FISHERIES DIVISION
MICHIGAN DEPARTMENT OF NATURAL RESOURCES

Central Lake Michigan Management Unit

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What is the CLMMU?

The Central Lake Michigan Management Unit (CLMMU) encompasses all of the waters that make up the watersheds that drain into the central portion of Lake Michigan. Our work area includes all or portions of the following counties; Emmet, Charlevoix, Antrim, Otsego, Crawford, Kalkaska, Grand Traverse, Benzie Leelanau, Manistee, Wexford, Missaukee, Roscommon, Clare, Osceola, Lake, Mason, Oceana, Newaygo, Mecosta, Montcalm, Kent, and Muskegon. Fisheries staff working in this unit include a Basin Coordinator and Management Biologist who work out of the Traverse City Field Office, a Management Biologist/Acting Unit Manager who works out of the Cadillac Operations Service Center, a Management Biologist who works out of the Muskegon Field Office , a Technician Supervisor , two Fisheries Technicians, and a Fisheries Assistant Lead Worker who work out of the Harrietta Field Office, and six Fisheries Assistants (creel clerks) who work out of various ports.

Walleye Rearing Ponds

In 2013 CLMMU operated three walleye rearing ponds; Beaver Island, Mason County, and I-75. Both Beaver Island and Mason County are ponds where we provide the fish, and cooperative agreements with sportsman's groups allow those folks to rear the walleye until they are ready to be stocked. A total of 16 different lakes in CLMMU were stocked during 2013 with spring fingerling walleye. Thanks once again to the Beaver Island Wildlife Club and the Mason County Walleye Association for all of their hard work!

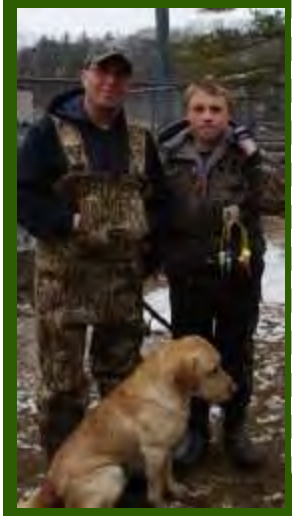
See more details about our walleye program on page 11!

Waters Stocked	# of Fish
Lake Margrethe (Crawford County)	69,298
Manistee Lake (Manistee County)	147,587
Rose Lake (Osceola County)	32,446
Hamlin Lake (Mason County)	217,764
Hackert Lake (Mason County)	7,519
Silver Lake (Grand Traverse County)	30,414
Platte Lake (Benzie County)	68,078
Lake Charlevoix (Charlevoix County)	151,659
Lake 27 (Otsego County)	9,453
Lake Geneserath (Charlevoix County)	7,147
White Lake (Muskegon County)	108,896
Wolf Lake(Muskegon County)	13,265
Nichols Lake (Newaygo County)	9,965
Pickerel Lake (Newaygo County)	17,865
Baptist Lake (Newaygo County)	10,565
Lake Missaukee (Missaukee County)	130,041

Weir Operations

Little Manistee Steelhead Egg Take

The 2013 steelhead egg take for CLMMU began on April 17th, and we met the egg quota this year by April 25th. This was the latest egg take that we have conducted so far to date.



Special thanks to Jeff and Jeffrey Morse, pictured above!

We spawned 279 pairs of steelhead the first day, 288 pairs the second day, 341 pairs the third day, and 81 pairs on the fourth day to complete the egg take. On the fourth day we passed the remaining fish, drained the ponds, and removed the weir grates. The run total in 2013 was over 3,667 steelhead, two Chinook salmon, one brown trout, and many suckers.

A total of 4,186,893 steelhead eggs were produced for the state-wide steelhead stocking program through this effort, including 330,635 eggs that we collected for the Indiana Department of Natural Resources.

This years' steelhead run was not without its difficulties; a pump failure early in the season caused a small die-off of steelhead that could have been much worse had concerned anglers Jeff and Jeffrey Morse not called to report the strange behavior of the fish. CLMMU staff manned the facility 24hours a day until the pump problem could be resolved.

Little Manistee Salmon Egg Take & Harvest

The quota of Chinook eggs for 2013 were collected during the month of October. The annual fish health exam was conducted on October 15th and additional samples were collected for studies by MSU, Notre Dame, USFW. Ten organized tours were given at the LMW by staff from the Carl T. Fishing & Hunting Center to over 500 students, teachers, and parents. In general the facility was busy with tourists during operations with the exceptional weather and fall colors.

Totals for the weir were as follows: 6,427 chinook harvested, 1,021 coho passed (16 mortalities), 988 steelhead passed (8 mortalities), and 80 brown trout passed (6 mortalities). The top fish this fall were a 31.3 lbs. chinook, 14.0 lbs. coho, 20.1 lbs. steelhead, and 14.9 lbs. brown trout. This resulted in the production of 4.4 million Chinook eggs, including eggs for all of Michigan's hatcheries, the Indiana DNR, and the Illinois DNR. The weir was officially closed up for the year on October 17th.

Boardman Weir Salmon Harvest

During the 2013 season the Boardman Harvest Weir was operated from September 16th through October 17th. At this facility Chinook salmon and coho salmon are harvested and sent to a contractor for processing, while all other species are passed upstream. No eggs are collected for hatchery rearing purposes from this weir. During the Fall of 2012 a total of 36 steelhead and 5 brown trout were passed upstream, while 2,514 Chinook salmon and 1,475 coho salmon were harvested for a total salmon harvest of 3,989 fish. As expected, our salmon numbers were down from 2012. We saw a 43% decline in the total number of salmon harvested. We passed the second largest number of steelhead since 1993, and an average number of brown trout.

Education Spotlight

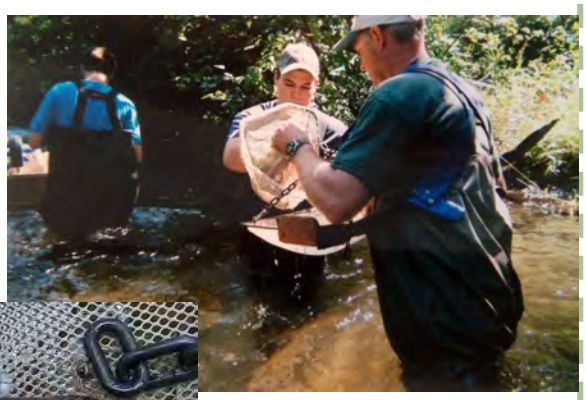
Boardman Weir Tours

Historically, Fisheries Division staff have offered tours to local classrooms and school groups at the Boardman Weir to give students an opportunity to observe a fish harvest and learn about local fish ecology. This has become so popular with Traverse City area schools that we have had to turn interested groups away in recent years due to lack of staff time. This year, CLMMU staff partnered with staff at the Carl T. Johnson Center to provide interpreters in order to put more time and effort toward education and outreach at the weir. In additional to student tours, tours to the public were offered, and staff were available to answer questions and provide information during regular business hours throughout the harvest season. Being in downtown Traverse City this facility has the opportunity to reach and educate many individuals about what it is that Fisheries Division does, and with nearly **6,100** contacts made by both Fisheries Division and Outreach Division staff members, we have made a great step towards doing just that!

Partnership Spotlight

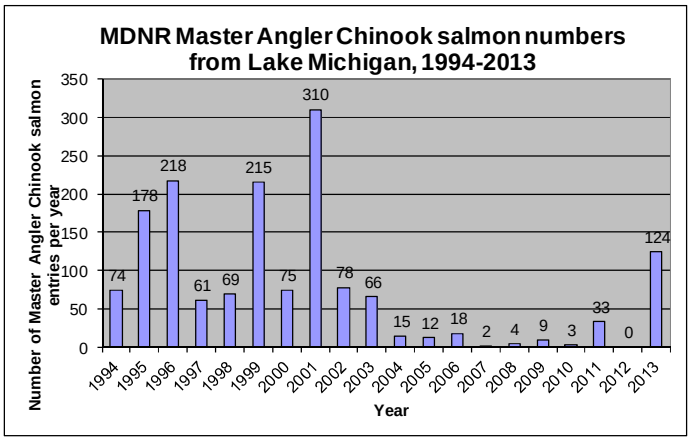
Impact Youth Services

In 2007, CLMMU was approached by the Wexford/ Missaukee Counties Juvenile Probation systems Impact Youth Services program with an opportunity to create a partnership. This program helps youth from Wexford and Missaukee Counties satisfy their court ordered community service hours, while at the same time exposing them to careers in the natural resources field. This is also a great opportunity to expose these youth to experiences they may not otherwise have, and encourages them to pursue outdoor hobbies. Participating youth help Fisheries Division by helping with general maintenance tasks such as mowing and weed trimming at the Harrietta Field Office , cleaning and removing debris from the raceways and buildings at the Little Manistee Weir, and aiding our technician crew in conducting stream shocking surveys in various locations. In the six seasons that CLMMU has partnered with Impact Youth Services to provide these opportunities, the youth involved have provided 125-140 hours of service annually. Thanks goes to Scott Watson, manager of Impact Youth Services, as well as all of the youth who have participated over the years for their assistance to CLMMU!



2013 A Great Year for Large Chinook Salmon, According to MDNR Master Angler Records- Mark Tonello

2013 was a great year for catching large Chinook salmon, according to the Michigan Department of Natural Resource's Master Angler program. As of 12/30/2013, a total of 104 Master Angler Chinook salmon had been entered for 2013. While the 2013 total did not come close to the all-time record of 331 entries in 2001, 2013 was the best year since 2001. These results were somewhat surprising, since not one Master Angler Chinook was entered in 2012, despite record catch rates being recorded on Lake Michigan.



For those unfamiliar with it, the Master Angler program is one in which exceptional fish caught by anglers are recognized. MDNR has created a set of standards, and if an angler catches a fish exceeding the standards, they can enter the fish. In return, they receive a colorful Master Angler arm patch from the Department. If the fish winds up in the top five largest for that species for that year, the angler also receives a certificate signed by the Chief of MDNR Fisheries Division. There are categories both for Catch and Keep and for Catch and Release. While Catch and Keep entries must be weighed on a certified scale and meet a weight standard, Catch and Keep entries must meet a length standard. Entries for either category must be accompanied with a photograph so Biologists can verify the species. The Master Angler minimum entry standards can be seen in the annual MDNR Fishing Guide, or on the MDNR website. The database containing all entries since 1994 can be queried on the website.

In addition to being an angler recognition program, the Master Angler program is also a gold mine of anecdotal data for Biologists. The entry list provides evidence of the growth potential of the waterbodies that are represented. The entry list also allows Biologists to track trends in large bodies of water like the Great Lakes. For example, examination of the 2013 Chinook salmon data provides several clues. Of the 125 Master Angler Chinook salmon caught in Michigan in 2013, all but one was caught either in Lake Michigan or its tributaries. Breaking the data down further shows that the vast majority of the large Chinook salmon came from just three counties: Benzie (23 entries), Manistee (34 entries), and Mason (47 entries). No other county had more than three entries. However, even though Delta County only had one entry, it was a 35.8 lb monster, the largest Chinook salmon recorded for Michigan waters in 2013!

The Master Angler cycle for 2014 is now underway, and entries can be submitted up until January 10, 2015. So if you catch an exceptional fish in 2014, enter it in the Master Angler program. You and your fish will be recognized, and you'll be providing valuable anecdotal data for the Biologists that manage those waters!

Photo; Mark's daughter Lindsey with her 29.75 lb Master Angler Chinook salmon caught in 2013!

Statewide Angler Survey Program

The Statewide Angler Survey Program, or Creel Program, conducts surveys of anglers on various inland lakes and streams, as well as Great Lakes ports. Surveys of Great Lakes anglers were conducted by our Fisheries Assistants at the following ports during 2013; Charlevoix, Petoskey (Bear River), Elk Rapids, Grand Traverse Bays, Platte Bay, Frankfort, Glen Arbor, Onekama (Portage Lake), Manistee, Ludington, Pentwater, and Whitehall. These valuable surveys are used to obtain estimates on fish harvest rates and angling effort. Our clerks work some of the busiest ports in the state and do a phenomenal job collecting data!

Congratulations to Manistee/Ludington clerk Joe Maka, for receiving a Dedication to Excellence Award at the winter 2013 Fisheries Division meeting!

Research and Data Collection

Lake, River, and Stream Surveys

During the spring, summer, and early fall of 2013, the CLMMU staff completed 29 different surveys. These surveys included spring and fall Serns Index surveys, stream and river electrofishing surveys, and combination netting and electrofishing lake surveys. A total of 11 different lakes and 16 different streams were surveyed (some streams had multiple sampling locations). Those waterbodies include;

- Manistee River
- Weimers Creek
- Finch Creek
- Finch Creek Trib.
- Unnamed Trib (on Beaver Island)
- Pine River
- Pere Marquette River
- Jordan River (on Beaver Island)
- Iron Ore Creek
- Hersey River
- Cable's Creek
- Boardman River
- Big Sable River
- Bear River
- Houghton Lake
- Bear Lake
- Little Traverse Lake
- Lake Geneserath
- Green Lake
- Fox Lake
- Font Lake
- Fife Lake
- Center Lake
- Paradise Lake

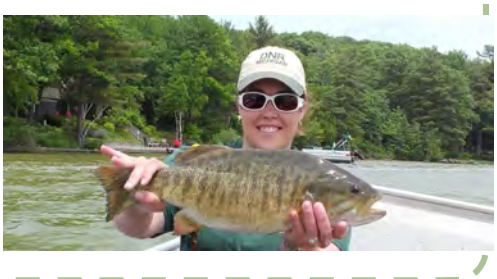
CLMMU also collaborates with other units to perform survey work in outlying areas; these waterbodies include:

- Starvation Lake
- Bear Lake

(assistance from the Northern Lake Huron Mgt Unit)

- Muskegon River
- Bigelow Creek

(assistance from the Southern Lake MI Mgt Unit)

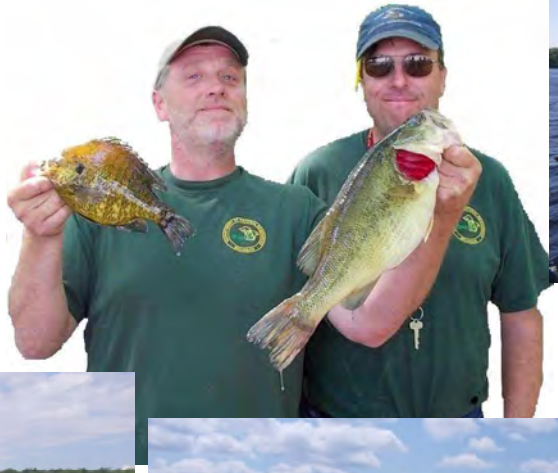


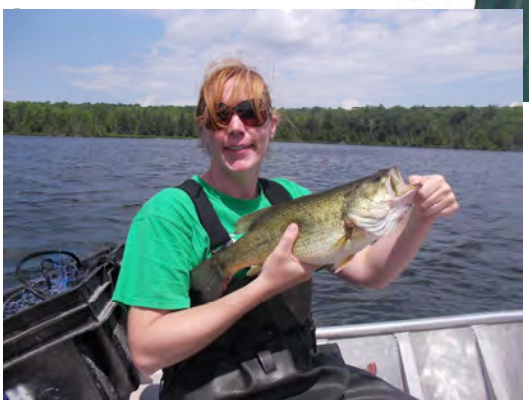
Beaver Island— Heather Hettinger

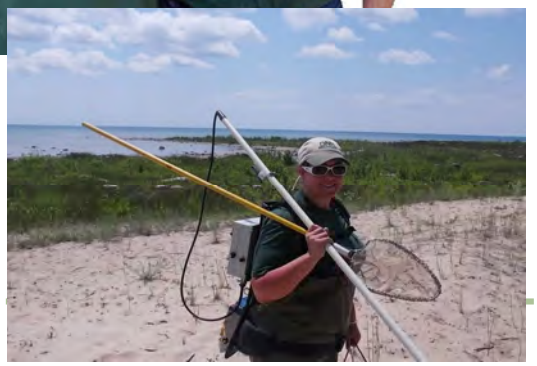
On of the unique experiences that the CLMMU staff have been able to experience is a comprehensive survey of the waters on Beaver Island, which was completed in July 2013. Over the course of a week, the survey crew was able to complete two lake netting surveys on Lake Geneserath and Fox Lake, four stream shocking surveys on the Jordan River, Cable's Creek, Iron Ore Creek, and an un-named tributary, and hook and line surveys on Fox Lake, Font Lake, and Barney's Lake to collect contaminant samples for Central Michigan University research students. Most of these waterbodies had never been surveyed before by Fish Division, and those that had were not surveyed extensively until this year.

Here's a little bit of what we found...

- Both Cable's Creek and Iron Ore Creek have naturally reproducing populations of both brook trout and rainbow trout (juvenile steelhead).
- Bluegill from Fox Lake are growing 2.0 inches above the State average length, and bluegill from age 4 to age 12 were collected in this survey.
- In general, all species of fish collected in Fox Lake were growing above the State average.
- Walleye and smallmouth bass on Lake Geneserath are growing above the state average length.
- Rock bass from age 3 to age 12 were collected from Geneserath, growing just slightly below the State average length.
- Only northern pike from Lake Geneserath were growing substantially slower than the State average length, at 5.6 inches below average.







Pine River— Mark Tonello

The Pine River is the largest tributary to the Manistee River. The Pine River begins in northwestern Osceola County (the East Branch) and southwestern Wexford County (the North Branch), and then flows generally west until it flows into Tippy Pond (the impoundment created by Tippy Dam on the Manistee River). The 230th Avenue Public Access Site (PAS) station is far upstream in the Pine River watershed, in Osceola County. The 230th Avenue index station on the Pine River is currently a 1,000 foot stretch that starts below the PAS. This index station has the longest term data set of any on the Pine River. The Pine River is not stocked with any species of fish. It hosts good fishing for resident brook, brown, and rainbow trout. The 230th Avenue Index Station is Type-1 water, and not open to year-round fishing.

In 2005, the station was adopted as a Fixed Site in the Statewide Status and Trends Program. Per the protocol of the program the station is sampled for three consecutive years, and then it is not sampled for three consecutive years. In one of the three "on" years, habitat data will also be collected. Temperature data should also be recorded in each of the "on" years with the use of a continuous recording thermometer. This station was sampled by electrofishing in 1981, 1983, 1984, 1986-1989, 2005-2007, and 2011-2013 . It will again be sampled in 2017-2019. Temperature data for the station was recorded from May 2004 through March of 2006, and from May 2011 through March 2013 . Stream temperature data for the Pine River 230th Avenue index station was collected from May 2004 through March 2006 and from June 2011 through March 2013. Habitat evaluation data was collected in July 2006 and August 2011.

This stretch of the Pine River has good populations of brown trout, rainbow trout, and brook trout. The Pine River is unique among Michigan trout streams in that it has a self-sustaining population of resident rainbow trout. This is likely due to the fact that it is one of the colder trout streams in Michigan, with July average temperatures reaching only the low 60's even in the hottest summers. The one drawback to this station is the general lack of habitat for trout. Most of the station is classified as "run", with no deep pools. Also, most of the substrate in the station is sand. A sandtrap was located about 1.5 miles upstream from 2005-2012, but was recently abandoned due to cost and a lack of convincing results. An extreme high water event in June of 2008 (the surrounding area received 9-11" of rain in less than 24 hours) had a dramatic impact on the habitat in the station. The river was left wider and shallower. One large logjam complex that routinely held numbers of large trout was completely blown out. In the winter of 2010/2011 a fish cover project was completed in the reach by the Conservation Resource Alliance in which 24 in-stream cover structures were placed in 1,800 feet of river. Even with this project complete, the amount of wood in the station was reduced by nearly 1/3 when compared to 2006.

Even with the loss of cover and habitat, the brown trout population in the reach remains strong. The 2011-2013 average biomass of 55.2 lbs/acre is well above the long term average of 38.6 lbs/acre for the station. The brook trout and rainbow trout populations remain at low levels, but this is likely attributable to predation from the good numbers of larger brown trout present in the station. This reach should continue to provide an excellent fishery for wild brown trout for the foreseeable future, with lesser numbers of brook trout and rainbow trout available as well.

Activities and Time Summary of Fisheries Biologists and Fisheries Technicians in the CLMMU— Rich O'Neal

Have you ever wondered how fisheries biologists and technicians spend their time? Most people only see Fisheries Division employees while we are working in the field (and mostly when the weather is nice). Although we spend a fair amount of time in the field on surveys, there is substantially more time spent on other activities. This article summarizes how three fisheries biologists and three fisheries technicians in the Central Lake Management Unit spent their work time during fiscal year 2011 (October 2010 – October 2011). Although the time spent on individual activities varies each year, this provides a typical scenario of the activities that are completed The summary shows that the activities of biologists and technicians vary significantly, but lake and stream survey work is the top category of both groups.

Lake and Stream Surveys: Biologists = 30.8%, Technicians = 42.9%
This includes activities related to standard inland lake and stream surveys, status and trends surveys that occur as part of a statewide program, and special studies like large lake surveys. Fisheries technicians spend their time performing the bulk of the field work sampling fish and water quality, ageing fish, and entering the data into the Fish Collection System (the Fisheries Division database). Fisheries biologists spend their time planning the survey, assisting with the field work, analyzing the data, writing the survey report, and developing management recommendations and prescriptions. We often get assistance from other units, hatcheries and research personnel for these surveys and provide aid to them as well.

Communication of Fishing Information: Biologists = 19.1%, Technicians = 0.4%
This category includes the time spent providing information to the public on the telephone, written correspondence and e-mail, and at fishing club meetings, various types of fishing shows, and on the Master Angler Program. Typically, a fisheries biologist spends from one to two hours per day providing fisheries related information by telephone or e-mail. Technicians spend less time with correspondence, but talk with people while they are in the field on surveys and when they are working at the fish weirs and stocking fish.

General Office Activities: and Housekeeping: Biologists = 18.5%, Technicians = 19.6%
The Central Lake Michigan Management Unit covers a large area of the state from the Muskegon River in the south to the Mackinaw Bridge in the north. The technicians are located at the Harrietta Fish Hatchery, and the biologists are located at the Traverse City Field Office, the Cadillac Operations Service Center, and the Muskegon State Game Area Office. There are many reporting requirements that must be completed for each state employee (time, travel, reviews) and all the equipment, computers, buildings, weirs and vehicles that are necessary to complete our work. Many of these are office activities and much of the Technician time is related to Harrieta Field Office and the Little Manistee River and Boardman Weir administration and activities. This also includes coordination of numerous activities between management units, hatcheries, research personnel and division management. Lake Michigan Basin Team and Fisheries Division meetings are part of this process

Permitting and Fish Kills: Biologists = 3.0%, Technicians = 0.6%
Fisheries biologists spend time on Department of Environmental Quality permit reviews. Permit reviews involve office and field review of construction proposals that affect our lakes and streams. Technicians spend time on specific erosion control permitting issues related to Fisheries Division permit requirements. Both biologists and technicians spend time on office and field evaluations of fish kills reported by the public.

Creel Census: Biologists = 0%, Technicians = 3.7%
The fisheries technicians often assist with the statewide creel census program when needed. This includes both the Great Lakes Creel Program and the Inland Creel Program. The fisheries technician supervisor is responsible for supervising several creel clerks.

Guidance and Assistance: Biologists = 15.4%, Technicians = 0%
Fisheries biologists spend a considerable amount of time providing guidance and assistance to numerous agencies, partner organizations and individuals on both inland and Great Lakes waters. These include federal agencies, state agencies, local agencies, watershed groups, other DNR Divisions, citizen advisory committees and local land owners and managers. Lake Michigan fisheries management is coordinated with other agencies through the Lake Michigan Committee and Technical Committee that include federal and other state agencies, and the Michigan Citizen Advisory Committee. We work with our DNR Law Enforcement Division on regulations and enforcement, and with Forest Management Division to protect lake and stream habitat within state lands by reviewing oil and gas leases and forest management treatments. We work with many watershed councils, Area of Concern groups, Natural Resource Conservation Service offices, and local citizen groups on habitat protection and restoration initiatives. These activities have profound effects on our lake and river ecosystems and fisheries, and help leverage millions of dollars for projects.

Walleye Egg-Take, Rearing, and Stocking: Biologists = 2.9%, Technicians = 6.8%
Most walleye management activities in the Central Lake Michigan Management Unit are conducted by our technicians and biologists. We are involved from the beginning of the cycle with egg-take operations, through rearing in our ponds, and the stocking of fingerlings into lakes and rivers. Our hatcheries assist in egg-take and hatching of the eggs into fry. Other management units often provide fingerling walleye to us because we are somewhat limited in walleye fingerling production by the availability of suitable rearing ponds and staff. Volunteer partner groups provide valuable assistance to us during pond rearing.

Internal Committees: Biologists = 2.7%, Technicians = 0%
Fisheries Division has a number of internal committee's that assist with issues related to management of habitat and specific fish species in Michigan. These committees provide detailed analyses of specific issues that help in statewide discussions and recommendations related to fishing regulations, invasive aquatic species, fish stocking, native fish rehabilitation, lake and stream resource inventories, data management and others.

Habitat Protection: Biologists = 2.3%, Technicians = 0.9%
This category includes activities related to specific habitat protection and restoration projects. Biologists spend time on Natural River activities including participating on zoning boards. Biologists and technicians also work on specific habitat restoration and improvement projects on lakes and streams.

Weirs, Hatcheries and Fish Stocking: Biologists = 2.3%, Technicians = 16.0%
The Central Lake Michigan Management Unit oversees egg-take and fish transfer operations at the Little Manistee Weir and the Boardman Weir. The technicians spend a substantial amount of time on weir activities, especially egg-take operations. They also assist with Platte River Hatchery operations and with statewide fish stocking. Biologists provide assistance at the Little Manistee Weir and spend considerable time at the Boardman Weir.

Training: Biologists = 1.6%, Technicians = 2.9%
Both the technicians and biologists attend training necessary to complete state requirements (e.g., safety, equipment, computer, database) as well as professional development training (e.g., biological, field methods, management).

Regulations, Grants and Public Access: Biologists = 1.4%, Technicians = 0.2%
Biologists and technicians spend time reviewing and developing fishing regulations each year. Regulation changes require writing new Fisheries Orders that are reviewed by the Basin Team and sent to the Natural Resources Commission for final approval. Biologists work on acquisition of land and development of new fishing access sites. Biologists also assist with development and review of Inland Fisheries Grants, Dam Management Grants, and Habitat Improvement Grants that are administered through Fisheries Division.

Equipment Maintenance: Biologists = 0%, Technicians = 3.0%
Fisheries technicians spend time maintaining field equipment such as boats, motors, and sampling gear like electrofishing units, nets, ropes and water quality measurement tools. They also sometimes construct and modify field equipment like nets boats.

Scale Ageing— Scott Heintzelman, Bob Kerry, Eric Askam

During the winter months data collected from surveys is analyzed and entered into the Divisions, Fish Collection System. One of the primary jobs in this process is determining age and growth of fish captured during the survey. When fish are collected in the survey they are measured to the tenth of an inch and scales or fin rays are collected.

These structures are then used to determine the age of the fish. Scale samples are analyzed by making an impression of the scale on acetate and then looking at it under a low power microscope or microfiche. Fin rays are cut into thin cross sections and are also viewed under a microscope. Both samples can be aged by counting the growth rings or "annuli" laid down by the fish during summer (fast growth) and winter (slow growth) activity.

By having this information growth rates can be calculated for the surveyed water body and compared to state averages. Biologists use this information to evaluate fisheries, develop management strategies, and to describe the overall health of a water body

Figure 1. Scale sample taken from a 4 inch bluegill that is age four.

Figure 2. A fin ray cross section collected from a 17 inch walleye that is age four.

Walleye Management in the Central Lake Michigan Management Unit— Rich O'Neal

The Central Lake Michigan Management Unit manages 37 lakes and rivers with stocked walleye (Table 1). Stocking requests for these waters amounts to 1,978,675 walleye fingerlings. Generally, walleye stocking occurs every second or third year in each water body so our unit needs about one million fingerlings annually to meet our needs.

Walleye eggs are collected each spring from wild brood stocks in Michigan. These eggs are sent to our hatcheries until the fry are hatched. The fry are transferred to rearing ponds in our unit and reared to fingerling size. Fingerlings are then transferred from the ponds to the water bodies that need to be stocked.

CLMMU staff are involved in the egg-take operations and responsible for most of the pond rearing and stocking. We receive assistance from other fish division staff and also from volunteers. We have four rearing ponds in our unit. One pond is located on Beaver Island and is used to stock Lake Geneserath. The Beaver Island Wildlife Club assists in the rearing process by feeding, monitoring, and stocking these fish annually. The I-75 pond is located near Houghton Lake and is operated by CLMMU staff. Fingerlings from this pond are stocked throughout our unit. The Mason County walleye pond is located in Ludington and significant assistance is provided during the rearing cycle by the Mason County Walleye Association. Fish from this pond are stocked throughout our unit. The Muskegon Walleye Pond is located in the Muskegon State Game Area adjacent to the Muskegon River. The White Lake Area Sportfishing Association provides significant assistance during the rearing cycle at the Muskegon Pond. The Southern Lake Michigan Management Unit handles most of the operation of the Muskegon Walleye Pond and fish from this pond are shared between the two management units.

The CLMMU usually does not have enough fingerling production from our existing ponds to provide all of our needs. We often receive fingerlings from the Northern Lake Huron Management Unit and the Lake Erie Management Unit to stock in our waters. Walleye fingerling production in our unit would benefit from another pond (five acres or larger) located near our Harrietta Field Office

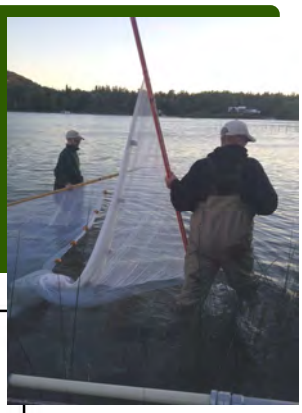
There are four purposes for stocking fish. These include: restoration of fish populations; to provide diverse sportfishing opportunities; to improve ecosystem balance; and to aid experimental studies. Stocking is usually not recommended for managing self-sustaining populations. This is because stocked fish can negatively affect healthy fish populations and they generally have poor survival.

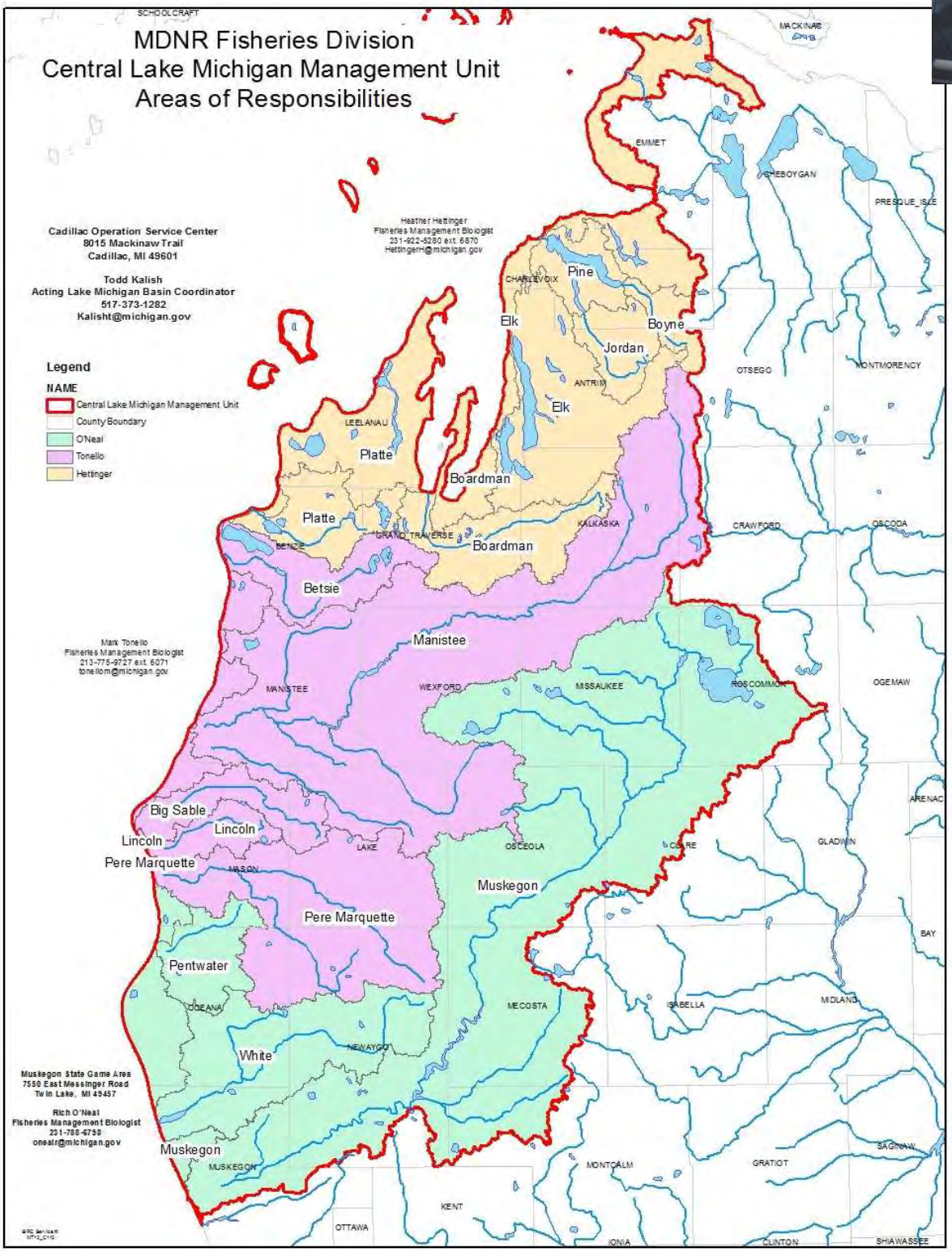
There are factors that must be considered before stocking fish, including costs, benefits, effects on existing fish populations, biological soundness, community support, geographical need, and regulations and availability of fish. Walleye are very popular in Michigan because they are a highly sought after fish, and we receive many requests. Walleye were not native to most of our inland lakes. Native populations were usually most common in the larger (>500 acres), deeper and cooler lakes. Attempts to stock walleye in many Michigan lakes have failed because of inadequate habitat. In the CLMMU, we have discontinued stocking many lakes and rivers (22) because survival was poor, or for other reasons noted above.

Waterbody	County	Fingerlings
Paradise Lake	Emmet	25,000
Silver Lake	Grand Traverse	30,000
Platte Lake	Benzie	125,800
Lake Charlevoix	Charlevoix	150,000
Lake Geneserath (Beaver Island)	Charlevoix	7,000
Little Lime Lake	Benzie	75,000
Intermediate	Antrim	76,000
Lake Bellaire	Antrim	88,750
Six Mile Lake	Charlevoix	10,000
Lower Herring Lake	Benzie	16,000
Upper Herring Lake	Benzie	19,000
Lake Margrethe	Crawford	60,000
Fife Lake	Grand Traverse	20,125
Cub Lake	Kalkaska	2,500
Pickerel Lake	Kalkaska	3,300
Manistee Lake	Kalkaska	43,000
Big Star Lake	Lake	23,000
Bear Lake	Manistee	86,000
Portage Lake	Manistee	53,000
Tippy Dam Pond	Manistee	50,000
Hamlin Lake	Mason	150,000
Hackert Lake	Mason	7,500
Rose Lake	Osceola	27,250
Lake Cadillac	Wexford	60,000
Lake Mitchell	Wexford	130,000
Muskegon Lake	Muskegon	211,600
White Lake	Muskegon	128,550
Big Blue Lake	Muskegon	16,500
Wolf lake	Muskegon	11,300
Fremont lake	Newaygo	39,500
Nichols Lake	Newaygo	8,000
Pickerel lake	Newaygo	15,900
Baptist Lake	Newaygo	8,600
Hart Impoundment	Oceana	12,000
Silver Lake	Oceana	34,500
Muskegon River	Osceola	60,000
Lake Missaukee	Missaukee	94,000
Total		1,978,675

There are several primary purposes for stocking walleye in Michigan. These include: restoration or rehabilitation of native spawning stocks in the Great Lakes and large inland lakes, to create new fishing opportunities, and to help balance fish communities by adding a predator species. Sometimes we are able to create new walleye fisheries through stocking. This most often occurs in some of our large inland lakes. It is difficult to create good walleye fisheries in inland lakes that are smaller than 500 acres because habitat conditions are not suitable. Even when survival occurs, it is not really sufficient to support a cost effective fishery. Stocking predator fish has been shown to improve the size structure of over abundant panfish populations in Michigan lakes. Increasing predator fish numbers reduces the number of panfish resulting in increased growth rates due to less competition for food.

To obtain information on lake or stream surveys from this year or years prior or to ask any questions, please feel free to contact us. Use the map below to select the most appropriate biologist to contact;





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