

Erin Hamlyn

Invasive Species Liaison

**End of Contract Report
Submitted August 21, 2007**

Duration: 14 weeks

May 22, 2007 – August 24, 2007

**Ontario Federation of Anglers and Hunters
Ministry of Natural Resources
Georgian Bay Biosphere Reserve**



**Presentation and Information Table
at Six Mile Lake Provincial Park**

Sound area.

1.0 Overview

As a community based on waterfront living, it is essential the health of Parry Sound and surrounding water systems be protected from the harmful effects of invading species. The aim of the program was to accomplish this through public education and monitoring, which serve a dual purpose to both prevent or decrease further spread of invasives while simultaneously tracking their progress. Public involvement is crucial to the study of invading aquatic species and targeting this involvement and interest was the focus of the program in the Parry

1.1 Organization of Time

The focus being public education, awareness, and involvement, the first half of the summer was largely spent developing contacts, attending meetings, giving presentations, and organizing materials. By familiarizing myself with the material and contacting associations and clubs in the area, the program was lifted off the ground and able to continue strongly for the remainder of the summer. The last half of the summer was more focused on monitoring, with many cottage association meetings and increased media contact. Though it was a challenge to secure transportation on the water to sampling sites, an effort was made to reach the general public and I expect inquiries to rise as the program develops in the Parry Sound area. A large area was covered during this period, which could be expanded in future years. A focus was put on the Parry Sound area, with the largest concentration of summer residents, though the district at large was explored.

1.2 Overview of Major Events where Program Participated

- June 2 – Biosphere Reserve Meeting
- June 5-7 – Public School Presentations
- June 16 – Dragon Boat Races
- June 25 – Stewardship Council Workshop
- June 30 – Otter Lake Cottage Association
- July 5 – Parry Sound Anglers & Hunters
- July 7 – Desmasdon's Boat Works Open House
- July 8 – Green Festival

2.0 Training

Because I have worked with the MNR in past summers, training such as First Aid/CPR, WHMIS, WDHP, and boat safety had already been completed. The valuable job-specific training I received was with OFAH June 14th and 15th. There I learned about monitoring technique, networking, and species-specific information (identification, characteristics, etc.). Throughout the summer I was constantly upgrading my knowledge by discovering

new facts about invading species, learning of habitat and behaviour, and expanding the number of species I am familiar with. It was helpful to have some local contacts, such as Glenda Clayton, who had experience with outreach activities and promoting public awareness, and they gave me some ideas of how to begin the invading species program in the area as well as which tactics would be most successful in reaching public ears.



Erin Hamlyn dispersing information at local festival

3.0 Public Outreach Activities

Public Outreach was the most important component of the program for the Parry Sound District, which is a large area geographically, and where few are aware of the threats posed by invading species, though we are located on the shores of Georgian Bay. This seemed to make communication of the issue all the more necessary, and all age groups were targeted in distinct presentations, as well as all areas of interest, presentation being modified

whether the audience was composed primarily of anglers, environmentalists, or of the general public.

3.1 Mail

Several mailing packages were sent out this summer in the Georgian Bay area, to the following groups: Provincial Parks, Bait & Tackle dealers, License issuers, and ~15 community groups. The packages contained information on the program, my contact information as well as that of OFAH, and brochures/watch cards to display. Some contacted me for additional materials or to give presentations, and the others are at least aware of the threat of invading species and know there is a program developed to target the problem. Information was also distributed through the town hall to all volunteers of events occurring in the Parry Sound area.

3.2 Presentations

I presented at approximately 20 association meetings (cottage or conservation), 3 public schools, 6 local clubs, and had an information booth at about 10 major events. A public event, “What’s In Our Waters?” was organized and held Aug. 18th with speakers from DFO, Georgian Bay Islands National Park, and Aqua-Cage Fish Hatchery, all providing pieces of the puzzle so the final talk on invading species would be fully understood, along with the disturbances caused. Media coverage was provided and a story printed in the North Star. All of these activities were critical to the success of the program, since the public must be aware of the resources available to them in order to take action and protect the waters so important to the integrity of the area.

3.3 Table of Presentation/ Information Table Details

DATE	TYPE OF ACTIVITY	LOCATION	EVENT
June 5	Presentation	Parry Sound High School	Ppt/video presentation
June 6	Presentation	William Beatty School	Educational games & ppt
June 7	Presentation	PSHS	Ppt/video presentation
June 16	Information	Town beach, PS	Dragon Boat Festival
June 21	Information	K&H motors, Foley	Rec day
June 23	Presentation	Six Mile Lake PP	Conservation Meeting
June 25	Information	WPS Museum	Stewardship workshop
July 5	Presentation	PS Anglers & Hunters, Foley	Monthly meeting
July 7	Information	Desmasdon's Boat Works, Pointe au Baril	Open House
July 14	Presentation	Hagerman Ratepayers, Dunchurch	Annual meeting
July 21	Information	Parry Sound Park	Art in the Park
Aug 2	Presentation	Concerned citizens, North Bay	Annual meeting
Aug 4	Presentation	Lake Joseph	Cottage Ass'n Annual Meeting
Aug 4	Information	Athron Rec. Products, Coldwater	Open House
Aug 5	Presentation	Blackstone Lake	CA Annual Meeting
Aug 18	Presentation	Station Gallery, PS	Public Education Day

3.4 Distribution of Information

Watch cards and/or brochures were distributed to over 30 stores in the Parry Sound area, and over 40 outside of Parry Sound. Many were placed in visible areas, often among other brochures of local interest. To further public awareness, I produced an article for Cottage Association Newsletters which has been used by several organizations, and a generic article that was published in ~5 small newspapers, the largest of which is the Parry Sound Beacon Star, where it has been posted on the website. This was accomplished by providing copies to Cottage Association Presidents, who then submitted the article in their area and updated me on its success (except the Beacon, which was contacted directly). The information provided for me was exhausted, which consisted of approximately five boxes of brochures, watch cards, posters, stickers, and other resources. These were well dispersed throughout the district, and an incredibly effective means of engaging public interest and spreading awareness, especially because



Information Booth at Dragon Boat Activities

they provided a visual which was shocking to most locations where information was left or displayed.



Erin Hamlyn completing sample bottle information requirements

4.0 Monitoring Activities

16 Lakes were sampled this summer, which is below the projected level. It was incredibly difficult to find someone willing to lend their boat or participate without interest in the project. Cottage associations were often willing to help, but not in a large number, and finding a boat at times proved challenging. As the program builds and more people become familiar with the monitoring program, I would expect the number of lakes sampled each summer to increase. I was able to use my kayak on several occasions, though this

method is only effective when there is little or no wind, and a larger boat is preferable. When lakes were sampled, care was taken to observe as many locations as possible in search of other invaders such as European Frogbit and the Rusty Crayfish, though this was difficult in times of high wind when water visibility is low.

4.1 Identified Invaders

Eurasian Watermilfoil and Spiny Water Flea were found in multiple lakes in the district, Spiny Water Flea being the more common of the two. Samples with Spiny Water Flea contained only zooplankton of the same size or larger than the flea itself, with less diversity in species. The samples also tended to be more opaque and clear in colour, where samples without the invaders present tended to be less clear and have a green tint to them, as well as green-coloured organisms. This was alarming, since samples with Spiny Water Flea seemed to lack the smaller organisms necessary for the survival of fish and other predators, though in many of these infested lakes, the fishing was reported high quality.

4.2 Field Days

Several days were also spent in the field, tracking Massasauga Rattlesnakes, Hog-nosed snakes, and looking for invasive plant species. We observed purple loosestrife in small numbers in an isolated area where it was able to be removed manually. Several gestating female Massasaugas were found, as well as several other gravid females of different species. We confirmed several areas to be protected by the SARA, limited or prohibiting development. Though more elusive, we did find signs of Hog-nosed snakes in several areas, confirmation that the populations are stable for the time being. It is always wonderful to confirm the presence of threatened species, so critical to the ecosystem, in remote, undeveloped areas void of invading species or other immediate threats.



Invading plants research in the field

5.0 Career-Related Experience

As a science student in university, it is important to be able to manage personal activities, organize, and develop relationships with the public. The position held this summer certainly helped me to develop these skills and develop creativity. I was able to improve communication skills and learn how to describe science and research to people with no science background. Since the project was sponsored by three organizations, it was important to develop an understanding of what each partner desired in terms of objectives and final results, and assimilate these components in order to satisfy all areas of the program. Developing a network was also a challenge, but as the summer progressed it became easier to disperse information and answer questions, as more people became interested. It was a valuable work experience and allowed me to practice independence and strengthen many skills that will be valuable to me in the workplace.

6.0 Media Contacts

Beacon Star – Jack Tynan
North Star – Charlene Peck
Moose 103.3 FM
Parry Sound Town Office – Lyn Middaugh

7.0 Recommendations for Future Programs

Guaranteed use of a water craft would make sampling a certainty, though I realize it may be difficult to secure a watercraft for student use for the duration of the program. I recommend having all OFAH contact/club information, lists of district-specific lakes of interest, and past volunteers available at the OFAH training session so students can begin networking immediately. I would like to see the program expand and explore new levels, organizing large events or awareness days to spread such an important message. I feel that, as the program grows, it will improve in its success (though it is by no means unsuccessful). It is so important, not only for the health of the planet, but for us as human beings, to curb the harmful effects we are having on the earth, and this is a perfect place to begin.

APPENDIX A

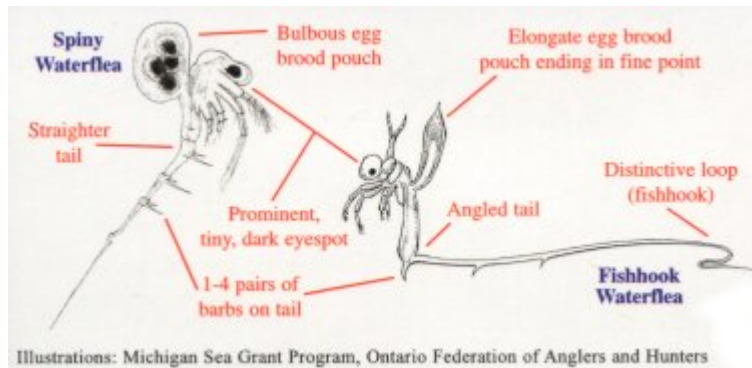
1) Invading Species Article for Cottage Associations

They're In Our Waters!

Invasive Species

Invasive species are non-native organisms that have been introduced into Ontario from other countries where, in the absence of natural predators, their populations have exploded and they threaten to displace native species and disrupt natural

ecosystems. Some of the ways invasive species have entered Ontario water systems include: in the ballast water of ships, through the release of live fishing bait, escapes from aquariums or water gardens, and through the live food industry. Plants escaping from gardens, being transported on clothing or recreational equipment, vehicular transport, and release of live animals introduce species into areas where their presence is not natural and they are capable of dominating. Because many of these species find favourable conditions in Ontario, they reproduce quickly and eat voraciously, sometimes preying on native species, out-competing them for food, and/or forcing them out of their natural habitat. Invasive species are one of the leading causes of species extinction and loss of biodiversity, and cause significant economic damage through direct losses and management/control costs.



Illustrations: Michigan Sea Grant Program, Ontario Federation of Anglers and Hunters

Invading Species Awareness Program

The Ministry of Natural Resources (MNR) in partnership with the Ontario Federation of Anglers and Hunters (OFAH) and the Georgian Bay Biosphere Reserve has implemented a public awareness program to help identify, monitor, and control invasive species in our area. Many species are established in the Great Lakes basin and are causing serious harm, with the potential to move into inland lakes and rivers.

Invading Species Watch

Invading Species Watch is a free volunteer based lake monitoring program for aquatic invading species. It is an initiative of the Invading Species Awareness Program and offers residents, cottagers, and property owners the opportunity to monitor their lakes for the presence of invasive species using kits provided by the OFAH. Findings are reported and samples shipped to OFAH for confirmation. Volunteers are notified of the results, and information is used to monitor the spread of invasive species into inland lakes in Ontario. The Invading Species Watch is the only province wide monitoring program for aquatic invading species, and its results have helped identify invasive species in new areas and implement appropriate management and control programs.

You Can Help!

Invasive Species can clog boat engines and water intake lines, reduce the number of sport fish, reduce waterfront property values, jam steering equipment, and degrade the natural beauty of our lakes and waterways. Here's how to keep them out of your water systems:



- Boaters, before you leave the boat launch:
 - ✓ Remove all aquatic plants and visible organisms and put them in the garbage.
 - ✓ Drain all water from your boat (motor, live well, bilge, etc.).
 - ✓ Do not release live bait! Empty your bucket on land or freeze/salt bait for later use.
 - ✓ Remove unseen organisms from your boat and equipment by rinsing with hot or high pressure water, or drying in the sun for 5 days.
 - Build water gardens or private ponds far away from natural water systems.
- Never release aquarium plants, water, or animals. For information on proper disposal, contact the Invading Species Hotline (1-800-563-7711).

For more information on invasive species, prevention programs, and how you can get involved, call the Invading Species Hotline (1-800-563-7711), visit www.invadingspecies.com, or contact your local Invasive Species Outreach Liaison (Erin Hamlyn: ehamlyn@uoguelph.ca). Together, we can save Ontario's waterways!



Ministry of Natural Resources

2) "What's in our Waters?" Public Education Day Agenda



What's in Our Waters?

Saturday Aug. 18th, 2007

11 a.m. – 3 p.m.
Station Gallery, Parry Sound
Agenda

10:45 a.m.	Nathan Chechok, musician
11:10 a.m.	Introduction, presentation of agenda, direction of day
11:15 p.m.	Sarah Adams and Ryan Heimpel, musicians
11:35 p.m.	Mat Hupfield, Musician
12:00 p.m.	<u>The Government Role: Fisheries Procedures & Policies, Species at Risk Act.</u> Kelly Eggers, Biologist, Department of Fisheries & Oceans
12:30 p.m.	<u>The Georgian Bay Jigsaw Puzzle: Biogeography and the Ecosystem of the 30 000 Islands</u> Victoria Evans, Georgian Bay Islands National Park
1:15 p.m.	Duncan Bell, Martin Jenkins, and John Turnbull, musicians
1:45 p.m.	<u>Dissolved Minerals and Aquatic Ecosystems</u> Gord Cole, Aqua-Cage Trout Hatchery Owner
2:15 p.m.	<u>Invading Species: The Largest Threat to Georgian Bay</u> Erin Hamlyn, Invading Species Liaison
2:45 p.m.	Sarah Adams and Ryan Heimpel, musicians

3) Generic Article (Parry Sound Beacon Star Copy)
<http://www.parrysound.com/voice/1183741709>