



## Southeast Michigan DNR Fisheries Newsletter

Hello anglers, this is the annual newsletter covering major field activities of the Lake Erie Management Unit (LEMU). This unit covers all waters that lie within watersheds draining into the St. Clair River, Lake St. Clair, Detroit River, and Lake Erie (blue area of map). Fisheries Management personnel include unit supervisor Liz Hay-Chmielewski; two biologists, Jeff Braunscheidel and Jim Francis; technician supervisor Todd Somers; two technicians, Dennis Tar and Cleyo Harris; and one creel clerk, Shawn Spilak. The office is located at 7806 Gale Road, Waterford 48327-1058 which is in the Pontiac Lake Recreation Area.



This newsletter highlights some of the major field activities which occurred during 2013. Information on the Great Lakes waters of Lake St. Clair and Lake Erie can be obtained by contacting the Lake St. Clair Fisheries Research Station.

## General Duties

### *Fish Ageing*

From January through March, fisheries technicians processed biological samples collected from the previous field season. This includes determining the age of fish from scale and spine samples collected during fish surveys and the creel program in LEMU, as well as steelhead and Chinook salmon from the statewide Great Lakes creel survey program and weirs. The age of a fish can be determined by magnifying either its scales or by looking at a cross section of a fin spine. Both have rings which can be counted similar to a tree. This year, 2,389 scales and spines were processed and aged by the Waterford crew.

**Fish Rearing**

Walleye were again raised in LEMU. Walleye eggs were obtained from the Muskegon River and the fertilized eggs were sent to the Wolf Lake State Fish Hatchery. At the age of 5 days, fry were put into grow-out ponds at Drayton Plains Nature Center in Waterford, Selfridge Air National Guard Base, and Camp Dearborn in Milford. We harvested 633,285 spring fingerlings and 255 fall fingerlings which were stocked into area lakes.

**Fish stocking**

In addition to stocking walleye, we also stocked rainbow trout, brown trout, steelhead, splake, and muskellunge from state hatcheries. Both technicians spent a week in April stocking fish out of state hatcheries. See the last page for a table listing LEMU fish stockings for 2013.

**Special Projects**

**Great Lakes Muskellunge Egg Take**

Fisheries personnel from Waterford, Bay City, Mt. Clemens and Gaylord spent 3 weeks on the Detroit River collecting Great Lakes musky for egg take purposes. The fall fingerlings from these fish are being used to create inland broodstock lakes for Great Lakes muskies as well as fisheries in selected lakes statewide. We captured a total of 223 muskies and spawned 12 females for a total of 758,938 eggs. A total of 54,111 fall fingerlings survived and were harvested and distributed to 27 lakes and rivers throughout Michigan.

**St. Joseph River Carp EDPR (Early Detection Prudent Response) Exercise**

In mid-September, technicians from Waterford joined fisheries field staff from all over the state in Niles, Michigan to carry out an exercise called the Early Detection Prudent Response to deal with the Asian carp threat. The goal was to test the division’s plan and response to a simulated sighting of Asian carp in the St. Joseph River.



Assembling the boats and crew the day before the exercise.



Deploying the upper blocking net.



Electrofishing crew searching the cover for carp.



Two big flathead catfish captured during the exercise.

Blocking nets were used to section off a 3-mile portion of the river to be surveyed. Gill nets and electrofishing were used to collect fish. Common carp were used as a surrogate species, so they were tagged and released back into the river. This provided an opportunity to evaluate the recapture rate of common carp. The exercise showed that the response plan and coordination were very good, but also demonstrated the challenges of collecting carp in a large river system. During the exercise, one grass carp was captured and euthanized.

**VHS-V and Contaminants**

Viral Hemorrhagic Septicemia (VHSv) is a viral fish disease that has resulted in large fish kills in both hatcheries and wild fish populations. VHSv was first found in Michigan in Lake St. Clair in 2003. Although this disease has resulted in fish kills, there are no concerns with respect to human health. The virus cannot infect humans, even if fish is eaten that contains the pathogen. Since 2007, Fisheries Division has routinely sampled fish from around the state to determine the distribution of this virus.

VHSv surveillance continued in 2013. Fish were tested from the Detroit River (Wayne County), Greens Lake (Oakland County), and the Squaw, Clear, Long, Cedar, and Tan chain of lakes commonly referred to as Stringy Lakes (Oakland County), and walleye production ponds. All test results were negative for the virus.

**Minnow Pond Creek**

In early 2013, a local naturalist identified a new exotic fish species in Minnow Pond Creek in Farmington Hills, Michigan, a tributary to the Rouge River. The mummichog is a small killifish native to the east coast of North America. It prefers brackish tidal streams where it lives and spawns. An unusual characteristic is the fish lays its eggs at the high tide mark and the eggs incubate in the air, and hatch when wetted again.



Typical adult Mummichog

Mummichogs are very common on the east coast. It is unclear how they got to the Rouge River, but they are used for mosquito control, baitfish, and in the aquarium trade.

Repeated sampling found the fish to be in an isolated stretch of Minnow Pond Creek. Using electrofishing, we removed 12 mummichogs. Additional sampling found no new specimens and we believe they have been eliminated from the stream. We will return in 2014 to verify they are not present.

## Lakes

### ***Union Lake, Oakland County***



A real nice walleye from Union Lake.

Union Lake is a 465 acre natural lake with a marl bottom and large shoals, located in central Oakland County. Walleye fingerlings have been stocked in the lake since 1988. A moderate size walleye fishery has developed in this lake. Walleye do not naturally reproduce in Union Lake, so the walleye fishery is maintained via stocking. During early May, we electrofished the shallow-water areas targeting the walleye stocked the previous year. The goal was to determine survival of the stocked fish in order to evaluate the stocking density. Fifty-one walleye were caught during 2 hours of night-time electrofishing. Forty one of those were determined to be yearling fish that were stocked the previous fall. These catch results were good,

indicating sufficient stocking density.

### ***Stringy Lakes, Oakland County***

The Stringy Lakes consist of 5 interconnected lakes (Squaw, Clear, Long, Cedar, Tan) totaling 204 acres and are located near Oxford. There is a public boat launch on the southwest side of Squaw Lake. There have been four surveys conducted in the past on the lakes and the results showed good populations of panfish and largemouth bass.



A nice trio of pumpkinseeds from Stringy Lakes.

The 2013 survey included several different types of gear: large-mesh fyke nets, small-mesh fyke nets, gill nets, beach seines, and electrofishing. We captured 1,897 fish with 24 species present. Bluegills were the most abundant with 1,230 fish caught and 35% of those exceeded 6 inches. The next most abundant fish were rock bass with 153 fish captured; almost 60% exceeded 6 inches. Pumpkinseeds were next with 139 individuals caught. We also caught 64 largemouth bass and 5 northern pike with only 3 of each species being legal-

size. However, water temperatures were warming quickly and this has an effect on the catch of these two species.

**Silver Lake, Washtenaw County**

Big Silver Lake is approximately 217 acres and is located in northwest Washtenaw County in the Pinckney Recreation Area. Relatively few homes exist on this lake and



Fisheries Division secretary Darlisa holding a pair of turtles from Big Silver Lake.

approximately one-half of the lake's shoreline is state-owned. Public access is available through the Pinckney Recreation Area Park but is presently restricted to carry-in boats only. A fishing pier also exists on park property and provides anglers access to the small southeast basin. Parks personnel have reported that pier anglers consistently experience fair to good fishing success. Recently, redear sunfish were stocked in 1991 and 1993 with the hope of creating a naturally reproducing trophy panfish fishery.

In the 2013 survey, we captured

653 fish with 20 species present. Bluegills were the most abundant species with 205 individuals captured and 39 exceeded 6 inches. Redears seem to be doing well and were the second most abundant fish with 197 fish caught with almost one third of the catch exceeding 9 inches. Also caught were 19 largemouth bass with 7 exceeding 14 inches and 14 northern pike with only 1 exceeding the legal minimum size limit of 24 inches.



An adult redear sunfish.

**Dead Lake (Wildwood Lake), Washtenaw County**

Dead Lake is a 57 acre lake located in Washtenaw County. The DNR has purchased 4 acres on the east side of the lake to create a fishing access site in the near future. This lake was surveyed in 1984 and 1985 as part of a research project on bluegills and most fish captured were growing well above the state average.

A fish survey was conducted in 2013 to evaluate the fish community. We captured 1,173 fish with 15 species present. Bluegills were the most abundant with 879 fish caught and 45% exceeded 6 inches. Black crappies were also abundant with 142 individuals caught and 47% exceeding 8 inches. We caught 36 largemouth bass and 7 exceeded the minimum legal-size of 14 inches.

### ***Green's Lake, Oakland County***

Green's Lake is a 117 acre lake that is part of the Clinton River, located just upstream from Lotus Lake in Oakland County. Fisheries Division has never surveyed Green's Lake and there is no record of any management. There is a township park with public access via a beach and a carry-in boat ramp on the southwest end of the lake. A variety of gear was used to evaluate the fish community, including large-mesh fyke nets, small-mesh fyke nets, beach seine, gill nets, and electrofishing. We captured 2,118 fish. The catch included 29 species, which is a very high number of species for an inland lake. Bluegills were the most abundant, accounting for 70% of the total catch, with 52% exceeding 6 inches. Rock bass were the next most common species with 107 fish captured and 30% exceeding 6 inches. Pumpkinseed sunfish were next with 96 individuals caught and 54% exceeding 6 inches. We caught 91 largemouth bass with 12 exceeding the minimum legal length of 14 inches.

### ***White Lake, Oakland County***



A pair of big crappies from White Lake.

White Lake is a 540-acre natural lake located in west-central Oakland County approximately 12 miles west of the City of Pontiac. It has an average depth of 12 feet with a maximum depth of 32 feet. The lake is heavily used for all types of water-based recreational activities including extensive fishing. There is a DNR public boat access on the southwest corner of the lake off Duck Lake Road about one mile north of M-59. The lake has been regularly stocked with walleye since 1980. White Lake has a reputation as a good fishing lake for largemouth bass and northern pike with many reports of walleyes being caught the past few years. Angler reports put the panfish fishery as fair

to good for bluegills, sunfish and crappies. Due to heavy aquatic vegetation growth in the lake, it has been treated with various chemicals over the years and large portions of the lake are treated on an annual basis with various chemicals.



A typical trap net catch from the White Lake survey.

This survey was conducted as a start to a statewide effort to gather information on inland walleye and northern pike populations. We set six inland trap nets for two weeks right after ice-out. Captured walleye and northern pike were marked with a fin clip and returned to the water. After several days of netting, a population estimate was produced from the proportion of marked fish versus unmarked fish in the catch.

As a bonus, largemouth and smallmouth bass moved heavily during this time too, so we captured and recorded them as well.

We caught 60 walleyes ranging from 14 to 27 inches with 59 exceeding the legal minimum-size limit of 15 inches. Also captured were a whopping 387 northern pike ranging from 16 to 28 inches in length with 45 exceeding the minimum legal-size of 24 inches. However, the vast majority of the pike were in the 18 to 22 inch range. We also caught 124 largemouth bass ranging from 10 to 19 inches with 110 exceeding the minimum legal size of 14 inches. The number of smallmouth bass captured was small with only 11 individuals recorded. These fish ranged from 11 to 20 inches and 7 exceeded the legal size of 14 inches.



A healthy smallmouth bass from White Lake.

## Streams

### ***Ella Lee Lake Creek, Washtenaw County***

Ella Lee Lake Creek is a small creek that begins in Ella Lee Lake and flows southwest where it enters the Saline River, which is a tributary to the River Raisin. There is no record of previous fish surveys on Ella Lee Lake Creek. Cool, clear water flows through this creek, but the substrate is composed of sand and clay, which is not conducive to high fish populations or diversity. In 400 feet we captured 107 fish with 7 species present. Green sunfish were the most abundant, representing 42% of the total catch, followed by mottled sculpins (29%) and bluegills (15%). This species composition is what was expected from this type of stream.

### ***Red Run Drain, Macomb County***

The Red Run Drain is a highly modified stream located in southern Macomb County. It originates near the City of Royal Oak and flows easterly until it enters the Clinton River near Sterling Heights. Originally, the Red Run Drain was a natural stream, but it has been altered by urban development as it received increasing amounts of stormwater and sanitary water discharge from Royal Oak. In 1948, the stream was enlarged and straightened to handle increasing loads of wastewater and further widening was carried out in 1976. Today, the headwaters are defined by the outlet of a combined sewage overflow (CSO) retention and treatment basin called the George W. Kuhn Retention Treatment Basin. The CSO basin collects stormwater and sanitary wastewater from many suburbs including Royal Oak, Madison Heights, and Troy. The Red Run Drain is subject to large flow variability. Fisheries Division conducted a fish survey in 2001 and found that the catch was dominated by pollution-tolerant fish species such as common carp and fathead minnows.

In summer 2013, we conducted a fish survey upstream of the 14 Mile Road Bridge. We captured 378 fish with 13 species present. Round gobies were the most abundant with 206 fish caught. Banded killifish were next with 130 fish. Common carp were next with 9 fish caught. High water conductivity and the presence of heavy filamentous algae inhibited the effectiveness of the survey gear. Numerous small gobies were observed

and not captured. Round gobies were first observed in Lake St. Clair in the late 1980s, but have since migrated up the Clinton River and Red Run Drain. The fish community in Red Run Drain continues to be dominated by pollution-tolerant species.

### ***Huron River, Washtenaw County***

The Huron River originates in Oakland County at Big Lake and the Huron Swamp. The watershed drains about 900 square miles and empties into the northwest corner of Lake Erie. The main stem is about 136 miles long and this drainage basin includes portions of Oakland, Livingston, Ingham, Jackson, Washtenaw, Wayne, and Monroe counties.

The Huron River has received extensive management over the years. In 1996, a fish ladder was installed around the dam in the City of Flat Rock making 13 miles of river accessible to Great Lakes fish. Habitat enhancements in the form of lunger structures and half logs have been installed in the Proud Lake Recreation Area stretch of the river.

In summer 2013, we surveyed a section located in Dexter Township in northern Washtenaw County, about 4 miles northwest of the Village of Dexter. This area is within the Hudson Mills Metropark and has good public access. This is a long-term sampling site and only smallmouth bass were collected using steam electro-fishing in this 1000-foot station.

We captured 18 smallmouth bass ranging in size from 2 to 17 inches; averaging 8.5 inches. Five fish exceeded the minimum legal-size limit of 14 inches, and 9 were young-of-the-year (less than 4 inches). In 2012, 76 smallmouth bass were captured and in 2011, 24 fish were caught. The high total in 2012 is attributed to the low flows that made the electro-shocking efficiency better. In 2011 and 2013, the high flows affected sampling efficiency.

### ***River Raisin Manchester, Washtenaw County***

The River Raisin and its tributaries form a river system draining approximately 1,070 square miles of southeastern Michigan and northwestern Ohio. The basin contains portions of Hillsdale, Jackson, Washtenaw, Lenawee, and Monroe counties in Michigan. The total length of the mainstem is about 150 miles. From the headwaters, the river flows southeasterly until it empties into Lake Erie in the City of Monroe.



A young of the year smallmouth bass.

There has been extensive management of the River Raisin. The City of Monroe has obtained grant funding through the Great Lakes Restoration Initiative program to evaluate, design, and install fish passage or conduct dam removals through several of the dams located within the city limits. The overall plan is to eventually have fish passage up to the dam in Dundee. All of the fish passage work should be completed by the winter

of 2013.

The section of the River Raisin surveyed this year is located on the eastern edge of the Village of Manchester in southwestern Washtenaw County. The sampling station began at Austin Rd and went upstream for 1000 feet. This site is part of a long-term monitoring program of smallmouth bass. It was sampled in 2013 using a stream electrofishing unit and only smallmouth bass were captured this year. We caught 33 smallmouths with 4 exceeding the legal-size of 14 inches and 11 young-of-the-year. This compares to 2011 when we caught 66 smallmouth (3 legal size and 38 young-of-the-year) and in 2012 when we captured 76 smallmouth (6 legal-size and 33 young-of-the-year). The water levels in 2011 and 2012 were much lower than in 2013 allowing for much better efficiency at capturing small fish. The legal-size fish seem to be stable in numbers along this stretch.

### ***North Branch Clinton River, Macomb County***

The North Branch of the Clinton River is a major tributary to the Clinton River and is 43.2 miles in length. The headwaters area begins from a private unnamed lake and flows through a cedar swamp with mostly private ownership. It flows southerly until it empties into the Clinton River just west of the City of Mt. Clemens. In 1923, the river and tributaries upstream from 27 Mile Rd. were designated trout waters and the headwater area contained naturally occurring brook trout. Later, the lower extent of the designated trout waters was moved upstream to 32 Mile Rd. because the waters downstream could not support trout.

The area upstream of Almont continues to support a self-sustaining brook trout population. Downstream from 31 Mile Rd. the fishery consists of smallmouth bass, rock bass, walleye, and northern pike.

There were two dams located on the North Branch of the Clinton River. The most downstream dam at Wolcott Road was located approximately 17 miles upstream from the confluence with the Clinton River. The dam was a cement sill with two feet of head located at the end of the mill race from the historic Wolcott Mill. Approximately 4 miles upstream from the Wolcott Road Dam was Cascade Dam. This dam was constructed in the early 1900s to create an impoundment as part of a housing development. The development was never built and the dam was failing. Although the dam no longer impounded water, it was still a barrier to fish migration because there remained approximately 3 feet of head. Both of these dams were removed in 2010.



A tub full of smallmouth bass.

A fish survey was done in summer 2013 to evaluate the fish community and the effect of the dam removals. Surveys are typically done several years after completing the dam removals to allow the fish community to recover from the removal process. We

surveyed 2 sites, one above each of the two sites where dams were removed. We collected 4,186 fish with 27 species present. Central stonerollers (893), rainbow darters (799), creek chubs (444), and rock bass (199) were the most abundant fish present. We also caught 153 smallmouth bass ranging from 1-13 inches. We captured several species that are indicators of good water quality, including 4 darter species and brindled madtoms, as well as blacknose dace which is an indicator of cold water. Fish surveys were done at both of these sites in 2009, prior to the dam removal.

The 2013 post-dam removal survey captured a significantly greater amount of smallmouth bass at the upper stretch. In 2009, only 4 smallmouth bass were captured compared to 127 in the 2013 survey. Of these 127, 112 were young-of-the-year, indicating that smallmouth bass spawned upstream of the old dam site in significant numbers. The removal of the dams now provides fish access to the upper river which has much better substrate for spawning and allows the river to return to a natural state.

### ***Paint Creek***

Paint Creek is a top-quality coldwater stream in northeast Oakland County that originates at Lake Orion and flows in a southeastern direction until it enters the Clinton River in Rochester.

There has been extensive management of Paint Creek throughout the years. The stream has been stocked with brown trout almost annually from 1953 to present day. Paint Creek was treated with rotenone in 1968 and again in 1984 to remove competitors of trout, primarily creek chubs and white suckers. The effects of these removals were



A Paint Creek brown trout.

temporary. Other management activities included habitat restoration projects. The Clinton Valley Chapter of Trout Unlimited completed in-stream habitat projects in 1984 and 2001. A bottom-draw structure from Lake Orion was installed in 1991 to counteract the warmwater surface discharge coming over the dam, with cold water from the bottom of the lake. This reduced water temperatures in the upper stretches of the stream and supports trout throughout the summer. This stream has been surveyed many times to evaluate the trout stocking success. Natural

reproduction of brown trout has been documented in much of this stream.

Approximately half way along the length of the creek was Paint Creek Dam which was a nearly 7 foot high barrier fragmenting the stream. The dam was constructed in 1835 to power a grist mill which disappeared decades ago. The dam was a detriment to the aquatic community including fish and mussels, by preventing fish passage and altering natural river processes. Upstream of the dam, stream habitat was lost by sedimentation and impounding water, and downstream the channel was incised, resulting in changes to the bottom material and causing stream bank erosion for a distance of approximately 1,000 feet. The Clinton River Watershed Council received a grant through the Great

Lakes Restoration Initiative program from the US Environmental Protection Agency to remove the dam and restore habitat above and below the dam. This dam was removed in the fall of 2011 and the stream restoration work completed by summer 2012.

The current survey was conducted to assess the fish community post dam removal. We electrofished just downstream of Clarkston-Kern roads, (formerly part of the impounded area upstream of the dam) and just downstream of Silverbell Road (below where the dam was positioned). We captured 1,311 fish between the two sites. Mottled sculpin (380), creek chub (327), and common white sucker (166) were the most common species present. We did capture an unusual amount of warmwater fish including green sunfish, pumpkinseed carp and one small walleye. These fish likely originated from a drawdown of Lake Orion for dam maintenance. We captured 32 brown trout measuring 5 to 14 inches and averaging 9 inches. We also noticed the movement of fish between the two sites as we captured American brook lamprey, northern hog sucker and rainbow darters in the upper stretch (Clarkston-Kern) in 2013. We did not catch these species in 2011 showing that the fragmentation of the stream was now removed.

### ***Mill Creek, Washtenaw County***

Mill Creek is the largest tributary to the Huron River. It begins in west-central Washtenaw county about 5 miles northwest of the Sharonville State Game Area and flows northeast until it empties into the Huron River in the Town of Dexter. Mill Creek was extensively channelized during the early 1900's to drain agricultural land. There was a dam located in the town of Dexter that prevented fish passage between Mill Creek and the Huron River. This dam was removed in 2009 restoring free flow between the creek and the river. A fish survey was completed in 2008 to document the fish community of Mill Creek before the dam was removed.

In 2013, we completed another survey to document the fish community of Mill Creek in the post-dam removal period. We captured 680 fish with 26 species present. Creek chub (106), common white sucker (97) and northern hog sucker (91) were the most abundant species. There is evidence that fish movement has been re-established in this portion of Mill Creek.

Logperch were captured in the current survey, but were not present in the previous surveys. These fish likely moved into Mill Creek from the Huron River now that the dam has been removed. There was also an increase in the number of species that need gravel and cobble substrate, including greenside darter,



A typical adult logperch.

rainbow darter, American brook lamprey and northern hog sucker. Conversely, there was a huge decrease in species that need slow moving or stagnant water, including bluntnose minnows and creek chubs. The creek shows signs of becoming a healthy cool-water creek and should continue to improve.

### ***Upper River Raisin Survey***

The next six streams were surveyed in order to finish up the River Raisin watershed work. All of them are tributaries to the River Raisin. Last year we concentrated on the upper streams, and this year we concentrated on the lower streams. There is no previous fish data for these streams.

### ***Bear Swamp Creek, Monroe County***

It begins in extreme northeastern Lenawee County, about 6 miles west of Milan, and flows southeast where it joins with other tributaries, before it empties into the Raisin about 3 miles north of Dundee.

We backpack electrofished this stream and captured 117 fish with 11 species present. Common white sucker (33), central mudminnow (17) and largemouth bass (14) were the most abundant fish species present. The bass were between 3 and 5 inches in length. We also caught 4 darter species. The catch was very diverse, including pollution-tolerant species (central mudminnow) and pollution-intolerant species (4 darter species and common white sucker).

### ***North Branch Macon Creek, Monroe County***



A breeding adult male Rainbow Darter.

This creek begins in Washtenaw County about 5 miles south of the Town of Saline and flows southeast where it joins other smaller tributaries before it empties into the River Raisin about 3 miles northeast of Dundee. We backpack electrofished one site on this stream. We captured 133 fish with 10 species present. Johnny darter (48), bluntnose minnow (35) and common white sucker (17) were the most abundant species. Also caught were central stonerollers and common white suckers, both indicators that there is a significant amount of gravel and cool water in this stream.

### ***Middle Branch Macon Creek, Monroe County***

The Middle Branch begins about 3 miles west of the Town of Britton and flows east until it joins Macon Creek 2 miles northwest of Dundee.

We surveyed 2 sites on this stream. The total capture of fish numbered 457 with 15 species present. Common shiner (98), central stoneroller (87) and rainbow darter (54) were the most abundant. We also captured blacknose dace, common white suckers and northern hog suckers, all of which require cool, clean water with abundant gravel.

### ***South Branch Macon Creek, Lenawee County***

The South Branch begins about 2 miles east of the Town of Tecumseh and flows southeast until it joins Macon Creek, which empties into the River Raisin 3 miles northwest of Dundee.

We electro-shocked 3 sites on this creek and found a great number of fish at the most upstream site off of Hendershot Road. We then surveyed a site off of Lenawee County Line Road and a site off of Dennison Road and captured 5 fish and 1 fish respectively. In the Hendershot Road site, the stream was

cool and clear with ample amounts of gravel and cobble, no aquatic vegetation, and good flow. The habitat was completely different at the two more downstream sites. The flow and water temperature were similar, but the substrate was clay and the middle site had a heavy amount of filamentous algae. In addition to very low catch rates, the fish species captured were pollution and temperature tolerant species (central mudminnow, bluegill, and green sunfish). In comparison, at the most upstream site, we captured 440 fish with 7 species present. Blacknose dace (220), bluntnose minnow (92) and creek chub (80) were the most abundant species. We also caught indicator species of good water quality, including central stonerollers, striped shiners, and common white suckers.



An adult blacknose dace.

### ***South Branch River Raisin***



Native mussels need good water quality.

This stream begins in west-central Lenawee County and meanders easterly until it empties into the Raisin River about 3 miles northwest of the City of Adrian. The stream is narrow and shallow, but with good water quality.

We collected 206 fish with 11 species present. Blacknose dace (96), creek chub (28), mottled sculpin (26) and johnny darter (23) were the most abundant. These species are indicative of good water quality.

### ***River Raisin Clinton Park***

The River Raisin and its tributaries form a river system draining approximately 1,070 square miles of southeastern Michigan and northwestern Ohio. The basin contains portions of Hillsdale, Jackson, Washtenaw, Lenawee, and Monroe counties in Michigan. The total length of the mainstem is about 150 miles. It flows basically southeasterly until it empties into Lake Erie in the city of Monroe.

The site surveyed was located in the Village of Clinton about 7 miles below the site in Manchester (see above). We captured 219 fish with 26 species present. Northern hog suckers (53), common shiners (34) and river chubs (23) were the most abundant. We also captured 6 smallmouth bass ranging from 2 to 9 inches and two northern pike, one at 9 inches and one at 29 inches. These fish indicated that there is natural reproduction of these two species in this stretch of the Raisin.

### Why'd They Do That?

Have you ever wondered where the DNR gets a lot of the numbers about fish harvest and fish health from the Great Lakes? Well, the answer is from the creel census. This job is an extremely important part of fisheries management of the Great Lakes.



LEMU creel clerk Shawn conducting an interview.

This position is staffed by a creel clerk whose job it is to monitor the sport fishery from their designated port. They do this by interviewing anglers as they come in from fishing. They ask them a set of questions designed to gather information about effort and catch. They also gather biological information from the fish caught by taking lengths, weights and either a scale or fin ray sample. We can age the fish with the scale or fin ray, and combined with the size, this gives a good indication of fish health and growth. They also look for tagged fish and anything unusual about them like lamprey scars. Managers use all of this information to gauge the overall health of the fishery and to set harvest numbers and limits.

Currently in LEMU, our only creel clerk is assigned to Lake Erie. Shawn monitors the ports from Pte. Mouillee, south to the state line at Halfway Creek including places like Sterling State Park and Bolles Harbor. So if you ever see a DNR person at your favorite fishing spot asking some questions, please give them a couple of minutes and answer their questions honestly. You will be doing your part to help make the fishery better.



Gathering important information

*Newsletter written by Dennis Tar*

## Fish Stocking in LEMU for 2013

Species	County	Water	Number	Avg. Size (Inch)	
Rainbow Trout	Lenawee	Allen's Lake	3,700	7.1	
	Lenawee	Deep Lake	2,800	7	
	Livingston	Appleton Lake	2,800	7	
	Livingston	Spring Mill Pond	400	17	
	Oakland	Clinton River	4,800	16.3	
	Oakland	Huron River	589	20.2	
	Oakland	Huron River	708	17.3	
	Oakland	Maceday Lake	12,200	7.4	
Steelhead	Wayne	Huron River	62,403	8	
	St. Clair	Belle River	12,600	8.2	
	St. Clair	Mill Creek	10,000	7.7	
	Macomb	Clinton River	28,403	8	
Brown Trout	Wayne	Johnson Creek	2,160	4.7	
	St. Clair	St. Clair River	52,000	4.4	
	St. Clair	Black River	57,776	5	
	Livingston	Spring Mill Pond	164	20	
	Livingston	Spring Mill Pond	400	13.4	
	Oakland	Clinton River	900	13.3	
	Oakland	Clinton River	4,800	4.7	
	Oakland	Clinton River	49	22.4	
	Oakland	Clinton River	200	18.2	
	Oakland	Huron River	1,500	13.3	
	Oakland	Huron River	500	18.4	
	Oakland	Huron River	89	22.4	
	Splake	Oakland	Maceday Lake	10,000	7.2
	Northern Muskellunge	Lenawee	Lake Hudson	753	9.8
Great Lakes Muskellunge	Hillsdale	Lake Diane	425	10	
Walleye	Wayne	Belleville Lake	57,956	1.3	
	Lenawee	Devil's Lake	102,590	2	
	Livingston	Strawberry Lake	34,020	1.6	
	Oakland	Cass lake	96,557	1.6	
	Oakland	Lake Orion	72,702	1.6	
	Oakland	Lakeville Lake	35,948	1.9	
	Oakland	Long Lake	8,343	1.4	
	Livingston	Woodland Lake	223	5	
Livingston	Woodland Lake	16	10		