

# Current Scientific and Standard Common Names of Wisconsin Mammals



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**Summary:** This report provides an updated checklist of the scientific and common names and conservation statuses of wild mammals found in Wisconsin. Of the 75 species included in the checklist, four species have been extirpated from the state. Currently, two species are listed as federally endangered and one is listed as federally threatened. One additional species is listed as state endangered and four as state threatened. Ten are listed as special concern and 14 are considered species of conservation need in Wisconsin's *Wildlife Action Plan*. Ten species are considered protected wild animals and six are listed as unprotected wild animals. Sixty-nine species are believed to be native, while six are introduced, one of which is regulated as a prohibited species. Our knowledge of the systematic relationships of animals constantly changes and species are continually added and removed from state and regional faunal lists as populations fluctuate or are discovered and monitored. As a result, this working list will inevitably become out-of-date and it will be necessary to issue periodic updates.

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## Contents

Introduction	1
Checklist of Wisconsin Mammals	3
Excluded Species	9
Acknowledgments	9
Literature Cited	9
Appendix	15

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**Cover Illustration:** The white-tailed deer (*Odocoileus virginianus*), Wisconsin's state wildlife animal. Source: Arthur's Free Clipart, [www.arthurs-clipart.org](http://www.arthurs-clipart.org).

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# **Current Scientific and Standard Common Names of Wisconsin Mammals**

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*It would be correct to say that mammals are a group of animals with backbones, whose bodies are insulated by hair, which nurse their infants with milk, and which share a unique jaw articulation. This, however, fails to convey how these few shared characteristics underpin the evolution of a group with astonishingly intricate adaptations, thrilling behavior, and highly complex societies.*

— David Macdonald, 1984



## Introduction

Watermolen and Murrell (2001) provided comprehensive, standardized checklists of vertebrates occurring in Wisconsin as a reference for field and laboratory studies. Our work is now more than a decade old and scientists have made several taxonomic name changes in the primary literature during the intervening years. In addition, a small number of non-native species not previously listed occur as naturally reproducing populations. In this report, I provide an updated checklist of the scientific and common names and conservation statuses (Table 1 and Appendix) of wild mammals found in Wisconsin.

Of the 75 species included in the checklist, four species (wolverine, cougar, caribou, and American bison) have been extirpated from the state. Currently, two species (Indiana bat and gray wolf) are listed as federally endangered and one (Canada lynx) is listed as federally threatened. One additional species (American martin) is listed as state endangered and four (cave bats) are listed as state threatened. Ten species are listed as special concern species on the Wisconsin Natural Heritage Working List. Fourteen species are considered species of conservation need in the state's *Wildlife Action Plan*. Ten species are considered protected wild animals and six are listed as unprotected wild animals. Sixty-nine species are believed to be native, while six are introduced; one (feral pig) is regulated as a prohibited species under Wisconsin's Invasive Species Identification, Classification, and Control rule (ch. NR 40, Wis. Adm. Code).

As noted by Watermolen and Murrell (2001), our knowledge of the systematic relationships of animals constantly changes and species are continually added and removed from regional faunal lists as populations fluctuate or are discovered and monitored. As a result, this working list will inevitably become out-of-date and it will be necessary to issue periodic updates.

**Table 1.** *Symbols used to indicate the conservation status of species.*

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<b>(fe)</b>	<b>federally endangered</b> – under federal law, any animal or plant in danger of extinction within the foreseeable future throughout all or a significant portion of its range (50 CFR § 17.3).
<b>(ft)</b>	<b>federally threatened</b> – under federal law, any animal or plant likely to become endangered within the foreseeable future throughout all or a significant portion of its range (50 CFR § 17.3).
<b>(se)</b>	<b>state endangered</b> – under state law, any species whose continued existence as a viable component of this state's wild animals or wild plants is determined by the Wisconsin DNR to be in jeopardy on the basis of scientific evidence (§ 29.604(2)(a), <i>Wis. Stats.</i> ).

*Table 1 Continues...*

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**Table 1, Continued.** *Symbols used to indicate the conservation status of species.*

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- (st)** **state threatened** – under state law, any wild animal or plant which appears likely, within the foreseeable future, on the basis of scientific evidence to become endangered (§ 29.604(2)(b), *Wis. Stats.*).
- (sc)** **special concern** – a species, listed on the Wisconsin Natural Heritage Working List, about which some problem of abundance or distribution is suspected but not yet proven. The main purpose of this category is to focus attention on species before they become threatened or endangered; regulations regarding special concern species range from full protection to no protection.
- (scn)** **species of conservation need** – a species identified in Wisconsin’s *Comprehensive Wildlife Conservation Plan* (Wildlife Action Plan) as having low and/or declining populations that are in need of conservation action. This category includes species listed as endangered and threatened. See <http://dnr.wi.gov/org/land/er/wwap/> for additional information.
- (ext)** **extirpated** – a species that once occurred naturally within the state’s boundary but no longer does even though it may occur elsewhere.
- (int)** **introduced** – a nonindigenous/nonnative species introduced, either intentionally or unintentionally, into an area that is not part of its natural range (in this case Wisconsin).
- (pro)** **prohibited** – a nonnative, invasive species listed in § NR 40.04, Wis. Adm. Code. Under this law, no person may transport, possess, transfer, or introduce a prohibited invasive species unless authorized by a permit issued by the Wisconsin DNR for research, public display, or other specified purposes.
- (prt)** **protected wild animals** – a species listed, in § NR 10.02, Wis. Adm. Code, as protected. Under this law, no person may take, attempt to take, transport, or possess a protected wild animal unless expressly authorized by the Wisconsin DNR. This category includes species listed as endangered and threatened.
- (unp)** **unprotected wild animals** – a species specifically listed in § NR 10.04, Wis. Adm. Code, as unprotected. No closed season or bag, size, or possession limit applies to these animals, but persons taking unprotected animals must possess a valid hunting or trapping license and comply with all method of taking requirements. In addition to the species specifically enumerated, this category includes “Any other wild animal not specified in this chapter.”
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*Naturalists differ most widely in determining what characteristics are of generic value.*

*- Charles Darwin, 1859*

# Checklist of Wisconsin Mammals

The taxonomic orders and families adhere to the phylogenetic placement used by Baker et al. (2003) to facilitate comparisons with previous checklists, except I follow Hutterer (2005) in the use of the ordinal name for shrews and moles, Holden and Musser (2005) and Musser and Carleton (2005) for some rodent family names, and Agnarsson et al. (2010) for arrangement of the carnivore families. I list genera and species alphabetically. Complete scientific names include the name of the author who initially described the species and the year of publication. As in the previous checklist (Watermolen and Murrell 2001), however, I omit these names and dates for the sake of clarity and ease of use. Readers with a need for full citations can consult Wilson and Reeder (2005) or similar references. Footnotes provide justifications for changes made in scientific nomenclature or status since the publication of Watermolen and Murrell (2001). Common names generally follow Wilson and Reeder (2005). As in the previous checklist, symbols indicate the conservation status of various species (Table 1).

## Order Didelphimorphia: American Opossums

### Family Didelphidae: Opossums

<i>Didelphis virginiana</i>	Virginia opossum <b>(unp)</b>
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## Order Soricomorpha: Shrews and Moles

### Family Soricidae: Shrews

<i>Blarina brevicauda</i>	Northern short-tailed shrew
<i>Cryptotis parva</i>	North American least shrew <sup>1</sup> <b>(sc)</b>
<i>Sorex arcticus</i>	Arctic shrew
<i>Sorex cinereus</i>	Cinereus shrew
<i>Sorex hoyi</i>	American pygmy shrew <sup>2</sup>
<i>Sorex palustris</i>	American water shrew <b>(sc) (scn)</b>

### Family Talpidae: Moles

<i>Condylura cristata</i>	Star-nosed mole
<i>Scalopus aquaticus</i>	Eastern mole



<sup>1</sup> Long (2008) suggested that the least shrew might be extirpated in Wisconsin, noting that no specimens have been obtained in the state since 1944.

<sup>2</sup> Although it has no official conservation status, Long (2008) suggested that the pygmy shrew may be extirpated in southern Wisconsin, and commented that the species occurs only uncommonly in central and northern Wisconsin where its habitat probably is being impacted by urban sprawl.

## Order Chiroptera: Bats

### Family Vespertilionidae: Vesper Bats

<i>Eptesicus fuscus</i>	Big brown bat <b>(st)</b>
<i>Lasionycteris noctivagans</i>	Silver-haired bat <b>(scn)</b>
<i>Lasiurus borealis</i>	Eastern red bat <b>(scn)</b>
<i>Lasiurus cinereus</i>	Hoary bat <b>(scn)</b>
<i>Myotis lucifugus</i>	Little brown myotis <b>(st)</b>
<i>Myotis septentrionalis</i>	Northern myotis <b>(st) (scn)</b>
<i>Myotis sodalis</i>	Indiana bat <sup>3</sup> <b>(fe)</b>
<i>Perimyotis subflavus</i> <sup>4</sup>	Eastern pipistrelle <b>(st)</b>

## Order Lagomorpha: Hares and Rabbits

### Family Leporidae: Hares and Rabbits

<i>Lepus americanus</i>	Snowshoe hare
<i>Lepus townsendii</i>	White-tailed jackrabbit <sup>5</sup> <b>(scn)</b>
<i>Sylvilagus floridanus</i> <sup>6</sup>	Eastern cottontail



<sup>3</sup> Only a single historical record of the Indiana bat (also called Indiana or social myotis) from Wisconsin exists (Davis and Lidicker 1955, USFWS 2007). Recent survey work has failed to establish the presence of the Indiana bat in the state, but knowledgeable bat biologists believe that modern acoustic monitoring may turn up legitimate records (D. Redell, pers. comm., June 2011).

<sup>4</sup> The eastern pipistrelle has been moved from the genus *Pipistrellus* based on dental, skeletal, and bacular characteristics (Menu 1984), DNA sequence variation in the mitochondrial genes (Hooper and Van Den Bussche 2003), and comparisons of ribosomal RNA and cytochrome *b* genes (Hooper et al. 2006). Hooper and Van Den Bussche (2003) suggested the common name American perimyotis to replace eastern pipistrelle.

<sup>5</sup> White-tailed jackrabbits were introduced in Wisconsin as a game animal in the early 1900s, but available evidence also suggests that the species' range had expanded previously from Nebraska and South Dakota into northern and eastern Iowa, southern and eastern Minnesota, northwestern Illinois, and eventually southwestern Wisconsin (e.g., Bowles 1975, Hazard 1982, Lim 1987). This expansion was enabled by wetland drainage, tilling of the tall grass prairie, and deforestation that occurred between 1860 and 1888, when the first animal was documented in Grant County (Leopold 1947). White-tailed jackrabbits became abundant in Wisconsin until the 1950s to 1960s when land use and land cover changes affected the habitat condition; observations of this species have been scattered and rare since the late 1980s (Long 2008, Kitchell 2011; L. Ayers, pers. comm., March 2011).

<sup>6</sup> The name *Sylvilagus floridanus* may actually refer to several undescribed "cryptic" species (Ruedas 1998, Robinson and Matthee 2005).

## Order Rodentia: Rodents

### Family Scuriridae: Squirrels

<i>Glaucomys sabrinus</i>	Northern flying squirrel <b>(sc) (scn) (prt)</b>
<i>Glaucomys volans</i>	Southern flying squirrel <b>(prt)</b>
<i>Marmota monax</i>	Woodchuck <b>(prt)</b>
<i>Neotamias minimus</i> <sup>7</sup>	Least chipmunk
<i>Sciurus carolinensis</i>	Eastern gray squirrel
<i>Sciurus niger</i>	Eastern fox squirrel
<i>Spermophilus franklinii</i>	Franklin's ground squirrel <b>(sc) (scn)</b>
<i>Spermophilus tridecemlineatus</i>	Thirteen-lined ground squirrel
<i>Tamias striatus</i>	Eastern chipmunk
<i>Tamiasciurus hudsonicus</i>	Red squirrel

### Family Geomyidae: Pocket Gophers

<i>Geomys bursarius</i>	Plains pocket gopher
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### Family Castoridae: Beavers

<i>Castor canadensis</i>	American beaver
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### Family Muridae: Old World Mice and Rats

<i>Mus musculus</i>	House mouse <b>(int)</b>
<i>Rattus norvegicus</i>	Brown rat <b>(int)</b>

### Family Cricetidae: Mice and Voles

<i>Clethrionomys gapperi</i>	Southern red-backed vole
<i>Microtus ochrogaster</i>	Prairie vole <b>(sc) (scn)</b>
<i>Microtus pennsylvanicus</i>	Meadow vole
<i>Microtus pinetorum</i>	Woodland vole <b>(sc) (scn)</b>
<i>Ondatra zibethicus</i>	Common muskrat
<i>Peromyscus leucopus</i>	White-footed deer mouse
<i>Peromyscus maniculatus</i>	North American deer mouse
<i>Reithrodontomys megalotis</i>	Western harvest mouse <b>(sc)</b>
<i>Synaptomys cooperi</i>	Southern bog lemming

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<sup>7</sup> The subgenus *Neotamias* has been elevated to the genus level based on the observed distribution of the external parasites found on eastern and western chipmunks, which suggests a very long separation of the host species (Jameson 1999), and an analysis of the cytochrome *b* genes for members of the genus *Tamias* (Piaggio and Spicer 2000, 2001). Work by Herron et al. (2004) further supports this change.

Family Dipodidae: Jumping Mice

*Napaeozapus insignis*  
*Zapus hudsonius*

Woodland jumping mouse **(sc)** **(scn)**  
Meadow jumping mouse

Family Erethizontidae: New World Porcupines

*Erethizon dorsatum*

North American porcupine



Order Carnivora: Carnivores

Family Canidae: Dogs, Foxes, and Wolves

*Canis familiaris*<sup>8</sup>  
*Canis latrans*  
*Canis lupus*  
*Urocyon cinereoargenteus*  
*Vulpes vulpes*

Feral dog **(int)**  
Coyote  
Gray wolf **(fe)** **(sc)** **(scn)** **(prt)**  
Gray fox  
Red fox

Family Ursidae: Bears

*Ursus americanus*

American black bear

Family Mephitidae: Skunks

*Mephitis mephitis*  
*Spilogale putorius*

Striped skunk **(unp)**  
Eastern spotted skunk<sup>9</sup> **(unp)**

Family Procyonidae: Raccoons

*Procyon lotor*

Raccoon



<sup>8</sup> Some experts now consider the domestic dog to be an artificial variant or subspecies of the gray wolf (*C. l. familiaris*) created by domestication and selective breeding (e.g., see Vilá et al. 1999, Wayne and Ostrander 1999, Wozencraft 2005, and Agnarsson et al. 2010). The placement of *C. familiaris* in synonymy with *C. lupus*, however, has yet to be embraced broadly in the literature.

<sup>9</sup> As noted by Watermolen and Murrell (2001) and Long (2008), only a few historical records of spotted skunks from Wisconsin exist (e.g., St. Croix County; Scott 1951). Its occurrence as a breeding species remains doubtful.

## Family Mustelidae: Weasels, Otters, and Badgers

<i>Gulo gulo</i>	Wolverine <sup>10</sup> <b>(ext) (prt)</b>
<i>Lontra canadensis</i>	North American river otter
<i>Martes americana</i>	American marten <b>(se) (scn)</b>
<i>Martes foina</i>	Beech marten <sup>11</sup> <b>(int)</b>
<i>Martes pennanti</i> <sup>12</sup>	Fisher
<i>Mustela erminea</i>	Ermine <b>(unp)</b>
<i>Mustela frenata</i>	Long-tailed weasel <b>(unp)</b>
<i>Mustela nivalis</i>	Least weasel <b>(unp)</b>
<i>Neovison vison</i> <sup>13</sup>	American mink
<i>Taxidea taxus</i>	American badger <b>(prt)</b>

## Family Felidae: Cats

<i>Felis catus</i> <sup>14</sup>	Feral cat <b>(int)</b>
<i>Puma concolor</i>	Cougar <sup>15</sup> <b>(ext) (prt)</b>
<i>Lynx canadensis</i>	Canada lynx <b>(ft) (prt)</b>
<i>Lynx rufus</i>	Bobcat



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<sup>10</sup> Although Wydeven and Wiedenhoeft (2002) discussed a wolverine that had escaped from a game farm and was living in the wild for a short time, and there have been a small number of “possible” reports of wolverines in recent years (Wiedenhoeft and Wydeven 2009, 2010; Wiedenhoeft et al. 2011), this species continues to be considered extirpated.

<sup>11</sup> As noted by Watermolen and Murrell (2001) and references cited therein, an unknown number of beech marten (also called stone marten) released from a fur farm became established in and around the southern unit of the Kettle Moraine State Forest (Jefferson, Racine, Waukesha, and Walworth counties). The population’s size and reproductive status remains unknown.

<sup>12</sup> Stone and Cook (2002) suggested taxonomic revision might lead to fishers being included in a taxon with the genus *Gulo*, but subsequent analyses (e.g., Agnarsson et al. 2010) have not resulted in such a change.

<sup>13</sup> The American mink has been moved from the genus *Mustela* based on observed differences in karyotypes and morphology between this taxon and other species of *Mustela* (Abromov 1999) and cytogenetic and biochemical data that support placement in a separate genus (Kurose et al. 2000, Wozencraft 2005, Kurose et al. 2008). Koepfli et al. (2008), however, showed a close relationship between the mink and the long-tailed weasel (*Mustela frenata*), and Harding and Smith (2009) suggested placing the two species in the genus *Vison*, a change yet to be adopted by others.

<sup>14</sup> Some experts now consider the domestic cat to be a subspecies of the wildcat (*F. silvestris*) based primarily on mitochondrial DNA analyses and morphological evidence (e.g., see Mattern and McLennan 2000, Johnson et al. 2006, Driscoll et al. 2007, and Agnarsson et al. 2010).

<sup>15</sup> Cougar (also called mountain lion) is listed on the Wisconsin Natural Heritage Working List as an extirpated species as there are no known breeding populations established in the state. The first wild cougar in over 100 years was verified in Rock County in January 2008. Since then, a small number of confirmed and probable reports have been received each year (Wiedenhoeft and Wydeven 2009, 2010; Wiedenhoeft et al. 2011).

## Order Artiodactyla: Even-toed Ungulates

### Family Suidae: Pigs

*Sus scrofa*

Feral pig <sup>16</sup> **(int) (pro)**

### Family Cervidae: Deer

*Alces americanus* <sup>17</sup>

Moose **(sc) (scn) (prt)**

*Cervus canadensis* <sup>18</sup>

Elk

*Odocoileus virginianus*

White-tailed deer <sup>19</sup>

*Rangifer tarandus*

Caribou **(ext)**

### Family Bovidae: Cattle

*Bos bison* <sup>20</sup>

American bison **(ext)**

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<sup>16</sup> Since publication of Watermolen and Murrell's checklist (2001), feral pigs (also called wild boars) have become established in Wisconsin. Baker et al. (2003) note that North American populations of *Sus* represent interbreeding combinations of wild boars introduced from native populations in Europe or Asia and free-ranging herds of various breeds of domesticated pigs. Wisconsin populations likely resulted from unintentional escapes from domestic swine facilities, escapes or releases from game farms, or possibly illegal stocking. Feral pigs have been reported from 17 counties statewide (Wisconsin DNR 2010). Ch. NR 40, Wis. Adm. Code, lists "*Sus domestica* (feral domestic swine)" and "*Sus scrofa* (Russian boar) and other wild swine" as prohibited species. *S. domestica* is not recognized as a distinct species (Grubb 2005).

<sup>17</sup> The moose has been separated from *Alces alces* (Eurasian elk) and treated as a distinct species based on differences in karyotype and morphology (Geist 1998, Boyeskorov 1999).

<sup>18</sup> Previous authors have suggested, based largely on morphological and behavioral traits, that the elk (also called wapiti) of North America and eastern Asia are distinct from those in western Eurasia (i.e. the red deer) (Bryant and Maser 1982, Groves and Grubb 1987). Consistent with these previous observations, the elk has been separated from *Cervus elaphus* and treated as a distinct species based on recent mitochondrial DNA data (Randi et al. 2001, Polziehn and Strobeck 2002, Ludt et al. 2004, Pitra et al. 2004).

<sup>19</sup> Albino or white deer which are white except for the hooves, tarsal glands, head, or parts of the head are protected wild animals **(prt)** listed in § NR 10.02, Wis. Adm. Code. Albino or white deer are not, however, protected in the chronic wasting disease management zone established in § NR 10.28(3).

<sup>20</sup> Watermolen and Murrell (2001) followed several previous workers in placing the American bison in the genus *Bos* rather than *Bison* because we felt "the evidence is so compelling" to merit inclusion in that genus. Data from single nucleotide polymorphism (SNP) analysis (Decker et al. 2009) and the complete mitochondrial DNA sequence of American bison and bison-cattle hybrids (Douglas et al. 2011) support this decision and result in the name change being maintained.

## Excluded Species

I have not listed zoo and game farm animals or unestablished escapees from such populations. Long (2008), however, discusses interesting records of some of these exotics. I continue to exclude northern bog lemming (*Synaptomys borealis*) and black-tailed prairie dog (*Cynomys ludovicianus*) from the checklist. Watermolen and Murrell (2001) and the references cited therein provide additional information about the possible occurrence of these species in the state. Long (2008) mentions a very old, unvouchered record of evening bat (*Nycticeius humeralis*) from extreme southeast Wisconsin based on a report by Strong (1883). Given the nature of the record, I continue to exclude this species from the checklist. Knowledgeable bat biologists, however, suspect that recent (2009) submissions of bats, identified as evening bats, for rabies testing from the same general area and further analysis of recent acoustic monitoring results may lead to legitimate records of this species in southeastern Wisconsin (D. Redell, pers. comm., June 2011). See Long (2008) for notes on other hypothetical species.

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I thank Loren Ayers, formerly with the Bureau of Endangered Resources, for sharing unpublished notes and observations on the distribution and colonization of white-tailed jackrabbits in Wisconsin. David Redell, Bureau of Endangered Resources, shared thoughts and observations pertaining to several bat species and recent acoustic monitoring efforts. Alan Crossley, Bureau of Wildlife Management, Anna Pidgeon, University of Wisconsin-Madison, and Christopher Yahnke, UW-Stevens Point, provided pre-publication reviews of the manuscript. In undertaking any taxonomic or listing endeavor, controversial nomenclature decisions will inevitably be made. Decisions about inclusion and exclusion also must be made. While the above listed reviewers provided insightful comments, I occasionally disagreed with a suggestion or made a decision contrary to one of their arguments. For this, I take full credit and/or blame.

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## Notes

## **Appendix: Species Included in Each Conservation Status Category (for Category Definitions, See Table 1)**

### **Federally Endangered Species**

Indiana bat  
Gray wolf

### **Federally Threatened Species**

Canada lynx

### **State Endangered Species**

American marten

### **State Threatened Species**

Big brown bat  
Little brown myotis  
Northern myotis  
Eastern pipistrelle

### **Special Concern Species**

North American least shrew  
American water shrew  
Northern flying squirrel  
Franklin's ground squirrel  
Prairie vole  
Woodland vole  
Western harvest mouse  
Woodland jumping mouse  
Gray wolf  
Moose

### **Species of Conservation Need**

American water shrew  
Silver-haired bat  
Eastern red bat  
Hoary bat  
Northern myotis  
White-tailed jackrabbit  
Northern flying squirrel  
Franklin's ground squirrel  
Prairie vole  
Woodland vole  
Woodland jumping mouse  
Gray wolf  
American marten  
Moose

**Extirpated Species**

Wolverine  
Cougar  
Caribou  
American bison

**Introduced Species**

House mouse  
Brown rat  
Feral dog  
Feral cat  
Beech marten  
Feral pig

**Prohibited Species**

Feral pig

**Protected Wild Animals**

Northern flying squirrel  
Southern flying squirrel  
Woodchuck  
Gray wolf  
Wolverine  
Badger  
Cougar  
Canada lynx  
Moose  
White-tailed deer (only albinos and white deer)

**Unprotected Wild Animals**

Virginia opossum  
Striped skunk \*  
Eastern spotted skunk  
Ermine \*  
Long-tailed weasel  
Least weasel

\* Note: § NR 10.04, Wis. Adm. Code, lists "skunk" and "weasel", which are interpreted to include both species of skunk and all three species of *Mustela*.

## Notes



## Notes



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## **About the Author**

Dreux Watermolen is an ecologist who currently serves as the Chief of Science Information Services for the Wisconsin DNR. He is interested in the zoogeography, life history, and taxonomy of Wisconsin's rich biological diversity.

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