

EDD MapS *Ontario*

Early Detection & Distribution Mapping System



How to Use The Early Detection & Distribution Mapping System Ontario (EDDMapS Ontario)

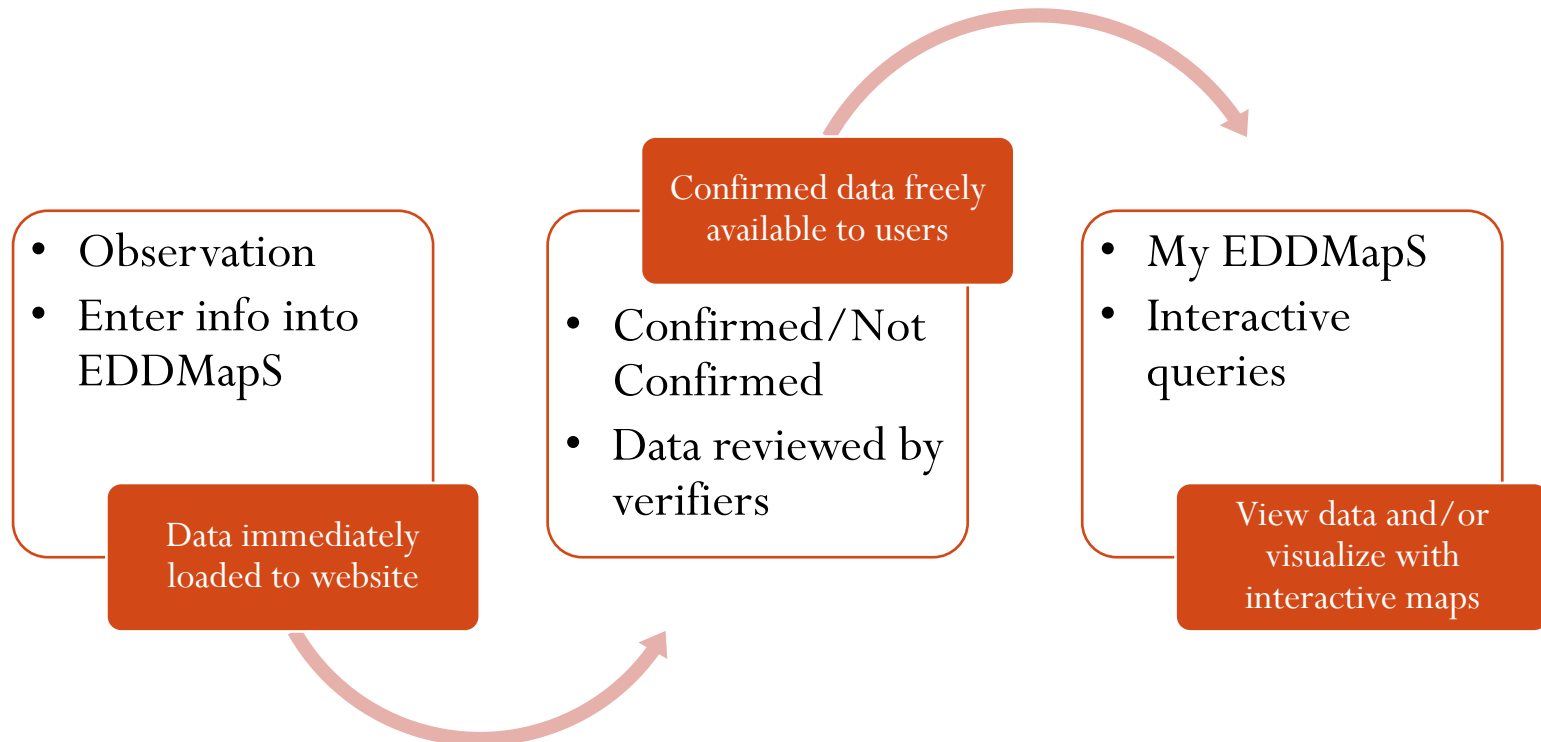
Alison Kirkpatrick

Monitoring & Information Specialist / Aquatic Invasive Species Outreach Liaison

EDDMapS Ontario



- Launched in 2005 by the Centre for Invasive Species Ecosystem Health at the University of Georgia
- Combines data from other databases, organizations & Volunteers
- Data will become the foundation for a better understanding of invasive species distribution around the world
- > 2.2 million records and 17,530 of these records are from Ontario (as of March 2014)





See it, Map it

- Fast and easy — no knowledge of GIS required
- Web-based mapping of invasive species distribution to help fill gaps and identify “leading edge” ranges
- Helps Early Detection and Rapid Response with online data entry, email alerts and network of expert verifiers
- Data can be searched
downloaded





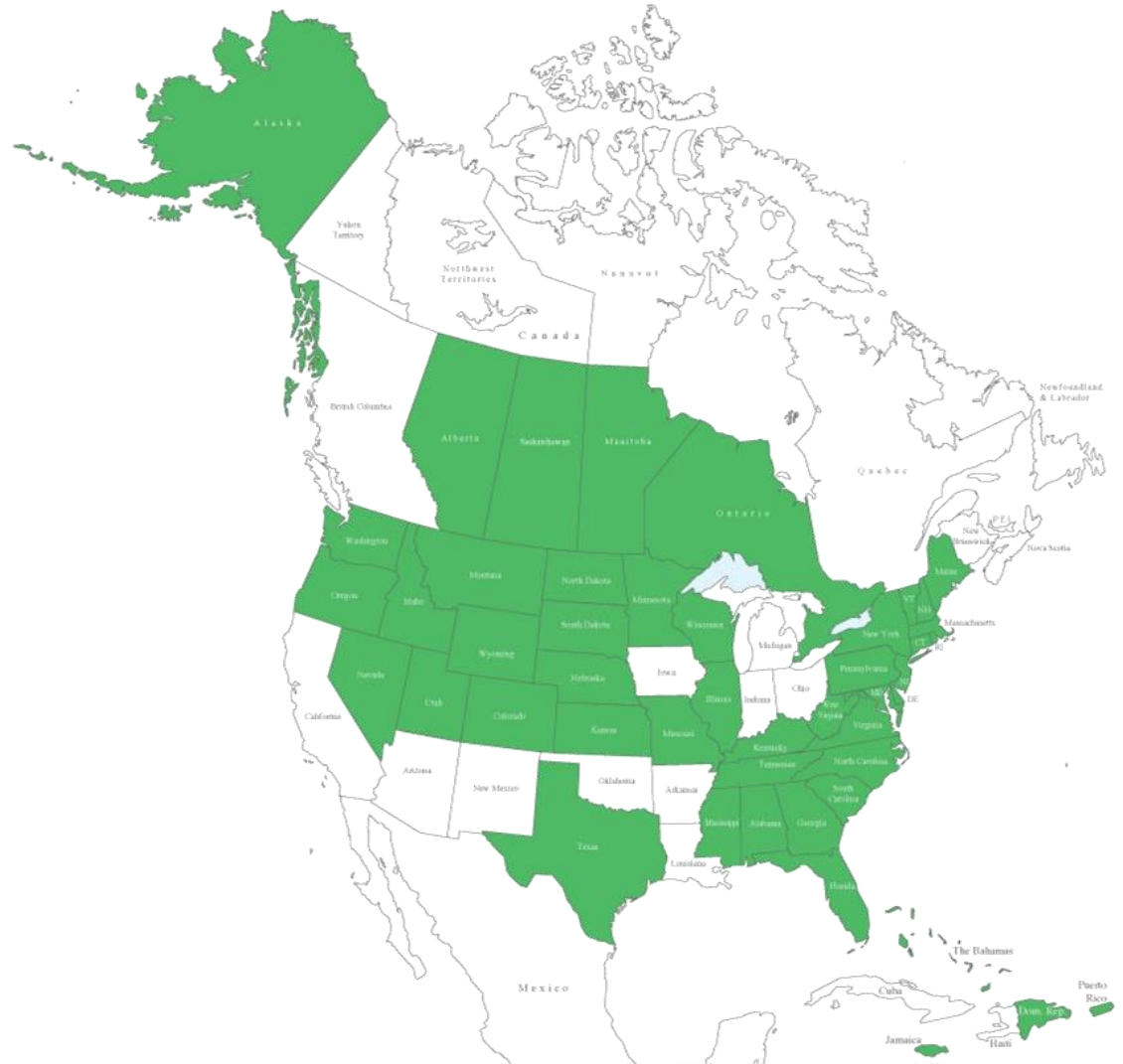
Ontario Invasive Species Strategic Plan

Action 16: Strengthen data management and reporting for invasive species

- Work cooperatively to establish consistent data management standards and data sharing agreements with:
 - Other Provinces
 - Municipalities
 - Conservation Authorities
 - Federal Government
 - Great Lakes border states



EDD MapS Ontario
Early Detection & Distribution Mapping System



Join & Create an Account

EDD **MapS** *Ontario*
Early **D**etection & **D**istribution **M**apping **S**ystem



Signing up



Visit

www.eddmaps.org/Ontario

- First time users?

Join now

- Returning user?

Sign up

The screenshot shows the EDD MapS Ontario website. At the top, there is a header with the logo and navigation links: About | Partners | Contact. Below this is a green navigation bar with links: Report Sightings | Distribution Maps | Species Information | Queries and Tools | Training. On the right side of this bar, there are two buttons: 'join now' and 'sign in', both highlighted with a red rectangle. The main content area features a map of Ontario with a pop-up box titled 'See it, Map it' containing bullet points about the system's benefits. To the right of the map is a 'Highlighted Species' section showing a photo of a plant. Below the map are three columns: 'Ontario Partners' with logos for the Ontario Federation of Anglers and Hunters, Invasive Species Centre, and Ontario; 'Recent Reports' listing sightings like 'periwinkle' and 'rusty crayfish'; and 'Smartphone App' with a description and a photo of the app. The footer contains a green bar with navigation links and a white bar with logos for the University of Georgia Center for Invasive Species and Ecosystem Health, Invasive Species Centre, and Ontario.

First Time Users

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Register to Submit Data

If you have any questions, e-mail us at: bugwood@uga.edu

*First name:

*Last name:

*Organization/Company:

*E-mail address:

*User Knowledge Level:

Note: Your user name and password cannot contain spaces

*User name:

*Password:

*Required fields

Title:

Unit/Department:

Address:

City/State/Zip:

Already Registered

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join nowsign in

First Time Reporter?

In order to report an invasive species, you will need to provide us with your contact information. Your contact information will only be used to follow-up with you about your reports, if needed. If you would like to continue contributing to EDDMapS provide a password and we will create an account for you.

*First name:

*Last name:

Organization/Company:

*E-mail address/User Name:

Phone Number:

Password:

*Required fields

*Enter Text Shown Below:

Already Registered?

Please Log In:

User Name:

Password:

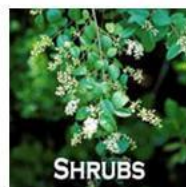
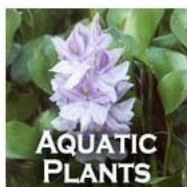
Login

3

Overview



Report Invasive Species Sightings in Ontario



Species Information

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Early Detection & Distribution Mapping System



Species Information



- Over 150 species profiles
- Browse by Species type
 - Aquatic Plants
 - Herbs/Forbs
 - Grasses
 - Shrubs
 - Trees
 - Vines
 - Fish
 - Invertebrates

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Report Sightings Distribution Maps Species Information Queries and Tools Training

sign out

Species Information

153 Species

Browse by Species Type:

- AQUATIC PLANTS
- HERBS/FORBS
- GRASSES
- SHRUBS
- TREES
- VINES
- FISH
- INVERTEBRATES

Click on each species to view information about that species.


Subject Name	Scientific Name
amphibious yellowcress	<i>Rorippa amphibia</i> (L.) Besser
amphipod	<i>Echinogammarus ischnus</i> (Stebbing, 1899)
Amur honeysuckle	<i>Lonicera maackii</i> (Rupr.) Herder
Asian clam	<i>Corbicula fluminea</i> (O.F. Müller, 1774)
autumn olive	<i>Elaeagnus umbellata</i> Thunb.
banded mysterysnail	<i>Viviparus georgianus</i> (L. Lea, 1834)
bighead carp	<i>Hypophthalmichthys nobilis</i> J. Richardson, 1845
bird vetch	<i>Vicia cracca</i> L.
bittersweet nightshade	<i>Solanum dulcamara</i> L.
black carp	<i>Mylopharyngodon piceus</i> J. Richardson, 1846
Black dog-strangling vine, black swallowwort	<i>Cynanchum louiseae</i> Kartesz & Gandhi
black locust	<i>Robinia pseudoacacia</i> L.

Species Profiles



Each profile includes:

- Scientific name
- Appearance
- Description
- Similar species
- Habitat
- Introduced & native range
- Pathway of introduction & spread
- Impacts

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Eurasian Water-Milfoil

Scientific Name
Myriophyllum spicatum L.

Appearance
Submerged, rooted, perennial, aquatic plant. Heavily branched at the water surface with tangled red stems.

Stems
Branching stems may reach lengths of 0.5-7 m (approx. 1.5-23 ft.), especially at the water surface where it often curves to lie parallel with surface. Stem tips are reddish in colour. The stem just below the flower spike is almost twice as thick as the width of the lower stem.

Leaves
Whorled, feather-like leaves are finely divided with 12 or more thread-like segments along each side.

Flowers
Pink flowers are on a spike above the water surface, between 5-20 cm long (approx. 2-8 in.) with 3-10 whorls. The upper flowers are male and the lower flowers are female.

Similar Species
Will hybridize with northern water-milfoil and hybrids will show characteristics of both parent plants.
Northern water-milfoil has leaves with 11 or fewer segments on each side.
Parrotfeather has emergent and submerged leaves that are the same.

Habitat
Most common in water 1-3 m deep (approx. 3-10 ft.) in lakes, rivers and ponds, but can occur at depths up to 10 m (approx. 33 ft.). Found in acidic or alkaline waters. Flourishes in high nutrient environments but also found in nutrient poor waters.


Introduced Range
In Ontario: in all of the Great Lakes, and in many inland waters of southern Ontario to coastal Georgian Bay on the southern Canadian Shield. Found in the St. Lawrence River system, southwestern Quebec and throughout much of the United States.

Native Range
Eurasia.

Pathway of Introduction and Spread
Introduced to North America in the late 1800's and the first Canadian record is from Lake Erie in 1961. Initial introductions may be from ship ballast. Spreads by plant fragments that attach to boats, boat trailers, and other equipment.

Species Profiles






inflorescence

Leslie J. Meinhoff, University of Connecticut, Bugwood.org


[Additional Resolutions & Image Usage](#)



infestation

Alison Fox, University of Florida, Bugwood.org


[Additional Resolutions & Image Usage](#)



foliage

Graves Lovell, Alabama Department of Conservation and Natural Resources, Bugwood.org


[Additional Resolutions & Image Usage](#)



plants

Leslie J. Meinhoff, University of Connecticut, Bugwood.org

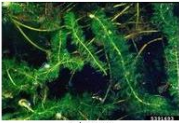
[Additional Resolutions & Image Usage](#)



plants

Graves Lovell, Alabama Department of Conservation and Natural Resources, Bugwood.org

[Additional Resolutions & Image Usage](#)




plants

Barry Rice, saracenia.com, Bugwood.org

[Additional Resolutions & Image Usage](#)

View All Images at Invasive.org



INVASIVE.ORG
 Center for Invasive Species and Ecosystem Health

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Narrow Results by:

[Country](#)

[Descriptor](#)

[Image Type](#)

[Photographer](#)


[Resolutions](#)

[Setting](#)

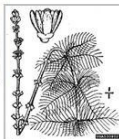
Eurasian water-milfoil

Myriophyllum spicatum L.


[View Information](#)
[View Details](#)
[View Thumbnails](#)
[View Subject as Host](#)




Eurasian water-milfoil
Myriophyllum spicatum
Rob Routledge




Eurasian water-milfoil
Myriophyllum spicatum
USDA PLANTS Database




Eurasian water-milfoil
Myriophyllum spicatum
Leslie J. Mehrhoff




Eurasian water-milfoil
Myriophyllum spicatum
Leslie J. Mehrhoff




Eurasian water-milfoil
Myriophyllum spicatum
Leslie J. Mehrhoff




Eurasian water-milfoil
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Leslie J. Mehrhoff



Eurasian water-milfoil
Myriophyllum spicatum
Leslie J. Mehrhoff



Eurasian water-milfoil
Myriophyllum spicatum
Leslie J. Mehrhoff

Report Sightings

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Selecting a Species



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Report Invasive Species Sightings in Ontario

**AQUATIC PLANTS**

**HERBS/FORBS**

**GRASSES**

**SHRUBS**

**TREES**

**VINES**

**FISH**

**INVERTEBRATES**

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**THE UNIVERSITY OF GEORGIA
CENTER FOR INVASIVE SPECIES
ECOSYSTEM HEALTH**
Warning: Species of
Domestic and Exotic Origin
May Cause Significant Damage
to the Environment

Website Developed by: The University of Georgia Center for Invasive Species and Ecosystem Health

2360 Rainwater Road
Tifton, GA 31793-5766

Contact Us
www.bugwood.org

Easy-to-Use Features



Observations:

- Standardized on-line reporting forms with custom attribute fields by taxa
- * represents required fields
 - Observation Date
 - Habitat
- Include any other available information

Report an Invasive Species Occurrence

Please provide as much information about the sighting as possible.

* represents required fields.

*Species:

Observation:

*Observation Date: (?)

Infested Area: (?)

*Habitat: (?)

Abundance: (?)

Plant Description (Check all that apply) ☐ In Flower ☐ Seeds ☐ Dormant/Dead

Easy-to-Use Features



Location Tools:

- Click and drag red marker to sighting location
- Select a Jurisdiction
- *Required fields
- Latitude
- Longitude
- Conversions

Location:

To choose a point on the map, click and drag the marker to the sighting location.

Jurisdiction:


Once chosen the map will zoom into chosen location

*Latitude:
Must be expressed in Decimal Degrees (XX.XXXX) and DATUM NAD83/WGS84.

*Longitude:
Must be expressed in Decimal Degrees (XX.XXXX) and DATUM NAD83/WGS84.

Location Description:

Waterbody name (if known):



Map data ©2014 Google, INEGI Terms of Use Report a map error

Marker status: Click and drag the marker.

Lat/Long Conversion Tools:

Easy-to-Use Features



Upload Images with Your Report:

For verification purposes, take at least two digital images, a close up of the species and one of the site.
All photos uploaded to EDDMapS Ontario may be used by the Invading Species Awareness Program for Educational and Promotional Purposes.

Image: No file chosen (.jpg, < 4 mb)

Caption:

(Provide as much detail as possible. Do not include personal information. All information entered in this field will be displayed publicly. If the photo is not yours, please ensure you have permission to upload the photo to EDDMapS Ontario.)

Image: No file chosen (.jpg, < 4 mb)

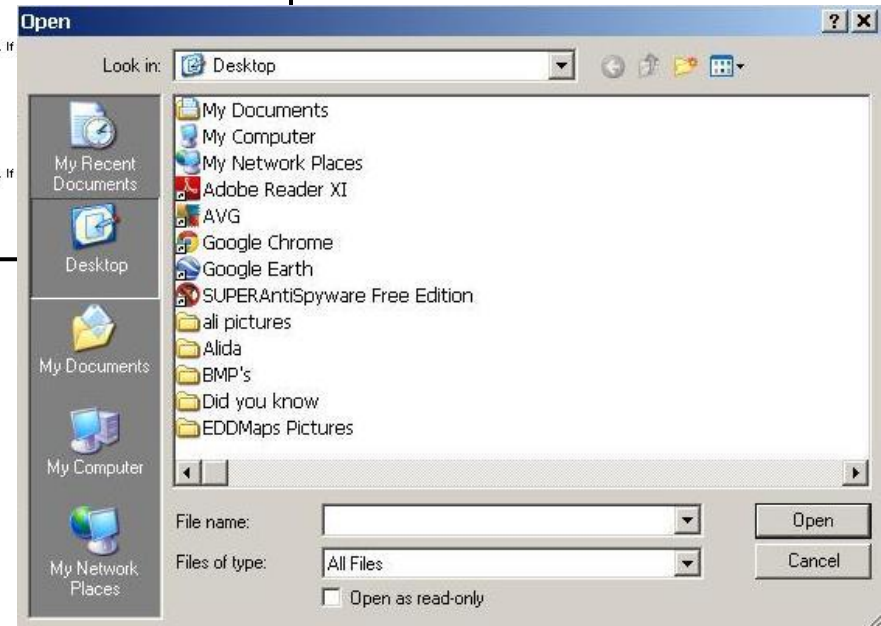
Caption:

(Provide as much detail as possible. Do not include personal information. All information entered in this field will be displayed publicly. If the photo is not yours, please ensure you have permission to upload the photo to EDDMapS Ontario.)

Image: No file chosen (.jpg, < 4 mb)

Caption:

(Provide as much detail as possible. Do not include personal information. All information entered in this field will be displayed publicly. If the photo is not yours, please ensure you have permission to upload the photo to EDDMapS Ontario.)



Verification



- Every record goes in as “unverified” until it is reviewed

Report

- Submission of report
- Automatic email to verifier

Review

- Trusted observer/clear picture = Verify/Not Verify
- None of the above —> follow up on report = V/NV

Submit

- Ensure record details correct (e.g., how V)
- Put name in “reviewed by” & submit for display

Distribution Maps

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Verification



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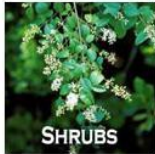


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Distribution Maps

Browse by Species Type:

**AQUATIC PLANTS****HERBS/FORBS****GRASSES****SHRUBS****TREES****VINES**

**FISH****INVERTEBRATES**

153 Species

Click on each species to view distribution maps.

Subject Name ^	Scientific Name
amphibious yellowcress	<i>Rorippa amphibia</i> (L.) Besser
amphipod	<i>Echinogammarus ischnus</i> (Stebbing, 1899)
Amur honeysuckle	<i>Lonicera maackii</i> (Rupr.) Herder
Asian clam	<i>Corbicula fluminea</i> (O.F. Müller, 1774)
autumn olive	<i>Elaeagnus umbellata</i> Thunb.
banded mysterysnail	<i>Viviparus georgianus</i> (L. Lea, 1834)
bighead carp	<i>Hypophthalmichthys nobilis</i> J. Richardson, 1845
bird vetch	<i>Vicia cracca</i> L.

Sort by taxa



Or search for Species here



Mapping Features



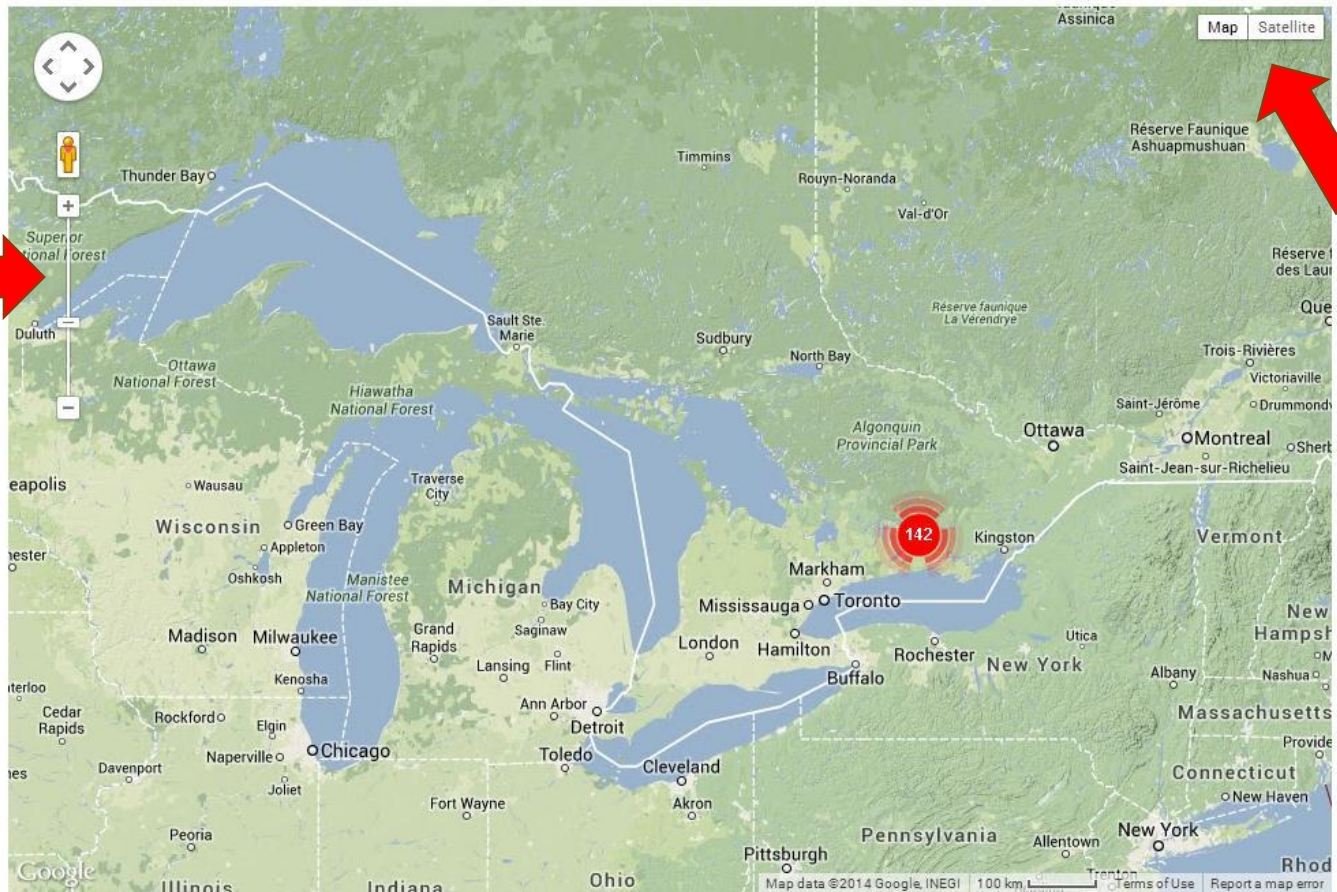
water soldier

Stratiotes aloides L.

Load Time: 7 ms

Print Excel Google Earth

Species Info



Data Export



water soldier

Stratiotes aloides L.

[Species Info](#)

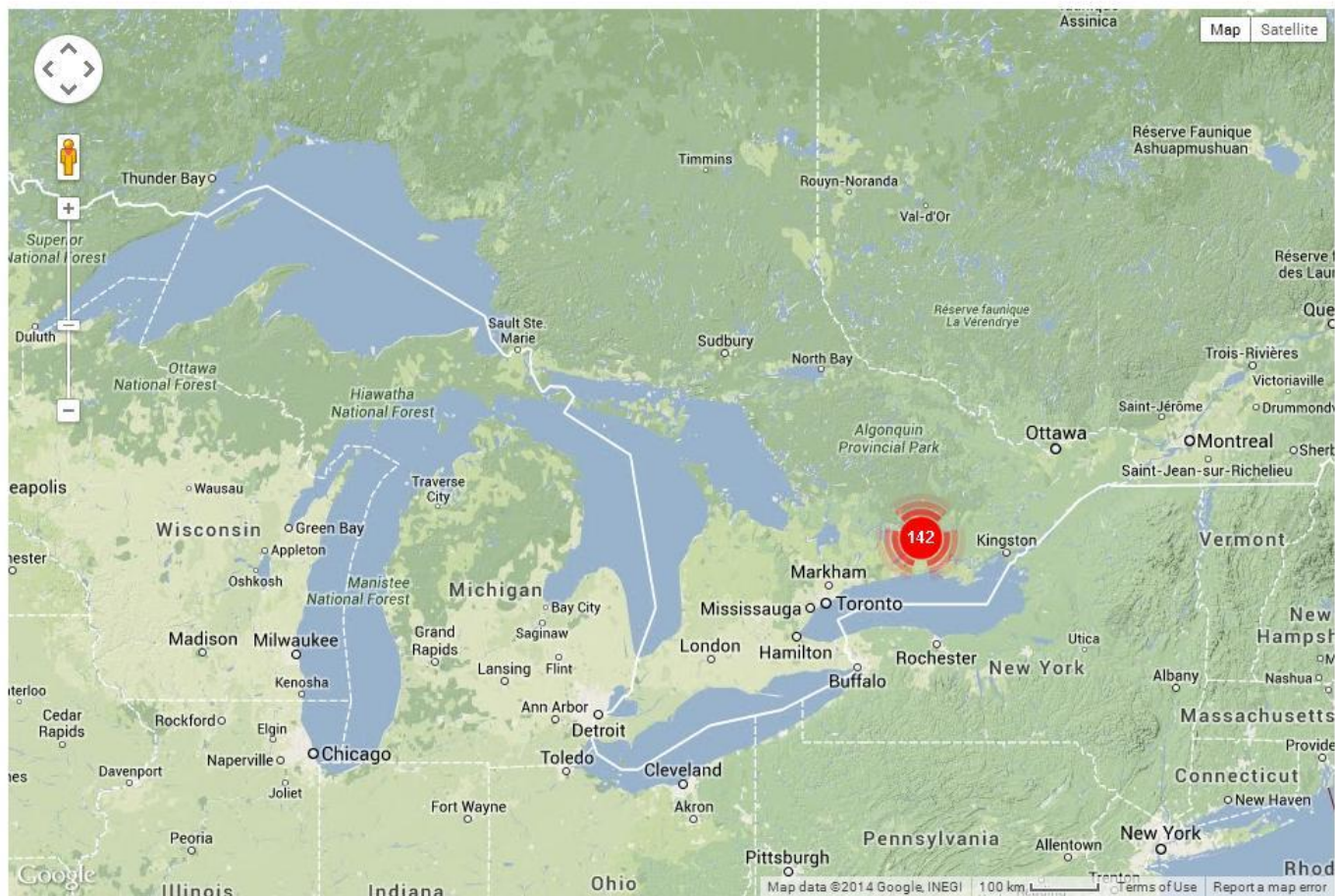
Load Time: 7 ms

[Print](#)

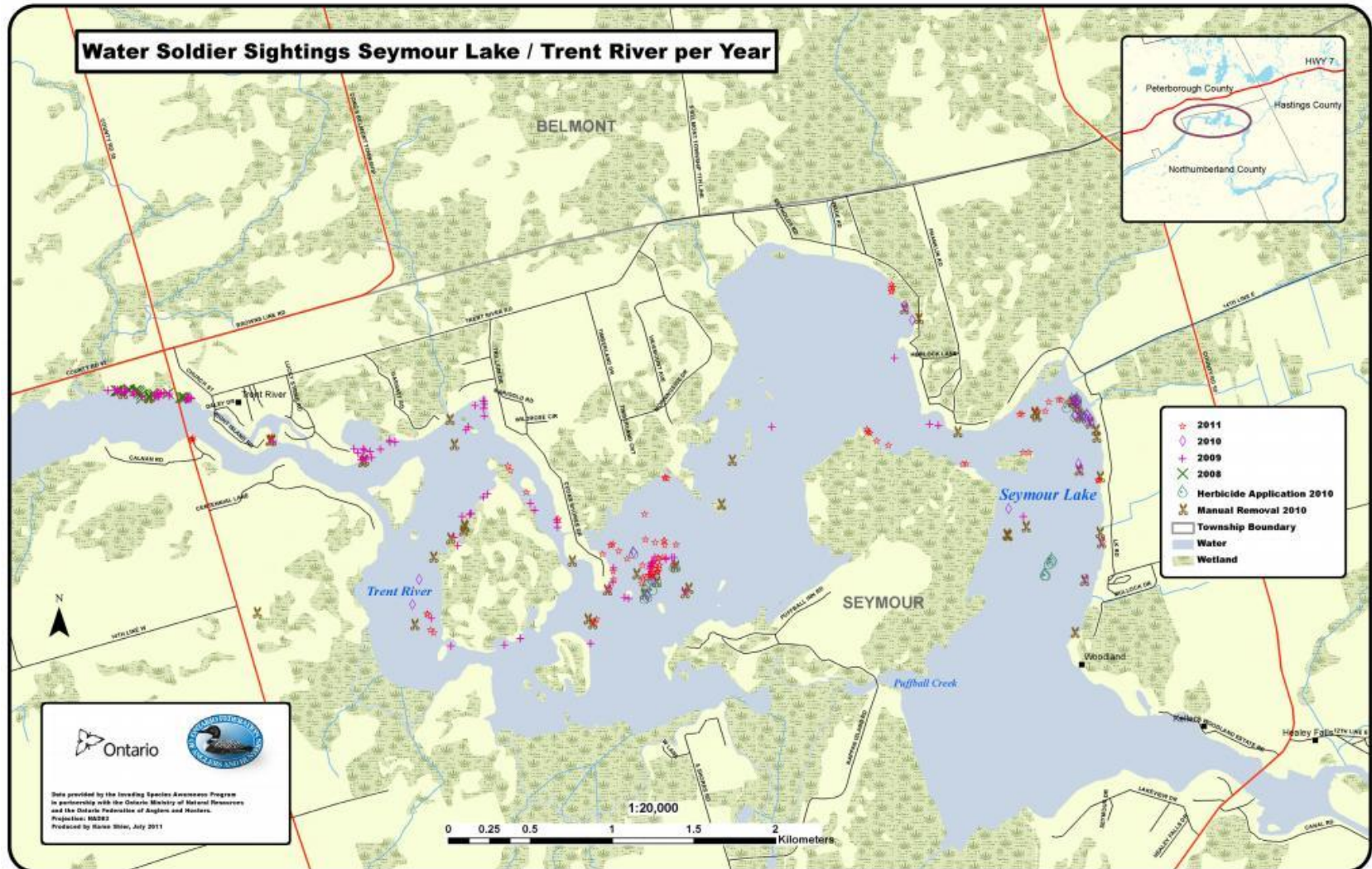


[Excel](#)

[Google Earth](#)



Data Export – GIS Maps



Queries & Tools

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Data Export – GIS Maps



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Queries and Tools

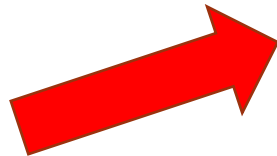


Queries

- Query species by area

Mapping Tools

- Find a Location
- Latitude/Longitude Converter
- Geocode a Physical Address



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Query Species by Area

Upper Municipalities (Regional/County/District level)
Lower Tier Municipalities (Township/City level)
Conservation Authority Geographic Boundaries
MNR District Boundaries
Conservation Areas
First Nations Reserves

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Training

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Training Resources

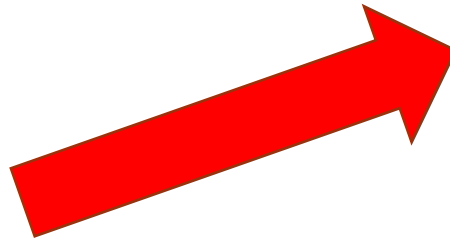


Training



Training Materials

- [EDDMapS: Invasive Plant Mapping Handbook](#)
- [EDDMapS Ontario Aquatic Plants Datasheet](#)
- [EDDMapS Ontario Terrestrial Plants Datasheet](#)
- [EDDMapS Ontario Fish and Invertebrates Datasheet](#)



Aquatic Plants Data Collection Form

Species: _____ Date: _____

County: _____ Lat. _____ Long. _____

(Must be expressed in Decimal Degrees xx.xxxxx and DATUM: NAD83/WGS84)

Location Description: (address or landmark) _____

Infested Area: _____ ☐ Sq. Meters ☐ Hectares

Habitat:

☐ Beach ☐ Lake: near shore ☐ River: near shore
☐ Pond ☐ Lake: open water ☐ River: open water
☐ Stream ☐ Wetland
Other: _____

Abundance (number of plants): (select one)

☐ Single Plant ☐ Scattered Plants ☐ Dense Patches

Plant Description: (check all that apply)

☐ In Flower ☐ Seeds ☐ Dormant/Dead

Waterbody Name (if known): _____

Protocol Used: (if applicable i.e. Ecological Monitoring and Assessment Network) _____

Specimen Collected: ☐ Yes ☐ No Specimen Location: _____

Additional Comments: _____



My EDDMapS

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Training Resources



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My EDDMapS

Manage your reports, alerts and account settings.

Your Stats

- 22 reports
- 13 species

Your Data

- [Report an Observation](#)
- [Manage My Reports](#)
- [Download My Reports - NEW](#)
- [Upload Data](#)
- [View My Profile](#)
- [Edit My Profile](#)

Your Alerts

- [Create an Alert](#)
- [Manage My Alerts](#)

Create Alerts

Location Alert

Select Location

☐ Plants

☐ Animals

☐ New Only - You only get an alert the first time a plant or animal is found in a location.

[Create Alert](#)

Species Alert

Select Species

☐ New Location Record Only - First time the species is reported in a Location

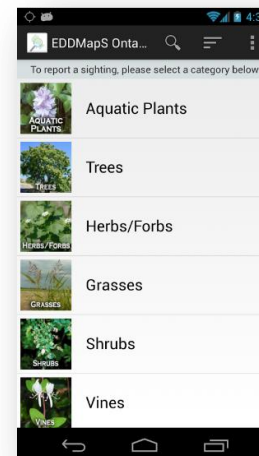
[Create Alert](#)

EDDMapS App

EDD MapS Ontario
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- EDDMapS Ontario bring the power of EDDMapS to your Apple or Android device
- Visit the Google Play store or Apple iTunes App store to download it free (wifi preferred)
- Reports are uploaded directly to EDDMapS
- Same verification process as the web reports



Questions?

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Scenario

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You are enjoying your Victoria Day long weekend and decide to go for a boat ride. You are passionate about the outdoors and never leave without your camera

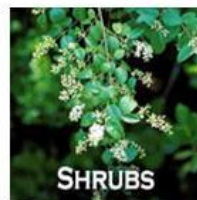
You enter a nearby bay and see a plant you recognize as Water Soldier from attending a workshop on invasive species. You take a picture of plant, then reach in and pull out a piece to get a closer look.

When you return home you submit your report to EDDMapS Ontario.





Report Invasive Species Sightings in Ontario



Report an Invasive Species Occurrence


Please provide as much information about the sighting as possible.

* represents required fields.

*Species:

water soldier - Stratiotes aloides L. ▼

Observation:

*Observation Date: 03/13/2014  (?)

Infested Area: 5 Square meters ▼ (?)

*Habitat: Lake: near shore ▼ (?)

Abundance: Scattered Plants ▼ (?)

Plant Description (Check all that apply) ☐ In Flower ☐ Seeds ☐ Dormant/Dead

Location:

To choose a point on the map, click and drag the marker to the sighting location.

Jurisdiction:

Once chosen the map will zoom into chosen location

***Latitude:**

Must be expressed in Decimal Degrees (XX.XXXX) and DATUM NAD83/WGS84.

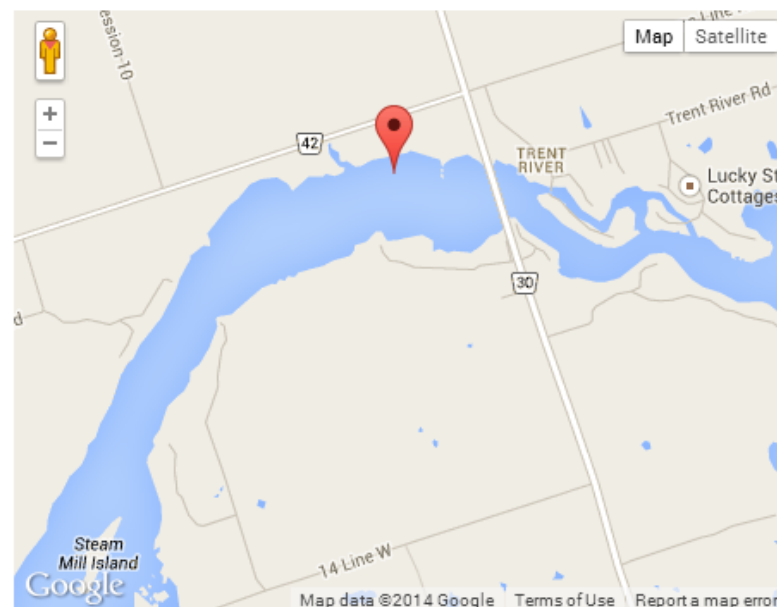
***Longitude:**

Must be expressed in Decimal Degrees (XX.XXXX) and DATUM NAD83/WGS84.

**Location
Description:**

2474-2728 County Road 42, Havelock, ON K0L 1Z0,
Canada

**Waterbody
name
(if known)**



Marker status: Drag ended

Lat/Long Conversion Tools:

Upload Images with Your Report:

For verification purposes, take at least two digital images, a close up of the species and one of the site.
All photos uploaded to EDDMapS Ontario may be used by the Invading Species Awareness Program for Educational and Promotional Purposes.

Image: Watersoldier.jpg (.jpg, < 4 mb)

Caption:

(Provide as much detail as possible. Do not include personal information. All information entered in this field will be displayed publicly. If the photo is not yours, please ensure you have permission to upload the photo to EDDMapS Ontario.)

Image: P7220107.JPG (.jpg, < 4 mb)

Caption:

(Provide as much detail as possible. Do not include personal information. All information entered in this field will be displayed publicly. If the photo is not yours, please ensure you have permission to upload the photo to EDDMapS Ontario.)

Image: P7220093.JPG (.jpg, < 4 mb)

Caption:

(Provide as much detail as possible. Do not include personal information. All information entered in this field will be displayed publicly. If the photo is not yours, please ensure you have permission to upload the photo to EDDMapS Ontario.)

Image: No file chosen (.jpg, < 4 mb)

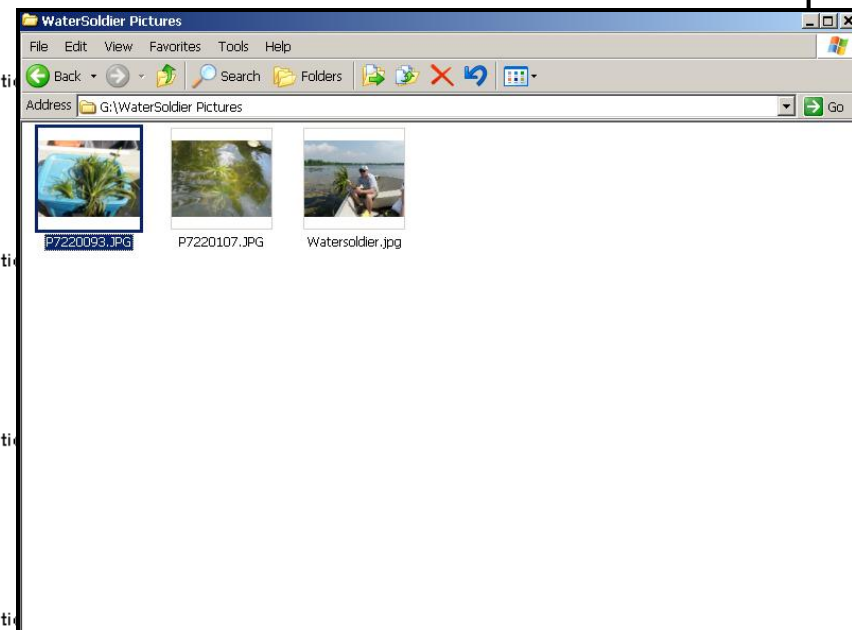
Caption:

(Provide as much detail as possible. Do not include personal information. All information entered in this field will be displayed publicly. If the photo is not yours, please ensure you have permission to upload the photo to EDDMapS Ontario.)

Image: No file chosen (.jpg, < 4 mb)

Caption:

(Provide as much detail as possible. Do not include personal information. All information entered in this field will be displayed publicly. If the photo is not yours, please ensure you have permission to upload the photo to EDDMapS Ontario.)



Additional Information:

Protocol Used:

Specimen Collected: ☒ Yes ☐ No

Specimen Location: (?)

Additional Comments: (?)

Please include any additional information not given above. Do not include personal information. All information entered in this field will be displayed publicly.

Report



Thank You for Your Submission

Your report has been forwarded to the OFAH/OMNR Invading Species Awareness Program for review. Your report will not be displayed on EDDMapS until it has been verified. Please contact us at 1-800-563-7711 or eddmaps@ofah.org if you have any questions.

Your Record ID is **3136685**

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