

Amphibians and Reptiles of Michigan: Status and Conservation



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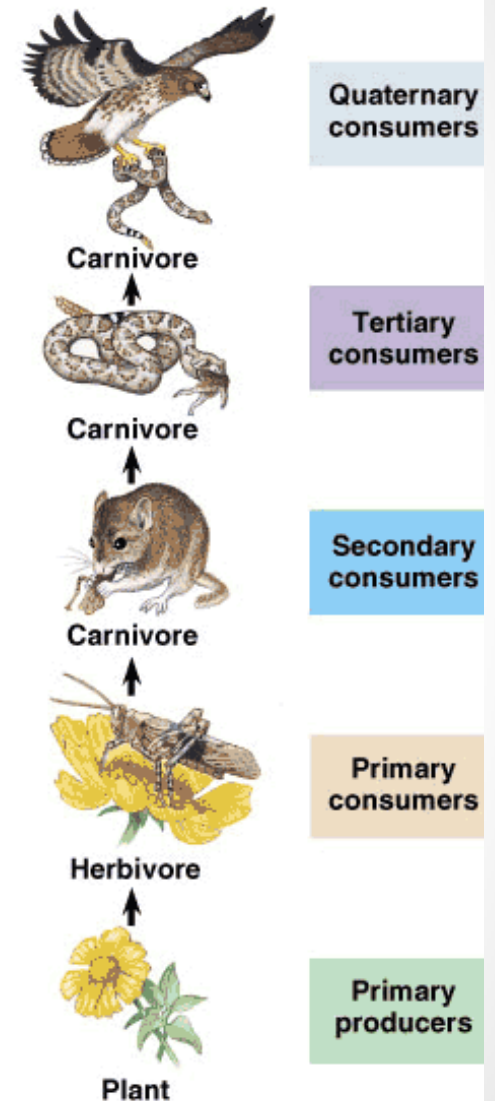
Herps Are...

- Vulnerable to environmental disturbance.
- Highly sensitive to toxins and other environmental stressors.
- Bioaccumulators of toxins and contaminants.
- Many habitat specialists and require a mosaic of different wetland types with intact upland habitat joining them.
- Often long-lived and require conservation measures targeting adult survivorship.



Herps are Important Because...

- Recognized as key bioindicators (gauges of environmental health).
- Mid-level position in food webs keeping ecosystem balance.
- Emerging recognition of importance in invasive species control.



Ecological Role

- Herpetofauna have unique physiological (functional) and morphological (physical) characteristics.
- Most species rely on the presence of water for at least one or more life cycle stage (e.g., larval stage, breeding).
- They fill niche roles in ecosystems that are essential to the maintenance of biodiversity and ecological functionality.



Nearly 60 Species of Herpetofauna in Michigan

- 9 Species of Salamanders
- 13 Species of Frogs and Toads
- 10 Species of Turtles
- 3 Species of Lizards
- 18 Species of Snakes



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**MORE THAN HALF OF
MICHIGAN HERPS ARE
SPECIES OF GREAT
NEED !!!
CONSERVATION**



Salamander Status

Salamanders Species	State Rank	Wildlife Action Plan
Western Lesser Siren	SC	SGCN
Mudpuppy		SGCN
Blue-spotted Salamander		SGCN
Unisexual Ambystoma	N/R	
Spotted Salamander		SGCN
Marbled Salamander	T	SGCN
Small-mouthed Salamander	E	SGCN
Eastern Tiger Salamander		SGCN
Red-spotted Newt		
Central Newt		
Four-toed Salamander		SGCN
Red-backed Salamander		
Dusky Salamander	N/R	
Two-lined Salamanders	N/R	



Salamander Status

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Mudpuppy	SC	SGCN
Blue-spotted Salamander		
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Eastern Tiger Salamander		SGCN
Red-spotted Newt		
Central Newt		
Four-toed Salamander		SGCN
Red-backed Salamander		
Dusky Salamander	N/R	SGCN
Two-lined Salamanders	N/R	SGCN



Frog and Toad Status

Frog and Toad Species	State Rank	Wildlife Action Plan
Eastern American Toad		
Fowler's Toad		SGCN
Green Frog		
Mink Frog		
Bullfrog		
Pickerel Frog		SGCN
Leopard Frog		SGCN
Wood Frog		
Cope's Gray Treefrog		
Eastern Gray Treefrog		
Blanchard's Cricket Frog	T	SGCN
Northern Spring Peeper		
Western Chorus Frog		SGCN
Boreal Chorus Frog	SC	SGCN



Frog and Toad Status

Frog and Toad Species	State Rank	Wildlife Action Plan
Eastern American Toad		
Fowler's Toad	SC	SGCN
Green Frog		
Mink Frog		SGCN
Bullfrog		
Pickerel Frog	SC	SGCN
Leopard Frog		SGCN
Wood Frog		
Cope's Gray Treefrog		
Eastern Gray Treefrog		
Blanchard's Cricket Frog	T	SGCN
Northern Spring Peeper		
Western Chorus Frog		
Boreal Chorus Frog	SC	SGCN



Turtle Status

Turtles Species	State Rank	Wildlife Action Plan
Eastern Snapping Turtle		
Eastern Musk Turtle		
Western Painted Turtle		
Midland Painted Turtle		
Blanding's Turtle	SC	SGCN
Spotted Turtle	T	SGCN
Wood Turtle	SC	SGCN
Eastern Box Turtle	SC	SGCN
Red-eared Slider		
Northern Map Turtle		
Eastern Spiny Soft-shell		



Turtle Status

Turtles Species	State Rank	Wildlife Action Plan
Eastern Snapping Turtle		
Eastern Musk Turtle		SGCN
Western Painted Turtle		
Midland Painted Turtle		
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Spotted Turtle	T	SGCN
Wood Turtle	T	SGCN
Eastern Box Turtle	T	SGCN
Red-eared Slider		
Northern Map Turtle		
Eastern Spiny Soft-shell		



Lizard Status

Lizard Species	State Rank	Wildlife Action Plan
Five-lined Skink		
Six-lined Racerunner	T	SGCN



Snake Status

Snakes	State Rank	Wildlife Action Plan
Kirtland's Snake	E	SGCN
Queen Snake	SC	SGCN
Butler's Garter Snake		
Northern Ribbon Snake		
Eastern Garter Snake		
Eastern Hog-nosed Snake		SGCN
Northern Water Snake		
Northern Brown Snake		
Northern Red-bellied Snake		
Northern Ring-necked Snake		SGCN

Snakes	State Rank	Wildlife Action Plan
Eastern Smooth Green Snake		SGCN
Eastern Milk Snake		
Blue Racer		SGCN
Black Rat Snake	SC	SGCN
Western Fox Snake		SGCN
Eastern Fox Snake	T	SGCN
Copper-bellied Water Snake	E	SGCN
Eastern Massasauga Rattlesnake	SC	SGCN



Snake Status

Snakes	State Rank	Wildlife Action Plan
Kirtland's Snake	E	SGCN
Queen Snake	SC	SGCN
Butler's Garter Snake	SC	SGCN
Northern Ribbon Snake		SGCN
Eastern Garter Snake		
Eastern Hog-nosed Snake		SGCN
Northern Water Snake		
Northern Brown Snake		
Northern Red-bellied Snake		
Northern Ring-necked Snake		SGCN

Snakes	State Rank	Wildlife Action Plan
Eastern Smooth Green Snake	SC	SGCN
Eastern Milk Snake		
Blue Racer		SGCN
Black Rat Snake	SC	SGCN
Western Fox Snake		SGCN
Eastern Fox Snake	T	SGCN
Copper-bellied Water Snake*	E	SGCN
Eastern Massasauga Rattlesnake	SC	SGCN



Federal Species Protection

The Federal Endangered Species Act of 1973 (ESA) protects threatened and endangered species and their habitats by prohibiting “take” (to harass, harm*, pursue, hunt, shoot, wound, kill, trap, capture, or collect) and the trade in listed plants and animals, including their parts and product, except under federal permit.

**Harm is defined as an act which actually kills or injures wildlife. Such acts may include significant habitat modification or degradation.*



NICK SCOBEL 2010



SOM ESA Protection

Part 365, Endangered Species Protection, of The Natural Resources and Environmental Protection Act (NREPA Public Act 451 of 1994 as amended), administered by the MDNR Wildlife Division, provides for the conservation and protection of State Threatened and Endangered species. This law prohibits the collection or take of Threatened and Endangered species and requires Threatened and Endangered Species monitoring permits are whenever listed species might be harmed, handled, or disturbed, even if conservation activity is likely to benefit the species long-term and can be applied for through the MDNR Wildlife Division.



SOM Fisheries Division Order

Special Concern reptiles and amphibians, however, are protected in accordance with Michigan Department of Natural Resources (MDNR) Fisheries Division Order 224.13, which states that take from the wild or possession of any such species is prohibited except as authorized under a permit.



Challenges Facing Michigan Herps



Learn More and Resources



From plan review to ordinance development... from botanical and wildlife inventories to long-term monitoring ... from habitat design and restoration to habitat mapping and wetland delineation... from population evaluation to population rescue and relocation... Whatever your environmental needs

**HRM can provide you with
Experience, Quality,
Reliability and Dedication.**

HRM understands that impacts to the environment are inevitable. However, we also believe that humanity has an obligation to minimize these impacts and mitigate the damages. Our role at HRM is to provide our clients with sound, scientifically supported recommendations to best manage their natural resources while still meeting the needs of our growing community. We believe the role of the environmental professional should be to provide an educated evaluation of the impacts that a project will have and propose ecologically-sound alternatives that diminish the deleterious effects to our resources.

We can help you protect, restore and create habitat, meet and exceed regulatory requirements, and discover the natural resources in your community.



David A. Mifsud, **PWS, CPE, CWP**

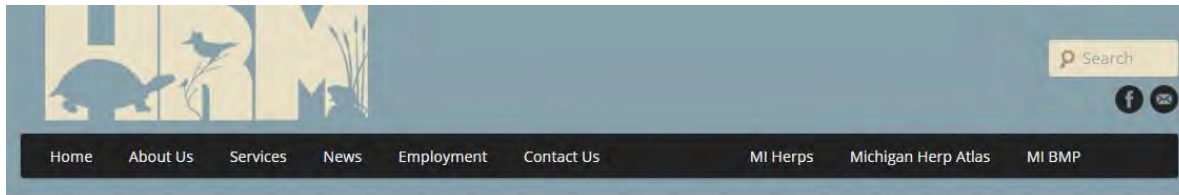
Herpetologist/Wetland Ecologist

Email

Call 313-268-6189



Learn More and Resources



Species



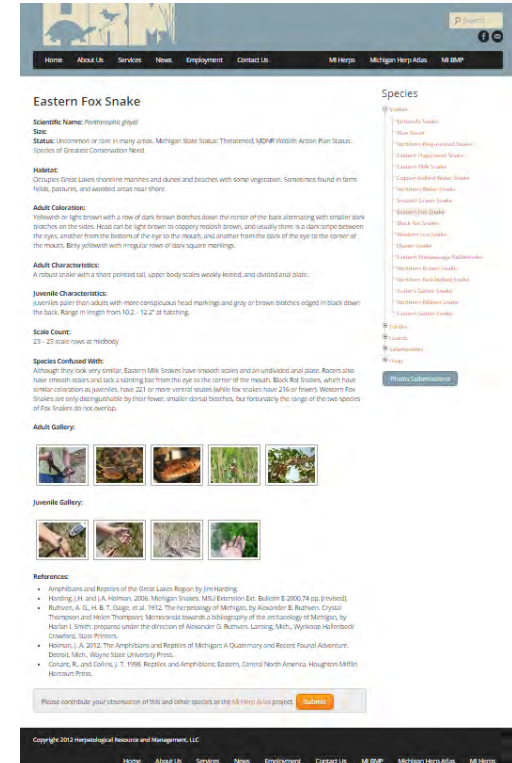
Species

- Snakes
- Turtles
- Lizards
- Salamanders
- Frogs

Photo Submissions

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Wildlife & Habitat

Related Links

- Report Wildlife Observations



DNR **WILDLIFE & HABITAT** **WILDLIFE SPECIES** **AMPHIBIANS & REPTILES**

Snakes

- Michigan's Snakes
 - Butler's Garter Snake (*Thamnophis butleri*)
 - Smooth Green Snake (*Liochlorophis vernalis*)
 - Eastern Milk Snake (*Lampropeltis triangulum triangulum*)
 - Northern Water Snake (*Nerodia aspidon*)
 - Queen Snake (*Regina septemvittata*)
 - Brown Snake (*Storeria dekayi*)
 - Red-bellied Snake (*Storeria occipitomaculata occipitomaculata*)
 - Eastern Garter Snake (*Thamnophis sirtalis*)
 - Northern Ribbon Snake (*Thamnophis sauritus septentrionalis*)
 - Ring-necked Snake (*Diadophis punctatus edwardii*)
 - Eastern Hognose Snake (*Heterodon platirhinos*)
 - Blue Racer (*Coluber constrictor foxi*)
 - Black Rat Snake (*Elaphe obsoleta obsoleta*)
 - Fox Snake (*Elaphe vulpina* and *Elaphe gloydii*)
 - Kirtland's Snake (*Gonophis kirtlandi*)
 - Eastern Massasauga Rattlesnake (*Sistrurus catenatus catenatus*)
 - Copper-bellied Water Snake (*Nerodia erythrogaster neglecta*)

Frogs & Toads

- Fowler's Toad (*Bufo fowleri*)
- Green Frog (*Rana clamitans*)
- Mink Frog (*Rana septentrionalis*)
- Western Chorus Frog (*Pseudacris triseriata triseriata*)
- Gray Treefrog (*Hyla versicolor* and *H. chrysoscelis*)
- Eastern American Toad (*Bufo americanus*)
- Bullfrog (*Rana catesbeiana*)



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Michigan's Special Animals

This list presents the Endangered (E), Threatened (T), and Probably Extinct (X) animal species of Michigan, which are protected under the Endangered Species Act of the State of Michigan (Part 305 of PA 451, 1994 Michigan Natural Resources and Environmental Protection Act). The current list became effective on April 9, 2009, after extensive review by technical advisors to the Michigan Department of Natural Resources and the citizenry of the state.

Also included in this list are animal species of Special Concern (SC). While not afforded legal protection under the Act, many of these species are of concern because of declining or relict populations in the state. Should these species continue to decline, they would be recommended for Threatened or Endangered status. Protection of Special Concern species now, before they reach dangerously low population levels, would prevent the need to list them in the future by maintaining adequate numbers of self-sustaining populations within Michigan. Some other potentially rare species are listed as Special Concern pending more precise information on their status in the state; when such information becomes available, they could be moved to threatened or endangered status or deleted from the list.

Amphibians and reptiles that are listed as special concern (SC) are legally protected under the Michigan Department of Natural Resources Director's Order No. FD-224.13. It is unlawful to kill, take, trap, possess, buy, or sell these species from the wild except as provided in the Order.

This list was produced by the Endangered Species Program of the Michigan Department of Natural Resources and the Michigan Natural Features Inventory. English names in common usage or from published sources have been incorporated, when possible, to facilitate public understanding of and participation in the Endangered Species Program. To comment on the list or request additional copies, or for information on the Endangered Species Program, contact the Endangered Species Coordinator, Wildlife Division, Michigan Department of Natural Resources, P.O. Box 30028, Lansing, MI 48909 (517-284-9453). To report occurrences of these species, please contact MNFI at mnfi@msu.edu.

The special animals list is also available in PDF formats:

Species listed alphabetically by scientific name
Species grouped by category

Jump to: [Amphibians](#) [Reptiles](#) [Birds](#) [Mammals](#) [Insects: Bees](#) [Insects: Beetles](#) [Insects: Butterflies and Moths](#) [Insects: Caddisflies](#) [Insects: Cicadas and Hoppers](#) [Insects: Damselflies and Dragonflies](#) [Insects: Dobsonflies and Fishflies](#) [Insects: Grasshoppers and Crickets](#) [Insects: Hymenoptera](#) [Fish](#) [Mussels](#)

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Browse Animalia



ADW *Phalaropus lobatus*
[taxonomic classification]

Knowledge
engineered words
Echinodermata
[Stellar], sea urchins, and relatives
Mollusca
Molluscs, caprellid, bivalve, and relatives
Plantae/vascular
Equisetum
Pteris
sporangium

Chondrichthyes
rays, sharks, and relatives
Actinopterygii
ray-finned fishes
Amphibia
frogs, salamanders, and relatives
Reptalia
turtles, snakes, lizards, and relatives
Aves
birds
Mammalia
mammals

Insecta
Insects
Coleoptera
carabids
Chelicerata
Chelicerates
Crustacea
jellyfish, sea anemones, corals, and relatives
Hemichordata
roundworms

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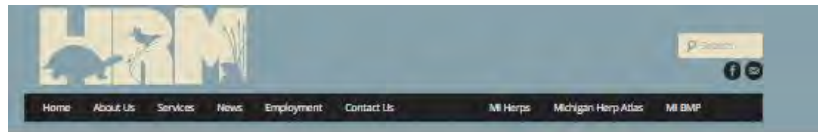
Search Guide

ADW Mission
The Animal Diversity Web is an online database and encyclopedia of animal natural history, built through contributions from students, photographers, and many others.
It is a free and flexible resource designed both as an encyclopedia for exploring biodiversity and for use in formal, inquiry-based education.

Other animal photo



Learn More and Resources

Amphibian & Reptile Best Management Practices
for Michigan

The Amphibian & Reptile BMP Manual for Michigan is a comprehensive resource on amphibian and reptile conservation and management provided through a partnership with Herpetological Resource Management and Michigan Department of Environmental Quality for no cost.



Intro

This manual was created for the Michigan Department of Environmental Quality (MDEQ) by Herpetological Resources and Management (HRM) to provide a comprehensive guide to Best Management Practices (BMPs) to improve and maintain the viability of Michigan amphibian and reptile populations. This manual addresses threats to Michigan's amphibian and reptile (i.e., herpetofauna) communities, posed by development and conservation management practices. The manual contains alternatives that are based on the best available science to facilitate conservation efforts to protect and enhance Michigan's herpetofauna. The manual is intended for use by landowners, land management and development, and conservation activities, including restoration. This BMP manual is a Michigan-focused guide that provides specific recommendations to regulators, agency land managers, consultants, commercial and residential developers, and private citizens to protect, preserve, and restore the herpetofauna of Michigan.

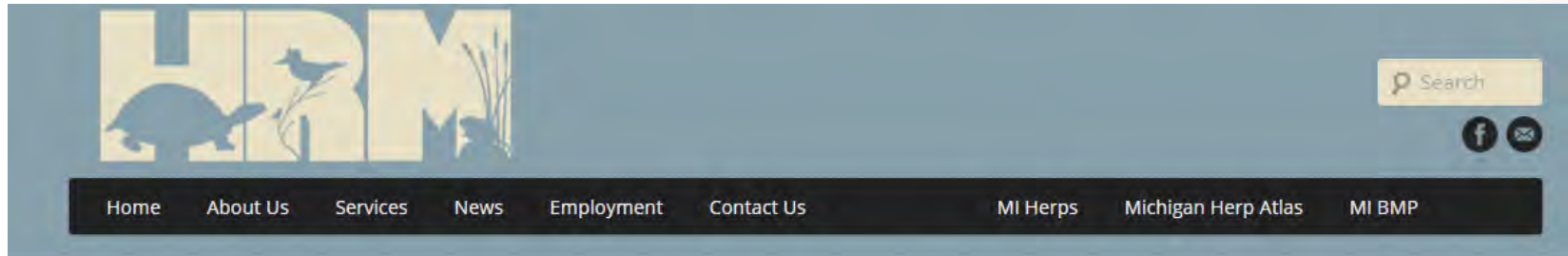
This manual is to be used as a quick reference guide throughout all phases of site development and construction, mitigation, restoration, and management. Specific laws and applicable BMPs for the mitigation of potential impacts to amphibians and reptiles are provided. These are listed and described within the appropriate BMP section to best address specific concerns as they are encountered while a project moves into implementation. It is our hope that this resource will be a living document and work in progress. As new threats, technologies, and management techniques arise revisions will be made to help best manage and protect Michigan's herpetofauna.

Content to include

- Natural History of Herpetofauna in Michigan
- Threats to Amphibians and Reptiles
- Conservation Efforts
- Management & Development Planning
- Ecological Restoration, Mitigation & Habitat Design
- Management Techniques
- Development Techniques

[Download All EBP](#)

Learn More and Resources



Michigan Herp Atlas

HRM administers the [Michigan Herpetological Atlas](#), a [Michigan Department of Natural Resources](#) project to increase the state's knowledge of reptile and amphibian distribution and population health. The Atlas data will enhance herpetological conservation and management by creating a comprehensive and publicly accessible database of reptile and amphibian observation records. Anyone is welcome to submit their observations to the Atlas, and HRM and our employees regularly contribute.

- Download the official Michigan Herp [Atlas Project Guide](#)
- Identify Michigan reptiles and amphibians with our online field guide
- Download a printable Survey Card to mail in OR
- [Submit your observations online](#) and view statewide trends



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The Michigan Herp Atlas

Michigan Herp Atlas




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Northern Leopard Frog (*Rana pipiens*)

Entered by: Halley Brown
Record 5928

County: Jackson County	Time: 2013-10-18 14:53:00	Qty: 2	Age: Varying	Sex: Unknown
Body Temperature:	Air Temperature: 70.00F	Ground Temperature:		
Sky Conditions: Clear	Habitat:			

Vouchers



Post a Comment

Statistics

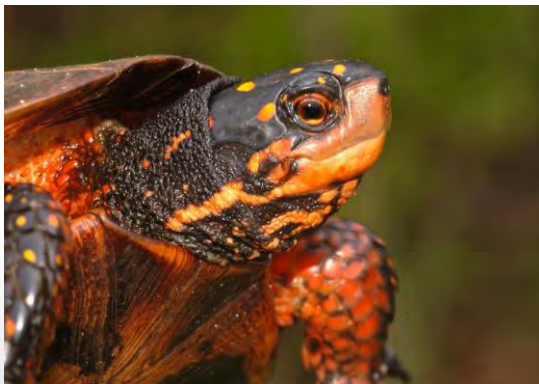
- Total Records: 4275
- Records Today: 0
- Number of Members: 468
- Endangered Species Records: 3
- Threatened Species Records: 87
- Species of Concern Records: 784

Database Links

- Species List
- New Records
- Search Records
- Activity Map
- Diversity Map
- Instructions
- Mobile App


User Links

- Add Record (basic)
- Add Record (detailed)
- View My Records
- My Records in Google Earth
- Profile
- Logout



Verizon 3G 10:52 AM 94%

MI Herp Atlas



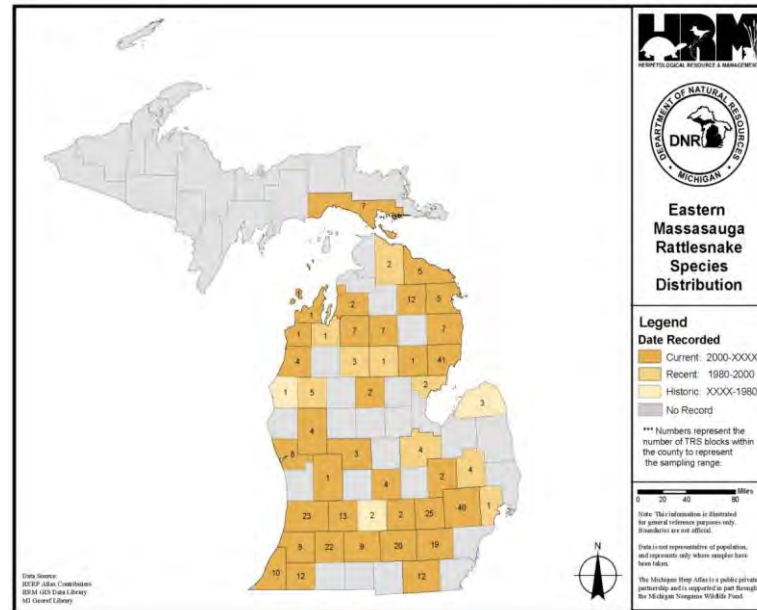
Michigan Herp Atlas

Powered by Mobile Mapper



Herp Atlas Background

- Started by MDNR in 2004 to address a lack of data for Michigan.
- Public-Private partnership in 2010 to optimize project partnership and data protection.
- Document distribution and changes in populations statewide.
- Data is key to any effective conservation effort or management plan.



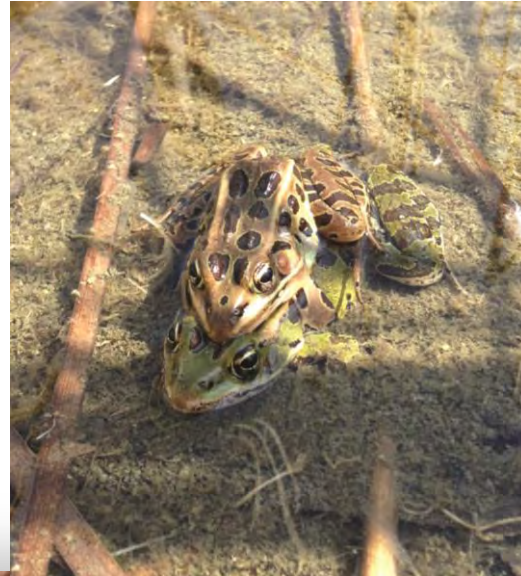
Herp Atlas Goals

- Improved species protection and enforcement.
- Improved collaboration and data sharing.
- Greater understanding of species habitat use and needs.
- Contributions by EVERYONE to build on species data for MI herps and resolve NUMEROUS data gaps statewide on amphibian and reptile species, distribution, viability, and stressors.
 - Its not what we know about MI herps that is disturbing, it is how much we don't know that is alarming!

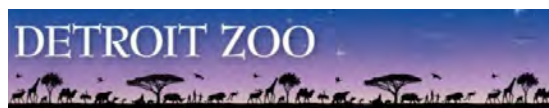


We Need Your Observations!

- Dead or alive
- Commonly observed and rare
- All seasons
- Photo document if possible
- On-line entry
OR data cards still available
- Email accepted!
- Encourage others to contribute!



Michigan Herp Atlas Partners



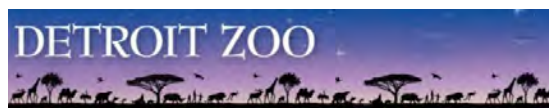
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YOU!



**Friends
of the
ROUGE**



Questions?

