G.R.E.A.T.

Grand River Environmental Action Team

P.O. Box 223, Jackson, Michigan 49204
Website: www.great-mi.org 517-416-4234 Volume 27 Number 3 **SEPTEMBER 2017**

WHAT'S INSIDE:

How you can join GREAT

Contact information is on page 8 for Mail, Email, Website, Facebook or Phone

Send $20 individual membership $30 family membership or $100 for sponsor membership

Our annual Grand River Cleanup

Saturday, Sept. 9, 2017

MARK THE DATE IN YOUR CALENDAR

Photo by Jack Ripstra
Junior ROTC volunteers with river debris from the 2016 clean up.

We will meet at the CMS Energy Band Shell in downtown Jackson at 9:00 in the morning.

Cleanup assignments can be on land or in the river. Dress should be old jeans and shoes that can be worn in the river. You should also bring a hat, mosquito repellent and sun screen.

Lunch will be provided at the Band Shell at 1:00 p.m. thanks to the generous donations from many of our local restaurants.

In case of questionable weather, check for cancellations at www.great-mi.org or call (517) 416-4234.

If you would like to be a Trip Leader, help serve food or any other advanced questions on this year's Grand River Cleanup, please contact Jack L. Ripstra at jlripstra@aol.com or by calling (517) 740-5680.

Invasive plant species are concerning

By Aleta Daniels
Program Manager, Adopt-A-Stream

The Jackson County Conservation District is applying for a grant that would allow work to help control some of the invasive plant species in our area. We are applying for this grant with Lenawee and Washtenaw Counties with the result being the formation of a Cooperative Invasive Species Management Area, or CISMA. CISMAs are regional partnerships and implemented by joint efforts between the Michigan Department of Agriculture and Rural Development (MDARD), Michigan Department of Environmental Quality, and the Michigan Department of Natural Resources. The work of CISMAs goes a long way to stop the spread of invasive species. Jackson County is one of just a few counties in the state of Michigan which is not part of a CISMA; previous attempts to form a grant-supported CISMA have not succeeded. We now believe we have the perfect group of dedicated people to get this grant funded and start working to control the invasive species in our area!

In the event that you are not familiar with invasive species, they are non-native (introduced) species which have or are likely to cause economic or environmental harm, or can affect human health. However, just because something is non-native does not mean it is an invasive species. Invasive species have some factor that allows them to outcompete local species, such as having no local predators or being more efficient at gathering resources such as nutrients, water, or sunlight. Most invasive species end up in a new location with the unintentional or intentional help of humans. Well-known unintentional methods for invasives making an appearance in a new location are through ship ballast water or through shipping wood and timber products.

CISMAs are important and effective methods of working to control the spread of invasives. Every landowner or outdoor enthusiast is affected or threatened by at least one invasive species, whether of plant or animal origin. Some examples of invasive species in Jackson County that you may be familiar with include garlic mustard, Japanese knotweed, and phragmites. The invasive species management plan exists not only to control invasive species that are already a known threat but to also prevent new invasive species from being introduced.

We are very grateful for the opportunity to form our own CISMA in our area! The process for invasive species control is a multi-step process: this grant is a two-year grant that would fund a CISMA coordinator who would be responsible for writing the strategic plan for the three counties, and to establish survey crews in each county to map problem areas in our region. Future grants would be aimed at getting 'boots on the ground' to work toward invasive species eradication. It is critical that we work together to keep our environment healthy and productive, and thanks to the financial support of our environmental departments and to the hard work put in by dedicated local individuals and organizations, we are making a difference. If you are looking to find out how YOU can make a difference, well good news! The best way to prevent invasive species from becoming a problem is through early detection methods! If you are paddling a river, or walking in a field, or wherever you find yourself outdoors, if you notice any invasive species present, please contact the DNR. If you're unsure about what is invasive, a good place to start is by utilizing the Field Identification Guide to Invasive Plants in Michigan's Natural Communities. To purchase, go to www.mnfi.anr.msu.edu/invasive-species/fieldguide.cfm.

Jim Woodruff passes away

The Quiet Water Society is sad to announce the passing of Jim Woodruff. Jim, the winner of the 2004 Verlen Kruger Award, played a key role in the Quiet Water Society and has been a touchstone for many at each of our symposiums. He also had maintained a membership in GREAT and he authored many books on the history of Michigan rivers. Our condolences to his family and many friends. You will be missed River Guardian.

GREAT volunteers spend many hours clearing a path for paddlers at every paddle and the annual cleanup.

Ticks in Michigan

What are we to do?

Like most things – Prevention is the best measure. What does prevention look like?

• Use insect repellents containing 20-30 percent DEET.

• Use repellents that contain permethrin on clothing.

• After spending time outdoors, check your skin and clothes for ticks.

• Check each other and pets. Check in your hair as well.

• Shower within 2 hours of being outside.

• See your healthcare provider if you have symptoms of fever, rash, body aches or fatigue.

Be sure when hiking/walking/biking, stay on the trails. Don't wander off into the bushes. Pets and kids tend to wander, so just be vigilant on checking them ASAP. Kicking leaves is fun, but those leaves can also contain ticks – long pants with the pant legs tucked in socks is a good idea. Some ticks are as tiny as a speck. My son found one that tiny on his son. Removal technique is also a key thing.

Be sure to bathe within 2 hours of being out in the woods if possible. Good time to check each other and especially in places like behind ears and knees, any crevices on your body. Clothes also should be washed in the hottest water possible to kill the ticks that may be on your clothes. Do not forget your socks and shoes – shoe laces and where they criss-cross. Any hats and backpacks you may have with you as well should be inspected.

Removal is simple and critical. Do not just grab and pull them off. Don't smother them with a cotton ball soaked in baby oil. It is important to use a pair of tweezers and grasp the head very close to the skin. You want to be sure to pull the tick off whole, including the head and mouth. Pull straight up, do not twist. After removal wash the area with soap and water or antiseptic and watch closely. Not all bites create the noted bullseye redness. Watch for the symptoms noted above.

There are 5 primary ticks in Michigan. Each pose some health risk. Here they are in order of most risk to least risk in Michigan. This information is copied from the Michigan Department of Health and Human Services. (http://www.michigan.gov/documents/emergingdiseases/5commonticks_282020_7.pdf)

1. American dog tick (Dermacentor variabilis) Distribution: Widespread throughout Michigan forests and grassy areas Key Facts: These ticks are active from early May-November, and will bite both humans and companion animals. Diseases: Diseases associated with the American dog tick are rare in Michigan, but may include Rocky Mountain spotted fever and tularemia.

2. Blacklegged tick (Ixodes scapularis) Distribution: Emerging in Michigan, see map at right Key Facts: Found on low forest vegetation, often along human and animal trails. Diseases: Lyme disease is the most common tick-borne disease in Michigan. Other rare diseases include: anaplasmosis, babesiosis, deer-tick virus, and ehrlichiosis.

3. Lone star tick (Amblyomma americanum) Distribution: Occasionally found in wooded and grassy areas across the state Key Facts: An aggressive biter of humans and companion animals, adult females have distinctive "Lone Star" mark Diseases: Ehrlichiosis, rocky mountain spotted fever, tularemia

4. Woodchuck tick (Ixodes cookei) Distribution: Found most commonly on pets throughout Michigan Key Facts: Usually found near dens of skunks and woodchucks, will bite companion animals near animal dens and occasionally humans Diseases: Powassan encephalitis

5. Brown dog tick (Rhipecephalus sanguineus) Distribution: Occasionally found in Michigan. Key Facts: can uniquely survive and breed in indoor environments, has been associated with kennel, shelter, and breeding facilities. Good hygiene practices can prevent indoor infestations. Diseases: Rocky mountain spotted fever, canine babesiosis, canine ehrlichiosis.

Common Ticks

Lone Star Ticks

Male (left) Female (right)
Commonly causes: Lyme, plus other diseases

American Dog Ticks

(also known as Wood Tick)

Male (left) Female (right)
Commonly causes: Rick Mountain Spotted and Colorado Tick Fever

Black Legged Deer Ticks

Male (left) Female (right)
Commonly causes:
Lyme, plus other diseases

Stages of engorgement

Swimming

Microplastics are found thro

By Paul Steen, Huron River Watershed Council (HRWC)

Reprinted from Huron River Report, Sumer 2017, with permission from HRWC

Plastic is a part of life for 21st century humans. A typical person touches a plastic product several times every minute: children's toys are made from it; food is stored in it; clothing contains plastic materials; and those are just a few examples. But what happens when these plastic items begin to break down? Unfortunately, much of it reaches our waterways. Of course, the plastics found in water are small enough to avoid notice without specialized equipment, but tiny plastic pieces have infiltrated lakes, rivers, and wetlands. Researching the impact of these microplastics on humans and the aquatic environment is becoming a major focus of study in the environmental community.

Big impacts of tiny particles

Microplastics are defined as any pieces of plastic less than 5 millimeters in diameter. Five millimeters is about half of the width of an adult pinky fingernail, but microplastics are often smaller and can be invisible to the naked eye. Plastic is a non-biodegradable product and never really goes away; rather, it gets broken down into smaller and smaller pieces over time. Outside, degraded plastics are easily picked up by rain and end up in waterways. Activities inside the home can cause plastics to enter the waterways through the waste water treatment process. Examples from both scenarios include fibers from synthetic textiles like fleece and exercise clothes (polyester and wicking fabric), fishing line, pieces of plastic bottles, foam from cups and takeout containers, plastic films from plastic wrap and wrappers, and soap and cosmetic microbeads.

Microbeads in soap were the first well-publicized microplastic problem in the Great Lakes, and steps were taken to stop this pollution. The federal Microbead-Free Waters Act of 2015 bans the manufacture of all rise-off cosmetics that have intentionally-added microbeads by July 1, 2017; and the sale of these cosmetics will be banned as of January 1, 2018. Microbeads are not the only problem. There are a whole variety of microplastics in the environment. Sherri Mason, Professor of Chemistry at SUNY Fredonia, stated in a recent interview that "You're not going to find a body of water anywhere without them."

Pervasive, even in the Huron River

The Huron River system certainly has a high concentration of microplastics. A 2016 USGS research article alerted HRWC staff to the severity of the microplastic problem in this region. The authors sampled and analyzed 29 major river tributaries to the Great Lakes, selected to cover a range of upstream land use and differing magnitudes of wastewater. Sadly, the Huron River was reported to have the highest concentration of microplastics of all the rivers in the study.

The USGS study poured water samples through a series of different-sized filters to collect microplastics for examination. Seventy-two percent of the microplastics were less than 1 millimeter, and the majority of these were tiny textile fibers, sources from products such as polar fleece. Every time fleece and other synthetic clothes are washed, hundreds of fibers slough off. It is possible that wastewater treatment plants are not able to capture the microplastics, but the USGS authors did not find a statistical relationship between the amount of wastewater effluent and microplastic concentrations. Those plastics that are filtered out by the treatment plants get added to wastewater sludge that is often spread on land as fertilizer. While the authors could not concretely nail down a specific source for microplastic pollution, they hypothesized that rain could pick up the plastics from the distributed wastewater sludge, washing them into creeks and rivers.

Sampling locations and land c

Much is yet unknown

Scientific research on microplastics is in the early stages, and there are still a lot of concerns. The study above clearly shows that the plastic pieces are ubiquitous across our freshwater environments, begging the question of how and to

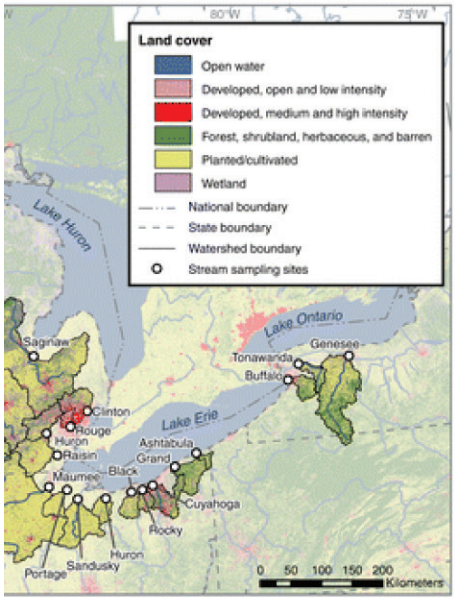
in Plastic
ughout Michigan Watersheds

what extent doe these plastic pieces detract from the health of humans, fish, and other biological communities. Studies have found that the particles are ingested by invertebrates, turtles, mammals, and fish. In some cases, the plastic causes physical obstruction of the digestive system and nutritional deprivation. On the chemical side, biological communities could be threatened by the bioaccumulation of endocrine disruptors and other harmful chemicals associated with plastics. Further study is needed to understand the extent of the problem.

Steps to take right now

A serious question which needs to be answered is how society should begin to remedy the microplastic problem. Following are a few first steps.

1) Reduce plastic use as much as possible. Recycling, a standard practice for many, is not enough because recycled garbage ends up in a landfill or in the environment eventually. Plastic never really goes away, it just gets chopped up into smaller pieces and perhaps repurposed into something else, which itself will eventually end up in a landfill or in the environment. Reducing the use of plastic in the first place is something everyone can strive to do. For example, at the grocers, select foods that are minimally packaged, and skip the bags in the fresh produce aisle.



ver, Baldwin, Austin, et al. 2016.

2) Citizens can share their concerns with companies that make fleece clothing and request that they research how to make products that are more resistant to sloughing in the washing machine. According to Austin Baldwin, author of the aforementioned USGS article, Patagonia has shown some interest in exploring how their products contribute to microplastics pollution. Consumer pressure would be extremely helpful in encouraging them to proceed with their studies. Learn more here: www.patagonia.com/environmentalism

Microscopic photo of various plastic bits.

Credit: S. Mason, SUNY Fredonia

3) Scientific studies are needed to learn more about how and where microplastics get into the water. Is it a wastewater treatment plant filtration problem, run-off from wastewater treatment sludge, or something else?

The discovery of microplastics and their effects is still in its infancy. The issue came into the spotlight by the mid-2000s because of the discovery of microbeads in the Great Lakes. It is clear that microplastics are affecting local rivers and lakes and are entering the food chain as evidenced in fish tissue samples. Scientists are still investigating sources, abundance, and biological effects, and there is not much information on control, mitigation, and management. However, the research currently available does clearly point to microplastics as a serious long-term issue, with real impacts on biologic communities. HRWC will continue to follow microplastics research and do whatever it can to protect the Huron River system from this evolving threat.

SOURCES

Baldwin, Austin, et al. 2016. Plastic debris in 29 Great Lakes Tributaries: Relations to Watershed Attributes and Hydrology. Environmental Science Technology, 50, 10377-10385.

GoErie.com:www.goerie.com/news/20161011/microplastics-in-the-great-lakes-tributaries-raise-health-concern

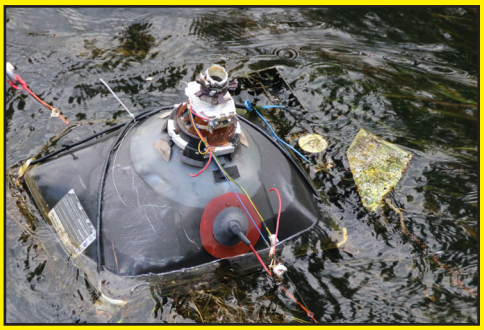
Additional Information:

In the referenced study, the Grand River was sampled near Eastmanville, MI. The sample results indicated a lower concentration of microplastics compared to the Huron River samples, however the samples were made up of a high percentage of microfibers.

G.R.E.A.T. Paddle June 18, 2017 Father's Day

Paddling down the river

Temporary dock on Loan



Photos by Kenny Price

Free TV for someone

By Kenny Price

Father's day (June 18) 2017 was the date of the third scheduled G.R.E.A.T trip of the year, and second completed trip because of weather issues. The trip down the Grand River from Michigan Center to Lions Park in Jackson was attended by a great crowd. New faces and previous faces were in the crowd of nearly 50 people. Much to my surprise everyone could float over the dam between 4th street and Falahee Road. The river flows thru very rural land and then into the industrial parts of Jackson. Many people saw ducks, herons and fish in the river. The Grand River now is much cleaner and more inviting than it was before the Clean Water Act of 1972. It is a thousand hundred times cleaner that it was in the early 1900's.

Deb Snell, Dan Kaser, and Benji Ward served up a fantastic lunch for all the paddlers. A great speech was given by a cute, handsome, young Texan before the paddle. A friend of Dan Kaser loaned G.R.E.A.T. a dock to help paddlers exit their boats and climb up the steep bank at the Lions Parks. Hopefully the dock will be used at other paddles. It was a wonderful idea and a very useful tool for boat and people's safety. Todd Zeller was lucky enough to find a television on the river, just not sure if it still works.

July paddle held at Delhi Metropark

By John Hoyle

The July 16th paddle Hudson Mills Metropark to Delhi Metropark started out a gray day, we thought it might rain but turn into a beautiful day.

We left Hudson Mills about noon with about 40 paddlers and ended with the same number. The trip was about 9.5 miles which took about 3 hours.

The first part of the trip traveled through the park with lots of wild life such as Leatherback, Painted and Snapping turtles out sunning themselves. There were Blue Herons, turkeys, geese and lots of fish and even a few snakes.

Photo by Kenny Price

Happy at the end

The River was clear and there was a good current so paddling was easy. There were a couple of dams along the way which weren't that large and had good paths though them. There weren't many houses on the river but ones that were there were beautiful.

At the first road bridge you could get out and stretch your legs and buy snacks. At Dexter Mills there were rest rooms and a picnic area and on the river there were small rapids. Along the way people in tubes were floating down the river and other people in kayak and canoes enjoying the river.

After the paddle we met at the Dexter Pub in downtown Dexter and had a great meal. Every one seem to have good time.

ANIMAL SPOTLIGHT

The Seagull

Herring Gulls at Gull Island

Gull Island

Herring Gulls

Seagulls at Gull Island

Old postcard photo

The ruins in 2017

By John Minar

Consider the Seagull. Some think it is nothing more than a scavenger eating French fries in the fast food parking lot; a coastal pigeon, rat with wings. Others have an idyllic vision of gulls circling fishing trawlers at sunset as they arrive in port with the days catch. And yet others see the gull in more spiritual terms as in the 1970 classic best seller, "Jonathan Livingston Seagull — a story."

As migratory birds, several species traverse Michigan including Ring Billed Gull, Bonaparte's Gull, Great black-backed Gull, Glaucous Gull and Herring Gull.

Herring Gull –Common in Michigan they prefer fish, but are very competitive scavengers. A large bodied bird, hearty, robust, a loud gull colony can drive one out of house and home. Supposedly. Which lead me to the interesting story of Gull Island (officially Bellows Island). Located near Northport, the last town on the tip of Michigan's "Little Finger" Gull island is just south of exclusive enclave of Northport Point.

Gull Island – Home of a large Herring Gull Sanctuary, now a protected rookery off limits to all mammals – including humans.

Legends are more interesting than truth - although truth is sometimes stranger than fiction.

One often repeated Gull Island legend is that a sea captain built a retirement home to enjoy the solitude of the island, but the constant screeching of the gulls drove him mad.

A good legend such as this has a small wisp of truth. The release of the Alfred Hitchcock movie, "The Birds" only fortified the (mythical) Gull Island legend.

The reality is less romantic and required something more sinister than Herring gulls to drive humans from the island.

Nevertheless, the Herring gulls were on this island long before humans and now have it once again to raise their young.

For more information: http://mynorth.com/2015/04/northports-gull-island-the-true-story/http://leelanau-conservancy.org/blog/naturalarea/gull-island-preserve/

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VOLUNTEERS NEEDED

If you have a chainsaw, or can use a chainsaw, and a desire to help clear a path on the river so our paddlers can get through, we sure could use the help. The work falls on the same few and it would be nice to have more help. Email grand@great-mi.org to volunteer or call 517-416-4234. Thank you!

Board Meetings

The GREAT board meets on the second Wednesday of each month, with the exception of December, at 7:00 p.m. alternating between the Summit Township Hall (even months), and Blackman Township Hall (odd months).

Meetings are open and visitors are welcome. To be on the agenda, please contact us prior to the meeting.

GREAT Newsletter

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GREAT
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If you wish to join or renew your membership visit: www.great-mi.org/Membership2.htm

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The mission of Grand River Environmental Action Team is to promote the protection and preservation of the Grand River Watershed through activities and educational programs

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