Project RED

Riverine Early Detectors Manual

The health of your favorite river depends on you! Wisconsin's rivers are vulnerable to invasion by a number of invasive species, from Eurasian watermilfoil to Japanese knotweed. The key to successfully protecting your river is detecting invasives early when it may still be possible to isolate or eradicate them. The longer we wait to find and fight them, the harder it will be to win the fight. Volunteers like you are invaluable for early detection and rapid response.

Project RED has four steps:

1. Paddle or wade a reach of river or stream keeping your eyes peeled for invasive species
2. Collect specimens of or photograph suspicious plants and animals
3. Verify the specimens
4. Share your findings

River Alliance of Wisconsin, the Wisconsin Department of Natural Resources (WDNR) and local AIS coordinators can help you throughout the process. Grab your paddle or waders and get out on the water. We need your help!

STEP 1: Paddle or wade a river and search for invasives

There are two types of riverine AIS monitoring:

Routinely monitoring an adopted reach
Project RED volunteers are asked to adopt a reach of river or stream and to routinely monitor at least once within the summer, preferably twice. When monitoring an adopted reach, always complete the "Project RED Field Data Collection Sheet" even if you do not find an invasive species.

Incident reporting
If you are simply out in a river that you have not pledged to monitor and stumble across an invasive species of concern, complete the "Aquatic Invasive Plant/Animal Incident Form."

Regardless of method, become familiar with the habitat and identifying features of the following invasive species that have been identified as a threat to our rivers and streams here in Wisconsin.
See *Regulated Aquatic Plants of Wisconsin, Common Wetland Invasive Plants of Wisconsin,* and the included trading cards for images of each.

Shoreline/Wetland Plants	Emergent/Submerged Plants		Invertebrates
Japanese hops	Yellow floating heart	Brazilian waterweed	New Zealand mudsnail
Phragmites	Eurasian watermilfoil	Water lettuce	Faucet snail
Japanese knotweed	Curly-leaf pondweed	Didymo	Asian clam
Purple loosestrife	Hydrilla	Parrot feather	Zebra mussels
Flowering rush	Water hyacinth		quagga mussels
Yellow iris			Rusty swamp crayfish

As you paddle or wade, pay particularly close attention when you are near bridges, backyards, boat landings, and urban areas. More common than not, we find riverine invasive species in areas where humans come into contact with rivers the most or where rivers have been disturbed.

Monitoring Shorelines and Wetlands
Search both shores and wetlands for suspect plants. Binoculars can be helpful when a river or the adjacent wetland or floodplain is wide. When near beaches or boat landings, wade the shoreline in search of invertebrate shells that might have washed up.

Recommended Equipment
Project RED folder with blank datasheet
Pencil
Large Ziploc bags
Waterproof sharpie pen to write on Ziploc bags
GPS unit
Heavy trash bag for trash collection
Ice chest for keeping samples cool
Binoculars
Polarized sunglasses
Camera
Rake (optional)
Hand scoop (optional)

In-stream Monitoring
When canoeing or wading, wearing polarized sunglasses helps you to see into the water. If you see a suspicious submerged or emergent plant, gather a bit using your hand or a rake to inspect it closer.
When near beaches, boat landings, or other areas of high use and likely introduction, collect rocks or handfuls of substrate to search for invertebrates and didymo. A homemade hand scoop may be useful to help collect and sift through smaller substrate.

Datasheets
Project RED Field Data Collection Sheet:
https://www.wisconsinrivers.org/wp-content/uploads/Project-RED-Datasheet_Fillable_4.9.20.pdf

WDNR Reporting Forms: http://dnr.wi.gov/lakes/monitoring/forms.aspx

STEP 2: Identify and collect/photograph invasive species

Invasive species are often easily confused with native look-a-likes. To ensure quality data, volunteers are encouraged to verify their findings with a professional. The easiest way to do so is to take photographs of the suspect plant or animal with a digital camera and send them to contacts on the next page. If you do not have a camera, you are encouraged to collect specimens if you may do so safely and legally. Do not trespass onto private property in order to do so.

How to Take Photographs
Take multiple photographs of the same subject. Take many close-up photos of all identifying characteristics (i.e., leaves, stems, flowers, and roots). Also capture landscape photos to show the extent of the infestation and the habitat in which the species was found. Be sure to include something for scale (e.g., a pencil or coin) in all photographs.

How to Collect Plants
Collect 5 – 10 intact specimens. Try to get the root system, all leaves, and seed heads and flowers when present. Place in a Ziplock bag with no water. Keep the sample cool, and transport it to a refrigerator.

How to Collect Invertebrates
Collect up to five specimens. Place in a jar or bag with water; keep cool and transport to a refrigerator. Transfer specimen to a jar filled with rubbing alcohol. It is illegal to collect live native mussels. Collect only empty shells. If this is not feasible, you are encouraged to take photographs.

STEP 3: Verify your findings

After returning home from the river, refer to additional references to confirm the identity of the plant or animal that you found. The WDNR online factsheets are a good place to start. Simply type the name of the species and the word "factsheet" (Ex. "Japanese hops factsheet") into the search bar on the WDNR's homepage (wdnr.wi.gov). Here you will find photographs and a detailed description of the invasive species.

Other Online Resources:
http://www.wisconsinrivers.org/our-work/aquatic-invasive-species
http://www.goldensandsrcd.org/our-work/water/aquatic-invasive-species-program/handouts

If you still believe that you have found an invasive species, please contact the local or River Alliance Project RED coordinators listed below as soon as possible. If you took photographs of the invasive, please email the photographs along with the latitude and longitude coordinates to your coordinators. If you collected specimens, it will be necessary to label the specimen with the collection location/date and deliver the specimen to a local expert within days. A delay may result in decay and prevent experts from being able to identify the specimen. The local or statewide coordinators will confirm where you should deliver the specimens once you have contacted them.

Local Project RED Coordinator

Name: _____

Organization/Agency: _____

Mailing Address: _____

_____

Telephone: _____

Email: _____

River Alliance of Wisconsin AIS Program
147 S. Butler Street, Suite #2
Madison, WI 53703
(608) 257-2424
ais@wisconsinrivers.org

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STEP 4: Share your findings

Your observations are valuable <u>whether or not</u> you found any invasive species while monitoring. When submitted, your Project RED data will be added to the WDNR database (called "SWIMS"), where it will be used by researchers and managers to better understand how invasive species are spreading throughout Wisconsin's waters.

You may submit your data in <u>either</u> of two ways:

- Mail your completed datasheets to one of the two coordinators identified on the previous page.
- Enter your data into SWIMS directly. To enter your data into SWIMS, you must first attain a user ID.

To do so, simply follow the steps below. After you receive your user ID, enter data into SWIMS throughout the field season.

Registering for SWIMS
- Go to https://on.wisconsin.gov/WAMS/home & follow the directions for *Self-Registration*
- Open your email account and look for an email from Wisconsin.gov.
- Email us your user ID (ais@wisconsinrivers.org). You'll get a reply within a couple of business days saying you're all set up to enter Project RED data.

Entering data in SWIMS
- Go to http://dnr.wi.gov/lakes/clmn-data. Log in using your WAMS ID
- On your *My Projects* page, navigate to *Project Riverine Early Detectors (Project RED)*. Under the description, click the *Enter Data* link.
- Select your name from the *Data Collectors* drop down list. If there are additional data collectors not listed, feel free to list them in the comments area.
- Then, select your monitoring *station*. If your station is not available in the dropdown list, select "Location Specified on the Next Page".
- Enter the *Start Date, End Date,* and *Time* you started and stopped monitoring that day.
- Enter your written observations in the *comments* box.
- Click Next.
- Enter the *Waterbody Name*; then provide the *Start* and *End Location* in decimal degrees along with a detailed description of the locations (ex. County H Bridge just north of Baytown).
- Note which *Species* you looked for. Please answer Yes or No. Do not leave blank.
- Click *Enter First ID#* to enter your first find.
- Enter the ID#, name of the species, and latitude and longitude.
- Click *Enter Next ID#* to enter your next find.
- When finished, click *Save and Return to List*. If you click Save and Return to List (or if you click *View List* from the *Submit Data* tab), you will see the data you recently entered.

Project RED

Riverine Early Detector's Pledge

Invasive species threaten the health of Wisconsin's rivers and the plants and animals that rely upon them for habitat and nourishment; therefore, I pledge to monitor

_____
(river/stream)

at least twice a year by watercraft or at areas of potential introduction, bridge abutments, boat launches, and areas of disturbance.

I will monitor from_____
(description of start location)

to_____
(description of end location)

I pledge to have any suspect plants or animals I find verified by a professional.

I pledge to report my observations and any invasive species found within the selected river corridor by submitting my data online in SWIMS or sending my completed datasheet to River Alliance as soon as possible.

_____

Signature   Date

Name: _____

Organization/Agency:_____

Mailing Address:_____

Telephone:_____

Email: _____