

MICHIGAN ENDANGERED & THREATENED SPECIES LIST, March 1999



DEPARTMENT OF NATURAL RESOURCES, WILDLIFE AND FISHERIES DIVISIONS

CATEGORY DEFINITIONS

Endangered species Any species of fish, plant life, or wildlife that is in danger of extinction throughout all or a significant part of its range, other than a species of insect as determined by the Department, or the Secretary, of the United States Department of the Interior to constitute a pest whose protection under this part would present an overwhelming and overriding risk to humans.

Threatened species: Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

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

Extirpated: Any species which can no longer be found in the state of Michigan, but which can be found elsewhere in the world.

Extinct: Any species which can no longer be found anywhere in the world.

Filed with the Secretary of State on March 5, 1999. These rules take effect 15 days after filing with the Secretary of State (3/20/99). By authority conferred on the Commission of Natural Resources by Section 36503 of Act No. 451 of the Public Acts of 1994, as amended, being § 324.36503 of the Michigan Compiled Laws. R 299.1021, R 299.1022, R 299.1023, R 299.1024, R 299.1025, R 299.1026, R 299.1027, and R 299.1028 of the Michigan Administrative Code are amended to read as follows.

R 299.1021 Mollusks Rule 1.

(1) The following species of mollusks of class **Pelecypoda (mussels)** are included on the state list of **endangered species**:

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|--|-----------------------------|
| (a) <i>Epioblasma obliqua perobliqua</i> (Lea)
[<i>Dysnomia sulcata</i> (Conrad)] | White catspaw |
| (b) <i>Epioblasma torulosa rangiana</i> (Rafinesque)
[<i>Dysnomia torulosa rangiana</i> (Lea)] | Northern riffleshell |
| (c) <i>Epioblasma triquetra</i> (Rafinesque)
[<i>Dysnomia triquetra</i> (Rafinesque)] | Snuffbox |
| (d) <i>Obovaria subrotunda</i> (Rafinesque) | Round hickorynut |
| (e) <i>Pleurobema clava</i> (Lamarck) | Clubshell |
| (f) <i>Simpsonaias ambigua</i> (Say)
[<i>Simpsoniconcha ambigua</i> (Say)] | Salamander mussel |
| (g) <i>Toxolasma lividus</i> (Rafinesque)
[<i>Carunculina glans</i> (Lea)] | Purple lilliput |
| (h) <i>Villosa fabalis</i> (Lea) | Rayed bean |

(2) The following species of mollusks of class **Pelecypoda (mussels)** are included on the state list of **threatened species**:

- | | |
|--|-----------------------------|
| (a) <i>Anodonta subgibbosa</i> (Anthony) | Lake floater |
| (b) <i>Lampsilis fasciola</i> Rafinesque | Wavyrayed lampmussel |

(3) The following species of mollusks of class **Gastropoda (snails)** are included on the state list of **endangered species**:

- | | |
|--|---------------------------|
| (a) <i>Planorbella multivolvis</i> (Case)
[<i>Helisoma multivolvis</i>] | Acorn ramshorn |
| (b) <i>Stagnicola petoskeyensis</i> (Walker) | Petoskey pondsnail |

(4) The following species of mollusks of class **Gastropoda (snails)** are included on the state list of **threatened species**:

- | | |
|--|-----------------------------|
| (a) <i>Hendersonia occulta</i> (Say) | Cherrystone drop |
| (b) <i>Stagnicola contracta</i> (Currier)
[<i>Lymanaea contracta</i>] | Deepwater pondsnail1 |

R 299.1022 **Insects** Rule 2

(1) The following species of **insects** are included on the state list of **endangered species**:

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|---|---|
| (a) <i>Brychius hungerfordi</i> Spangler | Hungerford's crawling water beetle |
| (b) <i>Catocala amestris</i> Strecker | Three-staff underwing |
| (c) <i>Neonympha mitchellii mitchellii</i> French | (c) Mitchell's satyr |
| (d) <i>Nicrophorus americanus</i> Olivier | American burying beetle |
| (e) <i>Schinia indiana</i> (Smith) | Phlox moth |
| (f) <i>Schinia lucens</i> (Morrison) | Leadplant moth |
| (g) <i>Somatochlora hineana</i> Williamson | Hine's emerald dragonfly |
| (h) <i>Speyeria idalia</i> (Drury) | Regal fritillary |

(2) The following species of **insects** are included on the state list of **threatened species**:

- | | |
|---|--------------------------------|
| (a) <i>Atrytonopsis hianna</i> Scudder | Dusted skipper |
| (b) <i>Erynnis persius persius</i> Scudder | Persius dusky wing |
| (c) <i>Euphyes dukesi</i> (Lindsey) | Dukes' skipper |
| (d) <i>Hesperia ottoe</i> Edwards | Ottoe skipper |
| (e) <i>Incisalia irus</i> Godart | Frosted elfin |
| (f) <i>Lepyronia gibbosa</i> Ball | Great Plains spittlebug |
| (g) <i>Lycaeides idas nabokovi</i> Masters | Northern blue |
| (h) <i>Lycaeides melissa samuelis</i> Nabakov | Karner blue |
| (i) <i>Oarisma powesheik</i> (Parker) | Powesheik skipperling |
| (j) <i>Papaipema silphii</i> Bird | Silphium borer moth |
| (k) <i>Trimerotropis huroniana</i> E. M. Walker | Lake Huron locust |

R 299.1023 **Fishes** Rule 3

(1) The following species of **fishes** are included on the state list of **endangered species**:

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|--|-------------------------------|
| (a) <i>Clinostomus elongatus</i> (Kirtland) | Redside dace |
| (b) <i>Erimyzon oblongus</i> (Mitchill) | Creek chubsucker |
| (c) <i>Notropis photogenis</i> (Cope) | Silver shiner |
| (d) <i>Noturus stigmosus</i> Taylor | Northern madtom |
| (e) <i>Opsopoeodus emiliae</i> Hay | Pugnose minnow |
| (f) <i>Percina shumardi</i> (Girard) | River darter |
| (g) <i>Percina copelandi</i> (Jordan) | Channel darter |
| (h) <i>Phoxinus erythrogaster</i> (Rafinesque) | Southern redbelly dace |

(2) The following species of **fishes** are included on the state list of **threatened species**:

- | | |
|---|------------------------------|
| (a) <i>Acipenser fulvescens</i> Rafinesque | Lake sturgeon |
| (b) <i>Ammocrypta pellucida</i> (Putnam) | Eastern sand darter |
| (c) <i>Coregonus artedii</i> Lesueur | Cisco or lake herring |
| (d) <i>Coregonus zenithicus</i> (Jordan and Evermann) | Shortjaw cisco |
| (e) <i>Hiodon tergisus</i> Lesueur | Mooneye |
| (f) <i>Moxostoma carinatum</i> (Cope) | River redhorse |
| (g) <i>Stizostedion canadense</i> (Smith) | Sauger |

(3) The following species of **fishes** are thought to be **extirpated** in Michigan, but, if rediscovered, will automatically be listed as threatened:

- | | |
|---|-------------------------|
| (a) <i>Coregonus johanna</i> e (Wagner) | Deepwater cisco |
| (b) <i>Coregonus nigripinnis</i> (Gill) | Blackfin cisco |
| (c) <i>Coregonus reighardi</i> (Koelz) | Shortnose cisco |
| (d) <i>Notropis amblops</i> (Rafinesque) | Bigeye chub |
| (e) <i>Notropis chalybaeus</i> (Cope) | Ironcolor shiner |
| (f) <i>Notropis texanus</i> (Girard) | Weed shiner |
| (g) <i>Polyodon spathula</i> (Walbaum) | Paddlefish |
| (h) <i>Stizostedion vitreum glaucum</i> (Hubbs) | Bluepike |
| (i) <i>Thymallus arcticus</i> (Richardson) | Arctic grayling |

R 299.1024 **Amphibians** Rule 4

(1) The following species of **amphibians** is included on the state list of **endangered species**:

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|-------------------------------------|------------------------------|
| <i>Ambystoma texanum</i> (Matthews) | Smallmouth salamander |
|-------------------------------------|------------------------------|

(2) The following species of **amphibians** is included on the state list of **threatened species**:

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|---------------------------------------|---------------------------|
| <i>Ambystoma opacum</i> (Gravenhorst) | Marbled salamander |
|---------------------------------------|---------------------------|

R 299.1025 **Reptiles** Rule 5

(1) The following species of **reptiles** are included on the state list of **endangered species**:

- | | |
|--|-------------------------------|
| (a) <i>Clonophis kirtlandii</i> (Kennicott) | Kirtland's snake |
| (b) <i>Nerodia erythrogaster neglecta</i> (Conant) | Copperbelly watersnake |

(2) The following species of **reptiles** are included on the state list of **threatened species**:

- | | |
|---|--------------------------|
| (a) <i>Elaphe vulpina gloydi</i> Conant | Eastern fox snake |
| (b) <i>Clemmys guttata</i> | Spotted turtle |

R 299.1026 **Birds** Rule 6.

(1) The following species of **birds** are included on the state list of **endangered species**:

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|---|----------------------------------|
| (a) <i>Asio flammeus</i> (Pontoppidan) | Short-eared owl |
| (b) <i>Charadrius melodus</i> Ord | Piping plover |
| (c) <i>Dendroica discolor</i> (Vieillot) | Prairie warbler |
| (d) <i>Dendroica kirtlandii</i> (Baird) | Kirtland's warbler |
| (e) <i>Falco peregrinus</i> Tunstall | Peregrine falcon |
| (f) <i>Lanius ludovicianus migrans</i> (Palmer) | Migrant loggerhead shrike |
| (g) <i>Rallus elegans</i> Audubon | King rail |
| (h) <i>Tyto alba</i> (Scopoli) | Barn owl |

(2) The following species of **birds** are included on the state list of **threatened species**:

- | | |
|---|--------------------------------|
| (a) <i>Ammodramus henslowii</i> Audubon | Henslow's sparrow |
| (b) <i>Asio otis</i> (Linnaeus) | Long-eared owl |
| (c) <i>Buteo lineatus</i> (Gmelin) | Red-shouldered hawk |
| (d) <i>Corturnicops noveboracensis</i> (Gmelin) | Yellow rail |
| (e) <i>Dendroica dominica</i> (Linnaeus) | Yellow-throated warbler |
| (f) <i>Falco columbarius</i> (Linnaeus) | Merlin |
| (g) <i>Gavia immer</i> (Brunnich) | Common loon |
| (h) <i>Haliaeetus leucocephalus</i> (Linnaeus) | Bald eagle |
| (i) <i>Ixobrychus exilis</i> (Gmelin) | Least bittern |
| (j) <i>Pandion haliaetus</i> (Linnaeus) | Osprey |
| (k) <i>Sterna caspia</i> Pallas | Caspian tern |
| (l) <i>Sterna hirundo</i> Linnaeus | Common tern |
| (m) <i>Cygnus buccinator</i> Richardson | Trumpeter swan |

(3) The following species of **birds** are thought to be **extirpated** in Michigan, but, if rediscovered, will automatically be listed as threatened:

- Chondestes grammacus* (Say) **Lark sparrow**

R 299.1027 **Mammals** Rule 7

(1) The following species of **mammals** are included on the state list of **endangered species**:

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|--|---------------------|
| (a) <i>Canis lupus</i> Linnaeus | Gray wolf |
| (b) <i>Felis concolor</i> Linnaeus | Cougar |
| (c) <i>Lynx canadensis</i> Kerr | Lynx |
| (d) <i>Microtus ochrogaster</i> (Wagner) | Prairie vole |
| (e) <i>Myotis sodalis</i> Miller and Allen | Indiana bat |

(2) The following species of **mammals** is included on the state list of **threatened species**:

- Cryptotis parva* (Say) **Least shrew**

(1) The following species of **plants** are included on the state list of **endangered species**:

(a) <i>Agalinas gattereri</i> Small [<i>Gerardia gattereri</i> Small]	Gatterer's gerardia
(b) <i>A. skinneriana</i> (A. Wood) Britton [<i>Gerardia skinneriana</i> A. Wood]	Skinner's gerardia
(c) <i>Amerorchis rotundifolia</i> (Pursh) Hultén	Small round-leaved orchis
(d) <i>Asclepias ovalifolia</i> Dcne.	Dwarf milkweed
(e) <i>Androsace occidentalis</i> Pursh	Rock-jasmine
(f) <i>Arnica cordifolia</i> Hooker	Heart-leaved arnica
(g) <i>Asplenium ruta-muraria</i> L.	Wall-rue
(h) <i>A. scolopendrium</i> L. var. <i>americana</i> (Fernald) Kartesz & Ghandi [<i>Phyllitis scolopendrium</i> var. <i>americanum</i> Fern.]	Hart's-tongue fern
(i) <i>Baptisia leucophaea</i> Nutt.	Cream wild indigo
(j) <i>Botrychium acuminatum</i> W. H. Wagner	Moonwort
(k) <i>Carex heleonastes</i> Ehrh.	Hudson Bay sedge
(l) <i>C. nigra</i> (L.) Reichard	Black sedge
(m) <i>C. straminea</i> Willd.	Straw sedge
(n) <i>Castanea dentata</i> (Marsh.) Borkh.	American chestnut
(o) <i>Chamaerhodos nuttallii</i> Fern.	Rock-rose
(p) <i>Chelone obliqua</i> L.	Purple turtlehead
(q) <i>Cryptogramma acrostichoides</i> R. Br.	American rock-brake
(r) <i>Disporum hookeri</i> (Torrey) Nicholson	Fairy bells
(s) <i>Dodecatheon meadia</i> L.	Shooting star
(t) <i>Draba glabella</i> Pursh.	Smooth whitlow grass
(u) <i>Echinodorus tenellus</i> (Mart.) Buchenau	Dwarf burhead
(v) <i>Eleocharis atropurpurea</i> (Retz.) Kunth	Purple spike rush
(w) <i>E. microcarpa</i> Torrey	Small-fruited spike-rush
(x) <i>E. nitida</i> Fern.	Slender spike rush
(y) <i>Gentiana flavida</i> A. Gray [<i>G. alba</i> Muhl.]	White gentian
(z) <i>G. puberulenta</i> J. Pringle [<i>G. puberula</i> Michaux]	Downy gentian
(aa) <i>Gymnocarpium jessoense</i> (Koidz.) Koidz.	Northern oak fern
(bb) <i>Hedysarum alpinum</i> L.	Alpine sainfoin
(cc) <i>Hymenoxys herbacea</i> (Greene) Cusick [<i>Hymenoxys acaulis</i> var. <i>glabra</i> (Gray) Parker]	Lakeside daisy
(dd) <i>Isoetes engelmannii</i> A. Braun	Engelmann's quillwort
(ee) <i>Isotria medeoloides</i> (Pursh) Raf.	Smaller whorled pogonia
(ff) <i>Lygodium palmatum</i> (Bernh.) Sw.	Climbing fern
(gg) <i>Mimulus glabratus</i> var. <i>michiganensis</i> (Pennell) Fassett	Michigan monkey flower
(hh) <i>Nuphar pumila</i> (Timm) DC. [<i>N. microphylla</i> (Pers.) Fern.]	Small yellow pond lily
(ii) <i>Nymphaea tetragona</i> Georgi	Pygmy water lily
(jj) <i>Opuntia fragilis</i> (Nutt.) Haw.	Fragile prickly pear
(kk) <i>Panicum polyanthes</i> Schultes	Many-flowered panic grass
(ll) <i>Penstemon gracilis</i> Nutt.	Slender beard tongue
(mm) <i>Platanthera leucophaea</i> (Nutt.) Lindley [<i>Habenaria leucophea</i> (Nutt.) A. Gray]	Prairie white-fringed orchid
(nn) <i>Plantago cordata</i> Lam.	Heart-leaved plantain
(oo) <i>Poa canbyi</i> (Scribner) Piper	Canby's bluegrass
(pp) <i>Populus heterophylla</i> L.	Swamp or Black cottonwood
(qq) <i>Proserpinaca pectinata</i> Lam.	Mermaid-weed
(rr) <i>Rhynchospora globularis</i> (Chapman) Small	Globe beak-rush
(ss) <i>Rubus acaulis</i> Michaux	Dwarf raspberry
(tt) <i>Rumex occidentalis</i> S. Wats	Western dock
(uu) <i>Scleria pauciflora</i> Willd.	Few-flowered nut rush
(vv) <i>Subularia aquatica</i> L.	Awlwort
(ww) <i>Trillium undulatum</i> Willd.	Painted trillium
(xx) <i>Utricularia inflata</i> Walter [<i>U. radiata</i> Small]	Floating bladderwort
(yy) <i>Vaccinium vitis-idaea</i> L.	Mountain cranberry

(2) The following species of **plants**, listed by major group and family, are included on the state list of **threatened species**:

(a) PTERIDOPHYTES (ferns):

(i) ASPLENIACEAE (Spleenwort Family):

- | | |
|--|-------------------------|
| (a) <i>Asplenium rhizophyllum</i> L. | Walking fern |
| [<i>Camptosorus rhizophyllum</i> (L.) Link] | |
| (b) <i>A. trichomanes-ramosum</i> L. | Green spleenwort |
| [<i>A. viride</i> Hudson] | |

(ii) DRYOPTERIDACEAE (Wood Fern Family):

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|--|----------------------------|
| (a) <i>Dryopteris celsa</i> (W. Palmer) Small | Small log fern |
| (b) <i>Gymnocarpium robertianum</i> (Hoffman) Newman | Limestone oak fern |
| (c) <i>Woodsia alpina</i> (Bolton) S. F. Gray | Northern woodsia |
| (d) <i>W. obtusa</i> (Sprengel) Torrey | Blunt-lobed woodsia |

(iii) LYCOPODIACEAE (Clubmoss family):

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|-------------------------------------|-----------------|
| <i>Lycopodiella margaritae</i> | Clubmoss |
| J. G. Bruce, W. H. Wagner, & Beitel | |

(iv) OPHIOGLOSSACEAE (Adder's-tongue family):

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|---|-------------------------------------|
| (a) <i>Botrychium campestre</i> W. H. Wagner | Prairie Moonwort or Dunewort |
| (b) <i>B. hesperium</i> (Maxon & Clausen) | Western moonwort |
| W. H. Wagner & Lellinger | |
| (c) <i>B. mormo</i> W. H. Wagner | Goblin moonwort |
| (d) <i>Ophioglossum vulgatum</i> L. | Southeastern adder's-tongue |
| [<i>O. pycnostichum</i> (Fern.) Löve & Löve] | |

(v) PTERIDACEAE (Maidenhair Fern Family)

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|--|---------------------------|
| <i>Pellaea atropurpurea</i> (L.) Link. | Purple cliff brake |
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(b) MONOCOTYLEDONS:

(i) ALISMATACEAE (Water-plantain family):

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|---|------------------|
| <i>Sagittaria montevidensis</i> Cham. & Schlecht. | Arrowhead |
|---|------------------|

(ii) CYPERACEAE (Sedge family):

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|--|----------------------------------|
| (a) <i>Carex albolutescens</i> Schw. | Sedge |
| (b) <i>C. assiniboensis</i> W. Boott | Assiniboia sedge |
| (c) <i>C. atratifomis</i> Britton | Sedge |
| (d) <i>C. conjuncta</i> F. Boott. | Sedge |
| (e) <i>C. crus-corvi</i> Kunze | Raven's-foot sedge |
| (f) <i>C. lupuliformis</i> Dewey | False hop sedge |
| (g) <i>C. media</i> R. Br. | Sedge |
| (h) <i>C. novae-angliae</i> Schwein. | New England sedge |
| (i) <i>C. oligocarpa</i> Willd. | Eastern few-fruited sedge |
| (j) <i>C. platyphylla</i> Carey | Broad-leaved sedge |
| (k) <i>C. rossii</i> Boott | Ross's sedge |
| (l) <i>C. scirpoidea</i> Michaux | Bulrush sedge |
| (m) <i>C. seorsa</i> Howe | Sedge |
| (n) <i>C. typhina</i> Michaux | Cattail sedge |
| (o) <i>C. wiegandii</i> Mackenzie | Wiegand's sedge |
| (p) <i>Eleocharis geniculata</i> (L.) R & S. | Spike rush |
| [<i>E. caribaea</i> (Rottb.) S. F. Blake] | |
| (q) <i>E. compressa</i> Sulliv. | Flattened spike rush |
| (r) <i>E. parvula</i> (R. & S.) Link. | Dwarf spike rush |
| (s) <i>E. tricostata</i> Torrey | Three-ribbed spike rush |
| (t) <i>Fuirena squarrosa</i> Michaux | Umbrella grass |

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|---|------------------------|
| (u) <i>Psilocarya scirpoides</i> Torrey | Bald rush |
| (v) <i>Scirpus hallii</i> A. Gray | Hall's bulrush |
| (w) <i>S. americanus</i> Pers.
[<i>S. olneyi</i> A. Gray] | Olney's bulrush |
| (x) <i>Scleria reticularis</i> Michaux | Netted nut rush |

(iii) IRIDACEAE (Iris family):

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|---|---------------------------------|
| (a) <i>Iris lacustris</i> Nutt. | Dwarf lake iris |
| (b) <i>Sisyrinchium atlanticum</i> Bickn. | Atlantic blue-eyed-grass |

(iv) JUNCACEAE (Rush family):

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|--|---------------------------------|
| (a) <i>Juncus brachycarpus</i> Engelm. | Short-fruited rush |
| (b) <i>J. militaris</i> Bigelow | Bayonet rush |
| (c) <i>J. scirpoides</i> Lam. | Scirpus-like rush |
| (d) <i>J. stygius</i> L. | Moor rush |
| (e) <i>J. vaseyi</i> Engelm. | Vasey's rush |
| (f) <i>Luzula parviflora</i> (Ehrh.) Desv. | Small-flowered wood rush |

(v) LEMNACEAE (Duckweed family):

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|------------------------------------|------------------|
| <i>Wolffia papulifera</i> Thompson | Watermeal |
| [<i>W. brasiliensis</i> Weddell] | |

(vi) LILIACEAE (Lily family):

- | | |
|---|-----------------------------|
| (a) <i>Allium schoenoprasum</i> L. (native variety) | Chives |
| (b) <i>Camassia scilloides</i> (Raf.) Cory | Wild hyacinth |
| (c) <i>Disporum trachycarpum</i> (Wats) B. & H. | Northern fairy bells |
| (d) <i>Tofieldia pusilla</i> (Michaux) Pers. | False asphodel |
| (e) <i>Trillium nivale</i> Riddell | Snow trillium |
| (f) <i>T. recurvatum</i> Beck | Prairie trillium |
| (g) <i>T. sessile</i> L. | Toadshade |

(vii) ORCHIDACEAE (Orchid family):

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|--|--|
| (a) <i>Calypso bulbosa</i> (L.) Oakes | Calypso or fairy-slipper |
| (b) <i>Cypripedium candidum</i> Willd. | White lady slipper |
| (c) <i>Galearis spectabilis</i> (L.) Raf. | Showy orchis |
| (d) <i>Isotria verticillata</i> (Willd.) Raf. | Whorled pogonia |
| (e) <i>Platanthera ciliaris</i> (L.) Lindley
[<i>Habenaria ciliaris</i> (L.) R. Br.] | Orange- or yellow-fringed orchis |
| (f) <i>Spiranthes ovalis</i> Lindley | Lesser ladies'-tresses |
| (g) <i>Tipularia discolor</i> (Pursh) Nutt. | Crane-fly orchid |
| (h) <i>Triphora trianthophora</i> (Sw.) Rydb. | Nodding pogonia or three birds orchid |

(viii) POACEAE (Grass family):

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|---|--------------------------------|
| (a) <i>Aristida longespica</i> Poiret | Three-awned grass |
| (b) <i>A. tuberculosa</i> Nutt. | Beach three-awned grass |
| (c) <i>Beckmannia syzigachne</i> (Steudel) Fern. | Slough grass |
| (d) <i>Bouteloua curtipendula</i> (Michaux) Torrey | Side oats grama |
| (e) <i>Bromus pumpellianus</i> Scribner | Pumpelly's bromegrass |
| (f) <i>Calamagrostis lacustris</i> (Kearney) Nash | Northern reedgrass |
| (g) <i>C. stricta</i> (Timm) Koeler | Narrow-leaved reedgrass |
| (h) <i>Chasmanthium latifolium</i> (Michx.) Yates
[<i>Uniola latifolia</i> Michaux] | Wild oats |
| (i) <i>Diarrhena americana</i> Beauv. | Beak grass |
| (j) <i>Festuca scabrella</i> Torrey
[<i>F. altaica</i> Trin.] | Rough fescue |
| (k) <i>Muhlenbergia richardsonis</i> (Trin.) Rydb. | Mat muhly |
| (l) <i>Oryzopsis canadensis</i> (Poiret) Torrey | Canada rice grass |
| (m) <i>Panicum leibergii</i> (Vasey) Scribner | Leiberg's panic grass |
| (n) <i>P. longifolium</i> Torrey | Panic grass |
| (o) <i>P. verrucosum</i> Muhl. | Warty panic grass |
| (p) <i>Poa alpina</i> L. | Alpine bluegrass |
| (q) <i>P. paludigena</i> Fern. & Wieg. | Bog bluegrass |
| (r) <i>Zizania aquatica</i> var. <i>aquatica</i> L. | Wild rice |

(ix) POTAMOGETONACEAE (Pondweed family):

- (a) *Potamogeton bicupulatus* Fern. **Waterthread pondweed**
[*P. capillaceus* Poiret]
- (b) *P. hillii* Morong **Hill's pondweed**
- (c) *P. pulcher* Tuckerman **Spotted pondweed**
- (d) *P. vaseyi* Robins **Vasey's pondweed**

(x) RUPPIACEAE (Widgeon grass family):

- Ruppia maritima* L. **Widgeon grass**

(c) DICOTYLEDONS:

(i) ACANTHACEAE (Acanthus family):

- (a) *Justicia americana* (L.) Vahl **Water willow**
- (b) *Ruellia humilis* Nutt. **Hairy wild petunia**
- (c) *R. strepens* L. **Smooth wild petunia**

(ii) APIACEAE (Parsley family):

- (a) *Berula erecta* (Nutt.) Fern. **Cut-leaved water parsnip**
[*B. pusilla* (Nutt.) Fern.]
- (b) *Eryngium yuccifolium* Michaux **Rattlesnake-master or button snakeroot**
- (c) *Osmorhiza depauperata* Phil. **Sweet Cicely**
- (d) *Zizia aptera* (A. Gray) Fern. **Prairie golden alexanders**

(iii) ARALIACEAE (Ginseng family):

- (a) *Oplopanax horridus* (Smith) Miq. **Devil's club**
- (b) *Panax quinquefolius* L. **Ginseng**

(iv) ARISTOLOCHIACEAE (Birthwort family):

- Aristolochia serpentaria* L. **Virginia snakeroot**

(v) ASCLEPIADACEAE (Milkweed family):

- (a) *Asclepias hirtella* (Pennell) Woodson **Tall green milkweed**
- (b) *A. sullivantii* Engelm. **Sullivant's milkweed**

(vi) ASTERACEAE (Composite family):

- (a) *Agoseris glauca* (Pursh) Raf. **Prairie or pale agoseris**
- (b) *Antennaria rosea* Greene **Rosy pussytoes**
- (c) *Artemisia ludoviciana* Nutt. **Western mugwort**
- (d) *Aster furcatus* Burgess **Forked aster**
- (e) *A. modestus* Lindley **Great northern aster**
- (f) *A. sericeus* Vent. **Western silvery aster**
- (g) *Cirsium pitcheri* (Eaton) Torrey & A. Gray **Pitcher's thistle**
- (h) *Coreopsis palmata* Nutt. **Prairie coreopsis**
- (i) *Erigeron hyssopifolius* Michaux **Hyssop-leaved fleabane**
- (j) *Eupatorium fistulosum* Barratt **Hollow-stemmed Joe-pye weed**
- (k) *E. sessilifolium* L. **Upland boneset**
- (l) *Gnaphalium sylvaticum* L. **Woodland everlasting**
- (m) *Helianthus mollis* Lam. **Downy sunflower**
- (n) *Lactuca floridana* (L.) Gaertner **Woodland lettuce**
- (o) *L. pulchella* (Pursh) DC. **Wild blue lettuce**
- (p) *Petasites sagittatus* (Pursh) A. Gray **Sweet coltsfoot**
- (q) *Polymnia uvedalia* L. **Yellow-flowered leafcup**
- (r) *Senecio indecorus* Greene **Northern ragwort**
- (s) *Silphium integrifolium* Michaux **Rosinweed**
- (t) *S. laciniatum* L. **Compass plant**
- (u) *S. perfoliatum* L. **Cup plant**
- (v) *Solidago houghtonii* A. Gray **Houghton's goldenrod**
- (w) *S. missouriensis* Nutt. **Missouri goldenrod**
- (x) *Tanacetum huronense* Nutt. **Lake Huron tansy**

(vii) BORAGINACEAE (Borage family):

Mertensia virginica Pers. (L.) **Virginia bluebells**

(viii) BRASSICACEAE (Mustard family):

- (a) *Arabis perstellata* E. L. Braun **Rock cress**
- (b) *Armoracia lacustris* (A. Gray) Al-Shehbaz & V. Bates **Lake cress**
[*A. aquatica* (Eaton Wiegand)]
- (c) *Braya humilis* (C. A. Meyer) Robinson **Low northern rock cress**
- (d) *Dentaria maxima* Nutt. **Large toothwort**
- (e) *Draba cana* Rydb. **Ashy whitlow grass**
- (f) *D. incana* L. **Twisted whitlow grass**
- (g) *D. reptans* (Lam.) Fern. **Creeping whitlow grass**

(ix) CALLITRICHACEAE (Water-starwort family):

Callitriche heterophylla Pursh **Large water starwort**

(x) CAPRIFOLIACEAE (Honeysuckle family):

- (a) *Lonicera involucrata* (Richardson) Banks **Black twinberry**
- (b) *Viburnum edule* (Michx.) Raf. **Squashberry or mooseberry**

(xi) CARYOPHYLLACEAE (Pink family):

- (a) *Arenaria macrophylla* Hooker **Large-leaved sandwort**
- (b) *Sagina nodosa* (L.) Fenzl **Pearlwort**
- (c) *Silene stellata* (L.) Aiton f. **Starry campion**
- (d) *S. virginica* L. **Fire pink**
- (e) *Stellaria crassifolia* Ehrh. **Fleshy stitchwort**

(xii) CISTACEAE (Rockrose family):

Lechea pulchella Raf. **Leggett's pinweed**
[*L. leggettii* Britton & Hollick]

(xiii) CONVULVULACEAE (Morning-glory family):

Ipomoea pandurata (L.) G. F. W. Meyer **Wild potato vine or man-of-the-earth**

(xiv) EMPETRACEAE (Crowberry family):

Empetrum nigrum L. **Black crowberry**

(xv) ERICACEAE (Heath family):

- (a) *Pterospora andromedea* Nutt. **Pine-drops**
- (b) *Vaccinium cespitosum* Michaux **Dwarf bilberry**
- (c) *V. uliginosum* L. **Alpine blueberry**

(xvi) EUPHORBIACEAE (Spurge family):

Euphorbia commutata Engelm. **Tinted spurge**

(xvii) FABACEAE (Pea family):

- (a) *Astragalus canadensis* L. **Canadian milk vetch**
- (b) *Wisteria frutescens* (L.) Poiret **Wisteria**

(xviii) FUMARIACEAE (Fumitory family):

Corydalis flavula (Raf.) DC. **Yellow fumewort**

(xix) GENTIANACEAE (Gentian family):

- (a) *Bartonia paniculata* (Michaux) Muhl. **Panicled screwstem**
- (b) *Gentiana linearis* Froel. **Narrow-leaved gentian**
- (c) *Gentianella quinquefolia* (L.) Small **Stiff gentian**
- (d) *Sabatia angularis* (L.) Pursh **Rosepink**

(xx) HALORAGACEAE (Water-milfoil family):

Myriophyllum farwellii Morong **Farwell's water milfoil**

(xxi) HYDROPHYLLACEAE (Waterleaf family):

Phacelia franklinii (R. Br.) A. Gray **Franklin's phacelia**

(xxii) HYPERICACEAE (St. John's-wort family):

Hypericum sphaerocarpum Michaux **Round-fruited St. John's-wort**

(xxiii) LAMIACEAE (Mint family):

- (a) *Lycopus virginicus* L. **Virginia water-horehound**
- (b) *Pycnanthemum muticum* (Michx.) Pers. **Mountain mint**
- (c) *P. pilosum* Nutt. **Hairy mountain mint**
- (d) *Scutellaria nervosa* Pursh **Skullcap**
- (e) *S. parvula* Michaux [sensu lato] **Small skullcap**
- (f) *Trichostema brachiatum* L.
[*Isanthus brachiatus* (L.) BSP.] **False pennyroyal**
- (g) *T. dichotomum* L. **Bastard pennyroyal**

(xxiv) LENTIBULARIACEAE (Bladderwort family):

Utricularia subulata L. **Bladderwort**

(xxv) LINACEAE (Flax family):

Linum virginianum L. **Virginia flax**

(xxvi) MELASTOMATACEAE (Melastome family):

Rhexia mariana L. **Maryland meadow beauty**

(xxvii) MORACEAE (Mulberry Family):

Morus rubra L. **Red mulberry**

(xxviii) NYMPHAEACEAE (Water-lily family):

Nelumbo lutea (Willd.) Pers. **American lotus**
[*N. pentapetala* (Walter) Fern.]

(xxix) OLEACEAE (Olive family):

Fraxinus profunda (Bush) Bush **Pumpkin ash**
[*F. tomentosa* F. Michaux]

(xxx) ONAGRACEAE (Evening-primrose family):

Ludwigia sphaerocarpa Ell. **Globe-fruited seedbox**

(xxxi) OROBANCHACEAE (Broom-rape family):

Orobanche fasciculata Nutt. **Broomrape**

(xxxii) OXALIDACEAE (Wood-sorrel family):

Oxalis violacea L. **Violet wood sorrel**

(xxxiii) POLEMONIACEAE (Phlox family):

- (a) *Phlox bifida* Beck. **Cleft phlox**
- (b) *P. maculata* L. **Wild sweet William**
- (c) *Polemonium reptans* L. **Jacob's ladder**

(xxxiv) POLYGONACEAE (Smartweed family):

- (a) *Polygonum careyi* Olney **Carey's smartweed**
- (b) *P. viviparum* L. **Alpine bistort**

(xxxv) RANUNCULACEAE (Crowfoot family):

- (a) *Hydrastis canadensis* L. **Goldenseal**
- (b) *Ranunculus ambigens* Watson **Spearwort**
- (c) *R. cymbalaria* Pursh **Seaside crowfoot**
- (d) *R. lapponicus* L. **Lapland buttercup**
- (e) *R. macounii* Britton **Macoun's buttercup**
- (f) *R. rhomboideus* Goldie **Prairie buttercup**

(xxxvi) RHAMNACEAE (Buckthorn family):

Ceanothus sanguineus Pursh **Wild lilac**

(xxxvii) RUBIACEAE (Madder family):

Galium kamtschaticum Schultes & J. H. Schultes **Bedstraw**

(xxxviii) ROSACEAE (Rose family):

- | | |
|--|-----------------------------|
| (a) <i>Dalibarda repens</i> L. | False violet |
| (b) <i>Filipendula rubra</i> (Hill) Robinson | Queen-of-the-prairie |
| (c) <i>Geum triflorum</i> Pursh | Prairie smoke |
| (d) <i>Porteranthus trifoliatus</i> (L.) Britton
[<i>Gillenia trifoliata</i> (L.) Moench.] | Bowman's root |
| (e) <i>Potentilla paradoxa</i> Nutt. | Sand cinquefoil |
| (f) <i>P. pennsylvanica</i> L. | Prairie cinquefoil |
| (g) <i>Sanguisorba canadensis</i> L. | Canadian burnet |

(xxix) SALICACEAE (Willow family):

Salix planifolia Pursh **Tea-leaved willow**

(xl) SARRACENIACEAE (Pitcher-plant family):

Sarracenia purpurea f. *heterophylla* (Eaton) Fern. **Yellow pitcher plant**

(xli) SAXIFRAGACEAE (Saxifrage family):

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|--|---------------------------------|
| (a) <i>Parnassia palustris</i> L. | Marsh grass-of-parnassus |
| (b) <i>Saxifraga paniculata</i> Miller [S. aizoön Jacq.] | Encrusted saxifrage |
| (c) <i>S. tricuspidata</i> Rottb. | Prickly saxifrage |

(xlili) SCROPHULARIACEAE (Figwort family):

- | | |
|--|-------------------------------|
| (a) <i>Besseya bullii</i> (Eaton) Rydb. | Kitten-tails |
| (b) <i>Castilleja septentrionalis</i> Lindley | Pale Indian paintbrush |
| (c) <i>Collinsia parviflora</i> Lindley | Small blue-eyed Mary |
| (d) <i>Dasystoma macrophylla</i> (Nutt.) Raf. | Mullein foxglove |
| (e) <i>Euphrasia hudsoniana</i> Fernald & Weigand | Eyebright |
| (f) <i>E. nemorosa</i> (Pers.) Wallr. | Eyebright |
| (g) <i>Gratiola aurea</i> Pursh [G. <i>lutea</i> Raf.] | Hedge-hyssop |
| (h) <i>G. virginiana</i> L. | Annual hedge hyssop |
| (i) <i>Penstemon calycosus</i> Small | Beard tongue |

(xliv) VALERIANACEAE (Valerian family):

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|---|-----------------------------|
| (a) <i>Valeriana edulis</i> var. <i>ciliata</i> (T. & G.) Cronquest | Edible valerian |
| (b) <i>Valerianella chenopodiifolia</i> (Pursh) DC. | Goosefoot corn salad |
| (c) <i>V. umbilicata</i> (Sull.) A. W. Wood | Corn salad |

(xlv) VIOLACEAE (Violet family):

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|-----------------------------------|--------------------------------|
| (a) <i>Viola epipsila</i> Ledeb. | Northern marsh violet |
| (b) <i>V. novae-angliae</i> House | New England violet |
| (c) <i>V. pedatifida</i> G. Don | Prairie birdfoot violet |

(xlvi) VITACEAE (Grape family)

Vitis vulpina L. **Frost grape**

(3) This rule does not apply to cultivated plants.

(4) The following species of plants are thought to be **extirpated** in Michigan, but, if rediscovered, will automatically be listed as threatened:

- | | |
|---|-----------------------------|
| (a) <i>Agropyron spicatum</i> (Pursh)
Scribner & J. G. Smith | Bluebunch wheatgrass |
| (b) <i>Aristida dichotoma</i> Michaux | Three-awned grass |
| (c) <i>Asplenium montanum</i> Willd. | Mountain spleenwort |
| (d) <i>Buchnera americana</i> L. | Bluehearts |
| (e) <i>Carex decomposita</i> Muhl. | Log sedge |
| (f) <i>C. graviora</i> Bailey | Sedge |
| (g) <i>C. haydenii</i> Dewey | Hayden's sedge |
| (h) <i>Commelina erecta</i> L. | Slender dayflower |

(i) <i>Cyperus acuminatus</i> Torrey & Hooker	Cyperus, Nut grass
(j) <i>Dalea purpurea</i> Vent. [<i>Petalostemon purpurem</i> (Vent.) Rydb.]	Purple prairie clover
(k) <i>Dennstaedtia punctiloba</i> (Michx.) T. Moore	Hay-scented fern
(l) <i>Digitaria filiformis</i> (L.) Koeler	Slender finger grass
(m) <i>Disporum maculatum</i> (Buckley) Britton	Nodding madarin
(n) <i>Draba nemorosa</i> L.	Whitlow grass
(o) <i>Eleocharis radicans</i> (Poirlet) Kunth	Spike rush
(p) <i>Echinacea purpurea</i> (L.) Moench.	Purple coneflower
(q) <i>Equisetum telmateia</i> Ehrh.	Giant horsetail
(r) <i>Fimbristylis puberula</i> (Michaux) Vahl	Chestnut sedge
(s) <i>Gentiana saponaria</i> L.	Soapwort gentian
(t) <i>Glyceria acutiflora</i> Torrey	Manna grass
(u) <i>Hedyotis nigricans</i> (Lam.) Fosb.	Hedyotis
(v) <i>Helianthus microcephalus</i> Torrey & Gray	Small wood sunflower
(w) <i>Lemna valdiviana</i> Phil.	Pale duckweed
(x) <i>Lespedeza procumbens</i> Michaux	Trailing bush clover
(y) <i>Liatris punctata</i> Hooker	Dotted blazing star
(z) <i>L. squarrosa</i> (L.) Michx.	Plains blazing star
(aa) <i>Lithospermum incisum</i> Lehm.	Narrow-leaved puccoon
(bb) <i>Mikania scandens</i> (L.) Willd.	Mikania
(cc) <i>Mimulus alatus</i> Aiton	Winged monkey flower
(dd) <i>Monarda didyma</i> L.	Bee balm, Oswego tea
(ee) <i>Muhlenbergia cuspidata</i> (Hooker) Rydb.	Plains muhly
(ff) <i>Onosmodium molle</i> Michx.	Marbleweed
(gg) <i>Phleum alpinum</i> L.	Mountain timothy
(hh) <i>Polygala incarnata</i> L.	Pink milkwort
(ii) <i>Polygonatum biflorum</i> var. <i>melleum</i> (Farw.) Ownbey	Honey-flowered solomon seal
(jj) <i>Polytaenia nuttallii</i> DC.	Prairie parsley
(kk) <i>Rudbeckia subtomentosa</i> Pursh	Sweet coneflower
(ll) <i>Scutellaria incana</i> Biehler	Skullcap
(mm) <i>S. ovata</i> Hill	Forest skullcap
(nn) <i>Senecio congestus</i> (R. Br.) DC.	Marsh fleabane
(oo) <i>Sisyrinchium farwellii</i> Bickn.	Farwell's blue-eyed grass
(pp) <i>S. hastile</i> Bickn.	Blue-eyed grass
(qq) <i>Tomanthera auriculata</i> (Michaux) Raf. [<i>Agalinis auriculata</i> (Michaux) S. F. Blake]	Eared foxglove
(rr) <i>Tradescantia bracteata</i> Small.	Long-bracted spiderwort
(ss) <i>Trillium viride</i> Beck	Green trillium
(tt) <i>Woodwardia areolata</i> (L.) T. Moore	Netted chain fern

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Source: DNR Wildlife Division website at: <http://www.dnr.state.mi.us/wildlife>. Click on the "Non-Game" button, then scroll down to the "Endangered, Threatened and Special Concern Species" link.



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