              |
| 29               |                           |               |         |                 |               |          |             |              |                |              |
| 30               |                           | 1             |         |                 |               |          |             |              |                |              |
| 31               |                           |               |         |                 |               |          |             |              |                |              |
| 32               |                           |               |         |                 |               |          |             |              |                |              |
| 33               |                           |               |         |                 |               |          |             |              |                |              |
| 34               |                           | 1             |         |                 |               |          |             |              |                |              |
| 35               |                           |               |         |                 |               |          |             |              |                |              |
| 36               |                           |               |         |                 |               |          |             |              |                |              |
| 37               |                           |               |         |                 |               |          |             |              |                |              |
| 38               |                           |               |         |                 |               |          |             |              |                |              |
| Sample tota      | al: 1                     | 43            | 28      | 100             | 2             | 15       | 23          | 38           | 24             | 24           |

**Results:** The netting and electrofishing catch produced the following fish; walleye: 28 (23 fish of 5 inches and 5 fish between 13-21"inches), northern pike: 43 (9-34.6"), Great Lakes spotted muskellunge: 1 (9"), smallmouth bass: 100 (2-18"), yellow perch: 38 (3-10"), black crappie: 2 (7-8"), common white sucker: 24 (8-22"), bluegill: 15 (1-6"), pumpkinseed sunfish: 23 (2-6"), brown bullhead: 24 (5-10"), blunt nose minnow: 22 (1-2"), Johnny Darter: 3 (1-2"), and fantail darter: 11 (1-2").



#### Lake Angeline Fisheries Survey

#### May 3-5, 2015

**Introduction:** A May 2015 general fisheries survey was conducted at Marquette County's Lake Angeline to assess the status of the fishery and to allow for the development of future sportfish management opportunities for this lake.

History: Lake Angeline has a long history of quality fisheries management with periods of very good rainbow trout occupation and periods of excellent tiger muskellunge presence. The first stocking of rainbow trout occurred in 1948 and continued until 1969. Due to trout competition from yellow perch and other warmwater fish species, tiger muskellunge were stocked, not annually but very regularly, from 1970 – 1990. Citizen opposition and/or support of the muskellunge stocking was very vocal during the muskie years, with many petitions and passionate letters being sent to State legislators and Michigan tenured Governors.

Historical data reveals that a natural lake occupied this site before mining operations were ever begun. The water was named Lake Angeline in 1849 by Captain Sam Moody and as the City of Ishpeming developed, the lake was the source of water supply for the community. The lake was pumped dry in 1892 and 20 million tons of iron ore were removed from the rock strata beneath the lake by means of a mining shaft and drifts. Cave-ins after the mining was abandoned created many of the depth pockets of the lake's bottom topography.

The State of Michigan DNR obtained a parcel of property ownership from Cliffs Forest Products Company in November 1984, however the easement to this parcel crossed private land and due to alleged public dumping of trash on the private land, access to the State parcel was severed in 1994. A 2014 land acquisition at Lake Angeline resolved the 20 year loss of legal public access to this lake. In the summer of 2015, a public boat launch was constructed by the Michigan Department of Natural Resources Parks and Recreation Division.

Gasoline outboard motor use was prohibited on this lake for many years, since this lake was identified as a municipal water supply for the City of Ishpeming. Recently the gas motor restriction was rescinded by the City commissioners, therefore gasoline outboard motor use is allowed.

**Physical features:** Lake Angeline is 96 acres in size with no inlets or outlets. The lake has a pronounced contour profile with numerous deep topographic pockets and a pronounced 162 foot cave in the north basin of the lake. The shoreline's riparian zone is almost entirely undeveloped with a few homeowner mowed lawn yards on the west shore of the lake. The water is moderately turbid containing a light brown stain, with clarity of approximately 14 feet. Shoal area boulders, logs, and steep drop -offs are common.

Biological features: Aquatic vegetation is sparse.

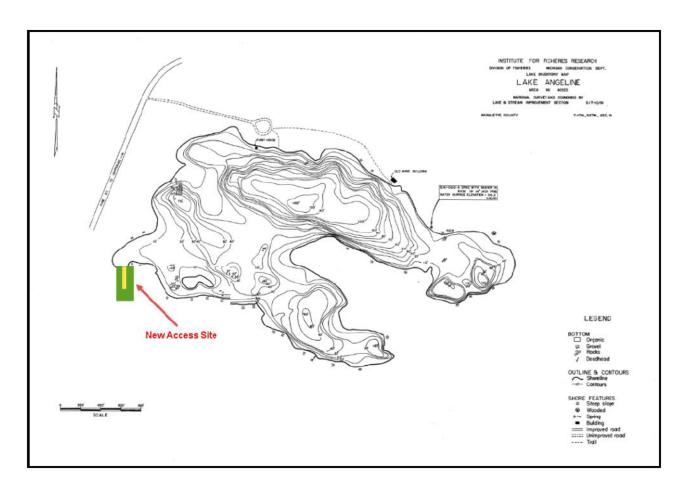
Methods and Materials: 4 Gillnets were set for 6 net nights and 3 Fyke nets for 3 net nights.

**Results**: The netting effort produced the following catch: lake trout: 4 (20-21"), brook trout: 2 (11-13"), largemouth bass: 4 (8-17"), smallmouth bass 4 (11-18"), common white sucker: 400 (10-20"), yellow perch: 30 (5-7"), pumpkinseed sunfish: 28 (4-7"), bluegill:1 (7"), black crappie: 2 (8"), and golden shiner: 6 (7-9").

Discussion: Stocking of lake trout, rainbow trout, or brown trout has been conducted almost annually over the past 10 years and longer. Anglers comment that they have reasonably good success catching these trout. The spring 2015 netting effort documented over-winter survival of trout along with the presence of a diverse panfish sport fishery. The 2015 netting results are similar to what was found during the 1992 and 1994 surveys. No brown trout were caught during this netting effort; however past introductions of sizeable browns occurred in 2004, with a recent introduction of 5,000 browns in June 2015, although these fish were only 2.2 inches in length and will take a year to become legal. In the spring of 2016, the stocking of 200 adult lake trout (15 inches in length) will be conducted in an effort to ensure the presence of trout for the upcoming spring fishery. Collectively the fish species within this lake provide a nice hook-and-bobber and near-shore fishery for panfish as well as a mid-water fishery for trout.

The sportfishing size limit for all trout species within this lake will be reduced to an 8 inch minimum, beginning on April 1, 2016.

**Recommendations**: Continued stocking of lake trout, rainbow trout, and brown trout will be prescribed for this lake. Walleye should not be introduced into this fishery because this lake does not support the forage base to sustain good length/growth of this species

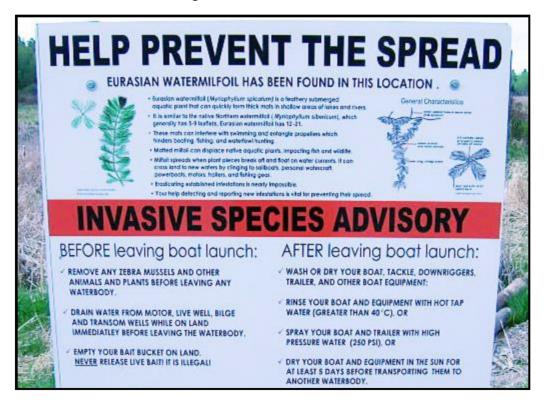


New boat launch site location at Lake Angeline

## You can help!

#### Help prevent the spread of invasive species

Despite large signs at a local boat access sites, it is disheartening to see that some boaters do not clean the aquatic vegetation off of their boat trailers. Please help prevent the spread of invasive species to new waters and check your boat and boat trailer for vegetation.



Sign at local boat access site

Did you know it's illegal to launch a boat in Michigan that has aquatic plant material attached to the boat or trailer? Follow these simple steps to prevent the introduction and spread of aquatic invasive species in Michigan's waters:

- Clean boats, trailers and equipment before and after launch
- Drain water from bilges and livewells at the ramp before leaving
- Dry trailers, boats, equipment and storage areas thoroughly before using in a different body of water
- Dispose of unused bait in the trash
- Don't transfer live fish to waterbodies other than where they were originally caught Disinfect livewells and bilges with a bleach solution (1/2 cup bleach to 5 gallons of water)

For more information about signs for boating access sites, please contact Kevin Walters (DEQ Water Resources Division) at 517-284-5473 or <a href="waltersk3@michigan.gov">waltersk3@michigan.gov</a>

# You can help!

Boat trailer parked at the same boat launch site.











#### Winter snow plowing of boat access sites

People have asked if the DNR could plow out boat access sites during the winter to allow for easier access to ice fishing opportunities. In a short explanation, most of the public boat launch sites were not constructed to withstand the rigors of winter weather. Michigan Department of Natural Resources (DNR) Boat access site roadways and concrete ramps were not built to handle the frost that builds up in the subsoil once the snow is cleared from these paths. Vehicle traffic drives the frost even deeper into the ground.

The traditional schedule of DNR staff in maintaining boat access sites is to make sure each site is at a full functioning status in the fall as the open water boating season wraps up, thereby ensuring that the sites will be ready to go when the April/May spring boating season resumes. Every spring, once the winter ice leaves our area lakes, each access site is ready for the surge of boaters that are eager to get out fishing for the perch, walleye, pike, and/or bass seasons.

An often unfortunate consequence with winter snow plowing of access sites is the heaving and buckling of the concrete ramp as the frost pushes upward from the ground, which renders the access site unusable right at the time of the spring fishing season opener.





Michigan DNR Parks and Recreation Division staff members are at a rush in the spring to slide all of the access site skid-pier docks to each site, thereby allowing for safe launching and retrieving of boats from these sites. If an access site ramp is heaved or buckled, the public is unable to use this site until later in the boating season when staff and equipment can be brought in to repair the damage.

Damage to the concrete access ramps is not the only consequence of winter snow plowing. Because the roadway network within each site is not built to withstand the spring thaw, heavy rutting can also leave an access site unusable for the spring fishing opener.

So what's the answer to this conundrum? DNR staff are prioritizing access sites that warrant upgrades to be constructed to winter standards. We recognize the desire to spend quality time ice fishing our northern Michigan lakes, however we want to make sure that these access sites are in prime condition for the spring fishing season. As we continue to build and upgrade access sites, we will look for opportunities to incorporate winter construction standards to these facilities.

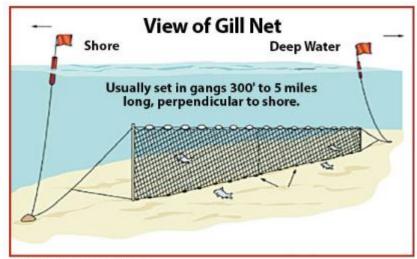
### Great Lakes Commercial Fishing

Great Lakes commercial fishing has had an increase of activity during this past year. The following is an excerpt rom the Michigan DNR Fishing Guide rulebook.....

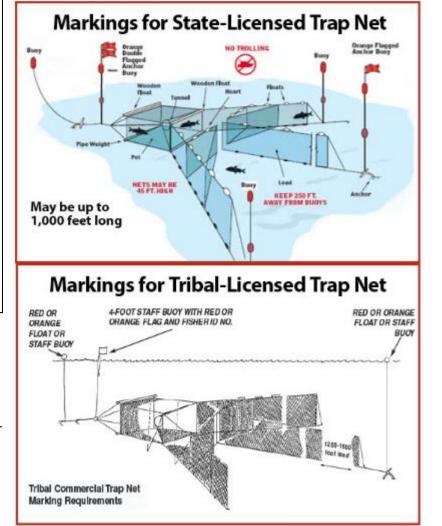
**Great Lakes Commercial Fishing Nets** 

Anglers and boaters on the Great Lakes may encounter commercial fishing gear such as trap nets, gill nets and set hooks in Michigan waters. All state-licensed or Native American commercial fishing gear are required to be marked with floats or staff/flag buoy combinations depending on the licensing entity. Anglers and boaters should give wide berth to any markers, since anchor lines may extend several hundred feet in any direction from the floats or flags along the length of the gear. The diagrams shown here will give sport anglers and boaters an idea about some of the markings they might encounter and assist them in avoiding entanglement of fishing gear or boat propellers. Tampering with commercial fishing gear is illegal and can create safety problems for other boaters on the water.

Storms, waves, shifting ice can dislodge gill nets and cause them to float freely beneath the water for years. If you happen to come upon an untethered/unanchored gill net, you can report the location of this net to the Great Lakes Indian Fish and Wildlife Commission at the following link <a href="http://www.glifwc.org/ghostnet.html">http://www.glifwc.org/ghostnet.html</a> or you can call your local Michigan DNR office. The Great Lakes Indian Fish and Wildlife Commission's ghost net reporting website is shown on the next page.



Graphics courtesy of Sea Grant.

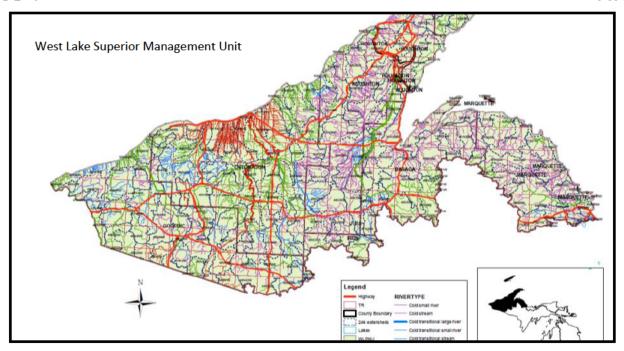


Graphic courtesy of Chippewa Ottawa Resource Authority

## What's new!

| * Required                          | Ghost Net Reporting                                     |
|-------------------------------------|---|
| State *                             |   |
| Nearest City                        |   |
| Tourest Ony                         |   |
| Location GPS Coordinates            |   |
| (ex. 46.632729, -90.822652)         |   |
| Time and Date of Occurence          |   |
| (ex. 9:50pm on 10/31/13)            |   |
| Is the net visible from the surface | or Aurora   |
| O YES                               | e of the water?   |
| O NO                                |   |
| Additional Comments                 |   |
|                                     | ^   |
|                                     |   |
|                                     |   |
|                                     | - 15  |
| Name                                |   |
| Phone                               |   |
|                                     |   |
| Email                               |   |
|                                     |   |
| Do you wish to remain confidenti    | ial?  |
| O Yes                               |   |
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ISSUE 4 PAGE 17



#### Fisheries Division Website

There are numerous links on Fisheries Division's website that will help you with your fishing experience. Many of these links are very handy with smartphone technology.



With best wishes for an enjoyable and productive 2016 fishing season

George Madison

George Madison

#### **Contact Information**

George Madison, Fisheries Division

Baraga Operations Service Center 427 US-41 North

Baraga, Michigan 49908

Phone: (906) 353-6651 ext. 119

### West Lake Superior Unit Stocking Summary

PAGE I

<u>Check out where we stock fish:</u> The following is a summary of the fish that were stocked in the West Lake Superior Management Unit waters. You can check out were fish are stocked by visiting the following DNR website: <a href="http://www.michigandnr.com/fishstock/">http://www.michigandnr.com/fishstock/</a>

| Date       | water name                        | county  | town | range | section | species                                       | number stocked | length (inches) | mark         | Age               |
|------------|-----------------------------------|---------|------|-------|---------|---|----------------|-----------------|--------------|-------------------|
| 07/21/2015 | Alberta Pond                      | Baraga  | 49N  | 33W   | 18      | Brook trout (federal plant)                   | 125            | 12.47           | none         | Adult             |
| 05/11/2015 | Alberta Pond                      | Baraga  | 49N  | 33W   | 18      | Brook trout                                   | 2,000          | 8.12            | none         | Yearling          |
| 06/03/2015 | Falls River                       | Baraga  | 50N  | 33W   | 16      | Brown trout                                   | 120,000        | 2.24            | none         | Spring fingerling |
| 11/17/2015 | Falls River                       | Baraga  | 50N  | 33W   | 16      | Rainbow trout                                 | 66,000         | 3.20            | none         | Fall fingerling   |
| 05/11/2015 | East Branch Huron River           | Baraga  | 52N  | 30W   | 36      | Steelhead                                     | 17,780         | 9.28            | none         | Yearling          |
| 05/26/2015 | Lake Superior - Keweenaw Bay      | Baraga  | 50N  | 34W   | 01      | Splake  | 3,660          | 8.80            | none         | Yearling          |
| 05/18/2015 | Lake Superior - Huron Bay         | Baraga  | 51N  | 31W   | 18      | Walleye                                       | 1,000,000      | 0.36            | none         | Swim-up fry       |
| 05/12/2015 | Cornelia Lake                     | Gogebic | 45N  | 42W   | 25      | Brook trout                                   | 1,100          | 7.92            | none         | Yearling          |
| 05/12/2015 | McDonald Creek                    | Gogebic | 46N  | 46W   | 25      | Brook trout                                   | 300            | 7.92            | none         | Yearling          |
| 05/14/2015 | Black River (Hedberg Rd.)         | Gogebic | 48N  | 46W   | 32      | Brook trout                                   | 400            | 8.12            | none         | Yearling          |
| 05/14/2015 | Black River (Mosinee Grade)       | Gogebic | 46N  | 46W   | 28      | Brook trout                                   | 400            | 8.12            | none         | Yearling          |
| 05/14/2015 | Powder Mill Creek (Harding Rd.)   | Gogebic | 47N  | 46W   | 29      | Brook trout                                   | 400            | 8.12            | none         | Yearling          |
| 05/14/2015 | Powder Mill Creek (Hill Ave.)     | Gogebic | 47N  | 46W   | 17      | Brook trout                                   | 400            | 8.12            | none         | Yearling          |
| 05/14/2015 | Powder Mill Creek (Old Country R) | Gogebic | 47N  | 46W   | 16      | Brook trout                                   | 400            | 8.12            | none         | Yearling          |
| 05/14/2015 | Powder Mill Creek (US-2)          | Gogebic | 47N  | 46W   | 08      | Brook trout                                   | 400            | 8.12            | none         | Yearling          |
| 10/13/2015 | Redboat Lake                      | Gogebic | 46N  | 44W   | 35      | Brook trout                                   | 2,000          | 5.72            | none         | Fall fingerling   |
| 10/14/2015 | Castle Lake                       | Gogebic | 45N  | 38W   | 09      | Brook trout                                   | 2,800          | 5.68            | none         | Fall fingerling   |
| 04/25/2015 | Ohman Creek                       | Gogebic | 49N  | 48W   | 32      | Brown trout (private sport club plant)        | 1,000          | 12.19           | none         | Yearling          |
| 05/12/2015 | Lake Superior                     | Gogebic | 49N  | 46W   | 03      | Brown trout                                   | 18,000         | 6.40            | none         | Yearling          |
| 05/26/2015 | Black River (Hedberg Rd.)         | Gogebic | 48N  | 46W   | 32      | Brown trout                                   | 550            | 6.00            | none         | Yearling          |
| 05/26/2015 | Black River (Camp Nine Rd.)       | Gogebic | 48N  | 46W   | 17      | Brown trout                                   | 550            | 6.00            | none         | Yearling          |
| 05/26/2015 | Montreal River                    | Gogebic | 47N  | 47W   | 34      | Brown trout                                   | 880            | 6.00            | none         | Yearling          |
| 06/08/2015 | Lake Superior (Blk River Harbor)  | Gogebic | 49N  | 46W   | 03      | Brown trout                                   | 15,000         | 2.16            | none         | Spring fingerling |
| 05/12/2015 | Lake Superior (Blk River Harbor)  | Gogebic | 49N  | 46W   | 03      | Chinook salmon                                | 78,890         | 3.32            | adipose clip | Spring fingerling |
| 05/18/2015 | Lake Superior (Blk River Harbor)  | Gogebic | 49N  | 46W   | 03      | Chinook salmon (Co-Op net pen)                | 14,748         | 3.32            | adipose clip | Spring fingerling |
| 04/28/2015 | Beatons Lake                      | Gogebic | 45N  | 41W   | 01      | Rainbow trout                                 | 5,200          | 6.52            | none         | Yearling          |
| 04/28/2015 | Little Duck (Little Crystal) Lake | Gogebic | 44N  | 39W   | 07      | Rainbow trout                                 | 2,400          | 6.52            | none         | Yearling          |
| 11/17/2015 | Lake Superior (Blk River Harbor)  | Gogebic | 49N  | 46W   | 03      | Rainbow trout                                 | 66,000         | 3.20            | none         | Fall fingerling   |
| 04/23/2015 | Imp Lake                          | Gogebic | 44N  | 38W   | 16      | Splake  | 3,100          | 7.96            | none         | Yearling          |
| 10/08/2015 | Thousand Island Lake              | Gogebic | 44N  | 41W   | 11      | Northern muskellunge (private lk ass'n plant) | 200            | 15.20           | none         | Fall fingerling   |
| 10/19/2015 | Thousand Island Lake              | Gogebic | 44N  | 41W   | 11      | Walleye (private lk association plant)        | 5,000          | 6.10            | none         | Fall fingerling   |
| 06/30/2015 | Long Lake                         | Gogebic | 44N  | 40W   | 06      | Walleye                                       | 10,966         | 1.85            | none         | Spring fingerling |

## West Lake Superior Unit Stocking Summary

| 10/06/2015 Lake Gerald                        | Houghton  | 52N | 36W | 13 | Lake trout                      | 300       | 14.20 | none               | Adult             |
|---|-----------|-----|-----|----|---------------------------------|-----------|-------|--------------------|-------------------|
| 05/11/2015 Clear Lake                         | Houghton  | 51N | 36W | 04 | Brook trout                     | 1,900     | 8.04  | none               | Yearling          |
| 05/26/2015 Trap Rock River                    | Houghton  | 56N | 32W | 16 | Brook trout                     | 400       | 7.96  | none               | Yearling          |
| 10/06/2015 Lake Perrault                      | Houghton  | 54N | 35W | 34 | Brook trout                     | 3,250     | 5.48  | none               | Fall fingerling   |
| 10/06/2015 Penegor Lake                       | Houghton  | 49N | 36W | 30 | Brook trout                     | 440       | 5.48  | none               | Fall fingerling   |
| 05/11/2015 Emily Lake                         | Houghton  | 52N | 36W | 34 | Rainbow trout                   | 5,200     | 6.68  | none               | Yearling          |
| 05/11/2015 Lake On Three                      | Houghton  | 47N | 36W | 34 | Rainbow trout                   | 1,400     | 6.68  | none               | Yearling          |
| 05/11/2015 Lake Roland                        | Houghton  | 52N | 36W | 22 | Rainbow trout                   | 6,700     | 6.68  | none               | Yearling          |
| 05/12/2015 East Branch Ontonagon River        | Houghton  | 47N | 36W | 15 | Steelhead                       | 40,000    | 9.16  | none               | Yearling          |
| 05/18/2015 Portage Lake                       | Houghton  | 55N | 34W | 36 | Walleye                         | 1,200,000 | 0.36  | none               | Swim-up fry       |
| 06/23/2015 Otter Lake                         | Houghton  | 52N | 34W | 11 | Walleye                         | 9,170     | 1.70  | none               | Spring fingerling |
| 06/23/2015 Portage Lake                       | Houghton  | 54N | 33W | 32 | Walleye                         | 100,000   | 1.70  | none               | Spring fingerling |
| 10/20/2015 Killdeer Lake                      | Iron      | 46N | 37W | 29 | Brook trout                     | 800       | 5.64  | none               | Fall fingerling   |
| 05/06/2015 Hannah (Webb) Lake                 | Iron      | 46N | 35W | 30 | Rainbow trout                   | 3,600     | 6.76  | none               | Yearling          |
| 10/20/2015 Lake Fanny Hooe                    | Keweenaw  | 59N | 28W | 33 | Lake trout                      | 300       | 14.20 | none               | Adult             |
| 11/06/2015 Lake Fanny Hooe                    | Keweenaw  | 59N | 28W | 32 | Lake trout (federal plant)      | 200       | 30.48 | right ventral clip | Adult             |
| 05/26/2015 No Name Pond                       | Keweenaw  | 57N | 31W | 08 | Brook trout                     | 200       | 7.96  | none               | Yearling          |
| 10/20/2015 Lost Lake                          | Keweenaw  | 58N | 28W | 14 | Brook trout                     | 600       | 5.64  | none               | Fall fingerling   |
| 09/30/2015 Lake Medora                        | Keweenaw  | 58N | 29W | 09 | Steelhead                       | 22,704    | 2.96  | none               | Fall fingerling   |
| 05/06/2015 Lake Fanny Hooe                    | Keweenaw  | 59N | 28W | 33 | Splake                          | 5,300     | 8.04  | none               | Yearling          |
| 05/06/2015 Lake Medora                        | Keweenaw  | 58N | 29W | 09 | Splake                          | 6,500     | 8.04  | none               | Yearling          |
| 05/26/2015 Copper Harbor                      | Keweenaw  | 59N | 28W | 32 | Splake                          | 23,400    | 8.80  | none               | Yearling          |
| 05/12/2015 Upper Dead River                   | Marquette | 49N | 28W | 17 | Brook trout                     | 600       | 7.92  | none               | Yearling          |
| 05/12/2015 Yellow Dog River                   | Marquette | 50N | 29W | 13 | Brook trout                     | 3,000     | 7.92  | none               | Yearling          |
| 05/13/2015 Carp River (Highway M-35)          | Marquette | 48N | 26W | 34 | Brook trout                     | 780       | 8.28  | none               | Yearling          |
| 05/13/2015 Carp River (Negaunee, North Rd)    | Marquette | 48N | 26W | 30 | Brook trout                     | 780       | 8.28  | none               | Yearling          |
| 10/13/2015 Partridge Creek (N. 7th Street)    | Marquette | 47N | 27W | 03 | Brook trout                     | 100       | 5.72  | none               | Fall fingerling   |
| 10/13/2015 Partridge Creek (N. Washington)    | Marquette | 47N | 27W | 03 | Brook trout                     | 100       | 5.72  | none               | Fall fingerling   |
| 05/07/2015 Dead River (Wright Street)         | Marquette | 48N | 25W | 09 | Brown trout                     | 440       | 5.96  | none               | Yearling          |
| 05/07/2015 Yellow Dog River (Bushy Cr. Trail) | Marquette | 50N | 27W | 17 | Brown trout                     | 2,200     | 5.96  | none               | Yearling          |
| 05/07/2015 Yellow Dog River (upstream 510)    | Marquette | 50N | 28W | 13 | Brown trout                     | 1,100     | 5.96  | none               | Yearling          |
| 05/07/2015 Yellow Dog River (Bob Lk Crossing) | Marquette | 50N | 28W | 20 | Brown trout                     | 1,100     | 5.96  | none               | Yearling          |
| 06/02/2015 Hoist Basin (Dead R Basin)         | Marquette | 48N | 26W | 08 | Brown trout                     | 12,989    | 6.00  | none               | Yearling          |
| 06/03/2015 Carp River                         | Marquette | 48N | 25W | 34 | Brown trout                     | 30,000    | 2.28  | none               | Spring fingerling |
| 06/03/2015 Lake Angeline                      | Marquette | 47N | 27W | 10 | Brown trout                     | 5,000     | 2.24  | none               | Spring fingerling |
| 05/15/2015 Lake Ann                           | Marquette | 52N | 29W | 25 | Brown trout (private HMC plant) | 150       | 11.18 | none               | Yearling          |
| 05/15/2015 Howe Lake                          | Marquette | 52N | 29W | 23 | Brown trout (private HMC plant) | 300       | 11.18 | none               | Yearling          |
| 05/05/2015 Carp River                         | Marquette | 48N | 25W | 34 | Chinook salmon                  | 110,000   | 3.32  | adipose clip       | Spring fingerling |
| 05/22/2015 Dead River                         | Marquette | 48N | 25W | 10 | Chinook salmon (net pen)        | 99,824    | 3.52  | adipose clip       | Spring fingerling |

## West Lake Superior Unit Stocking Summary

| 05/11/2015 Yellow Dog River (Bushy Cr. Trail)   | Marquette                           | 50N               | 27W               | 17             | Rainbow trout   | 2,100                      | 6.72                         | none                                 | Yearling  |
|---|-------------------------------------|-------------------|-------------------|----------------|---|----------------------------|------------------------------|--------------------------------------|---|
| 05/11/2015 Yellow Dog River (upstream 510)  | Marquette                           | 50N               | 28W               | 13             | Rainbow trout   | 1,000                      | 6.72                         | none                                 | Yearling  |
| 05/11/2015 Yellow Dog River (Bob Lk Crossing)   | Marquette                           | 50N               | 28W               | 20             | Rainbow trout   | 1,000                      | 6.72                         | none                                 | Yearling  |
| 04/09/2015 Carp River (Ski hill location)   | Marquette                           | 48N               | 25W               | 34             | Steelhead   | 13,700                     | 8.52                         | none                                 | Yearling  |
| 05/15/2015 Lake Ann   | Marquette                           | 52N               | 29W               | 25             | Rainbow trout (private HMC plant)                         | 150                        | 11.18                        | none                                 | Yearling  |
| 05/15/2015 Ives Lake  | Marquette                           | 51N               | 28W               | 03             | Rainbow trout (private HMC plant)                         | 500                        | 11.18                        | none                                 | Yearling  |
| 05/15/2015 Howe Lake  | Marquette                           | 52N               | 29W               | 23             | Rainbow trout (private HMC plant)                         | 200                        | 11.18                        | none                                 | Yearling  |
| 05/17/2015 Trout Lake   | Marquette                           | 52N               | 28W               | 32             | Rainbow trout (private HMC plant)                         | 200                        | 9.14                         | none                                 | Yearling  |
| 05/19/2015 Lake Superior  | Marquette                           | 48N               | 25W               | 23             | Splake  | 23,400                     | 8.60                         | none                                 | Yearling  |
| 10/28/2015 Teal Lake  | Marquette                           | 48N               | 26W               | 31             | Great Lks Spotted muskellunge                             | 699                        | 9.32                         | none                                 | Fall fingerling   |
| 10/28/2015 Conway Lake  | Marquette                           | 52N               | 28W               | 26             | Walleye (private lk association plant)                    | 1,600                      | 6.10                         | none                                 | Fall fingerling   |
| 07/21/2015 Courtney Lake  | Ontonagon                           | 50N               | 37W               | 04             | Brook trout (federal plant)                               | 125                        | 12.47                        | none                                 | Adult   |
| 08/24/2015 Ontonagon River  | Ontonagon                           | 50N               | 39W               | 20             | Lake sturgeon   | 820                        | 7.60                         | PITtag                               | Fall fingerling   |
| 05/20/2015 Middle Branch Ontonagon River  | Ontonagon                           | 47N               | 39W               | 36             | Brook trout   | 3,000                      | 7.96                         | none                                 | Yearling  |
| 05/20/2015 Trout Creek Pond   | Ontonagon                           | 47N               | 38W               | 14             | Brook trout   | 225                        | 7.96                         | none                                 | Yearling  |
| OF /20 /2015 Finance   Divine   |                                     |                   |                   |                |   |                            |                              |                                      |   |
| 05/28/2015 Firesteel River  | Ontonagon                           | 52N               | 39W               | 01             | Brown trout   | 12,000                     | 6.00                         | none                                 | Yearling  |
| 06/08/2015 Ontonagon River  | Ontonagon<br>Ontonagon              | 52N<br>50N        | 39W<br>39W        | 01<br>27       | Brown trout Brown trout                                   | 12,000<br>75,261           |                              | none<br>none                         | Yearling<br>Spring fingerling                               |
|   | _                                   |                   |                   |                |   |                            | 2.08                         |                                      |   |
| 06/08/2015 Ontonagon River  | Ontonagon                           | 50N               | 39W               | 27             | Brown trout   | 75,261                     | 2.08<br>3.32                 | none                                 | Spring fingerling   |
| 06/08/2015 Ontonagon River<br>05/06/2015 Big Iron River                               | Ontonagon<br>Ontonagon              | 50N<br>51N        | 39W<br>42W        | 27<br>12       | Brown trout<br>Chinook salmon                             | 75,261<br>85,000           | 2.08<br>3.32<br>3.40         | none<br>adipose clip                 | Spring fingerling<br>Spring fingerling                      |
| 06/08/2015 Ontonagon River<br>05/06/2015 Big Iron River<br>05/28/2015 Ontonagon River | Ontonagon<br>Ontonagon<br>Ontonagon | 50N<br>51N<br>52N | 39W<br>42W<br>40W | 27<br>12<br>25 | Brown trout Chinook salmon Chinook salmon (Co-Op net pen) | 75,261<br>85,000<br>19,903 | 2.08<br>3.32<br>3.40<br>3.20 | none<br>adipose clip<br>adipose clip | Spring fingerling<br>Spring fingerling<br>Spring fingerling |

