By: Robert Canning SSEA Invasive Species Program Coordinator



Invasive species are non-native (exotic) organisms that have spread outside of their historical distributions to invade native habitats here in Ontario. There are over 400 different types of exotic species known within the province, including plants, fish, insects and diseases. Some of the most common and well known invaders within Ontario are: phragmites (*Phragmites australis subsp. australis*), zebra mussels (*Dreissena polymorpha*) and purple loosestrife (*Lythrum salicaria*). Once introduced into an ecosystem, invasive species can aggressively outcompete and displace local plants and wildlife, quickly replacing thriving native populations.

Wherever they are found, invasive species leave a big impact on the surrounding community. The powerful roots of Japanese knotweed (Fallopia japonica) can easily break through pavement, concrete and basement foundations, while even the slightest contact with giant hogweed (Heracleum mantegazzianum) can cause severe skin burning, blistering and scarring. Eurasian watermilfoil (Myriophyllum spicatum) has begun clogging lakes and lowering shoreline property values, meanwhile, sea lampreys (Petromyzon marinus) use their toothy mouths to suck the life from the unsuspecting fish they prey upon. Nationwide, the Canadian economy suffers billions of dollars in losses each year from these unwanted, exotic organisms.



Steer clear! A large patch of toxic giant hogweed

Fortunately, the Severn Sound Environmental Association (SSEA) is taking on the fight against the invaders. In 2017, the SSEA launched a pilot project designed to assess the local threats of invasive species and take action against their associated ecological, social and economic impacts within the Severn Sound watershed. With a focus on prevention, monitoring and management, the SSEA Invasive Species Program works to detect invasive species, control priority populations and educate the community about invasive species identification, removal and disposal techniques. The SSEA has made a long-term commitment to addressing invasive species issues within the watershed and has integrated this issue into the organizations' core 2018-2023 strategic plan to support building scientific knowledge, ecosystem resilience and empowering community members to take action. Since 2017, the SSEA has observed 37 different types of invasive species and engaged 170 community volunteers to help remove over 4500kg of invasive plant material.

In 2018, the Township of Georgian Bay joined the municipalities of Tiny, Tay, Midland and Severn as participating members of the SSEA Invasive Species Program. The Township of Georgian Bay represents a transitional area between two distinct ecoregions (Great Lakes Precambrian and St. Lawrence lowlands), where limestone plains give way to granite bedrock. Residents and visitors of this area are treated to stunning views of iconic white pines (*Pinus strobus*), standing as quiet sentinels along boulder strewn, windswept shorelines. The Township of Georgian Bay is also uniquely situated to take advantage of the natural resource based tourism and recreational opportunities offered by internationally recognized destinations such as the: Trent-Severn Waterway, Georgian Bay Islands National Park, Georgian Bay Biosphere Reserve and Beausoleil Island National Historic Site.



Zebra mussels are now found throughout the Great Lakes Basin

The SSEA is actively working to address issues related to invasive species within the Township of Georgian Bay. Monitoring of public parks within the Port Severn and Honey Harbour areas has resulted in the detection of 15 different invaders including species from fish, plant and insect families. Over 50% of the species that were detected during SSEA monitoring within the Township of Georgian Bay are considered to be high-risk organisms, capable of dominating ecosystems and displacing all other types of flora and fauna. These include the shoreline consuming phragmites, the waterfront infesting starry stonewort (*Nitellopsis obtusa*) and the green beetle with a voracious appetite: the emerald ash borer (*Agrilus planipennis*). Water-based monitoring conducted in conjunction with local lake association members and shoreline property owners also revealed the presence of Eurasian watermilfoil and curly-leaved pondweed (*Potamogeton crispus*) within Gloucester Pool and Little Lake (both of which are well known for their abilities to choke out waterbodies and impede recreational activities).



Abundant aquatic plant growth in Gloucester Pool

To promote communication and public education surrounding invasive species issues within The Township of Georgian Bay, the SSEA attended a Weed and Algae Seminar during this past summer and led a technical workshop on Eurasian watermilfoil detection, identification and management in the fall. The SSEA relies on collaboration to meet the outcomes of the Invasive Species Program throughout the broader landscape and is currently coordinating phragmites management efforts in Honey Harbour and Georgian Bay Islands National Park in partnership with Georgian Bay Forever and Parks Canada. Township staff have also been invited to participate in the SSEA Municipal Working Group since 2017.

To report an invasive species sighting, volunteer for upcoming projects or get more information about that pesky plant in your life, contact the SSEA Invasive Species Program today at: invasivespecies@severnsound.ca or (705) 534-7283 ext. 211



Residents from Gloucester Pool learn about Eurasian watermilfoil and other invasive aquatic species