

CATEGORY 2

Species and Natural Communities with Information Needs and Species of Greatest Conservation Need with Research Needs

Species with Information Needs Identified for Survey in 2008 - 2015

In the 2005 Wildlife Action Plan (WAP), a list of species was not considered for Species of Greatest Conservation Need (SGCN) category, because inventory &/or life history data were insufficient to make a determination (appendix B of the WAP). Over 200 vertebrates and 420 invertebrates need more information. This tally does not include 12 somewhat obscure invertebrate phyla, as well as several major groups within the very large phylum Arthropoda (Table 2-26, page 2-70 in the WAP).

Taxa experts identified a subset of these Species with Information Needs to focus survey/research efforts in the next 5-7 years (prior to the 2015 WAP revision) to move them to either the SGCN list or the "safe" list. Criteria such as the species mean risk scores, area of importance, feasibility of completing work by 2015, ecological importance, and species assemblages were used. Following is the draft list of species or species groups proposed

Vertebrate Species & Species Assemblages with Additional Data Needs

Birds

- Marsh bird surveys – combination of citizen-based monitoring and specialized surveys utilizing playback recordings.
- Owl and other nocturnal birds surveys utilizing federal BBS route methods – citizen-based monitoring opportunity.
- Colonial Waterbirds surveys – contactors or professional staff.
- Shorebirds surveys – citizen-based monitoring opportunity.
- Focused boreal bird surveys - combination of citizen-based monitoring and specialized surveys.

Mammals

- Collect data on population size and trends for:
 - All shrew species
 - All bats species
 - Eastern Mole
 - Fisher
 - Badger
 - Eastern Fox Squirrel
 - Least Chipmunk
 - Plains Pocket Gopher
 - Southern Red-backed Vole
 - Deer Mouse
 - Western Harvest Mouse
 - Southern Bog Lemming
 - Meadow Jumping Mouse
 - Snowshoe Hare

Herps

- Collect data for the Spotted Salamander as part of the statewide salamander data collection.
- Conduct auditory bullfrog surveys – maybe in concert with nocturnal bird surveys – citizen-based monitoring opportunity.
- Cover board surveys for five-lined skink and other SGCN in skink habitats.
- Cover board surveys for Eastern Plains Garter Snake.

Fish

- Document distribution and abundance of the Pirate Perch, (poorly documented distribution)
- Document distribution and abundance of the Pugnose Minnow (a large river species, with poorly documented distribution, usually uncommon)

- Document distribution and abundance of the Weed Shiner (a large river species, with poorly documented distribution, generally uncommon)
- Document distribution and abundance of the Mud Darter (a large river species, with poorly documented distribution, generally uncommon)
- Document distribution and abundance of the Silver Chub (a large river species, with poorly documented distribution, abundance uncertain; hard to sample)
- Document distribution and abundance of the Finescale Dace (specialized habitat and complex genetics)

Invertebrates

When considering threats and Priority Conservation Actions to protect and conserve invertebrate species in Wisconsin, the authors of the Wildlife Action Plan noted that the most formidable obstacle to conservation is our lack of knowledge about the basic biology of many invertebrate species. These authors emphasized that there remain many taxonomic groups for which we cannot even compile a Wisconsin species list much less determine which species are of conservation need. The WAP authors recommended that “additional attention should be focused on [invertebrate] groups for which adequate taxonomic references do not exist and for which little zoogeographical or life history information is available.” These authors recommended several “General Invertebrate Priority Conservation Actions” that would enable future iterations of the Wildlife Action Plan to more fully consider invertebrate conservation concerns. This report builds on those recommendations and has identified a subset of the phyla groups using the previously mentioned criteria: ecological role (e.g., nutrient cycling, trophic dynamics, pollination, decomposition), feasibility (resources/expertise available), and species assemblages.

General Conservation Priorities included in the WAP, which can be applied to the identified invertebrate groups targeted for survey efforts, include:

1. Systematic and focused inventories. Identify priority survey areas through predictive models when possible.
2. Support citizen-monitoring through partnerships/projects and Online identification resources.
3. Collaborate with individuals/organizations, as many of the invertebrate taxa groups can be collected incidental to other studies/efforts (e.g., Baseline macroinvertebrate sampling) at little additional expense.

Invertebrate Groups with Additional Data Needs

- Conduct systematic species atlas and inventory efforts on select non-arthropod invertebrates, especially:
 - Freshwater sponges (Porifera)
 - Aquatic and terrestrial flatworms (Turbellaria)
 - Rotifers (Rotifera)
 - Leeches (Hirudinea)
 - Bryozoans (Ectoprocta)
 - Snails (Gastropoda)
- Conduct systematic atlas and inventory efforts on non-insect arthropods, especially:
 - Water fleas (Cladocera)
 - Copepods (Copepoda)
 - Shrimp (Mysidacea)
 - Spiders (Araneae)
- Conduct systematic atlas and inventory efforts on poorly known insects, especially:
 - Microlepidoptera (Genera: Noctuidae, Arctiidae, Sphingidae, Notodontidae, Lycaenidae, Hesperidae, Saturniidae). Near 400 species have been identified as occurring in WI that have very little known about their occurrence and distribution.
 - Ants, bees and wasps (Hymenoptera)
 - Beetles (Coleoptera). Tiger beetles and aquatic beetles assemblages are comparatively well known and were considered for SGCN status, while most other groups of beetles remain poorly known and were not considered.
 - Conduct systematic species atlas and inventory efforts on prairie invert species, with a focus on the below list that have been nominated for 2015 SGCN listing:

<ul style="list-style-type: none"> ○ <i>Prairiana kansana</i> Ball ○ <i>Paraphlepsius altus</i> (Osborn & Ball) ○ <i>Paraphlepsius nebulosus</i> (Van Duzee) ○ <i>Myndus ovatus</i> Ball ○ <i>Rhynchomitra microrhina</i> (Walker) 	<ul style="list-style-type: none"> ○ <i>Bruchomorpha extensa</i> Fitch ○ <i>Ceresa minuta</i> Caldwell ○ Chrysomelidae ○ <i>Longitarsus</i> spp. ○ <i>Cryptocephalus cuneatus</i> Fall
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- Pachybrachis trinotatus (Melsheimer)
- Pachybrachis luridus (Fabricius)
- Ophraella notata (Fabricius)
- Ophraella communa (LeSage)
- Coelocephalopion decoloratum (Smith)
- Fallapion bischoffi (Fall)
- Fallapion impeditum (Fall)
- Kissingeria amaurum (Kissinger)
- Kissingeria capitone (Kissinger)
- Leconteapion huron (Fall)
- Sayapion segnipes (Say)
- Trichapion modicum (Kissinger)
- Trichapion perforicolle (Fall)
- Trichapion tenuirostrum (Smith)

Natural Communities and Properties with Information Needs Identified for Survey in 2008 - 2015

In the 2005 Wildlife Action Plan (WAP), natural community actions included several communities with poorly understood ecology. Furthermore, during internal review of WAP data, several professional biologists recommended areas to be added as Conservation Opportunity Areas. In each case, the reason for not including either as actions or mapped COAs was lack of knowledge. What follows is a draft list of natural communities and biologist recommended COA candidate sites to focus survey/research efforts in the next 5-7 years (prior to the 2015 WAP revision) to move them to either priority natural communities and/or COA sites or the "safe" list. The Bureau of Endangered Resources Citizen-based Monitoring Program may also be able to assist in gathering information.

Natural communities with Additional Data Needs

- Northern Wet-mesic Forest (white cedar swamps)
- Central Pine-Oak Forest
- Floodplain Forest (especially differences in seral stages)
- Southern Hardwood Swamps (preferably in conjunction with Emerald ash borer work)
- Northern Lowland Shrubs communities (especially bog birch and willow dominated communities)

Species of Greatest Conservation Need with Research Needs

- Collect more information on taxonomy and population trends of shortjaw cisco in Lake Superior as a basis for development a management for the species.
- Research Franklin's Ground Squirrel distribution, habitat use, population size, and mortality factors as a basis for developing an effective management strategy.
- Collect information on the distribution, abundance, and population trends of the Prairie Vole to develop effective conservation efforts.
- Collect distribution and abundance information to better quantify macro- and micro-habitat needs of the Woodland Jumping Mouse.
- Evaluate the biological and sociological impacts of repatriation as a conservation strategy for Eastern Massasauga Rattlesnake.
- Conduct a landscape importance evaluation for the Northeast Wisconsin forests.
- Conduct comprehensive status survey for Phlox moth.
- Conduct comprehensive status survey for Poweshiek skipper.
- Evaluate the status of Swamp Metalmark and assess potential reintroduction sites.
- Conduct comprehensive status surveys for aquatic mussel species, and targeted population monitoring and life history research on the mussel species that require additional information for successful conservation.
- Conduct systematic atlas and inventory efforts on select species, species assemblages within the invertebrate groups Hemiptera and Odonata.
- Conduct research efforts on the species and communities of "Information Needs", identified in the 2008 Implementation process.