

Mapping Invasive Plants on Monroe County Roads Using *Report IN*

Step One. Download the Great Lakes Early Detection Network (GLEDN) app to your smartphone (GLEDN is the smartphone platform for *Report IN*). It is large – 100 MB – so make sure there is enough space on your phone. If you have a QRC reader on your phone, just hover over the QR code on the graphic to the right. Otherwise, go to your Android or IOS app store and search for ‘GLEDN’.



Step Two. Set up an EDDMapS.org profile if you do not already have one (EDDMapS.org is the on-line platform for *Report IN*, and the managers of this website also manage the GLEDN app). You can do this through the GLEDN app on your phone, or by going to EDDMapS.org and creating a profile. Once you have an EDDMapS.org profile you can enter reports through the GLEDN app and through EDDMaps.org/Indiana page.

Step Three. Practice mapping. Before going out to map invasive plants along roads, practice making reports on your smartphone using the instructions below. You can enter fake information to get more familiar with the screens and menus and press Save; all reports go to a queue on your phone and you can delete them instead of uploading them to EDDMapS.org.

Step Four. Familiarize yourself with the roads you intend to map by studying a map of the area you plan to map, either hard copy or on the Monroe County GIS site (enter at <http://www.co.monroe.in.us/tsd/GIS.aspx>). Familiarize yourself with the species you intend to map by looking at the on-line pictures and description at <http://www.eddmaps.org/indiana/Species/> and at <http://mc-iris.org/mapping-invasive-plants-in-monroe-county.html>. These photos and descriptions are also available on the GLEDN app by selecting a species and looking at the Images and Info tabs.

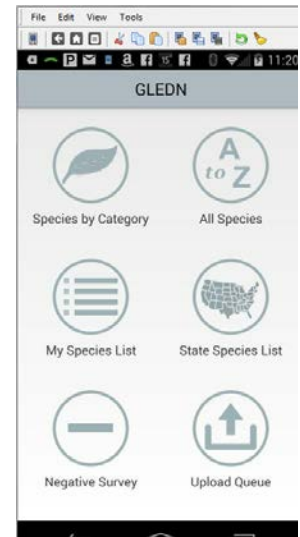
You are welcome to map any invasive plants you see, but Table 1 shows the list of top priority and second priority species to map and the time of year those species are most identifiable from the road.

Step Five. Find a partner. To map roadside plants, work with a partner with one person driving and one person scouting the roadside for invasive plants. NEVER attempt to map invasive plants while you are driving! When invasive plants are found, pull over to a safe parking area off the road. The person mapping can walk back to the infestation or simply indicate on the map in the app where the infestation is by moving the marker to the correct location.

Step Six. Make a report.

- Open the GLEDN app on your smart phone and choose the species you want to report – you can find the species three different ways by clicking:
 - Species by Category (Aquatics, Grasses, Herbs/Forbs, Shrubs, Trees, Vines, etc.) – if you use this way of sorting, click the ‘i’ button to the right of the species name to select the species
 - All Species – click the species name to select the correct one
 - My Species List – you can preload the species you will want to map in this list so they are easy to find; just click the species name to select the correct one.

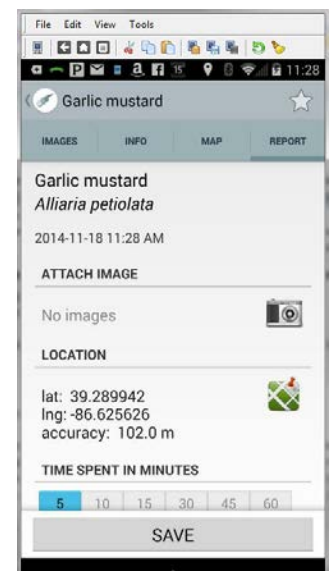
Handy Tip - Anytime you need to back up to the main menu, use the back button on the left side of the gray bar at the top of the screen.

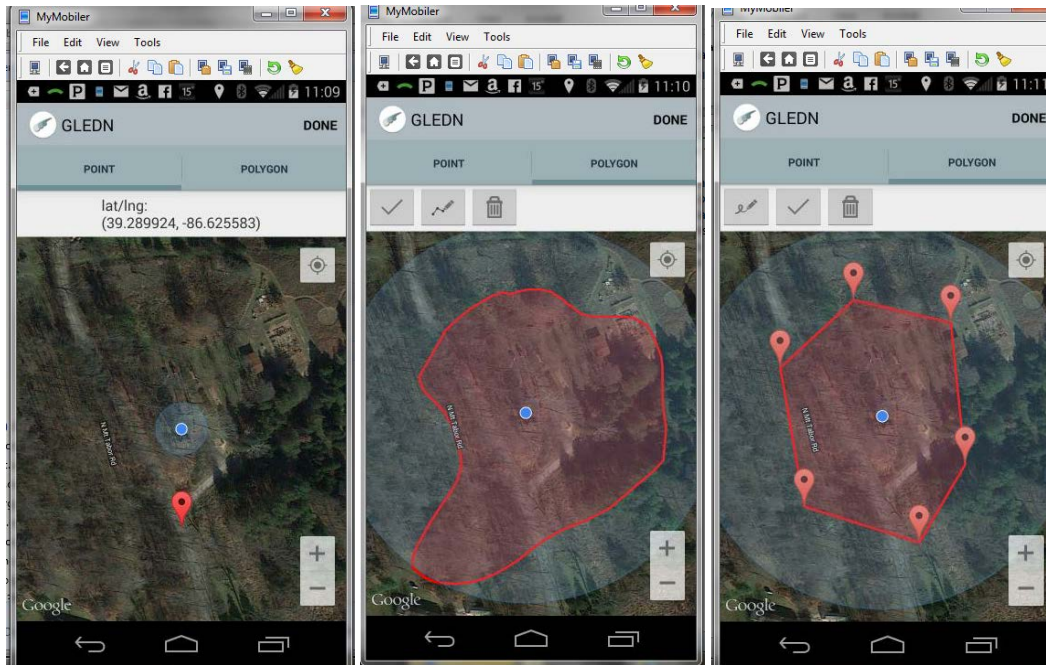


- Once you click on a species name, the screen will show you a picture of the invasive plant, with four tabs at the top –
 - Images – which you can scroll through pictures to confirm your ID
 - Info – for a written description of the plant
 - Map – which shows currently mapped locations of the species – warning, this takes a while to load
 - Report - when you are ready to make the report, click the Report tab.



- Report form – you will see the following fields:
 - Species Name - The species name is automatically entered once you have selected it.
 - Date and Time - The date and time is automatically entered.
 - Attach Image. **You must attach an image to each report.** Click the camera icon and you will be asked if you want to take a picture or choose a picture already on your phone. Choose one or the other. If you take a picture, it will show you the picture and you confirm it (click on check mark) or delete it (click on ‘x’) and try again. Once you confirm it, the photo is automatically added to your report. You can attach multiple photos, and please make sure the photos show identifying characteristics of the plant (leaf, fruit, etc.).
 - Location. **Note** – the location reporting feature on your phone must be enabled. Lat and long are automatically entered based on your current location. Click the map icon to go to a map of current location. At this point you can simply accept the marker where it is and click ‘Done’, or move the marker to a new location and click ‘Done’, or choose the Polygon tab and actually draw a line or polygon to show the infestation, and then click ‘Done’. If you need to redraw the polygon, click the trash can icon to start over.





Map showing point (red thumbtack) versus current location (blue dot)

Map showing polygon created by drawing with finger

Map showing polygon created by touching corner points to form the shape

- Time Spent in Minutes. Please enter **time** you spent finding and mapping this occurrence.
- Infestation. Enter the size of the infestation and choose Acres or Square Feet. (Note – if you use the polygon tool instead of the point marker, you **still** need to enter the size of the infestation; however, you will be able to see the polygon on the maps on-line).
- Density. Choose Low, Medium, or High based on your best judgment on what you can see from the road, with Low=<10% cover, Medium=11-50% cover, and High=>50% cover.
- Notes. Add any helpful information about the infestation.
- Save. Click save and the report will go to the 'Upload Queue'. It will stay there until you go to the Upload Queue and click Upload in the upper right corner. You cannot edit the report while it is still in the Upload Queue. You will be able to edit the report once it is uploaded by going to the My EDDMapS tab at EDDMapS.org/Indiana. All of your reports will show there, and you can view/edit/delete any of them.

Table 1.

Green shading show times of the year that species is readily identifiable; * indicates the time it would be most visible from roads

Top Twelve Priority Species to Map

Spread by ROW maintenance equipment

Common Name	Scientific Name	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Garlic mustard	<i>Alliaria petiolata</i>	*	*						
Dame's rocket	<i>Hesperis matronalis</i>	*	*						
Poison hemlock	<i>Conium maculatum</i>			*	*				
Wild parsnip	<i>Pastinaca sativa</i>			*	*				
Crown vetch	<i>Securigera varia</i>			*	*				
Sweet clover	<i>Melilotus alba and M. officinalis</i>			*	*				
Musk thistle	<i>Carduus nutans</i>			*	*				
Canada thistle	<i>Cirsium arvense</i>			*	*				
Spotted knapweed	<i>Centaurea stoebe</i>					*			
Johnson grass	<i>Sorghum halapense</i>					*	*		
Japanese stiltgrass	<i>Microstegium vimineum</i>					*	*		
Teasel	<i>Dipsacus fullonum and D. laciniatus</i>				*	*			

Second Priority Species to Map

Not spread by ROW maintenance equipment, but a threat to natural areas.

Common Name	Scientific Name	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Amur honeysuckle	<i>Lonicera maackii</i>	*	*						*
Purple wintercreeper	<i>Euonymus fortunei</i>	*	*						*
Burning bush	<i>Euonymus alatus</i>								*
Japanese honeysuckle	<i>Lonicera japonica</i>							*	*
Callery pear	<i>Pyrus calleryana</i>	*	*	*				*	*
Multiflora rose	<i>Rosa multiflora</i>				*				
Japanese knotweed	<i>Fallopia japonica</i>		*		*	*			
Phragmites	<i>Phragmites australis ssp. australis</i>							*	*