

**Wisconsin Department of Natural Resources
Natural Resources Board Agenda Item**

SUBJECT:

Request that the Board authorize public hearing for Board Order ER-27-11, proposed rules affecting Chapter NR 27 related to revising Wisconsin Endangered/Threatened Species List to remove 16 plants and animals and add 8 animals, and to update 20 scientific names.

FOR: January 2013 Board meeting

PRESENTER'S NAME AND TITLE: Erin Crain, Endangered Resources Bureau Director

SUMMARY:

The proposed E/T list revision includes the following species as well as updating of 20 scientific names:

* Add 8 Animals: A Leafhopper (*Attenuipyga vanduzeei*), Upland Sandpiper (*Bartramia longicauda*), Black Tern (*Chlidonias niger*), Beach-dune Tiger Beetle (*Cicindela hirticollis rhodensis*), Kirtland's Warbler (*Dendroica kirtlandii*), An Issid Planthopper (*Fitchiella robertsoni*), Ottoe Skipper (*Hesperia ottoe*), and Fawnsfoot (*Truncilla donaciformis*).

* Remove 7 Animals: Snowy Egret (*Egretta thula*), Blanding's Turtle (*Emydoidea blandingii*), Greater Redhorse (*Moxostoma valenciennesi*), Pygmy Snaketail (*Ophiogomphus howei*), Butler's Gartersnake (*Thamnophis butleri*), Bewick's Wren (*Thryomanes bewickii*), and Barn Owl (*Tyto alba*).

* Remove 9 plants: Yellow Giant Hyssop (*Agastache nepetoides*), Prairie Indian-Plantain (*Cacalia tuberosa*), Drooping Sedge (*Carex prasina*), Canada Horse-balm (*Collinsonia canadensis*), Hemlock Parsley (*Conioselinum chinense*), Yellow Gentian (*Gentiana alba*), American Fever-few (*Parthenium integrifolium*), Bog Bluegrass (*Poa paludigena*), and Snowy Campion (*Silene nivea*).

A revision to the E/T list will undoubtedly generate interest and have the potential for some level of controversy. Groups likely to be impacted or interested in the issue include: the conservation and scientific community, project applicants through the environmental review process, and the general public.

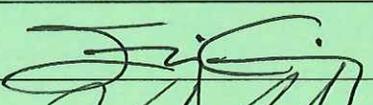
The Department believes the impact of these rule changes on businesses and municipalities will be minimal. A draft Fiscal Estimate and Economic Impact Analysis have been prepared. The Department has solicited comments and input on the economic impact Board Order ER-27-11 will have on affected parties, including municipal governments, small businesses, consultants, researchers, and the agricultural and forestry industries.

The board approved the Scope Statement and Pink Sheet at the March 2012 meeting.

RECOMMENDATION: That the Board authorize public hearing for Board Order ER-27-11.

LIST OF ATTACHED MATERIALS (check all that are applicable):

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|---|--|
| <input type="checkbox"/> (choose one) | <input checked="" type="checkbox"/> Attachments to background memo |
| <input type="checkbox"/> Statement of scope | <input type="checkbox"/> Governor approval of statement of scope |
| <input checked="" type="checkbox"/> Fiscal estimate and economic impact analysis (EIA) form | <input checked="" type="checkbox"/> Environmental assessment or impact statement |
| <input type="checkbox"/> Response summary | <input checked="" type="checkbox"/> Board order/rule |

Approved by	Signature	Date
Erin Crain, Bureau Director		12/10/12
Kurt Thiede, Administrator		12/14/12
Cathy Stepp, Secretary		1/8/13

cc: Board Liaison - AD/8

Program attorney - LS/8

Department rule coordinator - LS/8

CORRESPONDENCE/MEMORANDUM

DATE: December 26th, 2012

TO: All members of the Natural Resources Board

FROM: Cathy Stepp
Secretary, Department of Natural Resources

SUBJECT: Background memo on Board Order ER-27-11, relating to authorization of public hearings on revisions to Chapter NR 27, Wis. Adm. Code, pertaining to the Wisconsin Endangered/Threatened Species List.

Summary:

The department is requesting public hearing authorization on the proposed revision of Chapter NR 27, Wis. Adm. Code, pertaining to the Wisconsin Endangered/Threatened (E/T) species list. State statute, s. 29.604 (3) (b) Wis. Stats., gives the DNR the authority to periodically review and, after public hearing, to revise the E/T list.

Between January 2010 and August 2011, BER initiated and completed a review of Wisconsin's rare species. This review found that a total of 15 animal species changes (8 list additions and 7 list removals) and 9 plant changes (all list removals) should be proposed; and an additional 20 scientific names should be updated on the published rule. The addition of 8 species and removal of 16 species would bring the total number of plants and animals on the E/T list from 239 to 231.

Between September 24-October 24th, 2012 the Department solicited input on the economic impact of the proposed rule. With the input received, a draft EIA was developed. Request for public hearing authorization is now being requested.

1. Why is the rule being proposed?

The state E/T species list [NR 27.03 (2) and (3)] was created in 1975 in order to provide legal protection for those species of plants and animals whose populations are critically low and are in danger of becoming extirpated from the state. Subsection 29.604 (3)(b) requires the Department to periodically review and revise the E/T species list. Since the first list of Wisconsin E/T species was developed in 1972, the list has been revised 10 times. The major list revisions, where greater than 5 species were removed or added, took place in 1978-1979, 1985, 1989, and 1997. While the last major list revision was in 1997, the list has been occasionally revised for individual species: Gray Wolf (delisted in 2004), Bald Eagle (delisted in 2007), Osprey (delisted in 2009), Trumpeter Swan (delisted in 2009), and 4 cave bat species (listed in 2011).

In 2006, the Bureau of Endangered Resources (BER) drafted and the BER Policy Team approved program guidance that lays out the process for reviewing and making recommendations to revise the E/T list. The guidance document recommends conducting a list-wide review at least every 5 years and earlier as needed, based on changes in species population condition. Changes in population condition of species typically occur more frequently than the E/T list is revised, and are reflected in the Natural Heritage Inventory (NHI) Working List and NHI system of global and state rarity ranks. Global and state rarity ranks are assigned to every species following standardized methodology developed by NatureServe, a non-governmental umbrella organization for NHI and similar programs throughout the U.S., Canada, and

Latin America. The NHI system of global and state rarity ranks is the primary trigger for initiating a status assessment of a species, which inform the E/T list revision process.

Between January 2010 and August 2011, BER initiated and completed a review of Wisconsin's rare species using the 2006 E/T list revision document as guidance. The review resulted in over 1000 state rarity rank changes and a list of recommended revisions to the E/T species list. Biologists from a variety of state and national agencies, organizations, and universities, as well as naturalists throughout the state with taxonomic expertise provided new or updated information on the population condition and distribution of rare species in the state.

Department biologists focused attention and resources on conducting status assessments on species that are at risk of extirpation in the state and where application of Wisconsin's Endangered Species Law (ESL) would be effective in their protection. Because minimal protection is afforded to plants through Wisconsin's application of the ESL, it was decided that no plants would be proposed for listing at this time regardless of rarity. The process was documented including the creation of a database to capture the recommendations and information provided. Status assessments were conducted and resulted in the following proposed changes to the Wisconsin's E/T list. Also included is a summary statement supporting the E/T list change.

All species on the current NHI working list were reviewed for potential listing. This review found that a total of 15 animal species changes (8 list additions and 7 list removals) and 9 plant changes (all list removals) should be proposed; and an additional 20 scientific names should be updated on the published rule. The addition of 8 species and removal of 16 species would bring the total number of plants and animals on the E/T list from 239 to 231.

The primary short-term and long-term effects of this revision are to provide greater protection for those plants and animals that are critically rare in Wisconsin and will likely be lost or undergo severe population declines if not granted protection, by focusing conservation efforts and avoidance/minimization measures on the most at risk species. And remove the protection for those that are no longer considered critically rare. As the endangered species law (s. 29.415, Stats.) is already in effect, there will be no change in Department policy regarding means to conserve these species.

2. Summary of the Rule - Proposed E/T List Revisions

A. The 16 species the state proposes to remove from the endangered and threatened list are:

Barn Owl (*Tyto alba*), an owl, has a scattered and irregular distribution in the state, mostly the southern half. The species has always been on the edge of its range in Wisconsin and is not considered a regular breeder. In their range, they are found in rural lands or grasslands with some combination of wet meadows, wetland edges, pastures, old-fields, grain crops, hayfields, hedges, and fencerows; usually within 1-2km of permanent water and adjacent to woodlot edge. Nest sites include concrete-domed silos, barns, tree cavities, abandoned farm buildings, church steeples, bank or cliff cavities, and barn owl nest boxes. Remove from the endangered list [NR27.03(2)].

Bewick's Wren (*Thryomanes bewickii*), a small migratory bird, has not been observed breeding in Wisconsin or neighboring states for over 40 years; it is extirpated. Remove from the endangered list [NR27.03(2)].

Snowy Egret (*Egretta thula*), a waterbird, utilizes a wide variety of wetland habitats in their range, but does not breed in Wisconsin. The species has always been on the edge of its range in Wisconsin and is not considered a regular breeder in the state. Remove from the endangered list [NR27.03(2)].

Greater Redhorse (*Moxostoma valenciennesi*), a large fish, is found in widely scattered locations in the Lake Michigan and Mississippi River basins. The species appears stable in WI; found consistently in multiple watersheds. Remove from the threatened list [NR27.03(3)].

Blanding's Turtle (*Emydoidea blandingii* = *Emydoidea blandingi*), a turtle, is often found in slow moving rivers, streams, ponds, lakes, marshes, swamps, sloughs, and backwater areas, as well as adjacent terrestrial habitats found in the majority of Wisconsin's counties, except for the north-central tier. Species still slightly declining in WI, however large population numbers and wide distribution. Species is not imperiled in the state. Remove from the threatened list [NR27.03(3)].

Butler's Gartersnake (*Thamnophis butleri*), a snake, is found in open to semi-open canopy wetland and upland habitat, including prairies, sedge meadows, shrub carr, wet meadows, marshes, grasslands, savannas, old fields, pastures, grassy roadsides, and vacant lots in Dodge, Fond du Lac, Milwaukee, Ozaukee, Sheboygan, Washington, and Waukesha counties. Species appears stable in WI. New information on abundance, range, and hybridization support delisting. Remove from the threatened list [NR27.03(3)].

Pygmy Snaketail (*Ophiogomphus howei*), a small dragonfly, is found in clean, fast flowing, medium to large streams with abundant gravel or sand substrates in northern Wisconsin. These streams are also in largely forested watersheds. Species appears stable in the state. New populations found using modeling of habitat and targeted surveys. Remove from the threatened list [NR27.03(3)].

American Fever-few (*Parthenium integrifolium*), a composite plant also known as Wild Quinine, is found in dry-mesic to mesic (sometimes wet-mesic) prairie and savanna in mostly loamy to moderately sandy soils in the southwest and southeast corners of the state. The population in Wisconsin appears stable. It is reproducing well on managed and restored sites, and on newly planted sites. Remove from the threatened list [NR27.03(3)].

Bog Bluegrass (*Poa paludigena*), a grass, is found most often growing on banks and atop hummocks, tussocks, and moss-covered logs along small creeks, rivulets, and pools in black ash/yellow birch, black ash/red maple, and black ash/elm swamps throughout the state, perhaps most common in west-central and northwestern Wisconsin in areas bordering the driftless region. Population in Wisconsin appears stable. New records have resulted from inventories. Remove from the threatened list [NR27.03(3)].

Canada Horse-balm (*Collinsonia canadensis*), is a plant in the mint family is also known as Stoneroot, and is considered extirpated in Wisconsin. Elsewhere in its range it has been found in rich beech-maple deciduous forests, as well as occasionally in swampy deciduous forests or oak-hickory and sassafras forests. Documented at only 2 locations in Wisconsin; one is presumed extirpated and the other has not been observed for 150 years. This species is conspicuous and easy to identify. Remove from the endangered list [NR27.03(2)].

Drooping Sedge (*Carex prasina*), a plant in the sedge family, is found in good-quality, mesic hardwood forests encompassing seepages, spring heads, and streamlets and has been found in 11 counties mostly representing widely scattered populations. The population in Wisconsin is stable. It has a narrow habitat preference; however it has a fairly wide distribution and is found regularly in suitable habitat. Remove from the threatened list [NR27.03(3)].

Hemlock Parsley (*Conioselinum chinense*), a plant in the parsley family is considered extirpated. It was found in low, springy, marly ground and old tamarack bogs in Waukesha, Walworth, and Milwaukee counties. Only six native occurrences were known in the state; All are presumed extirpated or historical. Species is conspicuous and easy to identify. Remove from the endangered list [NR27.03(2)].

Prairie Indian-Plantain (*Arnoglossum plantagineum* = *Cacalia tuberosa*), a plant in the aster family, is found in open, deep-soiled wet to wet-mesic to dry prairies that are usually calcareous; has been reported from the southern two tiers of counties in Wisconsin, including Grant, Crawford, Lafayette, Iowa, Green, Dane, Rock, Jefferson, Walworth, Waukesha, Kenosha, and Racine counties. It inhabits moist prairies on lakeplains, outwash plains and low moraines in southeastern Wisconsin as well as dry oak openings and bluff prairies in central and southwestern Wisconsin. The population in Wisconsin is stable to increasing; It has responded well to prairie management. Remove from the threatened list [NR27.03(3)].

Snowy Campion (*Silene nivea*), a plant in the pink family, is found in rich woods and alluvial, disturbed floodplains and streambanks, old grasslands, sand prairie, and roadsides. Primarily known from the Driftless area in south-central, southwestern, and western portion of the state. The population in Wisconsin appears stable. It is able to persist with reed canary grass and in degraded streamside habitats and roadside, railroad and utility rights-of-way. Species no longer considered imperiled. Remove from the threatened list [NR27.03(3)].

Yellow Gentian (*Gentiana alba*), a plant in the gentian family is also known as Yellowish Gentian, and is found in dry to moist prairies, savannas and open woods in a wide variety of soil types. In Wisconsin it has been found in 32 counties, mostly in the south-central portion of the state. The population in Wisconsin is increasing. Most of the population expansion and increases have occurred in old fields. Remove from the threatened list [NR27.03(3)].

Yellow Giant Hyssop (*Agastache nepetoides*), a plant in the mint family, is found in areas with partial sun within dry and dry mesic forests, oak woodlands, oak openings, alluvial forests, as well as the edges of meadows, fencerows, and thickets; primarily found in southern Wisconsin in Crawford, Grant, Lafayette, Green, Rock, Walworth, Racine, Jefferson, Dane, and Columbia counties. The population in Wisconsin is stable to increasing. It has responded well to savanna management and restoration. Remove from the threatened list [NR27.03(3)].

B. The 8 animals the state proposes to add to the endangered and threatened list are:

Upland Sandpiper (*Bartramia longicauda*), a bird, is found primarily in the southwest, northwest sands, and northeastern part of the state. Other secondary areas are in the central, southeast, and western parts of the state. This species prefers large, open landscapes with short to mid-height grassy vegetation, including remnant prairie, lightly grazed pastures, barrens, old fields, and other idle grasslands, and hay fields. This species is in decline in Wisconsin, some of the largest declines in its range; once reported at 55 sites. It may disappear from Wisconsin without large blocks of idle and/or grazed grasslands. Add to threatened list [NR27.03(3)].

Black Tern (*Chlidonias niger*), a bird, is found in found in northern, eastern, and central Wisconsin in marshes, river sloughs, rivers, lakeshores, impoundments, and wet meadows, typically in sites with mixture of emergent vegetation and open water. The species is in decline in Wisconsin. Surveys indicate declines as much as 36% in recent years and a 78% decline over 30 years. Once reported at 79 sites, was found only at 7 breeding colonies in 2010. Add to endangered list [NR27.03(2)].

Kirtland's Warbler (*Dendroica* (= *Setophaga*) *kirtlandii*), a bird, is found in Adams and Marinette counties in areas at least 30 hectares in size, where scrubby jack pine (2 to 6 meters high) is interspersed with many small openings and minimal ground cover. This species is considered to be "critically imperiled" globally and is currently on the Federal list of endangered species. This species has nested in Wisconsin consistently since 2007; twelve new populations are now known. There are historic records of individuals in the state. Add to endangered list [NR27.03(2)].

Beach-dune Tiger Beetle (*Cicindela hirticollis rhodensis*), a beetle also known as the “hairy-necked tiger beetle”, is found on beaches of Lakes Superior and Michigan. This species is rare and declining in Wisconsin (30%). Once reported from 9-10 sites statewide, now only one known viable population remains. Add to endangered list [NR27.03(2)].

Fawnsfoot (*Truncilla donaciformis*), a freshwater mussel, is only known from the Mississippi River and portions of its major tributaries in Wisconsin (St. Croix and Wisconsin River). This species is in decline in Wisconsin. Populations are disappearing range wide. Once widespread and abundant, this species is rarely found in recent years. Numbers have greatly declined in WI's remaining viable populations (St. Croix and Lower Wisconsin Rivers). Add to threatened list [NR27.03(3)].

Ottoo Skipper (*Hesperia ottoe*), a butterfly, is found in nine counties in the southwestern corner of the state on dry to dry-mesic hill prairies, sand prairies, and sand barrens. This species is very rare and in decline in Wisconsin. Once known to 16 sites; as of 2011 only 4 are extant (a 75% decline since the mid-1990s). Many populations are gone range wide. Very few sites have the size, quality, structure, or connectivity to sustain this species. Add to endangered list [NR27.03(2)].

A Leafhopper (*Attenuipyga vanduzeei*), a small terrestrial insect also known as “a prairie leafhopper” or “shovel-headed leafhopper”, is found in the highest quality prairie remnants near the Mississippi and Lower Wisconsin Rivers. This species is very rare in Wisconsin. Only 4 extant populations are known. This species has poor dispersal ability and is sensitive to management and woody encroachment. Add to endangered list [NR27.03(2)].

An Issid Planthopper (*Fitchiella robertsoni*), a small terrestrial insect also known as “Fitch's Elephanthopper” or “Robertson's Flightless Planthopper” or “Fitch's Planthopper”, is found in high quality remnant dry to dry-mesic grasslands in the bluffs along the Mississippi River and in the sand country of northwest Wisconsin. This species is very rare in Wisconsin. Only 4 extant populations are known. Add to threatened list [NR27.03(3)].

C. The 20 species the state proposes for a scientific name change are:

- Northern Cricket Frog also known as Blanchard's Cricket Frog (*Acris blanchardii* change to *Acris crepitans*), endangered
- Worm-eating Warbler (*Helmitheros vermivorus* change to *Helmitheros vermivorum*), endangered
- Pallid Shiner (*Notropis annis* change to *Hybopsis annis*), endangered
- Shoal Chub also known as Speckled Chub (*Macrhybopsis aestivalis* change to *Macrhybopsis hyostoma*), threatened
- Spatterdock Darner Dragonfly (*Aeshna mutata* change to *Rhionaeschna mutata*), threatened
- Obovate Beak Grass (*Diarrhena americana* change to *Diarrhena obovata*), endangered
- Canada Gooseberry also known as Hawthorn-leaved Gooseberry (*Ribes oxycanthoides* change to *Ribes oxycanthoides* ssp. *oxycanthoides*), threatened
- Cliff Cudweed (*Gnaphalium saxicola* change to *Pseudognaphalium saxicola*), threatened
- Early Anemone (*Anemone multifida* change to *Anemone multifida* var. *multifida*), endangered
- Forked Aster (*Aster furcatus* change to *Eurybia furcata*), threatened
- Green Spleenwort (*Asplenium trichomanes-namosum* change to *Asplenium trichomanes-ramosum*), endangered
- Hall's Bulrush (*Scirpus hallii* change to *Schoenoplectus hallii*), endangered

- Hoary Whitlow-cress (*Draba lanceolata* change to *Draba cana*), endangered
- Large-leaved Sandwort (*Moehringia macrophylla* change to *Arenaria macrophylla*), endangered
- Long-beaked Baldrush also known as Bald Rush (*Rhynchosjsora scirysoides* change to *Rhynchospora scirpoides*), threatened
- Plains Ragwort (*Senecio indecorus* change to *Packera indecora*), threatened
- Sticky False-asphodel also known as False Asphodel (*Tofieldia glutinosa* change to *Triantha glutinosa*), threatened
- Tea-leaved Willow also known as Flat-leaved Willow (*Salix planifolia* change to *Salix planifolia* ssp. *planifolia*), threatened
- Thickspike also known as Thickspike Wheatgrass (*Elymus lonceolatus* ssp. change to *Elytrigia dasystachya* ssp. *psammophilus*), threatened
- Tufted Bulrush also known as Tussock Bulrush (*Scirpus cespitosus* change to *Trichophorum cespitosum*), threatened

3. How does this affect existing policy?

No new policies proposed. Wisconsin's E/T List is governed by Wisconsin Adm. Codes, NR 27 and NR 10.02 and State statute, s. 29.604 (3) (b) Wis. Stats.

4. Has the Board dealt with these issues before?

State statute, s. 29.604 (3) (b) Wis. Stats., gives the DNR the authority to periodically review and, after public hearing, to revise the E/T list. Since the first list of Wisconsin E/T species was developed in 1972, the list has been revised 10 times. The major list revisions, where greater than 5 species were removed or added, took place in 1978-1979, 1985, 1989, and 1997. While the last major list revision was in 1997, the list has been occasionally revised for individual species: Gray Wolf (delisted in 2004), Bald Eagle (delisted in 2007), Osprey (delisted in 2009), Trumpeter Swan (delisted in 2009), and 4 cave bat species (listed in 2011).

5. Who will be impacted by the proposed rule? How?

A revision to the E/T list will likely generate a large amount of interest that will be addressed through systematic review, discussion, and transparency of the process. Groups likely to be impacted or interested in the issue include the conservation community, project applicants through the environmental review process, and the general public, including agricultural and forestry industries, commercial and development businesses, natural resources consultants, utilities, road builders and wildlife rehabilitators.

In development of the Economic Impact Analysis (EIA), a list of affected parties was developed, along with the positive and negative impacts of both listing and delisting.

The affected parties identified are:

- Agricultural community
- County and municipal governments
- Department of Transportation (DOT)
- Development community
- Environmental consultants

- Federal agencies (NRCS, USFWS, USFS, NPS, USACE)
- Habitat (e.g., wetland, forest, prairie, beach, barrens, streams)
- Land management and conservation groups (NGOs)
- Private landowners
- Utility companies and the Public Service Commission
- Researchers
- The species
- Tourism
- Wisconsin Department of Natural Resources (WDNR)
- Forest Industry
- Small businesses

Updating the E/T list to focus conservation efforts and avoidance/minimization measures on WI's most at risk species will ultimately save money. All actions that the Department conducts, funds or approves on public or private lands must be screened for potential impacts to rare species. Endangered Resources Screening relies on NHI data for records of rare species occurrences. The number of NHI records for species proposed for addition to the E/T list is far fewer than the number of records for species proposed for delisting – eight species are proposed for listing (with a total of 217 NHI occurrences) versus 16 species proposed for delisting (with a total of 1055 NHI occurrences). Reducing the number of E/T species records will lessen regulatory impacts to businesses and individuals.

The regulatory impact of listing a species:

- E/T species are checked for when department staff conduct, fund or approve an activity. Avoidance measures are provided to project applicants to enable them to avoid take of the species.
- For projects that are not able to avoid take, Wisconsin's endangered species law allows for the issuance of incidental take permits. Incidental take permits allow for projects to occur where take of an endangered or threatened species is likely and where take can also be minimized and mitigated.
- The department has also created several broad incidental take permits to provide blanket incidental take coverage for routine activities. A broad incidental take permit, unlike an individual incidental take permit, does not require an application, processing time or a fee. The most recent broad incidental take permits cover grassland management and cave bats.

The regulatory impact of delisting a species:

- More flexibility in project design that had been altered based on the presence of an E/T species that is now being proposed for delisting.

6. Information on environmental analysis:

The primary short-term and long-term effects of this revision are to provide greater protection for those plants and animals that are critically rare in Wisconsin and will likely be lost or undergo severe population declines if not granted protection, by focusing conservation efforts and avoidance/minimization measures on the most at risk species.

Species not on the endangered and threatened list may also indirectly receive protection through measures meant for listed species and as a result may never become rare (and require listing)

themselves. Alternatively, species not on the endangered and threatened list may no longer receive protection measures in the future that were meant for listed species that are being proposed for delisting.

A preliminary environmental assessment (EA) was prepared and is included with this background memo as Attachment B.

7. Small business analysis:

Most often the public and small businesses become aware of the endangered species law through one of DNR's permitting processes. Wisconsin's endangered species law is implemented by the department in that any activity that the department conducts, funds or approves must consider impacts to listed species (s.29.604 Wis. Stats.). Both endangered and threatened species have the same level of legal protection. Under Wisconsin's law listed animals are protected on all public and private land. Plants are only protected on public land and agricultural, forestry, and utility activities are exempt from this protection (s. 29.604 Wis. Stats.).

In most instances, a permit applicant provides a description of the proposed project. Department staff perform an endangered resources review utilizing the Natural Heritage Inventory database to determine if 1) there is a listed species that may be present, and if 2) the project area has suitable habitat for that species. If either of these criteria are not present the applicant is informed that there is no potential impact and the project proceeds. Over 2/3 of projects fall into this category. If **both** the species is known to be in the area **and** there is suitable habitat on the project site, the department works with the applicant to see if impacts to a listed species may be avoided through seasonal adjustments, temporary removals or barriers. If it can, the project proceeds. If impacts can't be avoided, an incidental take permit is issued to the applicant that allows take of the species. State law requires that all projects under an incidental take permit must minimize and mitigate these impacts. (s.29.604 Wis. Stats.). When the minimization and mitigation measures are in place, the permit is publicly noticed and the project may proceed. Very few projects require an incidental take permit, typically fewer than 20 a year are issued.

Affected constituencies include agricultural and forestry industries, commercial and development businesses, natural resources consultants, utilities, road builders and wildlife rehabilitators.

Pursuant to s. 227-137 Wis. Stats., the department was required to solicit comments on the economic impact of the proposed rule, and if requested to coordinate with local governments in the preparation of an EIA. Comments were collected between 9/24/2012 and 10/24/2012. A total of 18 comments were received; 8 were economic comments that were incorporated into the EIA. No local governments submitted comments or requested we coordinate with them in the preparation of the EIA. A summary of the EIA comments and a detailed EIA report are included with the Fiscal Estimate and Economic Impact Analysis form (DOA-2049). The EIA report is organized by the types of small businesses, organizations, and units of government that could be affected.

The economic cost of listing and delisting a species is highly dependant on its range and distribution, seasonal occurrence, habitat requirements, management needs, sensitivity to disturbance, etc. Effects of listing/delisting will be highly variable among different types of businesses and their locations and hard to predict, however the overall economic impact of the proposed revisions will be reduced because of the location and number of NHI records. The 16 species being proposed for removal from the endangered and threatened species list have a total of 1055 records in the NHI

database which is used for conducting an endangered resources review. There are a total of 217 records in the NHI database for the eight species being proposed for addition.

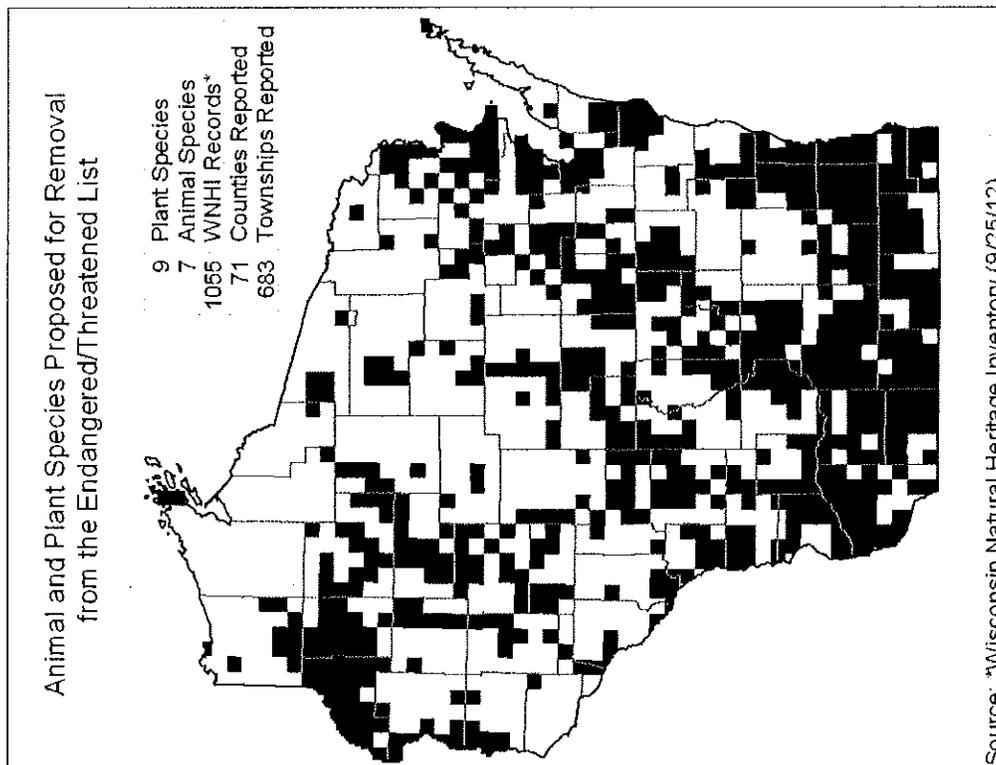
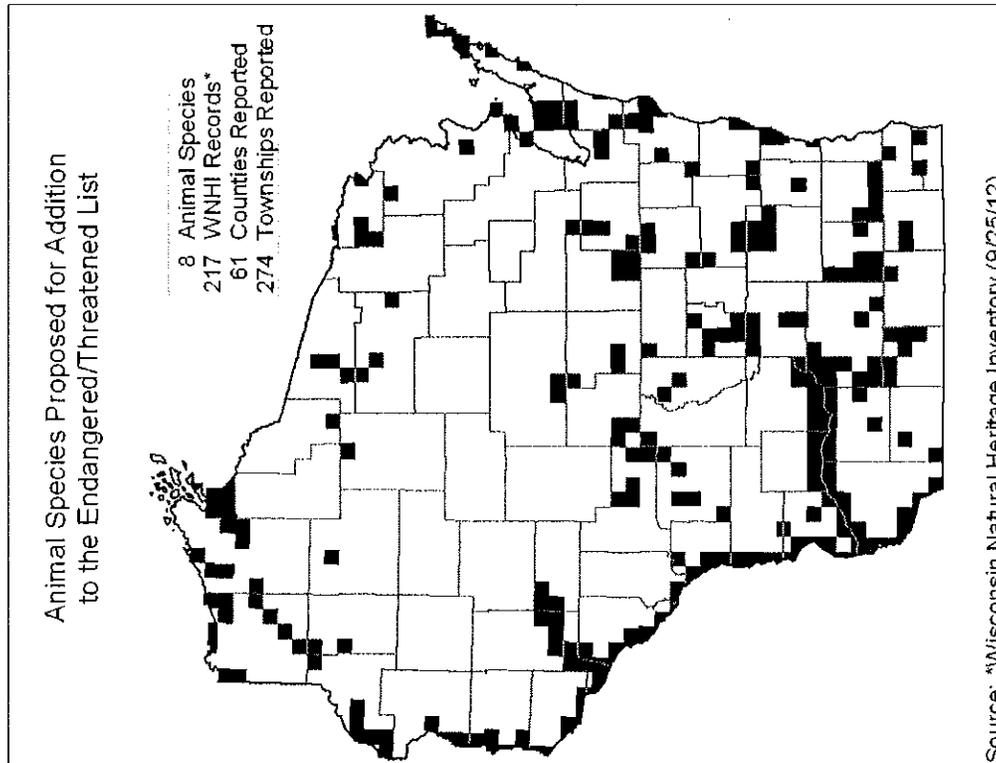
8. Attachments

- A. Proposed species narrative and Wisconsin NHI township/county maps
- B. Preliminary Environmental Assessment

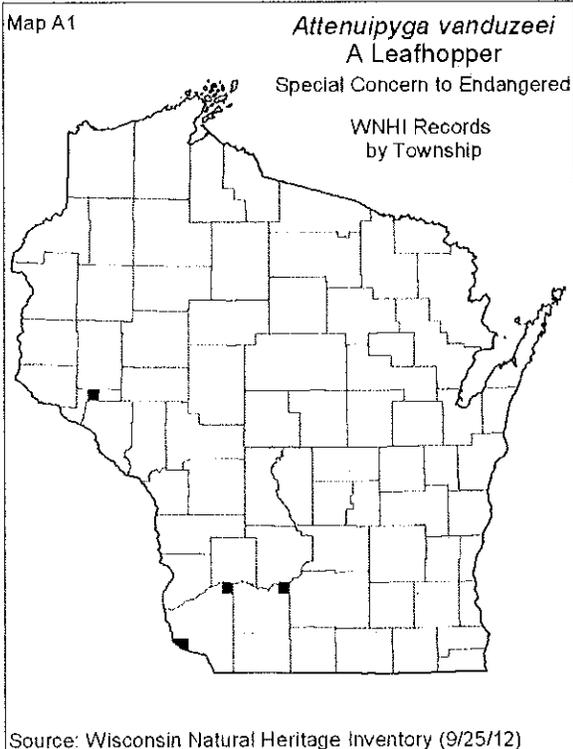
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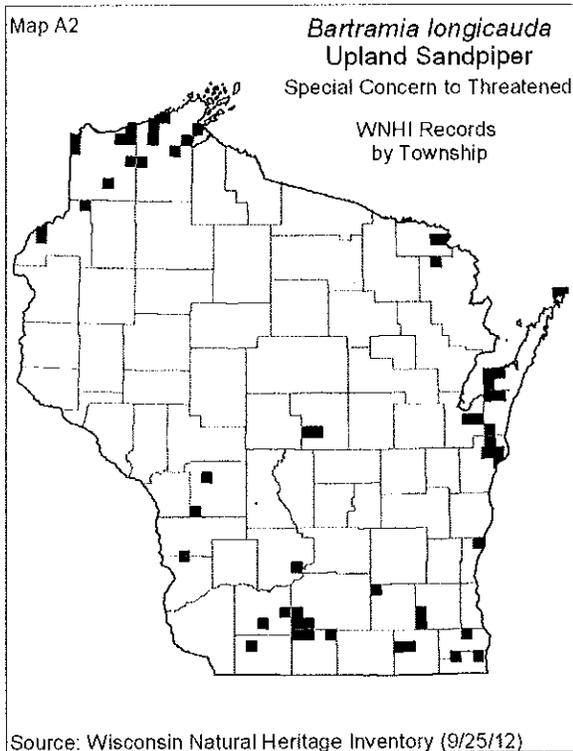
Attachment A. Biological descriptions and Natural Heritage Inventory township/county maps for the proposed revisions to the Endangered and Threatened Species List of Wisconsin (ER-27-11).



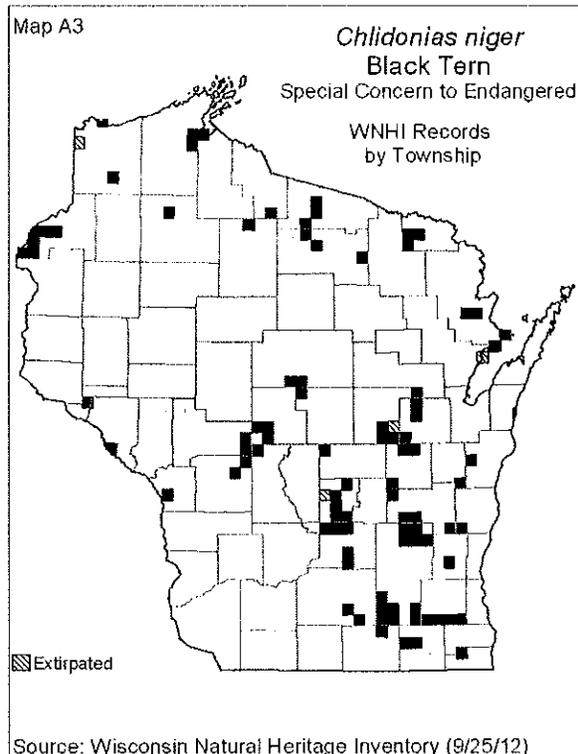
ANIMAL SPECIES - ADD TO ENDANGERED/THREATENED



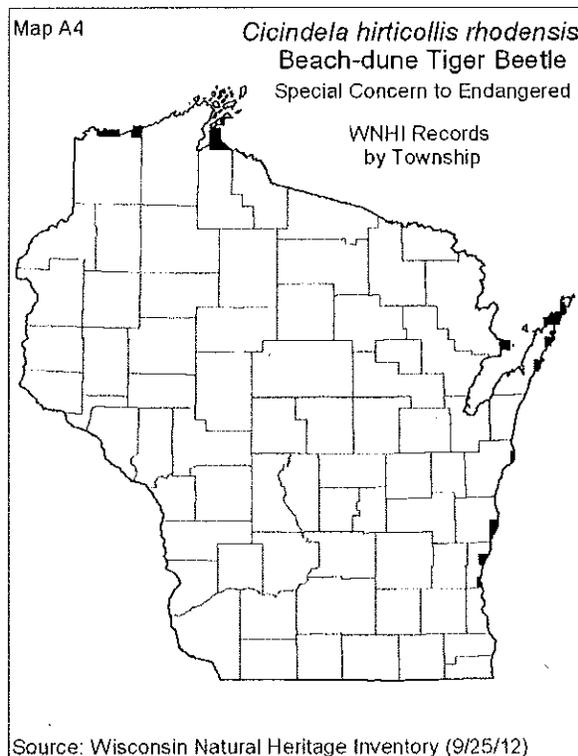
A Leafhopper (*Attenuipyga vanduzeei*), a small terrestrial insect also known as “a prairie leafhopper” or “shovel-headed leafhopper”, is found in the highest quality prairie remnants near the Mississippi and Lower Wisconsin Rivers. This species is very rare in Wisconsin. Only 4 extant populations are known. This species has poor dispersal ability and is sensitive to management and woody encroachment. Add to endangered list [NR27.03(2)]. Map A1.



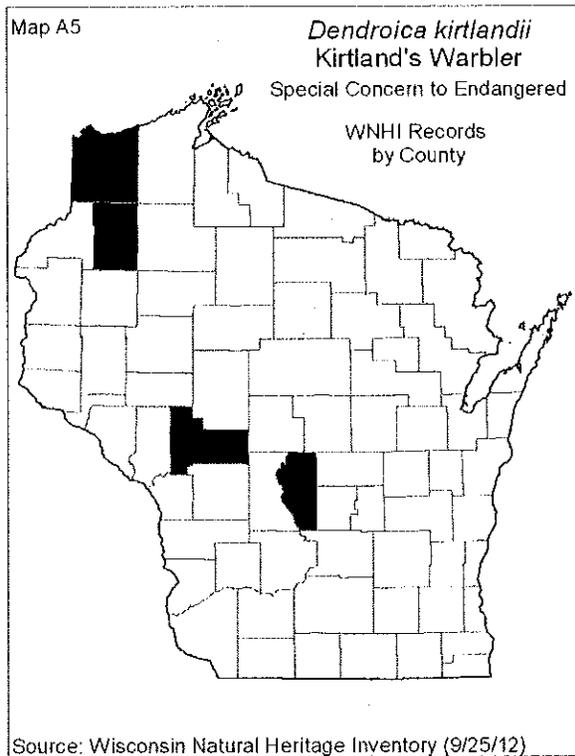
Upland Sandpiper (*Bartramia longicauda*), a bird, is found primarily in the southwest, northwest sands, and northeastern part of the state. Other secondary areas are in the central, southeast, and western parts of the state. This species prefers large, open landscapes with short to mid-height grassy vegetation, including remnant prairie, lightly grazed pastures, barrens, old fields, and other idle grasslands, and hay fields. This species is in decline in Wisconsin, some of the largest declines in its range; once reported at 55 sites. It may disappear from Wisconsin without large blocks of idle and/or grazed grasslands. Add to threatened list [NR27.03(3)]. Map A2.



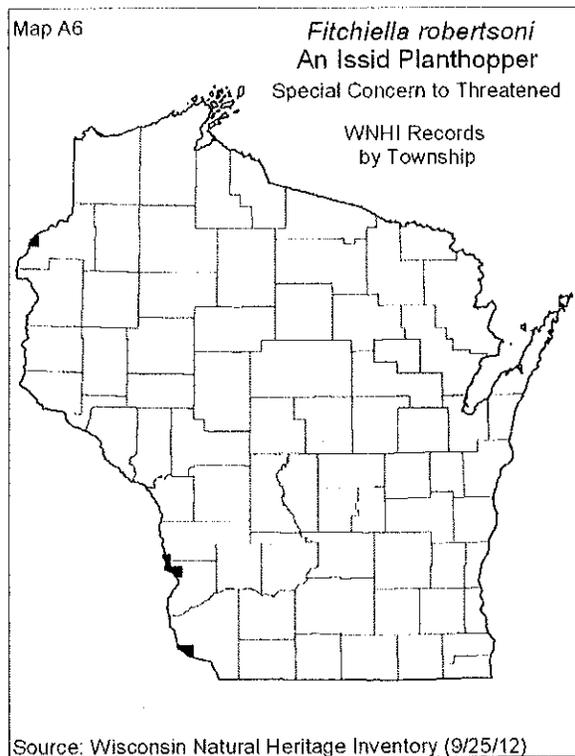
Black Tern (*Chlidonias niger*), a bird, is found in northern, eastern, and central Wisconsin in marshes, river sloughs, rivers, lakeshores, impoundments, and wet meadows, typically in sites with mixture of emergent vegetation and open water. The species is in decline in Wisconsin. Surveys indicate declines as much as 36% in recent years and a 78% decline over 30 years. Once reported at 79 sites, was found only at 7 breeding colonies in 2010. Add to endangered list [NR27.03(2)]. Map A3.



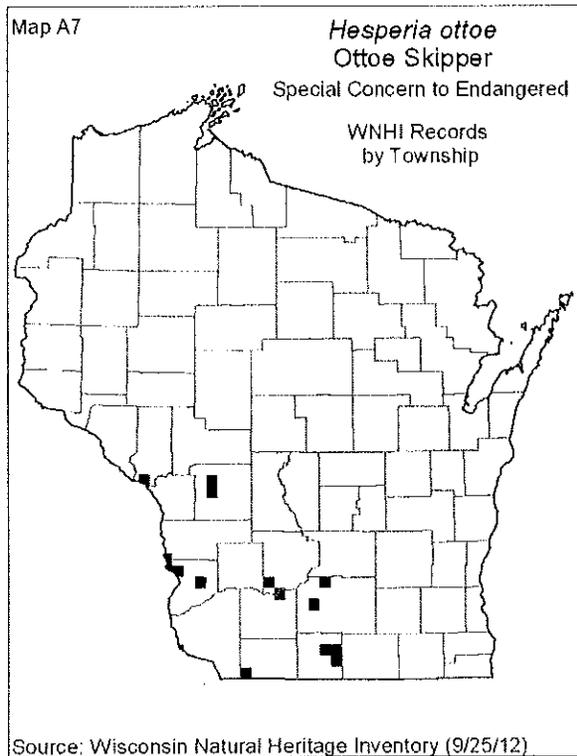
Beach-dune Tiger Beetle (*Cicindela hirticollis rhodensis*), a beetle also known as the “hairy-necked tiger beetle”, is found on beaches of Lakes Superior and Michigan. This species is rare and declining in Wisconsin (30%). Once reported from 9-10 sites statewide, now only one known viable population remains. Add to endangered list [NR27.03(2)]. Map A4.



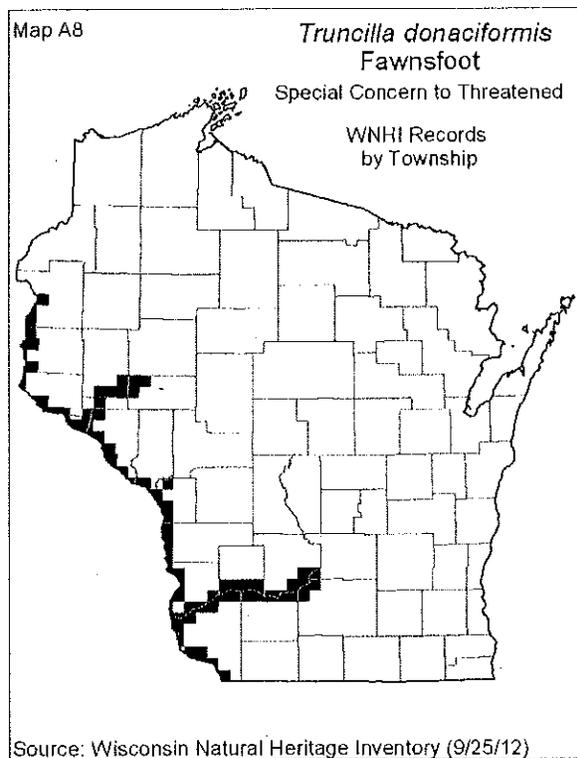
Kirtland's Warbler (*Dendroica kirtlandii*), a bird, is found in Adams and Marinette counties in areas at least 30 hectares in size, where scrubby jack pine (2 to 6 meters high) is interspersed with many small openings and minimal ground cover. This species is considered to be "critically imperiled" globally and is currently on the Federal list of endangered species. This species has nested in Wisconsin consistently since 2007; twelve new populations are now known. There are historic records of individuals in the state. Add to endangered list [NR27.03(2)]. Map A5.



An Issid Planthopper (*Fitchiella robertsoni*), a small terrestrial insect also known as "Fitch's Elephanthopper" or "Robertson's Flightless Planthopper" or "Fitch's Planthopper", is found in high quality remnant dry to dry-mesic grasslands in the bluffs along the Mississippi River and in the sand country of northwest Wisconsin. This species is very rare in Wisconsin. Only 4 extant populations are known. Add to threatened list [NR27.03(3)]. Map A6.

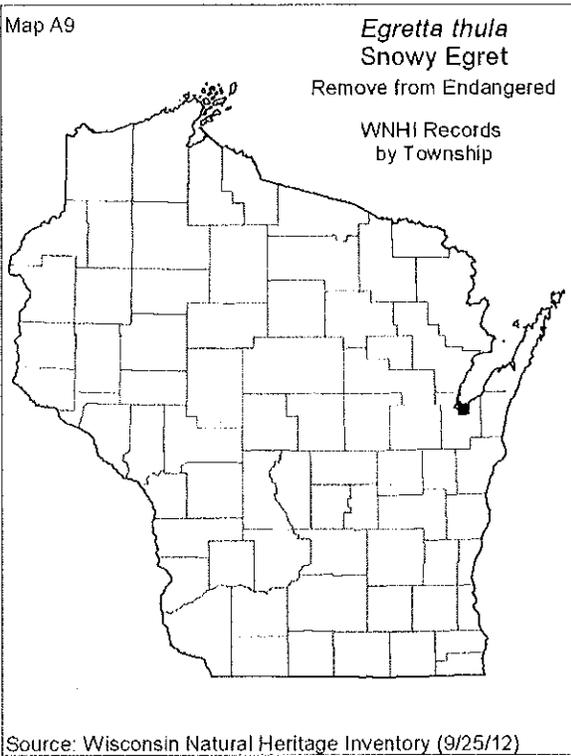


Ottoe Skipper (*Hesperia ottoe*), a butterfly, is found in nine counties in the southwestern corner of the state on dry to dry-mesic hill prairies, sand prairies, and sand barrens. This species is very rare and in decline in Wisconsin. Once known to 16 sites; as of 2011 only 4 are extant (a 75% decline since the mid-1990s). Many populations are gone range wide. Very few sites have the size, quality, structure, or connectivity to sustain this species. Add to endangered list [NR27.03(2)]. Map A7.

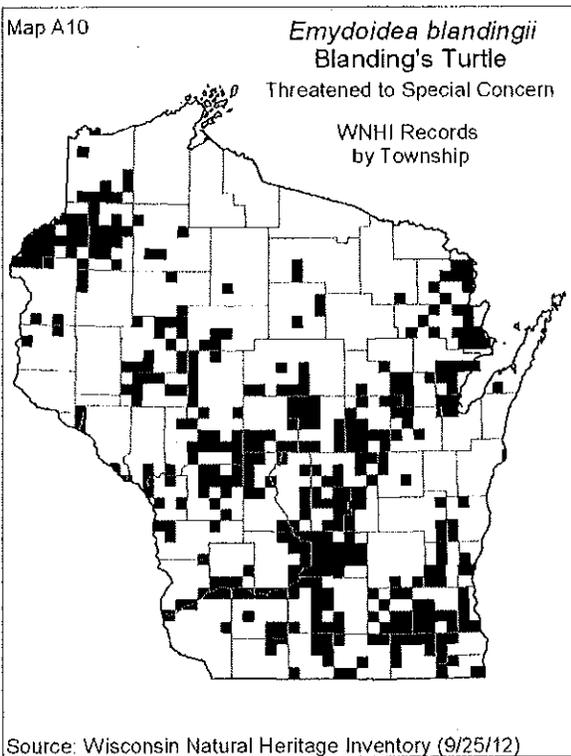


Fawnsfoot (*Truncilla donaciformis*), a freshwater mussel, is only known from the Mississippi River and portions of its major tributaries in Wisconsin (St. Croix and Wisconsin River). This species is in decline in Wisconsin. Populations are disappearing range wide. Once widespread and abundant, this species is rarely found in recent years. Numbers have greatly declined in WI's remaining viable populations (St. Croix and Lower Wisconsin Rivers). Add to threatened list [NR27.03(3)]. Map A8.

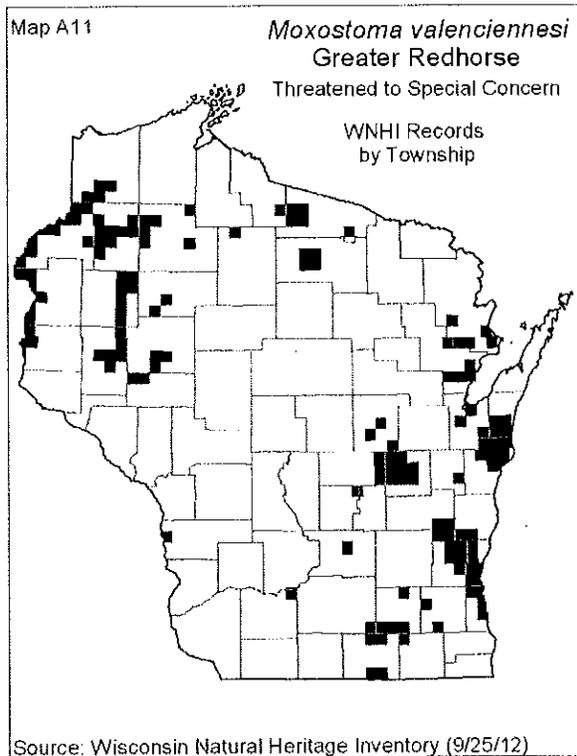
ANIMAL SPECIES - REMOVE FROM ENDANGERED/THREATENED



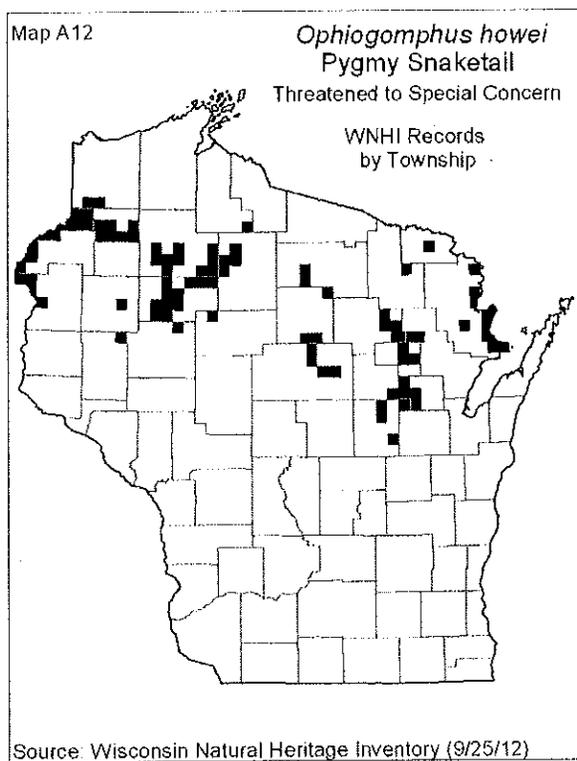
Snowy Egret (*Egretta thula*), a waterbird, utilizes a wide variety of wetland habitats in their range, but does not breed in Wisconsin. The species has always been on the edge of its range in Wisconsin and is not considered a regular breeder in the state. Remove from the endangered list [NR27.03(2)]. Map A9.



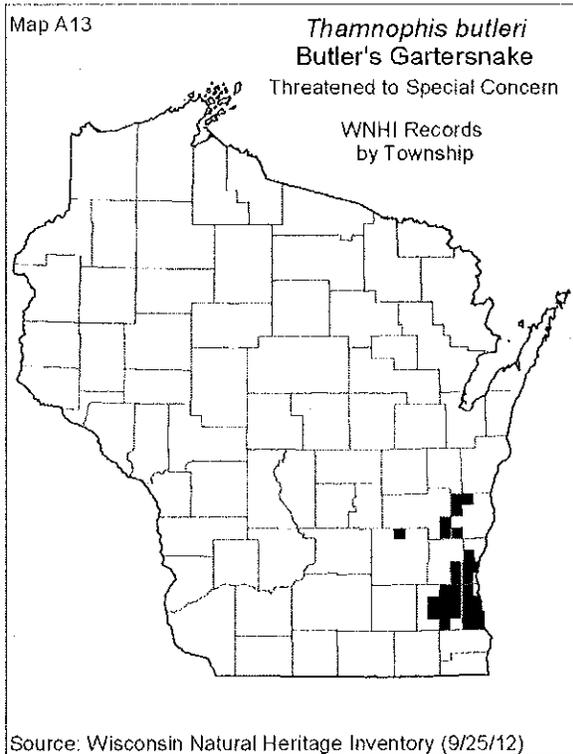
Blanding's Turtle (*Emydoidea blandingii*), a turtle, is often found in slow moving rivers, streams, ponds, lakes, marshes, swamps, sloughs, and backwater areas, as well as adjacent terrestrial habitats found in the majority of Wisconsin's counties, except for the north-central tier. Species still slightly declining in WI, however large population numbers and wide distribution. Species is not imperiled in the state. Remove from the threatened list [NR27.03(3)]. Map A10.



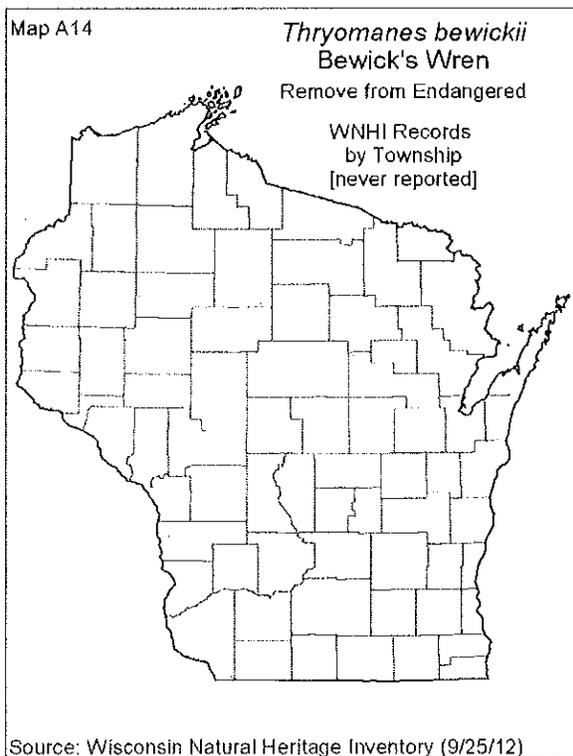
Greater Redhorse (*Moxostoma valenciennesi*), a large fish, is found in widely scattered locations in the Lake Michigan and Mississippi River basins. The species appears stable in WI; found consistently in multiple watersheds. Remove from the threatened list [NR27.03(3)]. Map A11.



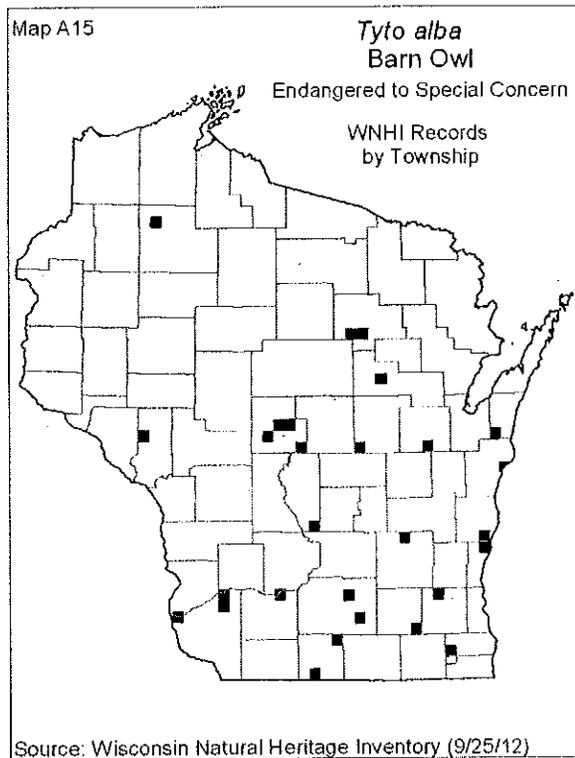
Pygmy Snaketail (*Ophiogomphus howei*), a small dragonfly, is found in clean, fast flowing, medium to large streams with abundant gravel or sand substrates in northern Wisconsin. These streams are also in largely forested watersheds. Species appears stable in the state. New populations found using modeling of habitat and targeted surveys. Remove from the threatened list [NR27.03(3)]. Map A12.



Butler's Gartersnake (*Thamnophis butleri*), a snake, is found in open to semi-open canopy wetland and upland habitat, including prairies, sedge meadows, shrub carr, wet meadows, marshes, grasslands, savannas, old fields, pastures, grassy roadsides, and vacant lots in Dodge, Fond du Lac, Milwaukee, Ozaukee, Sheboygan, Washington, and Waukesha counties. Species appears stable in WI. New information on abundance, range, and hybridization support delisting. Remove from the threatened list [NR27.03(3)]. Map A13.

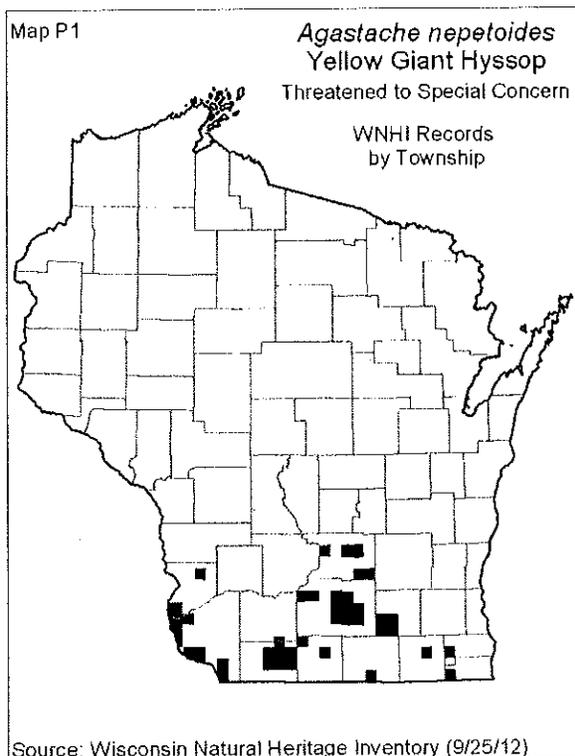


Bewick's Wren (*Thryomanes bewickii*), a small migratory bird, has not been observed breeding in Wisconsin or neighboring states for over 40 years; it is extirpated. Remove from the endangered list [NR27.03(2)]. Map A14.

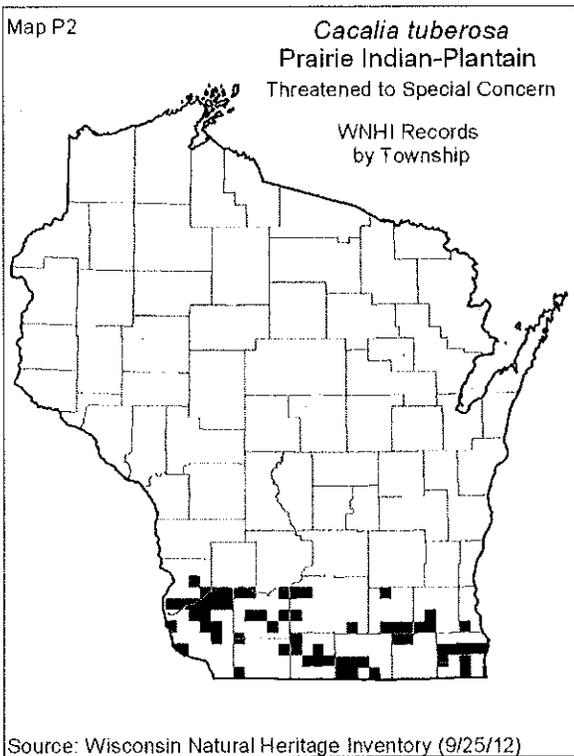


Barn Owl (*Tyto alba*), an owl, has a scattered and irregular distribution in the state, mostly the southern half. The species has always been on the edge of its range in Wisconsin and is not considered a regular breeder. In their range, they are found in rural lands or grasslands with some combination of wet meadows, wetland edges, pastures, old-fields, grain crops, hayfields, hedges, and fencerows; usually within 1-2km of permanent water and adjacent to woodlot edge. Nest sites include concrete-domed silos, barns, tree cavities, abandoned farm buildings, church steeples, bank or cliff cavities, and barn owl nest boxes. Remove from the endangered list [NR27.03(2)]. Map A15.

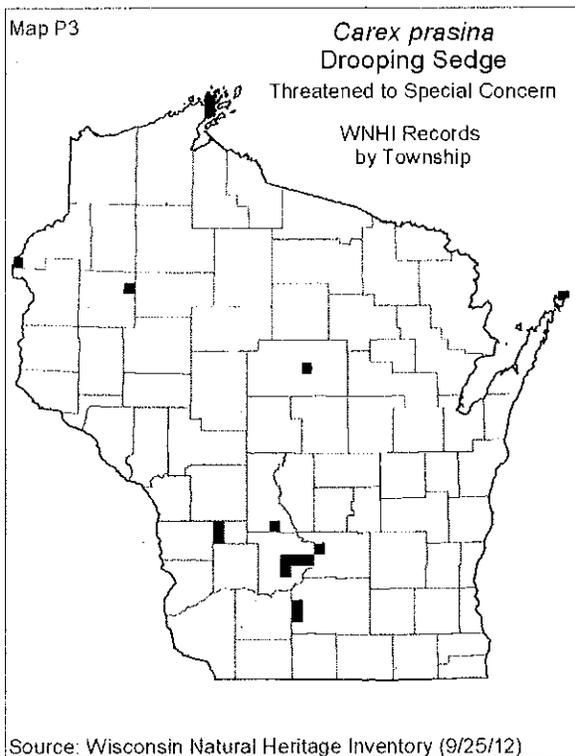
PLANT SPECIES - REMOVE FROM ENDANGERED/THREATENED



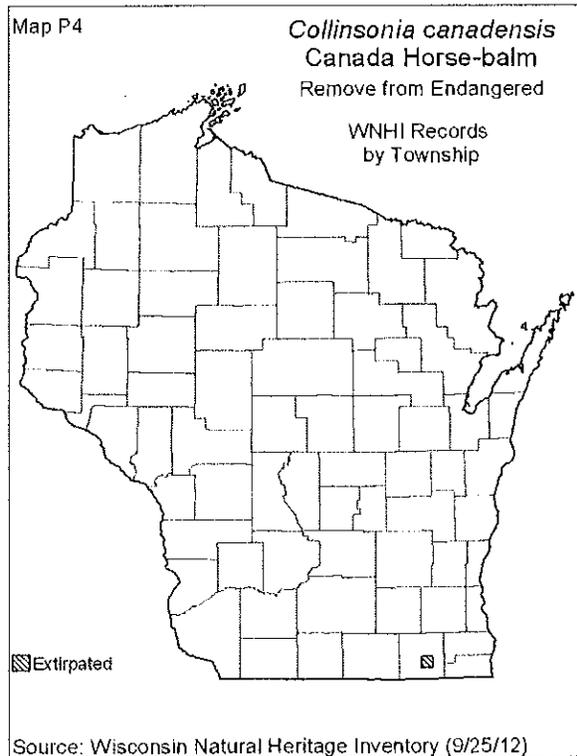
Yellow Giant Hyssop (*Agastache nepetoides*), a plant in the mint family, is found in areas with partial sun within dry and dry mesic forests, oak woodlands, oak openings, alluvial forests, as well as the edges of meadows, fencerows, and thickets; primarily found in southern Wisconsin in Crawford, Grant, Lafayette, Green, Rock, Walworth, Racine, Jefferson, Dane, and Columbia counties. The population in Wisconsin is stable to increasing. It has responded well to savanna management and restoration. Remove from the threatened list [NR27.03(3)]. Map P1.



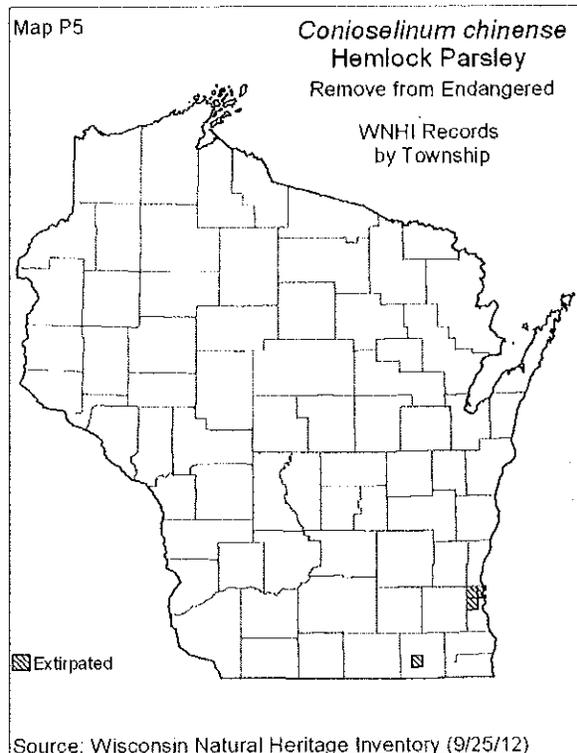
Prairie Indian-Plantain (*Cacalia tuberosa* = *Arnoglossum plantagineum*), a plant in the aster family, is found in open, deep-soiled wet to wet-mesic to dry prairies that are usually calcareous; has been reported from the southern two tiers of counties in Wisconsin, including Grant, Crawford, Lafayette, Iowa, Green, Dane, Rock, Jefferson, Walworth, Waukesha, Kenosha, and Racine counties. It inhabits moist prairies on lakeplains, outwash plains and low moraines in southeastern Wisconsin as well as dry oak openings and bluff prairies in central and southwestern Wisconsin. The population in Wisconsin is stable to increasing; It has responded well to prairie management. Remove from the threatened list [NR27.03(3)]. Map P2.



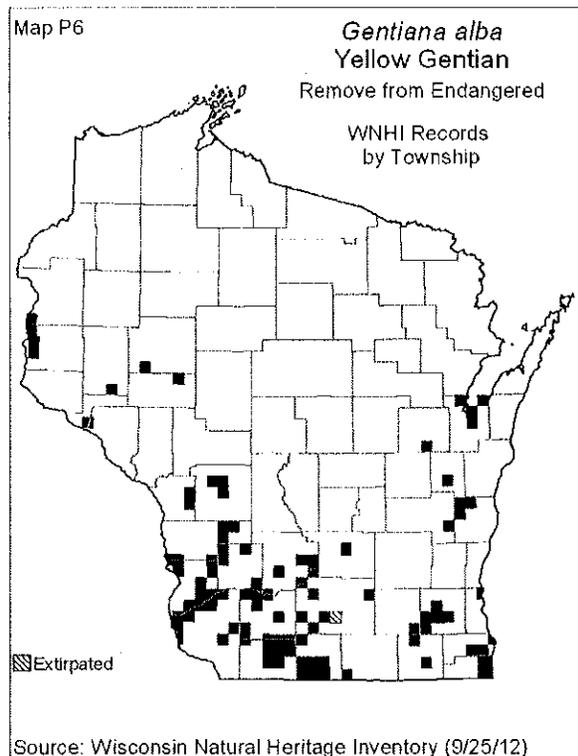
Drooping Sedge (*Carex prasina*), a plant in the sedge family, is found in good-quality, mesic hardwood forests encompassing seepages, spring heads, and streamlets and has been found in 11 counties mostly representing widely scattered populations. The population in Wisconsin is stable. It has a narrow habitat preference; however it has a fairly wide distribution and is found regularly in suitable habitat. Remove from the threatened list [NR27.03(3)]. Map P3.



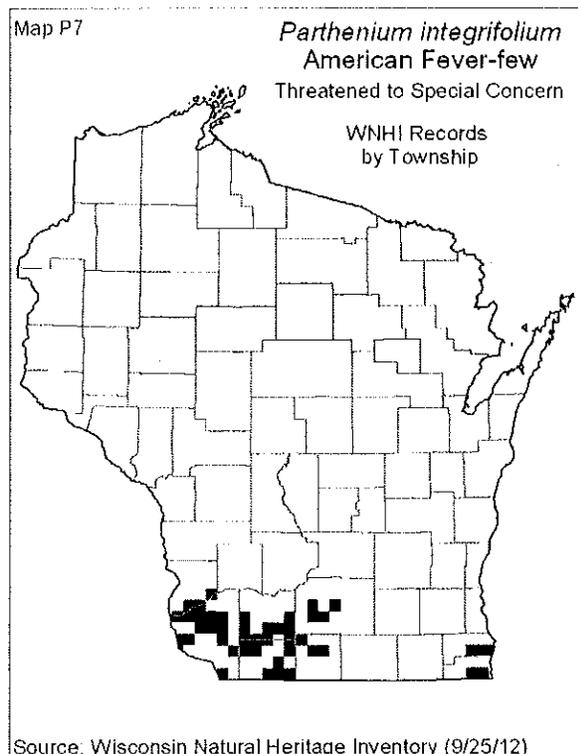
Canada Horse-balm (*Collinsonia canadensis*), is a plant in the mint family is also known as Stoneroot, and is considered extirpated in Wisconsin. Elsewhere in its range it has been found in rich beech-maple deciduous forests, as well as occasionally in swampy deciduous forests or oak-hickory and sassafras forests. Documented at only 2 locations in Wisconsin; one is presumed extirpated and the other has not been observed for 150 years. This species is conspicuous and easy to identify. Remove from the endangered list [NR27.03(2)]. Map P4.



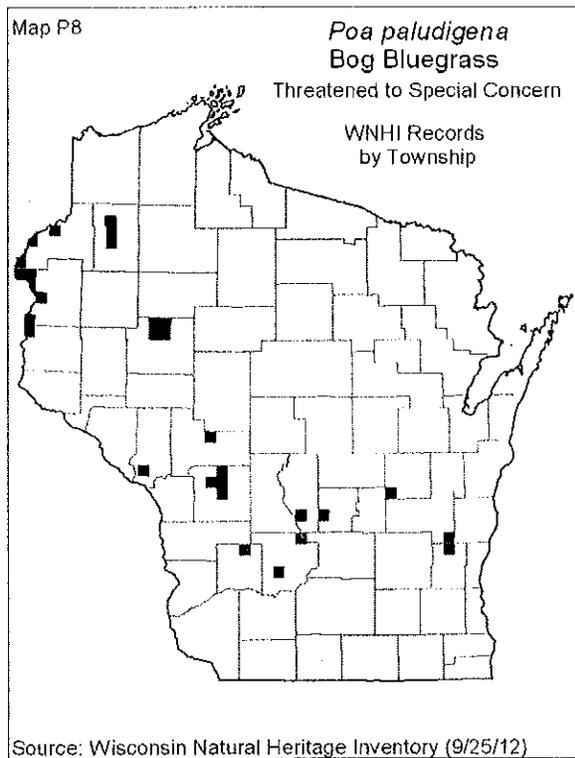
Hemlock Parsley (*Conioselinum chinense*), a plant in the parsley family is considered extirpated. It was found in low, springy, marly ground and old tamarack bogs in Waukesha, Walworth, and Milwaukee counties. Only six native occurrences were known in the state; All are presumed extirpated or historical. Species is conspicuous and easy to identify. Remove from the endangered list [NR27.03(2)]. Map P5.



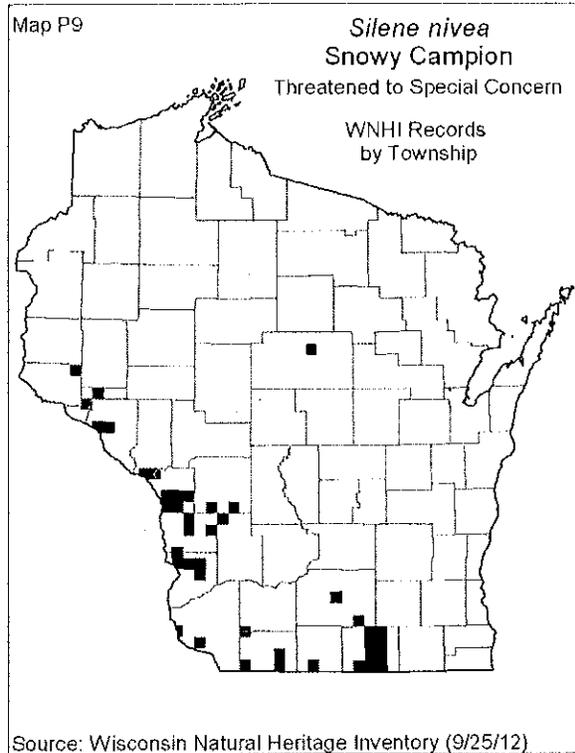
Yellow Gentian (*Gentiana alba*), a plant in the gentian family is also known as Yellowish Gentian, and is found in dry to moist prairies, savannas and open woods in a wide variety of soil types. In Wisconsin it has been found in 32 counties, mostly in the south-central portion of the state. The population in Wisconsin is increasing. Most of the population expansion and increases have occurred in old fields. Remove from the threatened list [NR27.03(3)]. Map P6.



American Fever-few (*Parthenium integrifolium*), a composite plant also known as Wild Quinine, is found in dry-mesic to mesic (sometimes wet-mesic) prairie and savanna in mostly loamy to moderately sandy soils in the southwest and southeast corners of the state. The population in Wisconsin appears stable. It is reproducing well on managed and restored sites, and on newly planted sites. Remove from the threatened list [NR27.03(3)]. Map P7.



Bog Bluegrass (*Poa paludigena*), a grass, is found most often growing on banks and atop hummocks, tussocks, and moss-covered logs along small creeks, rivulets, and pools in black ash/yellow birch, black ash/red maple, and black ash/elm swamps throughout the state, perhaps most common in west-central and northwestern Wisconsin in areas bordering the driftless region. Population in Wisconsin appears stable. New records have resulted from inventories. Remove from the threatened list [NR27.03(3)]. Map P8.



Snowy Campion (*Silene nivea*), a plant in the pink family, is found in rich woods and alluvial, disturbed floodplains and streambanks, old grasslands, sand prairie, and roadsides. Primarily known from the Driftless area in south-central, southwestern, and western portion of the state. The population in Wisconsin appears stable. It is able to persist with reed canary grass and in degraded streamside habitats and roadside, railroad and utility rights-of-way. Species no longer considered imperiled. Remove from the threatened list [NR27.03(3)]. Map P9.

PRELIMINARY
Environmental Assessment on Proposed Rule Revision to Update
Wisconsin's Endangered and Threatened Species List
[ER-27-11]

Wisconsin Department of Natural Resources

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Kelly S. Kearns
Rori Paloski
William A. Smith

December 2012

Bureau of Endangered Resources staff has made the preliminary determination that these rule revisions are a Type II action under Chapter 150, Wis. Adm. Code, thus requiring an Environmental Assessment.

Bureau of Endangered Resources staff has made the preliminary determination these rule revisions are not a major and significant action under s. 1.11, Wis. Stats., and therefore an Environmental Impact Statement is not required.

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I. EIS Recommendation

The Environmental Assessment (EA) and the Economic Impact Analysis (EIA) report of the impacts of this proposal are of sufficient scope and detail to conclude that this is not a major action which would significantly affect the quality of the human environment. Therefore an Environmental Impact Statement (EIS) is not required prior to final action by the Department.

A. Significance

1. Environmental Effects. The primary short-term and long-term effects of this revision are to provide greater protection for the species that are critically rare in Wisconsin and will likely be lost or undergo severe population declines if not granted protection, by focusing conservation efforts and avoidance/minimization measures on the most at risk species. As the endangered species law (s. 29.604, Stats.) is already in effect, there will be no change in Department policy regarding means to conserve these species. The removal and addition of species to the endangered and threatened (E/T) list will likely require increased consultation initially with Department staff during environmental assessments and endangered resources reviews. Overtime there will be a net decrease, as the proposed list revision reduces the number of regulated species. Enforcement requirements will not be significantly increased.
2. Cumulative Effects. Other rare species not on the E/T list, but sharing habitat with listed species, may also indirectly receive protection through measures meant for listed species and as a result may never become rare (and require listing) themselves. Alternatively, species not on the E/T list, but sharing habitat with listed species that is being proposed for delisting, may lose indirect protection.
3. Risk of Uncertainty. The degree of risk or uncertainty in predicting environmental impacts or effectively controlling potential environmental impacts is low and there are no known public safety and health impacts. As the endangered species law (s. 29.604, Stats.) is already in effect, there will be no change in Department policy regarding means to conserve species on the E/T list. Reduced protection and management efforts for species proposed for delisting and conversely increased efforts for species proposed for listing are expected, but the amount of and the impact to the species are uncertain. Future protection and management afforded under different programs and agencies are unknown and may adversely or favorably affect these species. Population status and trends will continue to be monitored by the Natural Heritage Inventory (NHI) program for future E/T list revisions.

4. Precedent. No precedent is set with this proposed revision. The proposed list revision is consistent with s. 29.604, Stats.

5. Controversy. There may be controversy regarding adding species to and removing species from the threatened and endangered list. The controversy may come from groups or individuals who believe that species should not be protected from extirpation from the state, or that legal protection will have socio-economic impacts that outweigh the benefits of conserving the species. Conversely, groups or individuals may oppose removing species from the E/T list, as the species may become eligible for harvest or taking thus placing the species at risk. And associated species and habitat may potentially experience reduced protection and management efforts provided for E/T species; Or that it is premature to delist, as more monitoring is needed to confirm population trends. Potential controversy also exists from groups or individuals who believe the proposed list and delist does not include as many species as they believe it should. With this range of values as a backdrop, the Department must carry out its responsibility to protect the native plants and animals of the state, of which rare species are a part.

All suggestions for changes have been carefully reviewed. Those species whose rarity, decline, or improvement can be demonstrated through use of the best data available and consultation with specialists and would benefit from the protection and management tools afforded under the Endangered Species Law are proposed for listing or delisting. (The biological thought process used in developing the proposed list is detailed in the section on History and Background.) Some of the species for which there were listing recommendations by species experts and are not being proposed are highlighted in the section addressing Alternatives and Their Impacts (VI). The potential controversy of this proposed revision regarding specific potentially affected parties is detailed in relation to economic consequences (V. Environmental Consequences).

II. History and Background

The state E/T species list [NR 27.03 (2) and (3)] was created in 1975 in order to provide legal protection for those species of plants and animals whose populations are critically low and are in danger of becoming extirpated from the state. Subsection 29.604 (3)(b) requires the Department to periodically review and revise the E/T species list. Since the first list of Wisconsin E/T species was developed in 1972, the list has been revised 10 times. The major list revisions, where greater than 5 species were removed or added, took place in 1978–1979, 1985, 1989, and 1997. While the last major list revision was in 1997, the list has been occasionally revised for individual species: Gray Wolf (delisted in 2004), Bald Eagle (delisted in 2007), Osprey (delisted in 2009), Trumpeter Swan (delisted in 2009), and 4 cave bat species (listed in 2011).

The purpose of revising the state E/T species list is to provide protection for Wisconsin's critically rare species. Section 29.604, Stats., prohibits certain actions which may be detrimental to rare species and provides the Department with the authority to establish the list of E/T species and enforce the laws. This law prohibits "taking" of any listed species of animal by any action in the state. Listed plants are protected from taking on public lands except in the course of forestry, agriculture, and utility activities.

An amendment to the state's endangered species law allows for the taking of E/T species when the taking is incidental to another lawful action and when the taking will not jeopardize the survival of the species within the state [Section 29.604(6m)(6r), Stats.]. This amendment brings Wisconsin's law in line with the Federal Endangered Species Act regarding incidental take. Specific broad incidental take authorizations have been developed for listed cave bats, Butler's gartersnake, and grassland and savanna management. The Broad Incidental Take permit and authorization for grassland and savanna management, as provided for under s. 29.604 Wis. Stats., allows for the incidental taking (mortality) of certain E/T species that may occur as a result of specific grassland and savanna management activities. These species are dependent upon management to set back natural succession, and although the disturbance may result in some mortality, take is minimized by protocols designed for each species.

The federal and state laws remain different in regards to requirements for recovery plans. The federal law requires that a recovery plan be developed and implemented for each E/T species. The state law does not have this requirement.

In 2006, the Bureau of Endangered Resources (BER) drafted and the BER Policy Team approved program guidance that lays out the process for reviewing and making recommendations to revise the E/T list. The 2006 E/T list revision procedures document recommends conducting a list-wide review at least every 5 years and earlier as needed, based on changes in species population condition. As changes in population condition of species typically occur more frequently than the E/T list is revised, they are reflected in the Natural Heritage Inventory (NHI) Working List and NHI system of global and state rarity ranks. Global and state rarity ranks are assigned to every species following standardized methodology developed by NatureServe, a non-governmental umbrella organization for NHI and similar programs throughout the U.S., Canada, and Latin America. The NHI system of global and state rarity ranks is the primary trigger for initiating a status assessment of a species, which inform the E/T list revision process.

NHI Programs and NatureServe use a suite of factors to assess the extinction or extirpation risk of plants, animals, and ecosystems, and to assign conservation ranks at global, national, and state levels. The set of factors used to assess conservation status, by category, are:

- **Rarity:** Population Size, Range Extent, Area of Occupancy, Number of Occurrences, Number of Occurrences or Percent Area with Good Viability/Ecological Integrity, and Environmental Specificity (used only when the Number of Occurrences and Area of Occupancy are unknown).
- **Trends:** Long-term and Short-term Trend in population size or area.
- **Threats:** Threat Impact (generated by considering the scope and severity of the major threats), and Intrinsic Vulnerability (used only if Threat Impact is unknown).

Between January 2010 and August 2011, BER initiated and completed a review of Wisconsin's rare species using the 2006 E/T list revision procedures document as guidance. The review resulted in over 1000 state rarity rank changes and a list of recommended revisions to the E/T species list. Biologists from a variety of state and national agencies, organizations, and universities, as well as naturalists throughout the state with taxonomic expertise provided new or updated information on the population condition and distribution of rare species in the state.

Department biologists focused attention and resources on conducting status assessments on species that are at risk of extirpation in the state and where application of Wisconsin's Endangered Species Law (ESL) would be effective in their protection. Sources of information used during this process, included:

- Historical and existing occurrences of the species as tracked in the NHI database, which is a compilation of the most current information in the state.
- Results of WDNR and other surveys.
- Consultation with experts both in and out of state, and other state heritage programs for information, rangewide threats, and management/protection efforts/response.
- Published literature on various species.

III. Proposal Description

The state E/T species list [NR 27.03 (2) and (3)] was created in 1975 in order to provide legal protection for those species of plants and animals whose populations are critically low and are in danger of becoming extirpated from the state. Subsection 29.604 (3)(b) requires the Department to periodically review and revise the E/T species list.

Section 29.604 (3)(a), Stats., requires the Department to develop a list of endangered and threatened species based on the "best scientific and commercial data available." These data were compiled through the use of the NHI database, as described in sec.II. All species on the current NHI working list were reviewed for potential listing. This review found that a total of 15 animal species changes (8 list additions and 7 list removals) and 9 plant changes (all list removals) should be proposed; and an additional 20 scientific names should be updated on the published rule. The addition of 8 species and removal of 16 species would bring the total number of plants and animals on the E/T list from 239 to 231.

Species summary descriptions can be found in the plain language analysis section of the proposed rule (Board Order ER-27-11), and maps and narratives can be found in Attachment A of the background memo. The maps depict occurrences of each species by township or county as recorded in the NHI database. Both historical (generally, records which are 25 years or more old) and current occurrences are shown. Townships or counties with only extirpated observations (populations disappeared/destroyed) are depicted differently as they are not considered during the environmental review process. Full status assessments and state rarity rank worksheets are available online on the WDNR's "ET List" web pages.

ANIMAL SPECIES - ADD TO E/T

- A Leafhopper (*Attenuipyga vanduzeei*)
- Upland Sandpiper (*Bartramia longicauda*)
- Black Tern (*Chlidonias niger*)
- Beach-dune Tiger Beetle (*Cicindela hirticollis rhodensis*)
- Kirtland's Warbler (*Dendroica (=Setophaga) kirtlandii*)
- An Issid Planthopper (*Fitchiella robertsoni*)
- Ottoe Skipper (*Hesperia ottoe*)
- Fawnsfoot (*Truncilla donaciformis*)

ANIMAL SPECIES - REMOVE FROM E/T

- Snowy Egret (*Egretta thula*)
- Blanding's Turtle (*Emydoidea blandingii* = *Emydoidea blandingi*)
- Greater Redhorse (*Moxostoma valenciennesi*)
- Pygmy Snaketail (*Ophiogomphus howei*)
- Butler's Gartersnake (*Thamnophis butleri*)
- Bewick's Wren (*Thryomanes bewickii*)
- Barn Owl (*Tyto alba*)

PLANT SPECIES - REMOVE FROM E/T

- Yellow Giant Hyssop (*Agastache nepetoides*)
- Prairie Indian-Plantain (*Arnoglossum plantagineum* = *Cacalia tuberosa*)
- Drooping Sedge (*Carex prasina*)
- Canada Horse-balm (*Collinsonia canadensis*)
- Hemlock Parsley (*Conioselinum chinense*)
- Yellow Gentian (*Gentiana alba*)
- American Fever-few (*Parthenium integrifolium*)
- Bog Bluegrass (*Poa paludigena*)
- Snowy Campion (*Silene nivea*)

ANIMAL AND PLANT SPECIES - UPDATE SCIENTIFIC NAME:

- Northern Cricket Frog also known as Blanchard's Cricket Frog (*Acris blanchardii* change to *Acris crepitans*), endangered
- Worm-eating Warbler (*Helmitheros vermivorus* change to *Helmitheros vermivorum*), endangered
- Pallid Shiner (*Notropis annis* change to *Hybopsis annis*), endangered
- Shoal Chub also known as Speckled Chub (*Macrhybopsis aestivalis* change to *Macrhybopsis hyostoma*), threatened
- Spatterdock Darner Dragonfly (*Aeshna mutata* change to *Rhionaeschna mutata*), threatened
- Obovate Beak Grass (*Diarrhena americana* change to *Diarrhena obovata*), endangered
- Canada Gooseberry also known as Hawthorn-leaved Gooseberry (*Ribes oxycanthoides* change to *Ribes oxycanthoides* ssp. *oxycanthoides*), threatened
- Cliff Cudweed (*Gnaphalium saxicola* change to *Pseudognaphalium saxicola*), threatened
- Early Anemone (*Anemone multifida* change to *Anemone multifida* var. *multifida*), endangered
- Forked Aster (*Aster furcatus* change to *Eurybia furcata*), threatened
- Green Spleenwort (*Asplenium trichomanes-namosum* change to *Asplenium trichomanes-ramosum*), endangered
- Hall's Bulrush (*Scirpus hallii* change to *Schoenoplectus hallii*), endangered
- Hoary Whitlow-cress (*Draba lanceolata* change to *Draba cana*), endangered
- Large-leaved Sandwort (*Moehringia macrophylla* change to *Arenaria macrophylla*), endangered
- Long-beaked Baldrush also known as Bald Rush (*Rhynchospora scirysoides* change to *Rhynchospora scirpoides*), threatened
- Plains Ragwort (*Senecio indecorus* change to *Packera indecora*), threatened
- Sticky False-asphodel also known as False Asphodel (*Tofieldia glutinosa* change to *Triantha glutinosa*), threatened
- Tea-leaved Willow also known as Flat-leaved Willow (*Salix planifolia* change to *Salix planifolia* ssp. *planifolia*), threatened
- Thickspike also known as Thickspike Wheatgrass (*Elymus lonceolatus* ssp. change to *Elytrigia dasystachya* ssp. *psammophilus*), threatened
- Tufted Bulrush also known as Tussock Bulrush (*Scirpus cespitosus* change to *Trichophorum cespitosum*), threatened

IV. Affected Environment

A. The affected biological or physical environment associated with the proposed rule may be found throughout the state, wherever any of the proposed species occur. Many of the species proposed for listing occur in specialized habitat, often in only a few locations around the state. For example, the beach-dune tiger beetle (*Cicindela hirticollis rhodensis*), a beetle proposed for listing as endangered, is only found on wide sandy beaches of Wisconsin's Great Lakes near river mouths. Ottoe Skipper (*Hesperia ottoe*) is found in dry to dry-mesic hill prairies, sand prairies, and sand barrens in southwestern Wisconsin. Specific affected environments are described in the plain language section of the proposed rule (Board ER-27-11) and in the background memo. Maps and narratives can be found in Attachment A of the background memo. Detailed habitat information is included in the status assessments which are found on the WDNR's "ET List" web pages.

V. Environmental Consequences

A. The primary impact of this rule revision will be to improve the protection and management for the most critically rare species (and remove the protection for those that are no longer considered critically rare). Legal protection by inclusion on NR 27.03(2) and (3) limits taking and selling of these species. The listing of some of these species may preclude or alter certain management activities in certain locations. These types of concerns can be addressed by using the ecosystem management approach in analyzing impacts to listed species and in planning land management activities. The ecosystem management approach seeks a diverse mosaic of land uses and habitats across a large area of the landscape. An action precluded at one location may be carried out at other locations where threatened or endangered species do not occur. Also, using ecosystem management, an action may be acceptable at a site harboring an endangered or threatened species if its survival can be secured in the ecosystem as a whole. The Grassland and Savanna Protocols (see section III) were created to deal with many of these situations. The ecosystem management approach is the means by which the broadest array of species can potentially be protected from becoming rare, because large landscapes which encompass the array of natural community types and the interactions between them are emphasized rather than individual sites. In cases where one or more endangered or threatened animals are found on the site of a proposed development project, there may be further need for consultation with the Department to avoid impacts to the population. For example, in a proposal for a new solid waste disposal facility, because of Endangered Species Law, the applicant must avoid take of E/T species and typically accomplishes this by contacting the Department directly. If there are listed species present, the applicant would work with the Department to locate an alternate site which would not impact listed species or to develop project specifications at the same site that would avoid take of listed species.

Without mandatory avoidance measures, species that are proposed for delisting may experience population declines. Species may become eligible for harvest or taking thus placing the species at risk. And associated species and habitat may potentially experience reduced protection and management efforts provided for E/T species. Loss of E/T funding for research and habitat conservation may also impact the species and its environment.

B. Potential economic impacts of the revision of NR 27.03(2) and (3) are listed in the Fiscal Estimate and Economic Impact Analysis (EIA) report that was drafted with input from the public

[form DOA-2049]. Pursuant to s. 227.137 Wis. Stats., the Department was required to solicit comments on the economic impact of the proposed rule, and if requested to coordinate with local governments in the preparation of the EIA. Comments were collected between 9/24/2012 and 10/24/2012. A total of 18 comments were received; 8 were economic comments that were incorporated into the EIA. No local governments requested the Department coordinate with them in the preparation of the EIA. A summary of the EIA comments and the EIA report is attached with the background memo [form DOA-2049]. The EIA report is organized by the types of small businesses, organizations, and units of government that could be affected. Effects of listing/delisting will be highly variable among different groups and locations, however the overall economic impact will lessen because of the location and total number of records of species being delisted and listed.

VI. Alternatives and Their Impacts

A. No action. If this proposed revision of NR 27.03 does not occur, research by the Department and others indicate there will be ongoing, and for some species, escalated threats to the continued existence of these animals in the state. For most of these species there is no other means to provide adequate legal protection. Many of these species are now being threatened by habitat destruction or collection. The future viability of these species in Wisconsin without human intervention is unlikely, as human-caused disturbances have generally led to the species' rarity and will continue to impact populations. Not adding these species to the list would limit the research, management, and protection efforts that must be made in order to ensure the continued survival and recovery of these species. This would also eliminate the impetus (i.e., legal protection) needed to engage many partners in these cooperative efforts.

Updating the E/T list to focus conservation efforts and avoidance/minimization measures on WI's most at risk species will ultimately save money. All actions that the Department conducts, funds or approves on public or private lands must be screened for potential impacts to rare species. Endangered Resources Screening relies on NHI data for records of rare species. The number of NHI records for species proposed for addition to the E/T list is far fewer than the number of records for species proposed for delisting – eight species are proposed for listing (with a total of 217 NHI occurrences) versus 16 species proposed for delisting (with a total of 1055 NHI occurrences). If the proposed revision does not occur and thus the number of E/T species records is not decreased, regulatory impacts to businesses and individuals will not be reduced.

B. One potential alternative to the proposed list revision is to include the many more species of rare plants and animals whose status was reviewed by the NHI Program in conjunction with the current proposal but were determined to not merit listing/delisting at this time. These species were not included in this revision due to a number of reasons.

The species proposed for listing was limited to those that are not only appropriate for listing because they are at risk of extirpation, but also where application of the Endangered Species Law (ESL) would be effective in their protection. For example, the application of the ESL for plants applies only to public lands and because only approximately 17% of state land is in public conservation ownership, it was decided not to proceed with listing any new plants in this revision. That will not preclude plants from being considered again in a future list revision. While the ESL governs what is protected through the Environmental Review process, individuals

and organizations have the ability to voluntarily conserve E/T plants, Special Concern species and Natural Communities.

Following is a list of species whose addition to, or removal from the E/T list was considered but not proposed at this time. Given how the Scope Statement is written, these species could not be added to the current E/T List change proposal without starting the rule revision process over. They can however be considered in future E/T list reviews and revisions.

1. Animals. Forty-three animals were recommended by species experts for a status assessment; fifteen are included in this proposal for addition or removal. The remaining 28 animal species which were considered for addition or removal are listed below.

Currently Endangered/Threatened, Assessment recommends no change

- Acadian Flycatcher (*Empidonax virescens*)
- Ellipse (*Venustaconcha ellipsiformis*)
- Gilt Darter (*Percina evides*)
- Hooded Warbler (*Wilsonia citrina*)
- Yellow-throated Warbler (*Dendroica dominica*)

Currently Special Concern, Assessment recommends no change

- Rusty Blackbird (*Euphagus carolinus*)
- Swainson's Thrush (*Catharus ustulatus*)
- Western Meadowlark (*Sturnella neglecta*)
- Rosyface Shiner (*Notropis rubellus*)
- Western Grebe (*Aechmophorus occidentalis*)
- Yellow-breasted Chat (*Icteria virens*)

Currently Special Concern, E/T listing determined not appropriate &/or ineffective

- Zigzag Darner (*Aeshna sitchensis*) - only 1 site in WI on NPS land - water level biggest threat - ESA would not affect.
- Short-eared Owl (*Asio flammeus*) - WI not important for breeding population.
- American Eel (*Anguilla rostrata*) - legitimate decline/rarity, however minimal WI management impacts.
- A Grasshopper (*Arphia simplex*) - possibly edge of range; need more targeted surveys.
- Redhead (*Aythya americana*) - best managed at the regional scale.
- Little White Tiger Beetle (*Cicindela lepida*) - more inventory and research needed.
- North American Racer (*Coluber constrictor*) - needs targeted surveys; lack of WI info; only tracked as SC since 2000.
- Shortjaw Cisco (*Coregonus zenithicus*) - legitimate decline, however WI management minimal; predator-prey balance biggest issue.
- Timber Rattlesnake (*Crotalus horridus*) - continue to monitor population; Frank S2S3-S3; not imperiled currently; ESL protects dens not bluff tops. "Protected Wild Species" under NR 10.02
- A Leafhopper (*Driotura robusta*) - needs more surveys and research into life history.
- Cobweb Skipper (*Hesperia metea*) - more inventory and research needed.
- Black-crowned Night-Heron (*Nycticorax nycticorax*) - continue wetland management programs; and continue to monitor population.
- Sand Snaketail (*Ophiogomphus smithi*) - more inventory and research needed.

- Wilson's Phalarope (*Phalaropus tricolor*) - continue wetland management programs; and continue to monitor population.
- Gophersnake (*Pituophis catenifer*) - continue to monitor population; Srank S2S3-S3; not imperiled currently; Population numbers not known.
- King Rail (*Rallus elegans*) - edge of range; always rare in WI; continue wetland management programs.
- Wisconsin Well Amphipod (*Stygobromus putealis*) - too little is known, only site under state highway.

2. Plants. Ninety-one plants were recommended for a status assessment by species experts; nine are included in this proposal for removal. The remaining 82 plant species which were considered for addition or removal are listed below.

Currently Endangered/Threatened, Assessment recommends no change

- Hill's Thistle (*Cirsium hillii*)
- Small White Lady's-slipper (*Cypripedium candidum*)
- Pale Purple Coneflower (*Echinacea pallida*)
- Slender Spike-rush (*Eleocharis nitida*)
- Arrow-leaved Sweet-coltsfoot (*Petasites sagittatus*)
- Braun's Holly-fern (*Polystichum braunii*)
- Algae-like Pondweed (*Potamogeton confervoides*)
- Spotted Pondweed (*Potamogeton pulcher*)
- Sheathed Pondweed (*Potamogeton vaginatus*)
- Seaside Crowfoot (*Ranunculus cymbalaria*)
- Small Yellow Water Crowfoot (*Ranunculus gmelinii*)
- Snow Trillium (*Trillium nivale*)

Currently Special Concern, Assessment recommends no change

- Maidenhair Spleenwort (*Asplenium trichomanes*)
- Bushy Aster (*Aster dumosus* var. *strictior*)
- Azure Bluets (*Houstonia caerulea*)
- American Shoreweed (*Littorella uniflora* var. *americana*)
- Pale Beardtongue (*Penstemon pallidus*)
- Christmas Fern (*Polystichum acrostichoides*)
- Pin Oak (*Quercus palustris*)

Currently Special Concern, Assessment recommends adding to the E/T List

- Striped Maple (*Acer pensylvanicum*)
- Clustered Poppy-mallow (*Callirhoe triangulata*)
- Autumnal Water-starwort (*Callitriche hermaphroditica*)
- Wilcox's Panic Grass (*Dichanthelium wilcoxianum*)
- Water-purslane (*Didiplis diandra*)
- Male Fern (*Dryopteris filix-mas*)
- Longstem Water-wort (*Elatine triandra*)
- Russet Cotton-grass (*Eriophorum chamissonis*)
- Wild Licorice (*Glycyrrhiza lepidota*)
- Prairie False-dandelion (*Nothocalais cuspidata*)

- Canada Mountain-ricegrass (*Piptatherum canadense*)
- Hill's Pondweed (*Potamogeton hillii*)
- Slender Bulrush (*Scirpus heterochaetus*)
- Maryland Senna (*Senna marilandica*)
- Oregon Woodsia (*Woodsia oregana* ssp. *cathcartiana*)

Currently Special Concern, Assessment needed

- Earleaf Foxglove (*Agalinis auriculata*)
- Rock Stitchwort (*Arenaria stricta* ssp. *dawsonensis*)
- Shinnery's Three-awned Grass (*Aristida dichotoma*)
- Dragon Wormwood (*Artemisia dracunculoides*)
- Fragile-stemmed Aster (*Aster fragilis* var. *subdumosus*)
- Long-leaved Aster (*Aster longifolius*)
- Twining Screwstem (*Bartonia paniculata*)
- Mingan's Moonwort (*Botrychium minganense*)
- Blunt-lobe Grape-fern (*Botrychium oneidense*)
- Rugulose Grape-fern (*Botrychium rugulosum*)
- Spoon-leaf Moonwort (*Botrychium spathulatum*)
- Low Calamint (*Calamintha arkansana*)
- Yellow Evening Primrose (*Calylophus serrulatus*)
- Dry Woods Sedge (*Carex artitecta*)
- Hair-like Sedge (*Carex capillaris*)
- Clustered Sedge (*Carex cumulata*)
- Straw Sedge (*Carex straminea*)
- Prairie Straw Sedge (*Carex suberecta*)
- Swan Sedge (*Carex swanii*)
- Torrey's Sedge (*Carex torreyi*)
- Spreading Chervil (*Chaerophyllum procumbens*)
- Narrow-leaved Dayflower (*Commelina erecta* var. *deamiana*)
- Arrow-headed Rattle-box (*Crotalaria sagittalis*)
- Laurentian Bladder Fern (*Cystopteris laurentiana*)
- Hoary Tick-trefoil (*Desmodium canescens*)
- Buttonweed (*Diodia teres* var. *teres*)
- Jeweled Shooting Star (*Dodecatheon amethystinum*)
- Engelmann's Spike-rush (*Eleocharis engelmannii*)
- Mamillate Spike-rush (*Eleocharis mamillata*)
- Swamp Bedstraw (*Galium brevipes*)
- Marsh Bedstraw (*Galium palustre*)
- Catfoot (*Gnaphalium helleri* var. *micradenium*)
- Giant Rattlesnake-plantain (*Goodyera oblongifolia*)
- Northern Oak Fern (*Gymnocarpium jessoense* ssp. *parvulum*)
- Fir Clubmoss (*Huperzia selago*)
- Grassleaf Rush (*Juncus marginatus*)
- Violet Bush-clover (*Lespedeza violacea*)
- Large-flowered Ground-cherry (*Leucophysalis grandiflora*)
- Silvery Scurf Pea (*Pedimelum argophyllum*)

- Hairy Beardtongue (*Penstemon hirsutus*)
- Cleft Phlox (*Phlox bifida*)
- Lanced-leaved Buckthorn (*Rhamnus lanceolata* ssp. *glabrata*)
- Georgia Bulrush (*Scirpus georgianus*)
- Low Nutrush (*Scleria verticillata*)
- Shining Lady's-tresses (*Spiranthes lucida*)
- October Lady's-tresses (*Spiranthes ovalis* var. *erostellata*)
- Veined Meadowrue (*Thalictrum venulosum*)
- Purple Meadow-parsnip (*Thaspium trifoliatum* var. *flavum*)

C. A second potential alternative to the proposed list revision is to remove species from the proposed list revision (i.e., keep their status as it currently is). Comments were received during the EIA public comment period, recommending that the state does not delist certain species in the proposed list revision. No recommendations were received on the proposed species for addition to the E/T list. It is probable that more recommendations to remove or species from or add species to the proposed list revision will be received during the public hearings. Additional list and delist proposals will be considered under a subsequent NR27 review and revision process. All removals from the currently proposed list and delist revision will be considered.

1. Recommendations during EIA public comment period:

- Do not remove Barn Owl from the E/T List. While infrequent and for short duration, recent records indicate they do breed here. Continue to monitor the population for status and management/climate response, before considering to delist. There are minimal environmental and economic costs to keeping them on the E/T List.
- Do not remove the 2 extirpated plants from the E/T List. While probability is extremely low that they will be rediscovered, there is still a chance, and getting them back on the E/T List is a slow process. There are minimal environmental and economic costs to keeping them on the E/T List.

VII. State, Federal, or Local Approvals

This rule revision does not involve multiple states or federal regulatory actions, there are no required state or federal approvals needed. No local-zoning approvals are needed for this rule revision, as the endangered species law (s. 29.604, Stats.) is already in effect.

VIII. State or Federal Analysis

There are no related analyses required under another rule, statute, or federal regulation or law which does not conflict with the purpose of the environmental analysis.

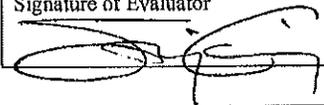
IX. EIS Determination FORM

Project Name: NRB Order ER-27-11 - Revisions to E/T List County: Statewide

PRELIMINARY DECISION

In accordance with s. 1.11, Wis. Stats., and Ch. NR 150, Wis. Adm. Code, the Department is authorized and required to determine whether it has complied with s. 1.11, Wis. Stats., and ch. NR 150, Wis. Adm. Code.

The Department has made a preliminary determination that the Environmental Impact Statement process will not be required for this action/project. This recommendation does not represent approval from other DNR sections which may also require a review of the action/project.

Signature of Evaluator 	Date Signed 12/5/12
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FINAL DECISION

The public review process has been completed. The Department received and fully considered responses to the news release or other notice.

Pursuant to s. NR 150.22(2)a., Wis. Adm. Code, the attached analysis of the expected impacts of this proposal is of sufficient scope and detail to conclude that this is not a major action, and therefore the environmental impact statement process is not required prior to final action by the Department.

The Department has determined that it has complied with s. 1.11, Wis. Stats., and ch. NR 150, Wis. Adm. Code. This decision does not represent approval from other DNR sections which may also require a review of the action/project.

Signature of Environmental Analysis Program Staff	Date Signed
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NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that the Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed. For judicial review of a decision pursuant to sections 227.52 and 227.53, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review must name the Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to section 227.42, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. All requests for contested case hearings must be made in accordance with section NR 2.03(5), Wis. Adm. Code, and served on the Secretary in accordance with section NR 2.03, Wis. Adm. Code. The filing of a request for a contested case hearing does not extend the 30 day period for filing a petition for judicial review.

ADMINISTRATIVE RULES

Fiscal Estimate & Economic Impact Analysis

1. Type of Estimate and Analysis

Original Updated Corrected

2. Administrative Rule Chapter, Title and Number

Chapter NR 27, Wisconsin's List of Endangered/Threatened Species NR 27.03(2) and (3).

3. Subject

Revisions to NR 27.03 list of Endangered/Threatened Species [Board Order ER-27-11] to add 8 animals and remove 16 plants and animals, and to update 20 scientific names.

4. Fund Sources Affected

GPR FED PRO PRS SEG SEG-S

5. Chapter 20, Stats. Appropriations Affected

6. Fiscal Effect of Implementing the Rule

No Fiscal Effect Increase Existing Revenues Increase Costs
 Indeterminate Decrease Existing Revenues Could Absorb Within Agency's Budget
 Decrease Cost

7. The Rule Will Impact the Following (Check All That Apply)

State's Economy Specific Businesses/Sectors
 Local Government Units Public Utility Rate Payers
 Small Businesses (if checked, complete Attachment A)

8. Would Implementation and Compliance Costs Be Greater Than \$20 million?

Yes No

9. Policy Problem Addressed by the Rule

State statute, s. 29.604 (3) (b) Wis. Stats., gives the DNR the authority to periodically review and, after public hearing, to revise the Endangered and Threatened species (E/T) list.

Updating the E/T list to focus conservation efforts and avoidance/minimization measures on WI's most at risk species will ultimately save money. All actions that the Department conducts, funds or approves on public or private lands must be screened for potential impacts to rare species. Most often the public and small businesses become aware of the endangered species law through one of DNR's permitting processes. Wisconsin's endangered species law is implemented by the department in that any activity that the department conducts, funds or approves must consider impacts to listed species (s.29.604 Wis. Stats.). Both endangered and threatened species have the same level of legal protection. Under Wisconsin's law listed animals are protected on all public and private land. Plants are only protected on public land and agricultural, forestry, and utility activities are exempt from this protection (s. 29.604 Wis. Stats.).

Endangered Resources Screening relies on Natural Heritage Inventory (NHI) data for records of rare species occurrences. The number of NHI records for species proposed for addition to the E/T list is far fewer than the number of records for species proposed for delisting – eight species are proposed for listing (with a total of 217 NHI occurrences) versus 16 species proposed for delisting (with a total of 1055 NHI occurrences). Reducing the number of E/T species records will lessen regulatory impacts to businesses and individuals.

10. Summary of the businesses, business sectors, associations representing business, local governmental units, and individuals that may be affected by the proposed rule that were contacted for comments.

Groups likely to be impacted or interested in the issue include the conservation community, project applicants through the environmental review process, and the general public. Affected constituencies include agricultural and forestry industries, commercial and development businesses, natural resources consultants, utilities, road builders and wildlife rehabilitators.

11. Identify the local governmental units that participated in the development of this EIA.

Pursuant to s. 227-137 Wis. Stats., the department was required to solicit comments on the economic impact of the

ADMINISTRATIVE RULES Fiscal Estimate & Economic Impact Analysis

proposed rule, and if requested to coordinate with local governments in the preparation of an Economic Impact Analysis (EIA). The notice to solicit comments was sent to the county and town associations in the state. Comments were collected between 9/24/2012 and 10/24/2012. A total of 18 comments were received; 8 were economic comments that were incorporated into the EIA. No local governments submitted comments or requested we coordinate with them in the preparation of the EIA.

12. Summary of Rule's Economic and Fiscal Impact on Specific Businesses, Business Sectors, Public Utility Rate Payers, Local Governmental Units and the State's Economy as a Whole (Include Implementation and Compliance Costs Expected to be Incurred)

The economic cost of listing and delisting a species is highly dependant on its range and distribution, seasonal occurrence, habitat requirements, management needs, sensitivity to disturbance, etc. Effects of listing/delisting will be highly variable among different types of businesses and their locations and hard to predict, however the overall economic impact of the proposed revisions will be reduced because of the location and number of NHI records. The 16 species being proposed for removal from the endangered and threatened species list have a total of 1055 records in the NHI database which is used for conducting an endangered resources review. There are a total of 217 records in the NHI database for the eight species being proposed for addition.

13. Benefits of Implementing the Rule and Alternative(s) to Implementing the Rule

Updating the E/T list to focus conservation efforts and avoidance/minimization measures on WI's most at risk species will ultimately save money. All actions that the Department conducts, funds or approves on public or private lands must be screened for potential impacts to rare species. Endangered Resources Screening relies on NHI data for records of rare species occurrences. The number of NHI records for species proposed for addition to the E/T list is far fewer than the number of records for species proposed for delisting – eight species are proposed for listing (with a total of 217 NHI occurrences) versus 16 species proposed for delisting (with a total of 1055 NHI occurrences). Reducing the number of E/T species records will lessen regulatory impacts to businesses and individuals.

14. Long Range Implications of Implementing the Rule

The primary short-term and long-term effects of this revision are to provide greater protection for those plants and animals that are critically rare in Wisconsin and will likely be lost or undergo severe population declines if not granted protection, by focusing conservation efforts and avoidance/minimization measures on the most at risk species. As the endangered species law (s. 29.415, Stats.) is already in effect, there will be no change in Department policy regarding means to conserve these species. The removal and addition of species to the list will likely require increased consultation with Department staff during environmental assessments and reviews. Enforcement requirements will not be significantly increased.

15. Compare With Approaches Being Used by Federal Government

The United States Fish and Wildlife Service maintains the list of Federal endangered and threatened species. The Kirtland's Warbler (*Dendroica (=Setophaga) kirtlandii*) is the only Federally Listed species that is being proposed for state listing in Wisconsin under this proposal.

16. Compare With Approaches Being Used by Neighboring States (Illinois, Iowa, Michigan and Minnesota)

Minnesota, Illinois, Iowa, and Michigan all have an endangered species law and maintain a state list of endangered and threatened plants and animals. Sixteen of the 24 species being proposed for addition or removal from the list are listed or are being considered for listing in a neighboring state.

17. Contact Name

Erin Crain

18. Contact Phone Number

608/267-747

This document can be made available in alternate formats to individuals with disabilities upon request.

ADMINISTRATIVE RULES Fiscal Estimate & Economic Impact Analysis

ATTACHMENT A

1. Summary of Rule's Economic and Fiscal Impact on Small Businesses (Separately for each Small Business Sector, Include Implementation and Compliance Costs Expected to be Incurred)
[Detailed EIA report attached]

2. Summary of the data sources used to measure the Rule's impact on Small Businesses
Bureau of Endangered Resources staff; WDNR's Economist; and from the public comments received during the EIA comment period.

3. Did the agency consider the following methods to reduce the impact of the Rule on Small Businesses?

- Less Stringent Compliance or Reporting Requirements
- Less Stringent Schedules or Deadlines for Compliance or Reporting
- Consolidation or Simplification of Reporting Requirements
- Establishment of performance standards in lieu of Design or Operational Standards
- Exemption of Small Businesses from some or all requirements
- Other, describe:

Because this rule does not create new regulatory requirements of small businesses, the proposed rules will not have a significant economic impact on a substantial number of small businesses.

4. Describe the methods incorporated into the Rule that will reduce its impact on Small Businesses

Most often the public and small businesses become aware of the endangered species law through one of DNR's permitting processes. Wisconsin's endangered species law is implemented by the department in that any activity that the department conducts, funds or approves must consider impacts to listed species (s.29.604 Wis. Stats.). Both endangered and threatened species have the same level of legal protection. Under Wisconsin's law listed animals are protected on all public and private land. Plants are only protected on public land and agricultural, forestry, and utility activities are exempt from this protection (s. 29.604 Wis. Stats.).

In most instances, a permit applicant provides a description of the proposed project. Department staff perform an endangered resources review utilizing the NHI database to determine if 1) there is a listed species that may be present, and if 2) the project area has suitable habitat for that species. If either of these criteria are not present the applicant is informed that there is no potential impact and the project proceeds. Over 2/3 of projects fall into this category. If both the species is known to be in the area and there is suitable habitat on the project site, the department works with the applicant to see if impacts to a listed species may be avoided through seasonal adjustments, temporary removals or barriers. If it can, the project proceeds. If impacts can't be avoided, an incidental take permit is issued to the applicant that allows take of the species. State law requires that all projects under an incidental take permit must minimize and mitigate these impacts. (s.29.604 Wis. Stats.). When the minimization and mitigation measures are in place, the permit is publicly noticed the project may proceed. Very few projects require an incidental take permit, typically fewer than 20 a year are issued. The department has also created several broad incidental take permits to provide blanket incidental take coverage for routine activities. A broad incidental take permit, unlike an individual incidental take permit, does not require an application, processing time or a fee. The most recent broad incidental take permits cover grassland management and cave bats.

The removal and addition of species to the list will likely require increased consultation with Department staff during environmental assessments and reviews.

5. Describe the Rule's Enforcement Provisions

Enforcement and administration programs for rules and permits are already in place. No changes are expected in rule enforcement costs or the costs of issuing permits for endangered and threatened species. Increases can be expected in the amount of time required to administer the resulting list of endangered and threatened species, but costs are expected to be absorbed within existing DNR budgets. Management and protection costs will increase with the addition of new species

ADMINISTRATIVE RULES
Fiscal Estimate & Economic Impact Analysis

to the list and decrease with removals; given the number of species and records of occurrences, it is expected that costs will decrease.

6. Did the Agency prepare a Cost Benefit Analysis (if Yes, attach to form)

Yes No

DOA 2049. Detailed Economic Impact Analysis Report [ER-27-11], pertaining to the Wisconsin Endangered/Threatened Species List (Chapter NR 27, Wis. Adm. Code)

Additional data for Fiscal Estimate and Economic Impact Analysis (form DOA-2049):

Summary of Rule's Economic and Fiscal Impact:

Pursuant to s. 227.137 Wis. Stats., the Department was required to solicit comments on the economic impact of the proposed rule, and if requested to coordinate with local governments in the preparation of the Economic Impact Analysis (EIA). Comments were collected between 9/24/2012 and 10/24/2012. A total of 18 comments were received. No local governments requested the Department coordinate with them in the preparation of the EIA.

To determine implementation and compliance costs expected to be incurred, Bureau of Endangered Resources staff compiled a list of individuals and organizations who might be economically impacted by the proposed rule revisions. Types of positive and negative effects from both listing/delisting were identified along with a method on how they might be quantified. Given the unknowns and the complexity of assessing the impacts, a relative impact of low-moderate-high (L/M/H) was determined. The economic cost of listing a species is highly dependant on its range and distribution, seasonal occurrence, habitat requirements, management needs, sensitivity to disturbance etc.

Examples of relative impacts of currently listed species:

* Henslow's Sparrow (*Ammodramus henslowii*) - Since only the species is protected and not its habitat, impacts to birds can easily be avoided by scheduling activity outside of the breeding season. Henslow's sparrow does not often come into conflict with development projects because of the location and distribution of this species in the state. Low = Little to no economic impact.

* Ellipse mussel (*Venustaconcha ellipsiformis*) – Since mussels occupy the same site annually with little movement, relocations are often necessary for projects impacting the ellipse, such as bridge repairs or replacements, utility crossings, and other river alterations. Medium = Potential to have moderate economic impacts.

This detailed EIA report includes the economic-related comments received during the EIA public comment period as well as economic impacts known to the Department. The report is organized by the types of small businesses, organizations, units of government, etc. that could be affected. The 20 species proposed for a scientific name update are not included in this report, because there is no impact.

Effects of listing/delisting will be highly variable among different types of businesses and their location; however the overall economic impact of the proposed revisions will be reduced due to the net loss of because of the location and number of NHI records. The 16 species being proposed for delisting have a total of 1055 records in the NHI database which is used for conducting an endangered resources review. There are a total of 217 records in the NHI database for the eight species being proposed for listing.

Agricultural community

Proposed action	Types of positive effects from the action	Types of negative effects from the action	Methods for assessing the effects	Relative Impact and Complexity Factors
DELIST	Greater flexibility in agricultural practices. Do not have to follow avoidance measures (e.g., install silt fencing, delay work to avoid breeding season, alter project locations). Shorter environmental review time and lower costs.	Loss of landowner pride for providing habitat for an E/T species. Loss of grant opportunities and set-aside programs that are only given for management of an E/T species (e.g., CRP, Landowner Incentive Program).	Project expenditure (cost of time to alter project plans to implement avoidance and minimization measures). Grants lost or not eligible for in the future (e.g., CRP, Landowner Incentive Program).	Low. Few agricultural projects with impacts to E/T species enter the environmental review process.
LIST	Increase in grant opportunities or set-aside programs that are only given for lands with an E/T species. Landowner pride, especially for farming operations that support these species (e.g., cranberry growers that maintain appropriate water levels during the breeding season may support Black Tern population).	Increased regulation for agricultural projects where these species are present. Avoidance and minimization measures may include project delay, additional fencing, etc.	Project expenditure (cost of time to alter project plans to implement avoidance and minimization measures). Grants and set-aside program incentives (e.g., CRP).	Low. Few agricultural projects with impacts to E/T species enter the environmental review process.

Species with specific impacts

- * Upland Sandpiper (*Bartamia longicauda*), list: Increase in environmental review as this species is sometimes found in lightly grazed pastures, old fields, idle grasslands, and hay fields. This species is protected under the federal Migratory Bird Treaty Act. This species can be added to the Grassland and Savanna Protocols (broad incidental take permit) for management activities. CRP and other set-aside programs will benefit this species and the agricultural community.
- * Plants (all), delist: Minimal change as plants are not protected through Wisconsin's Endangered Species Law on private lands. In addition, agricultural, forestry and utility activities are exempt from the law on public lands.
- * Black Tern (*Chlidonias niger*), list: It is expected that agricultural exemptions which allow farmers to drain and ditch low, wet fields will continue to occur. While these areas might be occupied by this species, the areas would not maintain viable populations and could be altered outside of the breeding season. Little change in the environmental review process is expected to occur, as this species is already protected under the federal Migratory Bird Treaty Act and its habitat is protected by wetland regulations.

County and municipal governments

Proposed action	Types of positive effects from the action	Types of negative effects from the action	Methods for assessing the effects	Relative Impact and Complexity Factors
DELIST	Reduced environmental review time. Do not need to follow avoidance measures. Greater flexibility in land use planning and management.	Loss of landowner pride for providing habitat for an E/T species. Loss of grant opportunities and set-aside programs that are only given for management of an E/T species (e.g., CRP, Landowner Incentive Program).	Project expenditures and budgets (cost of silt fencing, cost of staff time to develop and implement avoidance and minimization measures). Environmental Review staff time. Potential loss of grants.	Moderate. In the last 10 years, there have been many development projects impacted by the presence of the Butler's gartersnake.
LIST	Increase in grant opportunities for lands with an E/T species. Landowner and community pride in giving refuge to an E/T species.	Increased regulation for projects where this species is present. Avoidance and minimization measures may include project delay, additional fencing, etc.	Project expenditure (cost of time to alter project plans to implement avoidance and minimization measures). Grants and set-aside program incentives (e.g., CRP).	Low. Proximity of proposed species to urban areas is low.

Species with specific impacts

- * Plants (all), delist: Reduced costs in translocating plants, especially for road projects.
- * Butler's Gartersnake (*Thamnophis butleri*), delist: Reduced costs for county and municipal government development projects in the SE portion of the state. A city of New Berlin resident points to the City Center project as an example of how removing land from development or redesigning projects to protect this species means loss of time, money, and hence potential of loss of revenue to the municipality and its residents. A Menomonee Falls resident estimates that this species cost them \$7000.
- * Beach-dune Tiger Beetle (*Cicindela hirticollis rhodensis*), list: Mostly found on state and private beach. Only a few at most are found on county/municipal beaches.
- * Upland Sandpiper (*Bartramia longicauda*), list: Very few sites occur on many county/municipal lands.
- * Blanding's Turtle (*Emydoidea blandingii*), delist: Few county and municipal environmental reviews have been recorded in the WDNR-Central Office for Blanding's Turtle.
- * Black Tern (*Chlidonias niger*), list: Little change in the environmental review process is expected to occur, as this species is already protected under the federal Migratory Bird Treaty Act and its habitat is protected by wetland regulations.

Department of Transportation (DOT)

Proposed action	Types of positive effects from the action	Types of negative effects from the action	Methods for assessing the effects	Relative Impact and Complexity Factors
DELIST	Cost and project management time savings. Do not have to follow avoidance measures (e.g., install silt fencing, delay work to avoid breeding season, alter project locations, create mitigation sites, etc), although they are still	Existing projects and programs built around the species needs to be assessed for continuation or revamping. DOT typically plans 5+ years out; will have to modify existing plans to accommodate changes in the E/T list. Staff need to be trained to revise actions.	Project expenditures and budgets (cost of silt fencing, cost of staff time to develop and implement avoidance and minimization measures). Environmental Review and regional DNR liaison staff time and WDOT staff time.	Low. Little change in the environmental review process is expected to occur, as WDOT often includes Special Concern plants and animals in their project planning.
LIST	Increased opportunity for avoidance success stories.	Increased costs and project management time in the environmental review process (e.g., install silt fencing, delay work to avoid breeding season, alter project locations, create mitigation sites, etc). DOT typically plans 5+ years out; will have to modify existing plans to accommodate changes in the E/T list.	Project expenditure (cost of time to alter project plans to implement avoidance and minimization measures). Wetland mitigation would already exist as a cost.	Low. Little change in the environmental review process is expected to occur, as WDOT often includes Special Concern plants and animals in their project planning.

Species with specific impacts

- * Butler's Gartersnake (*Thamnophis butleri*), delist: Reduced costs for road projects in the SE portion of the state.
- * Plants (all), delist: Little change in the environmental review process is expected to occur, as WDOT often includes Special Concern plants and animals in their project planning. Many of the plants proposed for delisting will become Special Concern and remain on the Natural Heritage Working List.
- * Greater Redhorse (*Moxostoma valenciennesi*), delist: Decreased costs and project management time savings for bridge and dam replacement/removal projects that may impact breeding habitat.
- * Fawnsfoot (*Truncilla donaciformis*), list: Potential for increased impacts with bridge and dam replacement/removal projects, however little change in the environmental review process is expected to occur, as there are typically other state and federally listed species in the same waterbodies where this species occurs.
- * Pygmy Snaketail (*Ophiogomphus howei*), delist: Decreased costs and project management time savings for bridge and dam replacement/removal projects that may impact the species, however few projects have entered the environmental review permitting process for this species.
- * Blanding's Turtle (*Emydoidea blandingii*), delist: DOT is the primary creator of road underpasses for Blanding's Turtles that a large number of other species have benefited from. While DOT often includes Special Concern plants and animals in their project planning, they may not undertake large expensive projects like road underpasses for Special Concern species.
- * Black Tern (*Chlidonias niger*), list: Little change in the environmental review process is expected to occur, as Black Tern's are already protected under the federal Migratory Bird Treaty Act and its habitat is protected by wetland regulations.

Development community

Proposed action	Types of positive effects from the action	Types of negative effects from the action	Methods for assessing the effects	Relative Impact and Complexity Factors
DELIST	Cost and project management time savings. Do not have to follow avoidance measures (e.g., install silt fencing, delay work to avoid breeding season, alter project locations). Shorter environmental review time and lower costs.	Existing projects and programs built around a species need to be assessed for continuation or revamping. Loss of landowner pride for providing habitat for an E/T species. Loss of grant opportunities and set-aside programs that are only given for management of an E/T species (e.g., CRP, Landowner Incentive Program).	Project expenditures and budgets (cost of silt fencing, cost of staff time to develop and implement avoidance and minimization measures). Environmental Review staff time.	Moderate-High. There are 1055 NHI records (used for environmental review) for the species proposed for delisting. Except for a few exceptions (Butler's gartersnake), the species proposed for listing, generally occur in "wild" areas that are typically not under large commercial development pressure.
LIST	Increased opportunity for avoidance success stories.	Increased costs and project management time in the environmental review process (e.g., install silt fencing, delay work to avoid breeding season, alter project locations, create mitigation sites, etc).	Project expenditures and budgets (cost of silt fencing, cost of staff time to develop and implement avoidance and minimization measures). Environmental Review staff time.	Low. There are only 217 NHI records (used for environmental review) for the species proposed for listing. The species proposed for listing, generally occur in "wild" areas that are typically not under large commercial development pressure.

Species with specific impacts

- * Butler's Gartersnake (*Thamnophis butleri*), delist: This species is primarily found in the SE portion of the state and has come up frequently through the environmental review process.
- * Plants (all), delist: Minimal change as plants are not protected through Wisconsin's Endangered Species Law on private lands.
- * Blanding's Turtle (*Emydoidea blandingii*), delist: While this species is widely distributed with a large number of EOs, this species occurs in "wild" areas that are typically not under large commercial development pressure.
- * Black Tern (*Chlidonias niger*), list: This species occurs in "wild" areas that are typically not under large commercial development pressure.

Environmental consultants

Proposed action	Types of positive effects from the action	Types of negative effects from the action	Methods for assessing the effects	Relative Impact and Complexity Factors
DELIST	Greater flexibility in developing project plans that had species management recommendations. Reduced time spent on following the Grassland and Savanna Incidental Take Protocol, or to resolve management recommendation conflicts. Shorter environmental review time and lower costs.	Potential loss of revenue for surveys and project consultation. Loss of landowner pride for providing habitat for an E/T species.	Project expenditures and budgets (cost of staff time to alter project plans to implement avoidance and minimization measures). Environmental Review staff time. Number of consulting projects.	Low-Moderate. The economic impacts will vary with size and goals of organization (i.e., if the organization is diverse in what species/habitats it surveys for and consults on, the economic impact would be lower than one that is dependent on projects that center on a single species).
LIST	Increased opportunity for avoidance success stories. Increased business for consulting firms and experts who specialize in E/T research and management.	Increased costs and project management time in the environmental review process (e.g., install silt fencing, delay work to avoid breeding season, alter project locations, create mitigation sites, etc).	Project expenditures and budgets (cost of staff time to develop and implement avoidance and minimization measures). Environmental Review staff time.	Low-Moderate. The economic impacts will vary with size, goals and specialties of the organization.

Species with specific impacts

- * Butler's Gartersnake (*Thamnophis butleri*), delist: As this species has come up frequently through the environmental review process, there will be a significant decrease in revenue for surveys and project consultation.
- * Blanding's Turtle (*Emydoidea blandingii*), delist: Reduced staff time developing Blanding's Turtle management plans and building avoidance measures into project plans. Greater flexibility in developing project plans that had species management recommendations for Blanding's Turtle that conflicted with another Endangered/Threatened species.

Federal agencies (NRCS, USFWS, USFS, NPS, USACE)

Proposed action	Types of positive effects from the action	Types of negative effects from the action	Methods for assessing the effects	Relative Impact and Complexity Factors
DELIST	Reduced environmental review staff time and permits. Do not need to follow avoidance measures. Greater flexibility in land use planning and management.	Revamping of existing grant, management, and monitoring programs that focus on these species (e.g., CRP "points"). Decreased opportunities for partnerships.	Project expenditures and budgets (cost of silt fencing, cost of staff time to develop and implement avoidance and minimization measures). Environmental Review staff time.	Low-Moderate. Some federal agencies make considerations for Special Concern species as well as E/T species. Issues with the number of Blanding's turtle records and conflicts will be lessened.
LIST	Increased opportunity for avoidance success stories. Increase in partnering opportunities.	Increased costs and project management time in the environmental review process (e.g., install silt fencing, delay work to avoid breeding season, alter project locations, create mitigation sites, etc).	Project expenditures and budgets (cost of silt fencing, cost of staff time to develop and implement avoidance and minimization measures). Environmental Review staff time. Number of grants and partnering opportunities.	Low. There are only 217 NHI records (used for environmental review) for the species proposed for listing. Migratory Bird Treaty Act will still be in place.

Species with specific impacts

- * Blanding's Turtle (*Emydoidea blandingii*), delist: Reduced staff time developing Blanding's Turtle management plans and building avoidance measures into project plans. Greater flexibility in developing project plans that had species management recommendations for Blanding's Turtle that conflicted with another Endangered/Threatened species.
- * Fawnsfoot (*Truncilla donaciformis*), list: Increased opportunity to propagate and augment the remaining populations in the St. Croix and Lower Wisconsin Rivers, through use of the Federal Genoa Hatchery, which is available for propagation efforts for State Listed species. This species is found in medium to large rivers, most of which already have E/T mussels and thus projects in these areas already employ avoidance measures for mussels. Avoidance measures for this species would be identical to those required for other mussel species - minimizing sedimentation into the river and using erosion/siltation controls during and immediately following construction, and relocations. These measures are often already required by DNR stormwater permits.

Forest Industry

Proposed action	Types of positive effects from the action	Types of negative effects from the action	Methods for assessing the effects	Relative Impact and Complexity Factors
DELIST	Greater flexibility in forestry practices, management, and development. Do not have to follow avoidance measures (e.g., install silt fencing, delay work to avoid breeding season, alter project locations). Shorter environmental review time and lower costs.	Loss of landowner pride for providing habitat for an E/T species. Loss of grant opportunities and set-aside programs that are only given for management of an E/T species (e.g., CRP, Landowner Incentive Program).	Project expenditure (cost of time to alter project plans to implement avoidance and minimization measures). Grants and set-aside programs lost or not eligible for in the future (e.g., CRP, Landowner Incentive Program).	Low. Few forestry projects with impacts to E/T species enter the environmental review process.
LIST	Increase in grant opportunities or set-aside programs that are only given for lands with an E/T species. Landowner pride, especially for forestry operations that support rare species (e.g., Jack pine stands that are 7-21 years old may support Kirtland's Warbler).	Increased costs and project management time in the environmental review process (e.g., install silt fencing, delay work to avoid breeding season, alter project locations, create mitigation sites, etc).	Project expenditure (cost of time to alter project plans to implement avoidance and minimization measures). Grants and set-aside program incentives (e.g., MFL). Number of partnerships and collaborative efforts.	Low. Few forestry projects with impacts to E/T species enter the environmental review process.

Species with specific impacts

* Kirtland's Warbler, list: As this species is currently Federally Listed and is protected under the Federal Migratory Bird Treaty Act, little change in regulatory or administrative processes are anticipated. While the Department has developed management guidelines that describe actions that will help maintain or enhance habitat for the species, they are typically not mandatory unless required by a permit, authorization or approval. They would be mandatory under Federal regulations. If a project comes into the environmental review process, because a permit or grant is issued by the state at a location with a known population with suitable habitat, the simplest and preferred method to avoid impacts to the Kirtland's Warbler is to ensure suitable habitat remains intact. If suitable breeding habitat will be compromised, project-related disturbance must take place during the non-breeding season (1 October to 30 April) to avoid take of the species. If the breeding season cannot be avoided, then project applicants must work with the USFWS Kirtland's Warbler biologist to determine project alternatives.

* Plants (all), delist: Minimal change as plants are not protected through Wisconsin's Endangered Species Law on private lands. In addition agricultural, forestry and utility activities are exempt from the law on public lands.

Habitat (e.g., wetland, forest, prairie, beach, barrens, streams)

Proposed action	Types of positive effects from the action	Types of negative effects from the action	Methods for assessing the effects	Relative Impact and Complexity Factors
DELIST	Species success story.	Decreased protections that were provided because of the presence of an E/T species.	Acerage of land altered/degraded. Reduced ecosystem services.	Moderate. Ecosystem services provided by habitats are hard to measure. Individuals and organizations have expressed concern over habitat protections, specifically wetland habitat. Ecosystem services for wetlands in Wisconsin have been estimated to provide \$617-28432 per acre/per year.
LIST	Increase in incentives for habitat creation, restoration, and protection.	Public opinion of the habitat may turn negative by the regulated community.	Acerage of land enhanced, altered, destroyed, created, etc.	Low. Ecosystem services provided by habitats are hard to measure.

Species with specific impacts

- * Plants (prairie), delist: Removing limits on growing and selling these plants may result in more being planted which is good, however the source of plant material (plants, seeds, seedlings, etc) will be unknown and may have detrimental effects on native populations.
- * Beach-dune Tiger Beetle (*Cicindela hirticollis rhodensis*), list: Increased grant opportunities for Great Lakes beach/dune preservation/restoration that would benefit the species. Designated trails and boardwalks would protect habitat while allowing state parks, forests, and natural area visitors access.
- * Blanding's Turtle (*Emydoidea blandingii*), delist: Wetland regulations may change, the outcome to wetlands and associated species without an E/T species is unknown. Earth Economics in a publication, estimated that "Wisconsin wetland's have been estimated to provide from \$617-28,432 per acre/per year" (2/9/2012).
- * Black Tern (*Chlidonias niger*), list: This species occurs in small, isolated wetlands. Ecosystem services of wetlands include flood control, groundwater replenishment, shoreline stabilization, sediment/nutrient retention, water purification, water reservoir, recreation and tourism, and habitat for many species. While hard to assess, some estimate that at a worldwide scale wetlands provide services worth trillions of US dollars every year (Ramsar Convention).

Land management and conservation groups (NGOs)

Proposed action	Types of positive effects from the action	Types of negative effects from the action	Methods for assessing the effects	Relative Impact and Complexity Factors
DELIST	Land managers would not be required to follow avoidance measures in the Incidental Take Protocol when conducting land management activities. Greater flexibility in developing and implementing management plans that had species management recommendations that conflicted with another E/T species.	Loss of landowner pride for providing habitat for an E/T species. Loss of grant opportunities and set-aside programs that are only given for management of an E/T species (e.g., CRP, Landowner Incentive Program).	Project expenditures and budgets (cost of silt fencing, cost of staff time to plan for and implement avoidance and minimization measures). Environmental Review staff time. Grants and habitat incentives lost or not eligible for in the future.	Low-Moderate. Low-Moderate. The economic impacts will vary with size and goals of organization (i.e., if the organization is diverse in what species/habitats it surveys for and consults on, the economic impact would be lower than one that is dependent on projects that center on a single species). Fewer management conflicts and number of projects with an E/T species. Many clients may still voluntarily protect Special Concern species.
LIST	Increase in grant opportunities or set-aside programs that are only given for lands with an E/T species. Organization pride in giving refuge to an E/T species.	Increased costs and project management time in the environmental review process (e.g., install silt fencing, delay work to avoid breeding season, alter project locations, create mitigation sites, etc). Updated Incidental Take Protocols that include these species will need to be followed.	Project expenditures and budgets (cost of silt fencing, cost of staff time to plan for and implement avoidance and minimization measures). Environmental Review staff time. Grants and habitat incentives gained.	Low-Moderate. The economic impacts will vary with size and goals of the organization. Greater protection and management considerations can be given to more imperiled species. More management conflicts and number of projects with an E/T species.

Species with specific impacts

- * Upland Sandpiper (*Bartramia longicauda*), list: This species can be added to the Grassland and Savanna Protocols (broad incidental take permit) for management activities.
- * A Leafhopper (*Attenuipyga vanduzeei*), list: This species can be added to the Grassland and Savanna Protocols (broad incidental take permit) for management activities.
- * An Issid Planthopper (*Fitchiella robertsoni*), list: This species can be added to the Grassland and Savanna Protocols (broad incidental take permit) for management activities.
- * Ottoo Skipper (*Hesperia ottoo*), list: This species can be added to the Grassland and Savanna Protocols (broad incidental take permit) for management activities.
- * Blanding's Turtle (*Emydoidea blandingii*), delist: Species avoidance and management recommendations often conflict with other E/T species and savanna/grassland management recommendations.

Private landowners

Proposed action	Types of positive effects from the action	Types of negative effects from the action	Methods for assessing the effects	Relative Impact and Complexity Factors
DELIST	Greater flexibility in the species private landowners want to manage for and what management tools they want to use. Greater flexibility in land development options.	Loss of landowner pride for providing habitat for an E/T species. Loss of grant opportunities and set-aside programs that are only given for management of an E/T species (e.g., CRP, Landowner Incentive Program).	Project expenditure (cost of time to alter project plans to implement avoidance and minimization measures). Grants lost or not eligible for in the future.	Moderate. There are 1055 NHI records (used for environmental review) for the species proposed for delisting. Except for a few exceptions (Butler's gartersnake), the species proposed for listing, generally occur in "wild" areas that are typically not under large commercial development pressure.
LIST	Increase in grant opportunities or set-aside programs that are only given for lands with an E/T species. Landowner pride in giving refuge to an E/T species.	Increased costs and project management time in the environmental review process (e.g., install silt fencing, delay work to avoid breeding season, alter project locations, create mitigation sites, etc).	Project expenditures and staff time. Alteration of project timing, avoidance measures, etc. Grants and habitat incentives gained.	Low. There are only 217 NHI records (used for environmental review) for the species proposed for listing. The species proposed for listing, typically occur in "wild" areas that are typically not under large commercial development pressure. Private landowners can still manage their own land. Native communities and associated species benefit from outreach and education efforts targeted at endangered and threatened species.

Species with specific impacts

- * Plants (all), delist: Minimal change as plants are not protected through Wisconsin's Endangered Species Law on private lands.
- * Butler's Gartersnake (*Thamnophis butleri*), delist: Private landowners having to alter or delay projects because of the species presence. Estimate of \$7000 for one homcowner.

Researchers

Proposed action	Types of positive effects from the action	Types of negative effects from the action	Methods for assessing the effects	Relative Impact and Complexity Factors
DELIST	Reduced costs, as projects will not require an E/T permit for work. Greater flexibility in research design and methods.	Potential loss of grant opportunities that fund research on E/T species only. Fewer research, management, monitoring studies on these species and their habitats.	E/T scientific collector permit costs. Grants lost or not eligible for in the future.	Low. Scientific collectors permits will still apply. Existing research projects may need to be revised, because of funding source or application of results.
LIST	Potential increase in grant opportunities that fund research on E/T species only.	Increased costs. Projects will require an E/T permit for work. Greater oversight in research design and methods.	E/T scientific collector permit costs. Grant opportunities.	Low. Existing research projects may need to be revised, because of funding source or application of results.

Species with specific impacts

* Blanding's Turtle (*Emydoidea blandingii*), delist: Several research projects are currently underway studying this species. Delisting may impact funding source or application of the study's results.

Small businesses

Proposed action	Types of positive effects from the action	Types of negative effects from the action	Methods for assessing the effects	Relative Impact and Complexity Factors
DELIST	Greater flexibility in the species private landowners want to manage for and what management tools they want to use. Greater flexibility in land development options.	Loss of landowner pride for providing habitat for an E/T species. Loss of grant opportunities that are only given for management of an E/T species.	Project expenditure (cost of time to alter project plans to implement avoidance and minimization measures). Grants lost or not eligible for in the future.	Low. Few small businesses with impacts to E/T species (other than the groups specifically mentioned in this report) enter the environmental review process.
LIST	Partnering and collaboration opportunity. Increase in grant opportunities and set-aside programs. Success stories for their customers when protecting an E/T species.	Increased costs and project management time in the environmental review process (e.g., install silt fencing, delay work to avoid breeding season, alter project locations, create mitigation sites, etc).	Project expenditures and staff time. Alteration of project timing, avoidance measures, etc. Grants and set-aside program incentives and awards (e.g., CRP).	Low. Few small businesses with impacts to E/T species (other than the groups specifically mentioned in this report) enter the environmental review process.

Species with specific impacts

- * Plants (all), delist: Removing limits on growing and selling these plants may result in more being planted which is good for the nursery industry and potentially for the plant, however the source of plant material (plants, seeds, seedlings, etc) will be unknown and may have detrimental effects on native populations.
- * Blanding's Turtle (*Emydoidea blandingii*), delist: In the pet industry, as a Special Concern species, Blanding's Turtles could be kept as a pet (less than 6 individuals). May need a study to determine if illegal take/harvest is occurring. Could be added to the Protected Wild Animals list (NR 10.02).

Species

Proposed action	Types of positive effects from the action	Types of negative effects from the action	Methods for assessing the effects	Relative Impact and Complexity Factors
DELIST	E/T species success story. Focuses attention and funds on the most at risk species.	Without mandatory avoidance measures, species declines may increase. Loss of E/T funding for research and habitat conservation may also impact the species.	Species population status.	Moderate. Loss of protections may directly cause harm to the species via harvesting or collection. Associated species and habitats also benefit from avoidance, minimization, conservation efforts (e.g., DOT road underpasses). Many organizations and individuals will continue to voluntarily employ avoidance, minimization efforts.
LIST	Keep the species from becoming extirpated in the state. E/T protection will increase protection, funding, partnerships, education/outreach, research, monitoring opportunities.	Public opinion of the species may turn negative by the regulated community.	Non-use value for keeping this species from becoming extirpated. Inherent value.	Moderate. Inherent value of a species is impossible to calculate. Associated species and habitats also benefit from avoidance, minimization, conservation efforts (e.g., DOT road underpasses).

Species with specific impacts

- * Plants (all), delist: Removing limits on growing and selling these plants may result in more being planted which is good, however the source of plant material (plants, seeds, seedlings, etc) will be unknown and may have detrimental effects on native populations.
- * Upland Sandpiper (*Bartramia longicauda*), list: Umbrella species for other grassland inhabitants.
- * Kirtland's Warbler (*Dendroica kirtlandii*), list: Reinforces the USFWS intent to delist at the Federal level. Increased partnerships.
- * Blanding's Turtle (*Emydoidea blandingii*), delist: Without mandatory avoidance measures, species declines may increase. The population dynamics of this species (slow growing and long-lived) might be too complex to accurately monitor and react to population declines caused by increased trading and take. Concerns over bag limits, as this species is large enough to be a food turtle and is a pet species. Loss of E/T funding for research and habitat conservation may also impact the species. Consider study to determine if it should be added to the Protected Wild Animals list (NR 10.02).
- * Black Tern (*Chlidonias niger*), list: Umbrella species for other wetland inhabitants.

Tourism

Proposed action	Types of positive effects from the action	Types of negative effects from the action	Methods for assessing the effects	Relative Impact and Complexity Factors
DELIST	Rare species success story.	Decrease in focus/attention on the species.	Number of tours/visitors focusing on the species.	Low. Few tours/visitors focus on a single species. Hard to assess impacts to local businesses that benefit from tour groups that patronize restaurants, motels, filling stations, etc.
LIST	Education and outreach for viewing, and conservation opportunities.	May need to close or restrict areas during breeding season showing stress from proximity and numbers of tourists.	Number of tours/visitors focusing on the species.	Low. Few tours/visitors focus on a single species. Hard to assess impacts to local businesses that benefit from tour groups that patronize restaurants, motels, filling stations, etc. Recreation (canoeing, bird watching, hiking, etc) are typically compatible with protection efforts.

Species with specific impacts

- * Kirtland's Warbler (*Dendroica kirtlandii*), list: Much interest and publicity about Wisconsin's population and management for the species. In Michigan there are tours for viewing Kirtland's Warbler.
- * Ottoo Skipper (*Hesperia ottoe*), list: Education and outreach for viewing, conservation opportunities. Butterfly viewing/photographing and trips focusing on rare species is becoming very popular.
- * Upland Sandpiper (*Bartramia longicauda*), list: Education and outreach for viewing, conservation opportunities.
- * Beach-dune Tiger Beetle (*Cicindela hirticollis rhodensis*), list: Multi-use issues on public beaches may occur. Opportunity for partnerships and construction of Great Lakes board walks.
- * Plants (all), delist: Botanical tours and field trips are frequented by individuals and groups who are interested in viewing/photographing rare E/T species.
- * Black Tern (*Chlidonias niger*), list: Some of the larger colonies that are inhabited provide good viewing and canoeing opportunities, bringing money into the state and local economies. Recreation (canoeing, bird watching) and fishing are compatible with Black Tern protections.

Utility companies and the Public Service Commission

Proposed action	Types of positive effects from the action	Types of negative effects from the action	Methods for assessing the effects	Relative Impact and Complexity Factors
DELIST	Decreased costs and project management time savings. Do not have to follow avoidance measures (e.g., install silt fencing, delay work to avoid breeding season, alter project locations, create mitigation sites, etc). Focuses attention and financial resources and recovery efforts and partnerships on the most at-risk species.	Existing projects and programs built around these species need to be assessed for continuation or revamping.	Project expenditures and budgets (cost of silt fencing, cost of staff time to develop and implement avoidance and minimization measures). Environmental Review staff time.	Low. Utility activities are exempt from following the Endangered Species Law for plants on public lands. Process to review projects proactively will continue between WDNR and Utility companies. Fewer NHI records to consider.
LIST	Partnering and collaboration opportunity. Success stories for their customers when protecting an E/T species.	Increased costs and project management time in the environmental review process (e.g., install silt fencing, delay work to avoid breeding season, alter project locations, create mitigation sites, etc).	Project expenditures and staff time. Alteration of project timing, avoidance measures, etc.	Low. Utility activities are exempt from following the Endangered Species Law for plants on public lands. Process to review projects proactively will continue between WDNR and Utility companies.

Species with specific impacts

- * Blanding's Turtle (*Emydoidea blandingii*), delist: Existing projects and programs built around Blanding's Turtles need to be assessed for continuation or revamping.
- * Black Tern (*Chlidonias niger*), list: May impact projects which alter wetland hydrology or alter flowage water levels

Wisconsin Department of Natural Resources (WDNR)

Proposed action	Types of positive effects from the action	Types of negative effects from the action	Methods for assessing the effects	Relative Impact and Complexity Factors
DELIST	Reduced environmental review staff time in processing and reviewing project applications. Reduced NHI database mapping time. Greater flexibility for state land managers for land use planning and management, as avoidance measures would be recommended, not required. Focus and funds spent will be redirected to the rarest species in the state.	Maintaining a viable population without the regulatory tools available through Wisconsin's Endangered Species laws. Potential loss of Endangered Resources program support and partnerships from conservation and volunteer groups.	Project expenditures and budgets (cost of silt fencing, cost of staff time to develop and implement avoidance and minimization measures). Environmental Review and WDNR permitting staff time. NHI mapping staff time. Species status. Hours donated by volunteers and friends groups. Number of partnerships.	Low. Existing monitoring programs for need to be assessed for continuation or revamping. Funds spent on ER and management are already allocated to those programs, therefore there will not be a net gain or loss. Focus and funds spent will be redirected.
LIST	Funds spent on ER and management are already allocated to those programs, therefore there will not be a net gain or loss. Focus and funds spent will be redirected.	Avoidance and management recommendations will need to be developed and implemented. Potential gain of Endangered Resources program support and partnerships from conservation and volunteer groups.	Staff time. Hours donated by volunteers and friends groups.	Low. Funds spent on ER and management are already allocated to those programs, therefore there will not be a net gain or loss. Focus and funds spent will be redirected.

Species with specific impacts

- * Plants (extirpated species), delist: Hemlock Parsley (*Conioselinum chinense*) and Canada Horse-balm (*Collinsonia canadensis*) are considered extirpated from the state. If they are re-discovered, there will be costs associated with potential relisting. Is there a cost associated with keeping these species on the E/T list?
- * Birds (non-resident and extirpated), delist: Barn Owl (*Tyto alba*) and Snowy Egret (*Egretta thula*) are considered non-residents and Bewick's Wren (*Thryomanes bewickii*) is considered extirpated. If they are re-discovered or if their ranges shift or expand, there will be costs associated with potential relisting. Is there a cost associated with keeping these species on the E/T list?
- * Butler's Gartersnake (*Thamnophis butleri*), delist: Significant Department funds have been spent on protection, management, research efforts for this species. Delisting will allow funds to be spent on the rarest species in the state.
- * Beach-dune Tiger Beetle (*Cicindela hirticollis rhodensis*), list: Increased grant opportunities for Great Lakes beach/dune preservation/restoration that would benefit the species. Designated trails and boardwalks would protect habitat and the beetle while allowing state parks, forests, and natural area visitors access.

Species with no or low anticipated impacts

- * Bewick's Wren (*Thryomanes bewickii*), delist: No effects. Species is extirpated; has not been observed breeding in WI or neighboring states for over 40 years.
- * Snowy Egret (*Egretta thula*), delist: No effects. Species is not considered a regular breeder in the state. Minimal WDNR costs for mapping occasional breeding records.
- * Barn Owl (*Tyto alba*), delist: No effects. Species is not considered a regular breeder in the state. Minimal WDNR costs for mapping occasional breeding records.
- * Canada Horse-balm (*Collinsonia canadensis*), delist: None - species is extirpated
- * Hemlock Parsley (*Conioselinum chinense*), delist: None - species is extirpated
- * Beak Grass (*Diarrhena americana*): Update scientific name to *Diarrhena obovata**
- * Canada Gooseberry (*Ribes oxycanthoides*): Update scientific name to *Ribes oxycanthoides* ssp. *oxycanthoides*
- * Cliff Cudweed (*Gnaphalium obtusifolium* var. *saxicola*): Update scientific name to *Pseudognaphalium saxicola*
- * Early Anemone (*Anemone multifida* var. *hudsoniana*): Update scientific name to *Anemone multifida* var. *multifida*
- * Forked Aster (*Aster furcatus*): Update scientific name to *Eurybia furcata*
- * Green Spleenwort (*Asplenium viride*): Update scientific name to *Asplenium trichomanes-ramosum*
- * Hall's Bulrush (*Scirpus hallii*): Update scientific name to *Schoenoplectus hallii*
- * Lanceolate Whitlow-cress (*Draba lanceolata*): Update scientific name to *Draba cana*
- * Large-leaved Sandwort (*Moehringia macrophylla*): Update scientific name to *Arenaria macrophylla*
- * Long-beaked Baldrush (*Psilocarya scirpoides*): Update scientific name to *Rhynchospora scirpoides*
- * Northern Cricket Frog (*Acris crepitans blanchardi*): Update scientific name to *Acris crepitans**
- * Pallid Shiner (*Notropis amnis*): Update scientific name to *Hybopsis amnis*
- * Plains Ragwort (*Senecio indecorus*): Update scientific name to *Packera indecora*
- * Shoal Chub (*Macrhybopsis aestivalis*): Update scientific name to *Macrhybopsis hyostoma*
- * Spatterdock Darner (*Aeshna mutata*): Update scientific name to *Rhionaeschna mutata**
- * Sticky False-asphodel (*Tofieldia glutinosa*): Update scientific name to *Triantha glutinosa*
- * Tea-leaved Willow (*Salix planifolia*): Update scientific name to *Salix planifolia* ssp. *planifolia*
- * Thickspike (*Elymus lanceolatus* ssp. *psammophilus*): Update scientific name to *Elytrigia dasystachya*
- * Tufted Bulrush (*Scirpus cespitosus*): Update scientific name to *Trichophorum cespitosum*
- * Worm-eating Warbler (*Helmitheros vermivorus*): Update scientific name to *Helmitheros vermivorum*

DOA 2049. Summary of public comments on the economic impact of the proposed rule and and the department's response [ER-27-11].

#	Type of Comment	Summarized Comments	Response
1	Non-economic	Individual offers to work with their club to draft comments.	Included individual in the club response.
3	Non-economic	Seeking clarification regarding rule revision process;	Clarification regarding rule revision process (RS on 10/5/12)
5	Non-economic	Recommends against delisting barn owls	Comments set aside for comment period [EC on 11/26/12]
6	Non-economic	Seeking clarification regarding rule revision process;	Gave clarification regarding rule revision process (ME on 9/24/12)
7	Non-economic	Supports delisting of Blanding's Turtle; Wonders about future protections needs/threats.	Responded 12/4/12 [TH]. Comment set aside for comment period. [TH on 12/4/12]
8	Non-economic	Seeking clarification regarding rule revision process; Commented on need to revise the scientific name of the Wood Turtle on NR27.	Gave clarification regarding rule revision process (RS on 9/24/12)
10	Non-economic	Informing department of Butler's Gartersnake land transfer at Falk Park.	Responded 12/5/12 [TH]. Set-aside comment for public comment period.
12	Non-economic	Correction: Peregrine falcon is no longer listed as US endangered (published rule needs correction)	Responded 12/5/12 [TH]. Thanked for the correction.
15	Non-economic	Seeking clarification regarding rule revision process.	Gave clarification regarding rule revision process (KK on 9/25/12)
17	Non-economic	Wonders about future protection for species proposed for delisting.	Responded 12/5/12 [TH]. Comments set aside for comment period.
2	Economic	Comments includes both general positive and negative economic impacts (not quantifiable). Positives: 1) Listing species increases business for consulting firms/experts who specialize in E/T studies and management. 2) Listing species can produce a favorable economic impact via tourism. 3) Listing provides additional educational, scientific, and grant opportunities. Negatives: 1) Loss of citizen volunteer habitat management efforts on public lands when delisting a focal species. 2) Elimination of research funding for delisted species. 3) Delisting an extirpated species that gets re-discovered will increase costs.	Responded 12/10/12 [TH]. Incorporated comments into the EIA. Sent draft EIA and invited consultation.

DOA 2049. Summary of public comments on the economic impact of the proposed rule and and the department's response [ER-27-11].

#	Type of Comment	Summarized Comments	Response
4	Economic	Supports delisting Blanding's Turtle and Greater Redhorse, and listing of Fawnsfoot. Listings should be reviewed periodically. Targeting financial resources to preserve specific areas is more effective than watering down financial resources across the whole state.	Responded 12/5/12 [TH]. General comments incorporated into the EIA. Comments set aside for comment period.
9	Economic	Support Kirtlands conservation and want to make sure that there aren't additional regulations/costs for private landowners like themselves that are doing the right thing for the species if/when the species gets listed.	Responded 12/10/12 [TH]. Incorporated comments into the EIA. Sent draft EIA and invited consultation.
11	Economic	Supports delisting of Butler's Gartersnake - negative economic impacts on the city of New Berlin. "The DNR's protection of this snake was an initial contributor to the failure of the New Berlin City Center project". Notes other impacted municipalities.	Responded 12/10/12 [TH]. Incorporated comments into the EIA. Sent draft EIA and invited consultation.
13	Economic	Challenges to develop their property for single family homes because of Butler's gartersnakes. Surveys/study at their own expense to determine population.	Responded 12/10/12 [TH]. Incorporated comments into the EIA. Sent draft EIA and invited consultation.
14	Economic	Questions whether there is any economic value of delisting extirpated and non-resident species. Delisting species that are "more numerous" than thought make economical sense, opening up more building sites.	Incorporated comments into the EIA and set-aside comment for public comment period. Responded via letter 12/10/12 [TH].
16	Economic	Unable to determine the impact of listing Kirtland's on landowners, loggers, suppliers without more information regarding additional regulational constraints they will face. Concerned about the costs of extra regulation	Responded 12/10/12 [TH]. Incorporated comments into the EIA. Sent draft EIA and invited consultation. RS following up.
18	Economic	Uncalculated economic loss of habitat associated with Blanding's Turtle. "Wisconsin's wetlands have been estimated to provide from \$617.00 – \$28,432 per acre / per year" in ecological services. Illegal and unmonitored trading and harvest may increase.	Responded 12/10/12 [TH]. Incorporated comments into the EIA. Sent draft EIA and invited consultation.

**ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD
AMENDING AND CREATING RULES**

The Wisconsin Natural Resources Board proposes an order to **amend** NR 27.03(2) and NR 27.03(3) relating to revising Wisconsin's endangered and threatened species list.

ER-27-11

Analysis Prepared by Department of Natural Resources

1. Statutes Interpreted: In promulgating this rule, s. 227.11(2)(a), Wis. Stats., has been interpreted as allowing the department the authority to create and amend rules. Section 29.604 (3)(b), Wis. Stats., has been interpreted as allowing the department the authority to create and amend the list of Wisconsin's endangered and threatened species, NR 27.03, Wis. Admin. Code.

2. Statutory Authority: The state statutes that authorize the promulgation of this rule include ss. 29.604 227.11, Wis. Stats.

3. Explanation of Agency Authority: These sections grant rule-making authority for the establishment of an endangered and threatened species list to the department.

4. Related Statutes or Rules: Section 29.604 (3), Wis. Stats., requires the Department to establish an endangered and threatened species list. Chapter NR 27, Wis. Admin. Code, provides the list of endangered and threatened species.

5. Plain Language Analysis: The department's Bureau of Endangered Resources initiated and completed a review of Wisconsin's rare species, and now proposes changes to Ch. NR 27, Wis. Admin. Code, which will add 8 species and remove 16 species in Wisconsin to the Wisconsin endangered and threatened species list, and will update 20 scientific names.

The 8 species the state proposes to add to the endangered and threatened list are:

Upland Sandpiper (*Bartramia longicauda*), a bird, is found primarily in the southwest, northwest sands, and northeastern part of the state. Other secondary areas are in the central, southeast, and western parts of the state. This species prefers large, open landscapes with short to mid-height grassy vegetation, including remnant prairie, lightly grazed pastures, barrens, old fields, and other idle grasslands, and hay fields. This species is in decline in Wisconsin, some of the largest declines in its range; once reported at 55 sites. It may disappear from Wisconsin without large blocks of idle and/or grazed grasslands. Add to threatened list [NR27.03(3)].

Black Tern (*Chlidonias niger*), a bird, is found in found in northern, eastern, and central Wisconsin in marshes, river sloughs, rivers, lakeshores, impoundments, and wet meadows, typically in sites with mixture of emergent vegetation and open water. The species is in decline in Wisconsin. Surveys indicate declines as much as 36% in recent years and a 78% decline over 30 years. Once reported at 79 sites, was found only at 7 breeding colonies in 2010. Add to endangered list [NR27.03(2)].

Kirtland's Warbler (*Dendroica (=Setophaga) kirtlandii*), a bird, is found in Adams and Marinette counties in areas at least 30 hectares in size, where scrubby jack pine (2 to 6 meters high) is interspersed with many small openings and minimal ground cover. This species is considered to be "critically imperiled" globally and is currently on the Federal list of endangered species. This species has nested in Wisconsin consistently since 2007; twelve new populations are now known. There are historic records of individuals in the state. Add to endangered list [NR27.03(2)].

Beach-dune Tiger Beetle (*Cicindela hirticollis rhodensis*), a beetle also known as the "hairy-necked tiger beetle", is found on beaches of Lakes Superior and Michigan. This species is rare and declining in Wisconsin (30%). Once reported from 9-10 sites statewide, now only one known viable population remains. Add to endangered list [NR27.03(2)].

Fawnsfoot (*Truncilla donaciformis*), a freshwater mussel, is only known from the Mississippi River and portions of its major tributaries in Wisconsin (St. Croix and Wisconsin River). This species is in decline in Wisconsin. Populations are disappearing range wide. Once widespread and abundant, this species is rarely found in recent years. Numbers have greatly declined in WI's remaining viable populations (St. Croix and Lower Wisconsin Rivers). Add to threatened list [NR27.03(3)].

Ottoo Skipper (*Hesperia ottoe*), a butterfly, is found in nine counties in the southwestern corner of the state on dry to dry-mesic hill prairies, sand prairies, and sand barrens. This species is very rare and in decline in Wisconsin. Once known to 16 sites; as of 2011 only 4 are extant (a 75% decline since the mid-1990s). Many populations are gone range wide. Very few sites have the size, quality, structure, or connectivity to sustain this species. Add to endangered list [NR27.03(2)].

A Leafhopper (*Attenuipyga vanduzeei*), a small terrestrial insect also known as "a prairie leafhopper" or "shovel-headed leafhopper", is found in the highest quality prairie remnants near the Mississippi and Lower Wisconsin Rivers. This species is very rare in Wisconsin. Only 4 extant populations are known. This species has poor dispersal ability and is sensitive to management and woody encroachment. Add to endangered list [NR27.03(2)].

An Issid Planthopper (*Fitchiella robertsoni*), a small terrestrial insect also known as "Fitch's Elephanthopper" or "Robertson's Flightless Planthopper" or "Fitch's Planthopper", is found in high quality remnant dry to dry-mesic grasslands in the bluffs along the Mississippi River and in the sand country of northwest Wisconsin. This species is very rare in Wisconsin. Only 4 extant populations are known. Add to threatened list [NR27.03(3)].

The 16 species the state proposes to remove from the endangered and threatened list are:

Barn Owl (*Tyto alba*), an owl, has a scattered and irregular distribution in the state, mostly the southern half. The species has always been on the edge of its range in Wisconsin and is not considered a regular breeder. In their range, they are found in rural lands or grasslands with some combination of wet meadows, wetland edges, pastures, old-fields, grain crops, hayfields, hedges, and fencerows; usually within 1-2km of permanent water and adjacent to woodlot edge. Nest sites include concrete-domed silos, barns, tree cavities, abandoned farm buildings, church steeples, bank or cliff cavities, and barn owl nest boxes. Remove from the endangered list [NR27.03(2)].

Bewick's Wren (*Thryomanes bewickii*), a small migratory bird, has not been observed breeding in Wisconsin or neighboring states for over 40 years; it is extirpated. Remove from the endangered list [NR27.03(2)].

Snowy Egret (*Egretta thula*), a waterbird, utilizes a wide variety of wetland habitats in their range, but does not breed in Wisconsin. The species has always been on the edge of its range in Wisconsin and is not considered a regular breeder in the state. Remove from the endangered list [NR27.03(2)].

Greater Redhorse (*Moxostoma valenciennesi*), a large fish, is found in widely scattered locations in the Lake Michigan and Mississippi River basins. The species appears stable in WI; found consistently in multiple watersheds. Remove from the threatened list [NR27.03(3)].

Blanding's Turtle (*Emydoidea blandingii*), a turtle, is often found in slow moving rivers, streams, ponds, lakes, marshes, swamps, sloughs, and backwater areas, as well as adjacent terrestrial habitats found in the majority of Wisconsin's counties, except for the north-central tier. Species still slightly declining in WI, however large population numbers and wide distribution. Species is not imperiled in the state. Remove from the threatened list [NR27.03(3)].

Butler's Gartersnake (*Thamnophis butleri*), a snake, is found in open to semi-open canopy wetland and upland habitat, including prairies, sedge meadows, shrub carr, wet meadows, marshes, grasslands, savannas, old fields, pastures, grassy roadsides, and vacant lots in Dodge, Fond du Lac, Milwaukee, Ozaukee, Sheboygan, Washington, and Waukesha counties. Species appears stable in WI. New information on abundance, range, and hybridization support delisting. Remove from the threatened list [NR27.03(3)].

Pygmy Snaketail (*Ophiogomphus howei*), a small dragonfly, is found in clean, fast flowing, medium to large streams with abundant gravel or sand substrates in northern Wisconsin. These streams are also in largely forested watersheds. Species appears stable in the state. New populations found using modeling of habitat and targeted surveys. Remove from the threatened list [NR27.03(3)].

American Fever-few (*Parthenium integrifolium*), a composite plant also known as Wild Quinine, is found in dry-mesic to mesic (sometimes wet-mesic) prairie and savanna in mostly loamy to moderately sandy soils in the southwest and southeast corners of the state. The population in Wisconsin appears stable. It is reproducing well on managed and restored sites, and on newly planted sites. Remove from the threatened list [NR27.03(3)].

Bog Bluegrass (*Poa paludigena*), a grass, is found most often growing on banks and atop hummocks, tussocks, and moss-covered logs along small creeks, rivulets, and pools in black ash/yellow birch, black ash/red maple, and black ash/elm swamps throughout the state, perhaps most common in west-central and northwestern Wisconsin in areas bordering the driftless region. Population in Wisconsin appears stable. New records have resulted from inventories. Remove from the threatened list [NR27.03(3)].

Canada Horse-balm (*Collinsonia canadensis*), is a plant in the mint family is also known as Stoneroot, and is considered extirpated in Wisconsin. Elsewhere in its range it has been found in rich beech-maple deciduous forests, as well as occasionally in swampy deciduous forests or oak-hickory and sassafras forests. Documented at only 2 locations in Wisconsin; one is presumed extirpated and the other has not been observed for 150 years. This species is conspicuous and easy to identify. Remove from the endangered list [NR27.03(2)].

Drooping Sedge (*Carex prasina*), a plant in the sedge family, is found in good-quality, mesic hardwood forests encompassing seepages, spring heads, and streamlets and has been found in 11 counties mostly representing widely scattered populations. The population in Wisconsin is stable. It has a narrow habitat preference; however it has a fairly wide distribution and is found regularly in suitable habitat. Remove from the threatened list [NR27.03(3)].

Hemlock Parsley (*Conioselinum chinense*), a plant in the parsley family is considered extirpated. It was found in low, springy, marly ground and old tamarack bogs in Waukesha, Walworth, and Milwaukee counties. Only six native occurrences were known in the state; All are presumed extirpated or historical. Species is conspicuous and easy to identify. Remove from the endangered list [NR27.03(2)].

Prairie Indian-Plantain (*Arnoglossum plantagineum* = *Cacalia tuberosa*), a plant in the aster family, is found in open, deep-soiled wet to wet-mesic to dry prairies that are usually calcareous; has been reported from the southern two tiers of counties in Wisconsin, including Grant, Crawford, Lafayette, Iowa, Green, Dane, Rock, Jefferson, Walworth, Waukesha, Kenosha, and Racine counties. It inhabits moist prairies on lakeplains, outwash plains and low moraines in southeastern Wisconsin as well as dry oak openings and bluff prairies in central and southwestern Wisconsin. The population in Wisconsin is stable to increasing; It has responded well to prairie management. Remove from the threatened list [NR27.03(3)].

Snowy Campion (*Silene nivea*), a plant in the pink family, is found in rich woods and alluvial, disturbed floodplains and streambanks, old grasslands, sand prairie, and roadsides. Primarily known from the Driftless area in south-central, southwestern, and western portion of the state. The population in Wisconsin appears stable. It is able to persist with reed canary grass and in degraded streamside habitats and roadside, railroad and utility rights-of-way. Species no longer considered imperiled. Remove from the threatened list [NR27.03(3)].

Yellow Gentian (*Gentiana alba*), a plant in the gentian family is also known as Yellowish Gentian, and is found in dry to moist prairies, savannas and open woods in a wide variety of soil types. In Wisconsin it has been found in 32 counties, mostly in the south-central portion of the state. The population in Wisconsin is increasing. Most of the population expansion and increases have occurred in old fields. Remove from the threatened list [NR27.03(3)].

Yellow Giant Hyssop (*Agastache nepetoides*), a plant in the mint family, is found in areas with partial sun within dry and dry mesic forests, oak woodlands, oak openings, alluvial forests, as well as the edges of meadows, fencerows, and thickets; primarily found in southern Wisconsin in Crawford, Grant, Lafayette, Green, Rock, Walworth, Racine, Jefferson, Dane, and Columbia counties. The population in Wisconsin is stable to increasing. It has responded well to savanna management and restoration. Remove from the threatened list [NR27.03(3)].

The 20 species the state proposes for a scientific name change are:

- Northern Cricket Frog also known as Blanchard's Cricket Frog (*Acris blanchardii* change to *Acris crepitans*), endangered
- Worm-eating Warbler (*Helmitheros vermivorus* change to *Helmitheros vermivorum*), endangered
- Pallid Shiner (*Notropis annis* change to *Hybopsis amnis*), endangered
- Shoal Chub also known as Speckled Chub (*Macrhybopsis aestivalis* change to *Macrhybopsis hyostoma*), threatened
- Spatterdock Darner Dragonfly (*Aeshna mutata* change to *Rhionaeschna mutata*), threatened
- Obovate Beak Grass (*Diarrhena americana* change to *Diarrhena obovata*), endangered
- Canada Gooseberry also known as Hawthorn-leaved Gooseberry (*Ribes oxycanthoides* change to *Ribes oxycanthoides* ssp. *oxycanthoides*), threatened
- Cliff Cudweed (*Gnaphalium saxicola* change to *Pseudognaphalium saxicola*), threatened
- Early Anemone (*Anemone multifida* change to *Anemone multifida* var. *multifida*), endangered
- Forked Aster (*Aster furcatus* change to *Eurybia furcata*), threatened
- Green Spleenwort (*Asplenium trichomanes-namosum* change to *Asplenium trichomanes-ramosum*), endangered
- Hall's Bulrush (*Scirpus hallii* change to *Schoenoplectus hallii*), endangered
- Hoary Whitlow-cress (*Draba lanceolata* change to *Draba cana*), endangered
- Large-leaved Sandwort (*Moehringia macrophylla* change to *Arenaria macrophylla*), endangered
- Long-beaked Baldrush also known as Bald Rush (*Rhynchospora scirysoides* change to *Rhynchospora scirpoides*), threatened
- Plains Ragwort (*Senecio indecorus* change to *Packera indecora*), threatened
- Sticky False-asphodel also known as False Asphodel (*Tofieldia glutinosa* change to *Triantha glutinosa*), threatened
- Tea-leaved Willow also known as Flat-leaved Willow (*Salix planifolia* change to *Salix planifolia* ssp. *planifolia*), threatened
- Thickspike also known as Thickspike Wheatgrass (*Elymus lonceolatus* ssp. change to *Elytrigia dasystachya* ssp. *psammophilus*), threatened
- Tufted Bulrush also known as Tussock Bulrush (*Scirpus cespitosus* change to *Trichophorum cespitosum*), threatened

6. Summary of, and Comparison with, Existing or Proposed Federal Regulations: The United States Fish and Wildlife Service maintains the list of Federal endangered and threatened species. The Kirtland's Warbler (*Dendroica kirtlandii* = *Setophaga kirtlandii*) is the only Federally Listed species that is being proposed for state listing in Wisconsin under this proposal.

7. Comparison with Rules in Adjacent States: Minnesota, Illinois, Iowa, and Michigan all have an endangered species law and maintain a state list of endangered and threatened plants and animals. Below are links to their laws and lists, as well as species being proposed under this rule change that are currently listed as endangered or threatened in those states.

- Illinois (1972 law, list last revised in 2009/2010): <http://www.dnr.illinois.gov/ESPB/Pages/default.aspx>.
- Iowa (1975 law, list last amended in 2009): <http://www.iowadnr.gov/environment/threatenedendangered.aspx>.
- Michigan (1974/1994 law, list last revised in 2009): http://www.michigan.gov/documents/dnr/2007-007_NR_Threatened_Endangered_Species_nonstrike_9-12_274586_7.pdf.
- Minnesota (1972 law, list last revised in 1996): <http://www.dnr.state.mn.us/rsg/laws.html>. Minnesota is currently undergoing a formal rule revision process to update the list; Over 270 changes have been proposed: <http://files.dnr.state.mn.us/input/rules/ets/all.pdf>.

Species currently on Wisconsin's adjacent states' endangered and threatened lists that will be revised in Wisconsin under this proposed rule change:

Species	WI Proposed Rule Change	Adjacent States' status [IA, IL, MI, MN]
Upland Sandpiper (<i>Bartramia longicauda</i>)	List	▪ IL endangered
Black Tern (<i>Chlidonias niger</i>)	List	▪ IL endangered
Kirtland's Warbler (<i>Dendroica kirtlandii</i>)	List	▪ MI endangered
Snowy Egret (<i>Egretta thula</i>)	Delist	▪ IL endangered
Bewick's Wren (<i>Thryomanes bewickii</i>)	Delist	▪ IL endangered
Barn Owl (<i>Tyto alba</i>)	Delist	▪ IA endangered ▪ IL endangered ▪ MI endangered
Greater Redhorse (<i>Moxostoma valenciennesi</i>)	Delist	▪ IL endangered
Blanding's Turtle (<i>Emydoidea blandingii</i>)	Delist	▪ IA threatened ▪ IL endangered ▪ MN threatened
Fawnsfoot (<i>Truncilla donaciformis</i>)	List	▪ MI threatened ▪ MN special concern; proposed threatened
Ottoo Skipper (<i>Hesperia ottoe</i>)	List	▪ IL endangered ▪ MI threatened ▪ MN threatened list; proposed endangered
Pygmy Snaketail (<i>Ophiogomphus howei</i>)	Delist	▪ MI threatened
Beach-dune Tiger Beetle (<i>Cicindela hirticollis rhodensis</i>)	List	▪ MN special concern; proposed endangered
Bog Bluegrass (<i>Poa paludigena</i>)	Delist	▪ MI threatened ▪ MN threatened
Drooping Sedge (<i>Carex prasina</i>)	Delist	▪ IL threatened
Hemlock Parsley (<i>Conioselinum chinense</i>)	Delist	▪ IL endangered
Snowy Campion (<i>Silene nivea</i>)	Delist	▪ MI threatened ▪ MN threatened

8. Summary of Factual Data and Analytical Methodologies:

The department's Bureau of Endangered Resources (ER) initiated and completed a review of Wisconsin's endangered and threatened species list, culminating in a list of recommended revisions. The proposed rule is related to the addition of eight (8) species and removal of sixteen (16) species from the state's endangered and threatened species list, and the updating of 20 scientific names.

Guiding the list review was the Endangered and Threatened List Revision Process document which was developed and approved in 2006 by the ER Policy Team. This guidance document recommends conducting a list-wide review at least every 5 years and earlier as needed, based on changes in species population condition. "As needed" triggers include significant change in the state or global conservation rank, taxonomic change, recovery goals met, immediate need for protection, or significant new data on a single species or group of species.

Per the revision process document, the international Natural Heritage Inventory (NHI) system of global and state conservation ranks is the primary trigger for initiating a comprehensive assessment of a species. NHI Programs and NatureServe, the NHI umbrella organization, use a suite of factors to assess the extinction or extirpation risk of plants, animals, and ecosystems, and to assign conservation ranks at global, national, and state levels. In 2009, NatureServe developed a rank calculator tool to support the process of assigning conservation status ranks. NatureServe's Element Rank Calculator Tool was used to update state conservation ranks and is used by NatureServe to update Global and National Conservation Ranks. The category of factors used to assess conservation status are rarity, trends, and threats.

Because state conservation ranks are dynamic and can reflect changes in population condition and new information quickly, they have proven useful in directing action toward species most in need of conservation. Updates to conservation ranks for Wisconsin's endangered, threatened, and special concern species are published almost annually in the NHI Working List. The most recent version of the NHI Working List was last published on 6/1/2011 and incorporates many of the results of the review process.

Biologists from a variety of state and national agencies, organizations, and universities, as well as naturalists throughout the state with taxonomic expertise provided new or updated information on the population condition and distribution of rare species in the state. Department biologists focused attention and resources on species that are most at risk of extirpation in the state and where application of Wisconsin's Endangered Species Law would be effective in their protection.

Status assessments were conducted and resulted in the proposed list changes. A database was created to capture information received and decisions made to promote consistency and transparency in the process. Details on the process and the results, including species distribution maps and status reviews can be found on the department's website (keywords "ET List").

These rule changes were developed with the assistance of the Bureaus of Endangered Resources, Science Services, Wildlife Management, and Legal Services.

9. Analysis and supporting documents used to determine effect on small business or in preparation of economic impact report:

Pursuant to s. 227.137, Wis. Stats., the department is required to solicit comments on the economic impact of proposed rule. Small businesses, as defined in s. 227.114(1), Wis. Stats., are asked to identify themselves as a small business in their comments. Following the public comment period for the EIA, a revised "Fiscal Analysis and Economic Impact Analysis" will be prepared containing relevant information that the department receives. Once the EIA process is completed, the department will submit the rule package and economic impact analysis to the Wisconsin Legislative Council under s. 227.15, Wis. Stats., and hearings on the proposed rule will be held by the department after proper notice in accordance with ss. 227.17 and 227.18, Wis. Stats. If the EIA indicates that the proposed rule is reasonably expected to have a total impact of \$20,000,000 in implementation and compliance costs, the department shall submit the rule to the Department of Administration in accordance with s. 227.137(6), Wis. Stats.

A small business regulatory flexibility analysis that contains the following provisions in s. 227.19(3)(e), Stats., will be included in the final rule order:

1. The agency's reason for including or failing to include in the proposed rule any of the methods specified under s. 227.114 (2) for reducing its impact on small businesses.
2. A summary of issues raised by small businesses during the hearings on the proposed rule, any changes in the proposed rule as a result of alternatives suggested by small businesses and the reasons for rejecting any alternatives suggested by small businesses.
3. The nature of any reports and the estimated cost of their preparation by small businesses that must comply with the rule.
4. The nature and estimated cost of other measures and investments that will be required of small businesses in complying with the rule.
5. The additional cost, if any, to the agency of administering or enforcing a rule which includes any of the methods specified under s. 227.114 (2).
6. The impact on public health, safety and welfare, if any, caused by including in the rule any of the methods specified under s. 227.114 (2).

The Department's email distribution list used to solicit comments includes small businesses and small business associations. The distribution list will be submitted to the Governor's Office of Regulatory Compliance.

10. Effect on small business: Affected constituencies include agricultural and forestry industries, commercial and development businesses, natural resources consultants, utilities, road builders and wildlife rehabilitators.

Most often the public and small businesses become aware of the endangered species law through one of DNR's permitting processes. Wisconsin's endangered species law is implemented by the department in that any activity that the department conducts, funds or approves must consider impacts to listed species (s.29.604 Wis. Stats.). Both endangered and threatened species have the same level of legal protection. Under Wisconsin's law listed animals are protected on all public and private land. Plants are only protected on public land and agricultural, forestry, and utility activities are exempt from this protection (s. 29.604 Wis. Stats.)

In most instances, a permit applicant provides a description of the proposed project. Department staff perform an endangered resources review utilizing the Natural Heritage Inventory database to determine if 1) there is a listed species that may be present, and if 2) the project area has suitable habitat for that species. If either of these criteria are not present the applicant is informed that there is no potential impact and the project proceeds. Over 2/3 of projects fall into this category. If **both** the species is known to be in the area **and** there is suitable habitat on the project site, the department works with the applicant to see if impacts to a listed species may be avoided through seasonal adjustments, temporary removals or barriers. If it can, the project proceeds. If impacts can't be avoided, an incidental take permit is issued to the applicant that allows take of the species. State law requires that all projects under an incidental take permit must minimize and mitigate these impacts. (s.29.604 Wis. Stats.). When the minimization and mitigation measures are in place, the permit is publicly noticed the project may proceed. Very few projects require an incidental take permit, typically fewer than 20 a year are issued.

The species being proposed for removal from the endangered and threatened species list have a total of 1055 records in the NHI database which is used for conducting an endangered resources review. There are a total of 217 records in the NHI database for the species being proposed for addition.

11. A copy of any comments and opinion prepared by the Board of Veterans Affairs under s. 45.03 (2m), Stats., for rules proposed by the Department of Veterans Affairs:
Not applicable.

12. Agency Contact Person:

Erin Crain, Department of Natural Resources, Endangered Resources – ER/6, P.O. Box 7921, Madison, WI 53707-7921; Telephone: (608) 267-7479; Email: Erin.Crain@wisconsin.gov

13. Place where comments are to be submitted and deadline for submission.

Erin Crain
Department of Natural Resources
Endangered Resources – ER/6
P.O. Box 7921
Madison, WI 53707-7921
Fax: (608) 266-2925
Email: Erin.Crain@wisconsin.gov

Hearing dates and deadline for submission of comments are to be determined.

Section 1. NR 27.03(2) and NR 27.03(3) are amended to read:

(2) WISCONSIN ENDANGERED SPECIES LIST.

(a) *Mammals.*

1. Pine Marten — *Martes americana*.

(b) *Birds.*

1. Piping Plover — *Charadrius melodus*.

2. Black Tern — *Chlidonias niger*

3. Yellow-Throated Warbler — *Denroica dominica*.

3l. Kirtland's Warbler — *Dendroica kirtlandii*.

3m. ~~Snowy Egret — *Egretta thula*~~.

4. Peregrine Falcon — *Falco peregrinus* (also U.S. Endangered).

5. ~~Worm-Eating Warbler — *Helmitheros vermivorus*~~.

5. Worm-Eating Warbler — *Helmitheros vermivorum*.

6. Loggerhead Shrike — *Lanius ludovicianus*.

6m. Red-necked Grebe — *Podiceps grisegena*.

7. Caspian Tern — *Sterna caspia*.

8. Forster's Tern — *Sterna forsteri*.

9. Common Tern — *Sterna hirundo*.

10. ~~Bewick's Wren — *Thyromanus bewickii*~~.

11. ~~Barn Owl — *Tyto alba*~~.

(c) *Reptiles.*

1. Ornate Box Turtle — *Terrapene ornata*.

2. Slender Glass Lizard — *Ophisaurus attenuatus*.

3. Queen Snake — *Regina septemvittata*.

4. Western Ribbon Snake — *Thamnophis proximus*.

5. Northern Ribbon Snake — *Thamnophis sauritus*.

6. Massasauga — *Sistrurus catenatus*.

(d) *Amphibians.*

1m. ~~Blanchard's Cricket Frog — *Acris blanchardii*~~.

1m. Northern Cricket Frog — *Acris crepitans*.

(e) *Fishes.*

1. Skipjack Herring — *Alosa chrysochloris*.

2m. Crystal Darter — *Crystallaria asprella*.

- 2t. Gravel Chub — *Erimystox x-punctata*.
3. Bluntnose Darter — *Etheostoma chlorosomum*.
- 4m. Starhead Topminnow — *Fundulus disper*.
5. Goldeye — *Hiodon alosoides*.
- 5m. Pallid Shiner — *Hybopsis amnis*.
- 6g. Striped Shiner — *Luxilus chrysocephalus*.
- 6m. Black Redhorse — *Moxostoma duguensei*.
7. Pallid Shiner — *Notropis annis*.
9. Slender Madtom — *Noturus exilis*.

(f) *Insects*.

1. Pecatonica River Mayfly — *Acanthametropus pecatonica*.
- 1m. Red-veined Prairie Leafhopper — *Aflexia rubranura*.
2. A Flat-headed Mayfly — *Anepeorus simplex*.
- 2g. A Leafhopper — *Attenuipyga vanduzeei*.
- 2m. Swamp Metalmark Butterfly — *Calephelis mutica*.
- 2r. Beach-dune Tiger Beetle — *Cicindela hirticollis rhodensis*.
3. Northern Blue Butterfly — *Lycaeides idas*.
4. Giant Carrion Beetle — *Microphorus americanus*.
5. Powesheik Skipper — *Oarisma powesheik*.
6. Extra-striped Snaketail Dragonfly — *Ophiogomphus anomalos*.
7. Saint Croix Snaketail Dragonfly — *Ophiogomphus susbecha*.
8. Silphium Borer Moth — *Papaipema silphii*.
9. Phlox Moth — *Schinia indiana*.
- 9g. Warpaint Emerald Dragonfly — *Somatochlora incurvata*.
- 9m. Hine's Emerald Dragonfly — *Somatochlora hineana*.
- 9t. Regal Fritillary — *Speyeria idalia*.
10. Knobel's Riffle Beetle — *Stenelmis knobeli*.
- 10m. Lake Huron Locust — *Trimerotropis huroniana*.

(g) *Mussels*.

1. Spectacle Case — *Cumberlandia monodonta*.
2. Purple Wartyback — *Cyclonaias tuberculata*.
3. Butterfly — *Ellipsaria lineolata*.
4. Elephant Ear — *Elliptio crassidens*.
5. Snuffbox — *Epioblasma triquetra*.
6. Ebonyshell — *Fusconaia ebena*.
7. Higgins Eye Pearly Mussel — *Lampsilis higginsii* (also U.S. Endangered).
8. Yellow and Slough Sandshell — *Lampsilis teres*.
9. Bullhead — *Plethobasus cyphus*.
10. Winged Mapleleaf — *Quadrula fragosa*.
11. Rainbow Shell — *Villosa iris*.

(h) *Snails*.

1. Hubricht's Vertigo — *Vertigo hubrichti*.
2. Occult Vertigo — *Vertigo occulta*. (*th* — not a valid sp, delist)

(i) *Plants*.

1. Anemone caroliniana — Carolina Anemone (Ranunculaceae: Crowfoot Family).
2. Anemone multifida — no common name (Ranunculaceae: Crowfoot family).
2. Anemone multifida var. multifida — Early Anemone (Ranunculaceae: Crowfoot family).
3. Arenaria macrophylla — Large-leaved Sandwort (Caryophyllaceae: Pink Family).
4. Armoracia aquatica — Lake Cress (Brassicaceae: Mustard Family).
- 4m. Asclepias purpurascens — Purple Milkweed (Asclepiadaceae: Milkweed Family).
- 5m. Asplenun trichomanes — namosum — Green Spleenwort (Polypodiaceae: Fern Family).
- 5m. Asplenium trichomanes — ramosum — Green Spleenwort (Polypodiaceae: Fern Family).
6. Astragalus alpinus — Alpine Milk Vetch (Fabaceae: Bean Family).

7. *Astragalus crassicus* — Prairie Plum (Fabaceae: Bean Family).
7m. *Astragalus neglectus* — Coppers Milk Vetch (Fabaceae: Bean Family).
7t. *Botrychium campestre* — Prairie Moonwort (Ophioglossaceae: Adder's-tongue Family).
8. *Botrychium lunaria* — Moonwort (Ophioglossaceae: Adder's-tongue Family).
8m. *Botrychium mormo* — Goblin Fern (Ophioglossaceae: Adder's-tongue Family).
9. *Caltha natans* — a Marsh Marigold (Ranunculaceae: Crowfoot Family).
9m. *Camassia scilloides* — Wild Hyacinth (Liliaceae: Lily Family).
10. *Carex crus-corvi* — no common name (Cyperaceae: Sedge Family).
10m. *Carex laevivaginata* — Smooth-sheathed Sedge (Cyperaceae: Sedge Family).
11. *Carex lupuliformis* — no common name (Cyperaceae: Sedge Family).
12. *Carex media* — no common name (Cyperaceae: Sedge Family).
12m. *Carex schweinitzii* — Schweinitz's Sedge (Cyperaceae: Sedge Family).
13. *Catabrosa aquatica* — Brook Grass (Poaceae: Grass Family).
14. *Collinsonia canadensis* — Stoneroot (Lamiaceae: Mint Family).
15. *Conioselinum chinense* — Hemlock-parsley (Apiaceae: Parsley Family).
16. *Diarrhena americana* — Beak Grass (Poaceae: Grass Family).
16. *Diarrhena obovata* — Obovate Beak Grass (Poaceae: Grass Family).
17. *Draba lanceolata* — no common name (Brassicaceae: Mustard Family).
17. *Draba cana* — Hoary Whitlow-cress (Brassicaceae: Mustard Family).
17g. *Eleocharis nitida* — Neat Spike-rush (Cyperaceae: Sedge Family).
17m. *Eleocharis wolfii* — Wolf Spike-rush (Cyperaceae: Sedge Family).
18. *Eleocharis quadrangulata* — a Spike-rush (Cyperaceae: Sedge Family).
19. *Erigenia bulbosa* — Harbinger-of-Spring (Apiaceae: Parsley Family).
20. *Fimbristylis puberula* — no common name (Cyperaceae: Sedge Family).
21. *Fuirena pumila* — Umbrella Sedge (Cyperaceae: Sedge Family).
22. *Geocaulon lividum* — Northern Comandra (Santalaceae: Sandal-wood Family).
22m. *Gerardia skinneriana* — Pale False Foxglove (Scrophulariaceae: Fig Wort Family).
22p. *Juncus stygius* — Bog Rush (Juncaceae: Rush Family).
22t. *Lespedeza leptostachya* — Prairie Bush Clover (Fabaceae: Bean Family).
23. *Liatris punctata* — Dotted Blazing Star (Asteraceae: Composite Family).
24. *Listera auriculata* — Auricled Twayblade (Orchidaceae: Orchid Family).
24m. *Lonicera involucrata* — Fly Honeysuckle (Caprifoliaceae: Honeysuckle Family).
25. *Melica smithii* — Smith Melic Grass (Poaceae: Grass Family).
25d. *Moorhelia macrophylla* — no common name (Caryophyllaceae: Pink Family).
25g. *Muhlenbergia richardsonis* — Mat Muhly (Poaceae: Grass Family).
25j. *Orobanche ludoviciana* — Louisiana Broomrape (Orobanchaceae: Broomrape Family).
25m. *Oxytropis campestris* — Fassett's Locoweed (Fabaceae: Bean Family).
26. *Parnassia parviflora* — a Grass-of-Parnassus (Saxifragaceae: Saxifrage Family).
27. *Phlox glaberrima* — Smooth Phlox (Polemoniaceae: Phlox Family).
28. *Pinguicula vulgaris* — Butterwort (Lentibulariaceae: Bladderwort Family).
29. *Plantago cordata* — Heart-leaved Plantain (Plantaginaceae: Plantain Family).
29m. *Platanthera leucophaea* — Prairie White-Fringed Orchid (Orchidaceae: Orchid Family).
29t. *Polemonium occidentale* ssp. *lucustre* — Western Jacob's Ladder (Polemoniaceae: Phlox Family).
30. *Polygala incarnata* — Pink Milkwort (Polygalaceae: Milkwort Family).
30m. *Potamogeton pulcher* — Spotted Pond Weed (Potamogetonaceae: Pond Weed Family).
31. *Prenanthes aspera* — Rough White Lettuce (Asteraceae: Composite Family).
32. *Prenanthes crepidinea* — Great White Lettuce (Asteraceae: Composite Family).
33. *Pterospora andromedea* — Pine-drops (Pyrolaceae: Wintergreen Family).
34. *Pyrola minor* — Small Shinleaf (Pyrolaceae: Wintergreen Family).
36. *Ranunculus gmelinii* — Small Yellow Water Crowfoot (Ranunculaceae: Crowfoot Family).
36m. *Ranunculus lapponicus* — Lapland Buttercup (Ranunculaceae: Crowfoot Family).
37. *Rhododendron lapponicum* — Lapland Rosebay (Ericaceae: Heath Family).
38. *Ruellia humilis* — Wild Petunia (Acanthaceae: Acanthus Family).
39. *Salix cordata* — Sand Dune Willow (Salicaceae: Willow Family).
39m. *Salix pellita* — Satiny Willow (Salicaceae: Willow Family).
40d. *Scirpus hallii* — Hall's bulrush (Cyperaceae: Sedge Family).

- 40d. Schoenoplectus hallii — Hall's bulrush (Cyperaceae: Sedge Family).
 40h. *Scleria reticularis* — Netted Nut-rush (Cyperaceae: Sedge Family).
 40q. *Scutellaria parvula* — Small Skullcap (Lamiaceae: Mint Family).
 41. *Selaginella selaginoides* — no common name (Selaginellaceae: Selaginella Family).
 41m. *Silene virginica* — fire pink (Caryophyllaceae: Pink Family).
 42. *Solidago caesia* — Blue-stemmed Goldenrod (Asteraceae: Composite Family).
 43m. *Tanacetum bipinnatum* spp *huronense* — Lake Huron Tansy (Asteraceae: Composite Family).
 44. *Thaspium barbinode* — Hairy Meadow Parsnip (Apiaceae: Parsley Family).
 45. *Tiarella cordifolia* — Foamflower (Saxifragaceae: Saxifrage Family).
 45m. *Trisetum melicoides* — Purple False Oats (Poaceae: Grass Family).
 46. *Vaccinium cespitosum* — Dwarf Bilberry (Ericaceae: Heath Family).
 47. *Vaccinium vitis-idaea* — Mountain Cranberry (Ericaceae: Heath Family).
 48. *Viburnum edule* — Squashberry (Caprifoliaceae: Honeysuckle Family).
 49. *Viola fimbriatula* — a Violet (Violaceae: Violet Family).

(3) WISCONSIN THREATENED SPECIES LIST.

(a) *Mammals.*

1. Little brown bat — *Myotis lucifugus*.
2. Big brown bat — *Eptesicus fuscus*.
3. Northern long-eared bat — *Myotis septentrionalis*.
4. Eastern pipistrelle — *Perimyotis subflavus*.

(b) *Birds.*

1. Henslow's sparrow — *Ammodramus henslowii*.
- 1g. Upland Sandpiper — *Bartramia longicauda*.
- 1m. Red-shouldered Hawk — *Buteo lineatus*.
2. Great Egret — *Casmerodius albus*.
- 2m. Yellow Rail — *Coturnicops noveboracensis*.
- 2t. Spruce Grouse — *Dendragapus canadensis*.
3. Cerulean Warbler — *Dendroica cerulea*.
4. Acadian Flycatcher — *Empidonax virescens*.
- 6m. Yellow-Crowned Night Heron — *Nyctanassa violaceus*.
7. Kentucky Warbler — *Oporornis formosus*.
10. Greater Prairie Chicken — *Tympanuchus cupido pinnatus*.
11. Bell Vireo — *Vireo bellii*.
12. Hooded Warbler — *Wilsonia citrina*.

(c) *Reptiles.*

1. Wood Turtle — *Clemmys insculpta*.
2. Blanding's Turtle — *Emydoidea blandingi*.
3. Butler's Gartersnake — ~~*Thamnophis butleri*~~.

(d) *Amphibians.* — None.

(e) *Fishes.*

1. Blue Sucker — *Cycorepus elongatus*.
4. Black Buffalo — *Ictiobus niger*.
5. Longear Sunfish — *Lepomis megalotis*.
- 5m. Redfin Shiner — *Lythrurus umbratilis*.
- ~~5t. Speckled Chub — *Macrhybopsis aestivalis*.~~
- 5t. Shoal Chub — *Macrhybopsis hyostoma*.
6. River Redhorse — *Moxostoma carinatum*.
- ~~7. Greater Redhorse — *Moxostoma valenciennesi*.~~
8. Pugnose Shiner — *Notropis anogenus*.
- 9m. Ozark Minnow — *Notropis nubila*.
10. Gilt Darter — *Percina evides*.

11. Paddlefish — *Polyodon spathula*.

(f) *Insects.*

- ~~1. Spatterdock damer dragonfly — *Aeshna mutata*.~~
1. Spatterdock damer dragonfly — *Rhionaeschna mutata*.
1m. An Issid Planthopper — *Fitchiella robertsoni*.
2. Frosted Elfin — *Incisalia irus*.
2m. A Prairie Leafhopper — *Polyamia dilata*.
~~2t. Pygmy Snaketail Dragonfly — *Ophiogomphus howei*.~~

(g) *Mussels.*

2. Slippershell — *Alasmidonta viridis*.
3. Rock Pocketbook — *Arcidens confragosus*.
4. Monkeyface — *Quadrula metanevra*.
5. Wartyback — *Quadrula nodulata*.
6. Salamander Mussel — *Simpsonaias ambigua*.
7. Buckhorn — *Tritogonia verrucosa*.
7m. Fawnsfoot — *Truncilla donaciformis*.
8. Ellipse — *Venustaconcha ellipsiformis*.

(h) *Snails.*

1. Wing Snaggletooth — *Gastrocopta procera*.
2. Cherrystone Drop — *Hendersonia occulta*.

(i) *Plants.*

1. *Aconitum novaboracense* — Northern Monkshood (Ranunculaceae: Crowfoot Family) (also U.S. Threatened).
2. *Adoxa moschatellina* — Muskroot (Adoxaceae: Moschatel Family).
~~3. *Agastache nepetoides* — Yellow Giant Hyssop (Lamiaceae: Mint Family).~~
~~4g. *Arnoglossum plantagineum* — Prairie Indian Plantain (Asteraceae: Aster Family).~~
4m. *Asclepias ovalifolia* — Dwarf Milkweed (Asclepiadaceae: Milkweed Family).
5. *Asclepias lanuginosa* — Woolly Milkweed (Asclepiadaceae: Milkweed Family).
6. *Asclepias sullivantii* — Prairie Milkweed (Asclepiadaceae: Milkweed Family).
7. *Asplenium pinnatifidum* — Pinnatifid Spleenwort (Polypodiaceae: Fern Family).
~~8. *Aster furcatus* — Forked Aster (Asteraceae: Aster Family).~~
9. *Besseyia bullii* — Kitten Tails (Scrophulariaceae: Fig Wort Family).
11. *Calamovilfa longifolia* — Sand Reed (Poaceae: Grass Family).
11m. *Callitriche heterophylla* — Large Water Starwort (Callitrichaceae: Water Starwort Family).
12. *Calypso bulbosa* — Calypso Orchid (Orchidaceae: Orchid Family).
13. *Carex careyana* — Carey's Sedge (Cyperaceae: Sedge Family).
14. *Carex concinna* — no common name (Cyperaceae: Sedge Family).
15. *Carex exilis* — Coast Sedge (Cyperaceae: Sedge Family).
16. *Carex formosa* — Handsome Sedge (Cyperaceae: Sedge Family).
17. *Carex garberi* — Garbers Sedge (Cyperaceae: Sedge Family).
18. *Carex lenticularis* — Lenticular Sedge (Cyperaceae: Sedge Family).
19. *Carex michauxiana* — no common name (Cyperaceae: Sedge).
~~20. *Carex prasina* — Drooping Sedge (Cyperaceae: Sedge Family).~~
21. *Cirsium hillii* — Prairie Thistle (Asteraceae: Aster Family).
22. *Cirsium pitcheri* — Dune Thistle (Asteraceae: Composite Family).
23. *Cypripedium arietinum* — Ram's-head Lady's-slipper (Orchidaceae: Orchid Family).
24. *Cypripedium candidum* — White Lady's slipper (Orchidaceae: Orchid Family).
25. *Drosera anglica* — a Sundew (Droseraceae: Sundew Family).
26. *Drosera linearis* — a Sundew (Droseraceae: Sundew Family).
27. *Echinacea pallida* — Purple Coneflower (Asteraceae: Composite Family).
28. *Eleocharis rostellata* — Beaked Spike Rush (Cyperaceae: Sedge Family).
~~28m. *Elymus lanceolatus* ssp. — Thickspike Wheatgrass (Poaceae: Grass Family).~~

- 28m. Elytrigia dasystachya ssp. psammophila — Thickspike Wheatgrass (Poaceae: Grass Family).
- 28t. Eurybia furcata — Forked Aster (Asteraceae: Aster Family).
29. Festuca occidentalis — Western Fescue (Poaceae: Grass Family).
30. Fraxinus quadrangulata — Blue Ash (Oleaceae: Olive Family).
- ~~31. Gentiana alba — Yellowish Gentian (Gentianaceae: Gentian Family).~~
32. Gerardia gattingeri — Round Stemmed False Foxglove (Scrophulariaceae: Fig Wort Family).
- ~~32m. Gnaphalium saxicola — Cliff Cudweed (Asteraceae: Aster Family).~~
33. Habenaria flava var. herbiola — Tubercled Orchid (Orchidaceae: Orchid Family).
34. Hypericum sphaerocarpum — Round Fruited St. Johns Wort (Hypericaceae: St. Johns Wort Family).
35. Iris lacustris — Dwarf Lake Iris (Iridaceae: Iris Family).
36. Lespedeza virginica — Slender Bush Clover (Fabaceae: Bean Family).
37. Lesquerella ludoviciana — Bladderpod (Brassicaceae: Mustard Family).
38. Listera convallarioides — Broad-leaved Twayblade (Orchidaceae: Orchid Family).
39. Opuntia fragilis — Brittle Prickly Pear (Cactaceae: Cactus Family).
40. Orchis rotundifolia — Small Round-leaved Orchis (Orchidaceae: Orchid Family).
41. Orobanche fasciculata — Clustered Broomrape (Orobanchaceae: Broomrape Family).
- 41m. Packeria indecora — Plains Ragwort (Asteraceae: Aster Family).
42. Parnassia palustris — a Grass-of-Parnassus (Saxifragaceae: Saxifrage Family).
- ~~43. Parthenium integrifolium — Wild Quinine (Asteraceae: Composite Family).~~
44. Petasites sagittatus — Sweet Coltsfoot (Asteraceae: Composite Family).
- ~~45. Poa paludigena — Bog Bluegrass (Poaceae: Grass Family).~~
46. Polystichum braunii — Braun's Holly Fern (Polypodiaceae: Fern Family).
47. Potamogeton confervoides — no common name (Potamogetonaceae: Pondweed Family).
48. Potamogeton vaginatus — Sheathed Pond Weed (Potamogetonaceae: Pond Weed Family).
49. Polytaenia nuttallii — Prairie-parsley (Apiaceae: Parsley Family).
- 49m. Pseudognaphalium saxicola — Cliff Cudweed (Asteraceae: Aster Family).
- 50m. Ranunculus cymbalaria — Seaside Crowfoot (Ranunculaceae: Crowfoot Family).
- ~~50p. Rhynchospora scirysoides — Bald Rush (Cyperaceae: Sedge Family).~~
- 50p. Rhynchospora scirpoides — Long-beaked Baldrush (Cyperaceae: Sedge Family).
- ~~51. Ribes oxycanthoides — Hawthorn-leaved Gooseberry (Saxifragaceae: Saxifrage Family).~~
51. Ribes oxycanthoides ssp. oxycanthoides — Canada Gooseberry (Saxifragaceae: Saxifrage Family).
- ~~51m. Salix planifolia — Flat-leaved willow (Salicaceae: Willow Family).~~
- 51m. Salix planifolia ssp. planifolia — Tea-leaved willow (Salicaceae: Willow Family).
- ~~51p. Scirpus cespitosus — Tussock Bulrush (Cyperaceae: Sedge Family).~~
- ~~51t. Senecio indecorus — Plains Ragwort (Asteraceae: Aster Family).~~
- ~~51w. Silene nivea — Snowy Campion (Caryophyllaceae: Pink Family).~~
52. Solidago simplex var. Gillmanii — Dune Goldenrod (Asteraceae: Composite Family).
- 52m. Sparganium glomeratum — Clustered Bur Reed (Sparganiaceae: Bur Reed Family).
- ~~53. Tofieldia glutinosa — False Asphodel (Liliaceae: Lily Family).~~
53. Triantha glutinosa — False Asphodel (Liliaceae: Lily Family).
- 53m. Trichophorum cespitosum — Tussock Bulrush (Cyperaceae: Sedge Family).
54. Trillium nivale — Snow Trillium (Liliaceae: Lily Family).
55. Trisetum spicatum — Spike Trisetum (Poaceae: Grass Family).
56. Valeriana sitchensis — Marsh Valerian (Valerianaceae: Valerian Family).

Section 2. EFFECTIVE DATE. The rule contained herein shall take effect on the first day of the month following publication in the Wisconsin administrative register, as provided in s. 227.22 (2), Stats.

Section 3. BOARD ADOPTION. This rule was approved and adopted by the State of Wisconsin Natural Resources Board on _____.

Dated at Madison, Wisconsin _____.

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

By _____
Cathy Stepp, Secretary

(SEAL)