

With Memorial Day over with, summer and lake season is unofficially here! As you mow your lawns and fill gardens with mulch, keep an eye out for worms, and decontaminate landscaping equipment if used at multiple properties. We encourage readers to inquire about what native species are available at garden centers, and ask them to stock them in the future as they are beautiful, well-suited to Michigan climate, and help pollinator species!

Climate Change Has a Part to Play in the Spread of Invasive Species

Invasive species have long been identified as a driver for the loss of biodiversity, however, climate change has recently been identified as helping hasten their spread. Temperature (surface and water) can often be an invisible barrier preventing species from occupying that habitat. When temperatures increase or droughts occur, invasive species can outcompete native species, and/or the area becomes inhospitable to native species. Invasive species may also outcompete native plant species by being able to adapt their growing season and sprouting earlier. Cold temperatures were thought to kill off invasive insects, however this concept relies on there being consecutive days of cold temperatures, which is not always the case in recent years!



Warming, droughts, high intensity weather events and floodings can benefit invasive species. Photo credit : NOAA

Increasing intensity of weather events such as hurricanes can directly spread invasive species via air, water droplets, and flood waters. Indirectly, damage to buildings can result in escapees, as was the case during hurricane Andrew which damaged a captive breeding facility where a variety of exotic species escaped. One such species being the Burmese python which flourished in the area, much to the detriment of local animals. The relationship between climate change and invasive species is complex, but we hope we have given you some food for thought!

For more information:

Nijhuis, J. 2013. [How climate Change Is Helping Invasive Species Take Over](#). Smithsonianmag.com

USGS. 2018. [USGS Tracks How Hurricane Floodwaters Spread Non-Native Freshwater Plants and Animals](#).

Invasive Species Spotlight—New Zealand Mud Snail

- *Potamopyrgus antipodarum* is a snail that has 5-6 whorls on the shell, and averages 1/8 in. long
- Shell color ranges from brown to black
- Reproduces by cloning, with one female creating a colony of 40 million snails in one year
- Hard to digest by fishes due to hard shell
- Can spread via boats, fishing gear, and anchors



Photo Credit: EGLE

Native Species Spotlight—Virile Crayfish

- *Faxonius virilis* is native to the Great Lakes region and parts of northern USA
- Adults are 5 to 6 in. long, have greenish blue pincers with yellow dots
- Have a lifespan of 3 to 4 years
- Found in a variety of habitats ranging from streams, retention ponds to lakes
- Are considered invasive species in Europe and parts of the United States



Photo Credit: S. Singh

Upcoming Events

June 22nd—JLW CISMA training seminar. AJ Smith Recreation Center, Tecumseh, MI 49286 (9am to 11am). Registration required, please visit our website below.

July 11th—JLW CISMA training seminar. American 1 Event Center, Jackson, MI 49201 (2pm to 4pm). Registration required, please visit our website.

July 12th—JLW CISMA training seminar. Virtual. (9am to 11am). Registration required, please visit our website.

jlwcisma.weebly.com/upcoming-events.html



Website of the Month

Michigan Recreational Boating Information System (MRBIS) is a DNR site that allows you to look up boating access sites and harbors administered by state and local governments in Michigan. Information such as coordinates, amenities, waterbody name and current weather are listed.

mcgi.state.mi.us/MRBIS/

If you have questions, please contact Dr. Shikha Singh at shikha.singh@macd.org or (517) 395 - 2089.

Visit our website for more events and resources: jlwcisma.weebly.com



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