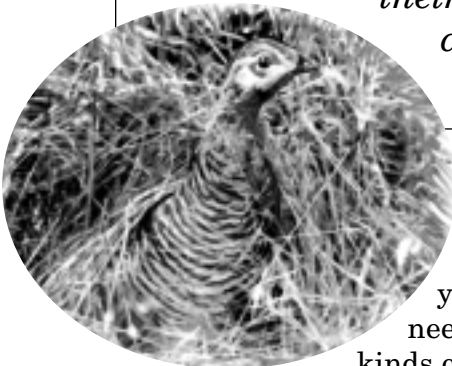


Wisconsin Wildlife Primer*

Wildlife Habits and Habitat

*Primer \prim•ar\ n. 1: a small book for teaching children to read. 2: **a small introductory book on a subject.**

If you're looking for a new house, it is important to know what features you want for your "dream home" and what its ideal location will be. You have to ask yourself: Where do I want to live in the world? Do I want to live in the city, the suburbs or the country? How many rooms does my family need? How close will I be to the grocery store, work, the mall and the doctor? Animals also look for certain features when searching for a home in a particular area before they "move" into the neighborhood. What's the habitat like? How much food is available? Where's the nearest watering hole? Is there enough shelter to raise young? What's the climate like in winter? How close are people to their home territory? These are some of the key factors that determine where wildlife will live in Wisconsin, and whether they'll choose your land as a suitable "home."



As a landowner interested in attracting wildlife to your property, you'll need to know what kinds of wildlife live in your part of Wisconsin, what they eat, what type of habitat they prefer and what they need for nesting or denning. This publication gives you basic information about the needs of

some of Wisconsin's most common wildlife. It is merely a quick-reference chart listing the food, habitat, nesting sites, and distribution of these animals in Wisconsin. Use it to start looking for wildlife already present on your land and then develop project plans to attract animals native to your region.

You'll also need to assess whether your land currently has the appropriate food, water,

shelter and space to attract wildlife, or whether you can adequately enhance your property's ability to attract wildlife by incorporating minor habitat modifications. For assistance in creating a wildlife management plan for your property, please refer to **Putting Pen to Paper** in this series. Be sure to read **Calling All Wildlife** to gain an understanding of some fundamental concepts in wildlife management. And, for an idea of what kind of trees, shrubs and vines you can plant to attract wildlife, read **So, What Should I Plant?** The more information you have, the better you'll understand the habits and habitat of the wildlife you want to attract.



Wisconsin's Wildlife Heritage: A Wildlife Wonderland

Wisconsin has historically been rich in wildlife resources. Wisconsin's earliest European explorers recorded a great abundance and variety of wildlife in the forests, wetlands and grasslands of the state. From 1700 to 1800, the prairies and savannas of southern Wisconsin teemed with elk, bison, wolves, cougars and white-tailed deer. The mixed conifer hardwoods in northern Wisconsin provided habitat for

*Extirpated:
bison, caribou*



American (pine) marten, moose, deer and small populations of woodland caribou. The state's central forests were home to millions of passenger pigeons—populations so dense people reported that the birds literally “blocked the sun from the sky” during migration.

Europeans had an impact on wildlife even before they settled this land. By supplying horses and firearms to the native Americans, they helped these original people become more efficient hunters. The native Americans as well as American cavalry stationed at such outposts as Prairie Du Chien undoubtedly caused the extirpation of the herds of bison and elk which roamed southwest Wisconsin. The last bison was reported to have been shot in the early 1830s. The early lumberjacks who logged the northwoods each winter also impacted the population of one of Wisconsin's largest hoofed mammals in the 1800s, the moose. Moose prefer young forests with lush vegetation. As the mature forests were logged it created better moose habitat. However, not only did it create better moose habitat, it also created better white-tailed

deer habitat. Since deer carry a parasitic brain worm which is deadly to moose, the moose population declined. This, together with unregulated hunting, caused moose to disappear from Wisconsin by the early 1900s.

As these large grazers vanished, the wolf and cougar populations declined as well, since their food source had disappeared. In order to maintain a toehold in Wisconsin, the remaining large predators had to turn to alternative food sources—domestic livestock. Farmers couldn't afford the loss of even one calf or lamb to a hungry wolf or wild cat so in 1865 the state legislature passed a \$5 bounty for each dead wolf that hunters brought in. The story was similar for cougars. By 1960, the timber wolf was declared extirpated from Wisconsin; and even though reports of cougar sightings still trickle in, wildlife biologists believe most of these are unfounded or are the result of an escaped or released captive-bred cougar.

When European settlers began flooding into the state in the early and mid 1800s, unregulated hunting and trapping, as well as farming and logging operations quickly altered the native landscape and its wildlife populations. Wetlands were drained, the prairies and savannas were plowed under, and northern forests were clearcut. Despite the disappearance of the larger mammals from Wisconsin's landscape, other wildlife continued to flourish throughout the state from the early to mid 1800s. Trappers found abundant fisher, American (pine) marten and beaver populations; and hunters saw no end to the flocks of passenger pigeons, prairie chickens, sharp-tailed grouse, ducks and geese. But the harvest of early hunters and trappers went unregulated. No one saw a need to impose bag limits because the wildlife populations appeared so limitless. Not surprisingly, it wasn't long before unregulated trapping of marten, fisher and wolverine led to their extirpation from the state by the early 1900s. Beaver and other furbearer populations were also drastically reduced and were nearly



*Once extirpated:
cougar, wolf*

eliminated from the state by 1900. Market hunting caused the seemingly endless flocks of waterfowl to plummet; and the widespread destruction of passenger pigeon nests by market hunters interested in shipping barrels of squab to eastern markets spelled doom for this native bird.

The early settlers wielded a double-edged sword against Wisconsin wildlife. Not only did their unregulated hunting and trapping cause wildlife populations to decline, but their swelling population created such drastic land use changes that wildlife lost the habitat they needed to survive. The wild turkey and Carolina parakeet populations dramatically declined due to loss of habitat. Civilization was expanding from the south and the climate and habitat types of the north prevented the northward retreat of these native birds. Sharp-tailed and ruffed grouse lost out in the south due to overgrazing and "clean" farming though they still maintain a foothold in the north. The draining of marshes, in addition to market hunting, caused waterfowl populations, including the trumpeter swan, to drop dramatically. Poultry farmers and commercial fishing interests often shot hawks, owls and fish-eating birds since these birds preyed upon fish, game and domestic fowl.

Although many types of native wildlife populations suffered as European settlers continued to change the landscape of Wisconsin, others actually increased. They thrived in the habitats which farming and logging provided. White-tailed deer populations in the thick northern forests were originally moderately low, and they remained low during the logging heyday because of intense exploitation. But as the forests resprouted with lush, young growth and as early farming provided a good mix of field and forest, the deer numbers swelled. When central Wisconsin farms grew perennial crops of bluegrass as a seed source, prairie chickens thrived. But it wasn't long before these habitats were altered and the prairie chicken populations dropped. Still other wildlife, such as coyotes, crows, blackbirds, and alien house sparrows, starlings and rodents, prospered all too well by their association with people.

Hunters and early conservationists began noticing the exploitation of Wisconsin's natural resources around the 1870s. They slowly worked toward regulating the use of natural resources as they enacted laws to protect wildlife populations and forest land. Wildlife management was considered increasingly necessary since people had greatly altered natural landscapes. But the needs of wildlife frequently conflicted with many human land uses. In 1908, Governor James O. Davidson appointed the Wisconsin Conservation

Commission to manage the "basic natural resources and related problems." He had been inspired during a Governor's conference held by President Theodore Roosevelt in which the president stressed the need for "conservation" which is defined as the wise use of our natural resources.

With an enlightened view of conserving our natural resources, new farming practices were put into action to prevent soil erosion, loggers replanted many acres of forest, and industry began controlling environmental pollution. Educational efforts began as conservation wardens met with school classes, farming interests and public groups. In 1935, the state legislature ordered the teaching of "conservation of resources" in schools. It was finally recognized that careful planning and management could provide for the future welfare of wildlife in Wisconsin.

People began to take an interest in what was happening to wildlife, and this led to the study of wildlife and their habitats. Aldo Leopold, one of the founding fathers of the wildlife management profession, took up a leadership role as his followers began to study wildlife populations and conduct research to understand and manage wildlife populations.

Efforts to restore some populations of extirpated wildlife were undertaken throughout the 1900s by reintroducing them



Reintroduced: wild turkeys, elk



*Aliens:
brown trout,
carp*

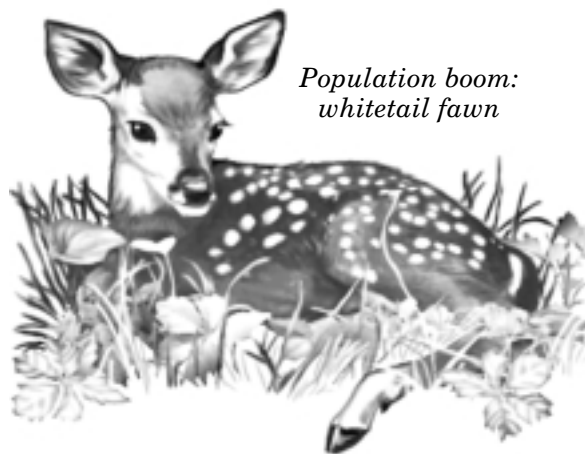
into their former haunts. Some stocking attempts were successful, others were failures. To date, successful restocking includes: the wild turkey, trumpeter swan, American (pine) marten and fisher. An experimental reintroduction of elk was initiated in northern Wisconsin in 1995, and is currently being evaluated.

Other animals, such as the wolf and moose, were not reintroduced, but have found their way here from neighboring Minnesota, Michigan, and Canada. The wolf population continues to grow and spread, but the moose populations may be limited by the presence of a parasitic brain worm transmitted by white-tailed deer.

Today, Wisconsin supports over 650 different types of mammals, birds, reptiles, amphibians and fish, as well as countless millions of invertebrates. We truly live in a wildlife wonderland.

Not All Native

Not all Wisconsin wildlife is native. People have wittingly or unwittingly introduced a number of “exotics” or “aliens” to our state. Some of these, like ring-necked pheasant, Hungarian partridge, rainbow trout and brown trout are considered useful because they occupy drastically altered ecosystems that can no longer support such natives as the prairie chicken and brook trout. They provide hunters with food and outdoor recreation. Others, like carp, zebra mussel, ruffe, mute swan, starling, house sparrow, pigeon, Norway rat and house mouse, are considered pests. A recent exotic animal, the stone marten, in southeastern Wisconsin may also have negative impacts yet to be discovered. Nevertheless all are part of Wisconsin’s tapestry of wildlife.



*Population boom:
whitetail fawn*

Mammals

Mammals, those warm-blooded animals that have hair and nourish their young with milk, are important to many of us. Seventy mammals are native to the state; at least 4 are extinct.

Mammals are valuable to people in a number of ways. Game mammals, such as white-tailed deer, black bear, gray and fox squirrels and cottontail rabbit provide many hours of healthy recreation in the field as hunters pit their skill against the native wits of these mammals. Venison and most wild game meat is low in fat and highly nutritious. The furbearers—beaver, muskrat, mink, otter, bobcat, coyote, red and gray foxes, raccoon and fisher—provide a source of income for trappers as well as a source of fur for people's clothes. All mammals are fun and interesting to watch in the wild, though some can be a real nuisance and cause damage to crops, orchards, bee hives, livestock and our homes. Rodents, skunks, opossums, woodchucks, beaver, deer, coyote and bear fit into this category.

But mammals, like birds, reptiles, amphibians, fish and invertebrates, are important regardless of human values.

Different animals are found in different regions of the state because they fit into the scheme of things. Each plays a particular role, fills a certain niche within their natural community. They are dependent upon the very community of which they are a part and members of that community are dependent upon them. Nature has established a dynamic equilibrium between each type of wild animal and other plants, animals and non-living features of those natural communities. If these natural communities are left undisturbed by people, they ultimately work to the benefit of all.

The ranges of Wisconsin's mammals vary from a "toe hold," such as that of the spotted skunk or white-tailed jackrabbit on our western border, to a statewide presence such as that of the white-tailed deer or red fox. A mammal's range is not always constant or permanent. Progressive expansion or shrinkage may be noted as a result of changes to the habitat, either by people or by the changes wrought by nature (wild fires, tornadoes, changes in climate). Usually the meat-eating mammals require larger territories than similar-sized plant-eating mammals. Some mammals, including a few

bats, migrate when winter arrives. Some such as ground squirrels and woodchucks hibernate in underground dens. Others, like skunks or raccoons, sleep during extreme winter conditions. The remainder stay active all winter. These include rabbits, red fox, coyotes and white-tailed deer.

Many smaller mammals provide a food supply for carnivores. But even small mammals prey on insects. Bats, for instance, are beneficial as they help keep the mosquito populations down in areas where we live and recreate. Small burrowing mammals such as moles, shrews, and mice play an important role in developing the fertility of the soil. Combined with the actions of earthworms, fungi and bacteria, they help aerate the soil, manufacture humus and build up leaf mold. Many mammals act as scavengers or “clean-up crews” to help recycle dead plants and animals. Beaver assist many other animals when they construct dams which create small ponds and wetlands along streams.



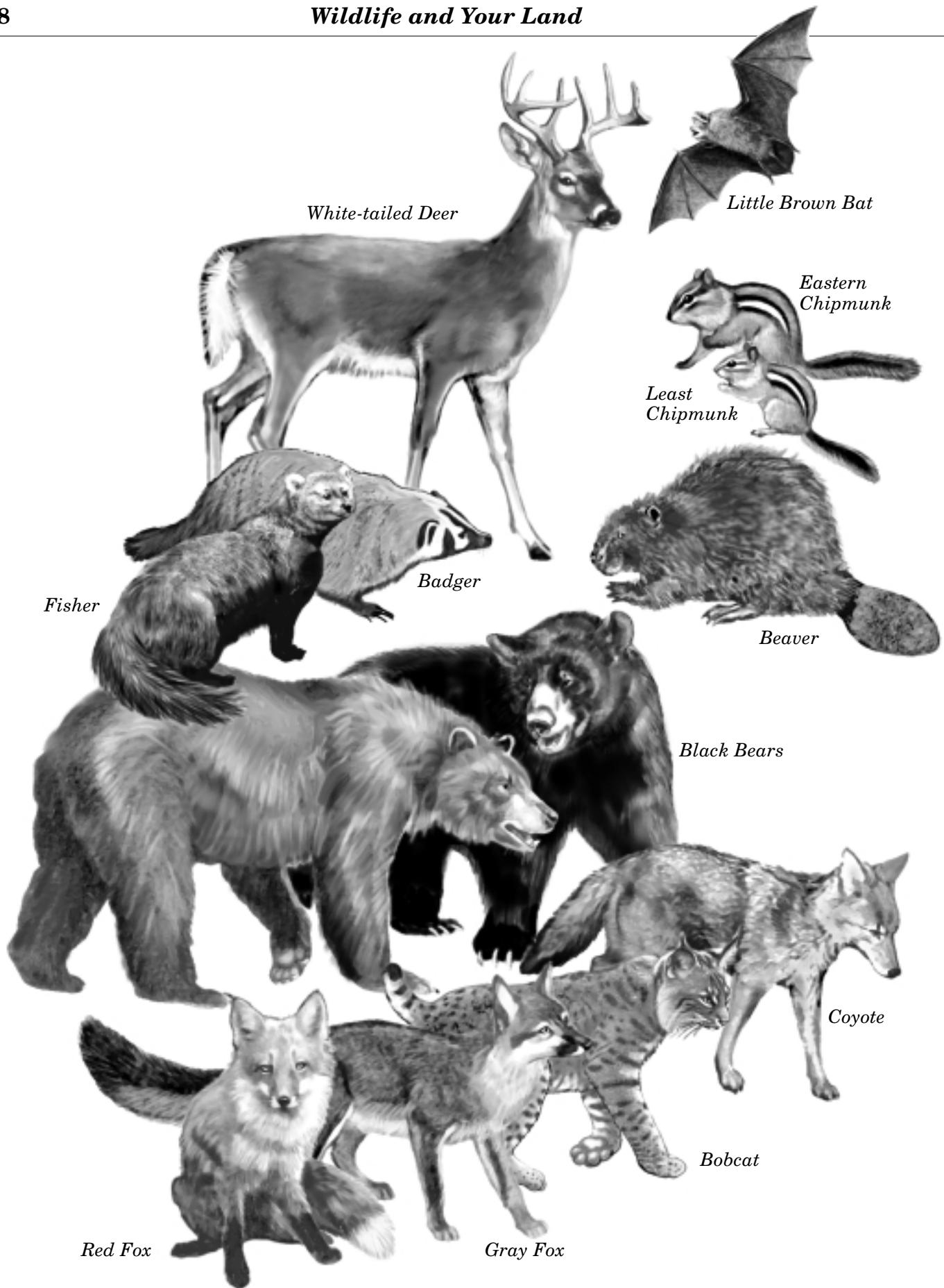
Mammals, unlike the birds, are much more difficult to observe in the wild, since they are very secretive and most are active in the twilight hours and



White-footed Mouse

generally after dark. Mammals are best “observed” by following their tracks in the snow in winter. Although many mammals will rarely be seen, tracking allows you to learn much about mammal behavior. In addition to tracks, mammals leave behind abundant signs such as droppings, bark chewings, grass tunnels, trails, tree rubs and ground scrapes. If you are careful, quiet, and determined, you can have good results by standing along a woodland or grassland wildlife trail in the early morning, late afternoon, or even on a bright moonlit night. Mammals leave abundant characteristic signs. Tracks in the snow, droppings, bark chewings, grass tunnels, trails, and tree rubs all give clues to the type of animal that lives there. It’s fun to learn these signs and to become a seasoned observer. Use field guides to mammals, such as Allen Kurta’s *Mammals of the Great Lakes Region* (University of Michigan Press), or James Halfpenny’s *Mammal Tracking in North America* (Johnson Books, Boulder), for more complete information.

Red fox



White-tailed Deer

Little Brown Bat

Eastern Chipmunk

Least Chipmunk

Fisher

Badger

Beaver

Black Bears

Coyote

Bobcat

Red Fox

Gray Fox

Mammal	Food	Habitat	Den Site	Distribution
Badger	Ground squirrels, mice, pocket gophers, bird eggs	Grassland, savanna and farmland	Underground dens in sandy fields, pastures, hilltops	Northwest, west
Bats (7 kinds; Little Brown Bat is common)	Moths, mosquitoes and other night-flying insects	Agricultural areas, forests; flies over lakes, fields and woods Rural towns, cities	Daytime: under barn boards or siding in rural towns or farms; under loose bark or in tree cavities in forested areas; caves. Night roosts: under porch awnings, behind shutters, barns. Winter: caves, attics, inside walls	Statewide, more common south
Black Bear	Berries, acorns, insects, fish, carrion, fawns, bird eggs, honey, nuts	Forest	Makes dens in hollow, downed trees, in upright dead trees, or beneath the ground	Northern third and central forest
Beaver	Bark and twigs of aspen, cottonwood and willow; roots, grasses	Wetlands and rivers	Lodges made of saplings, partially underwater, or dens built into stream banks. Note: Protect large ornamental trees with hardware cloth	More common north, southwest, Mississippi River
Bobcat	Small mammals, especially snowshoe hares; some deer in winter	Forest; wilder sections of brushy northern forest, especially areas with swamps and rocky outcrops	Dens in trees or under rocky outcrops	Northern third; sightings reported in Baraboo Hills, Vernon, Richland and Crawford counties. Uncommon
Eastern Chipmunk Least Chipmunk	Seeds, nuts, acorns, berries, insects, bird eggs, young mice, bulbs	Northern forests of mixed evergreens and deciduous trees and southern woodlands	Dens in underground burrows, rock piles, rock walls, house foundations. Note: Protect flower bulbs with wire mesh	Eastern is found statewide. Least in north and central conifers
Coyote	Mice, rabbits, squirrels, carrion, fawns and ground-nesting birds	Farmland, newly cut over forested areas, woodland edge. Note: Populations spreading into urban areas	Lives in underground dens at base of cliff or under a stump	Statewide but more common in the north. Not common in wolf habitat
White-tailed Deer	Broad-leaf plants, acorns, fungi, field corn, apples, alfalfa; in winter, twigs, especially hemlock, white cedar	Border areas between forest and clearings, wetlands, tamarack and cedar swamps, even urban areas	Hides fawn in thickets or dense grassy areas. Northern herds seek shelter in conifer stands called "deer yards"	Statewide
Fisher	Snowshoe hares, voles, squirrels, carrion, mice, porcupines	Forest of dense conifers or mixed deciduous and conifer forests	Dens in tree cavities; seeks shelter in hollow logs, rock piles and abandoned beaver lodges	North and expanding into central
Gray Fox Red Fox	Mice, rabbits, pheasants, wild grapes and other berries and fruit, snakes, turtles, woodchucks, grasshoppers, carrion	Red fox prefers farmland, mixed woodlands; gray fox prefers forests to open brush land	Dens in hollow logs or trees or under rock piles. May use deserted woodchuck burrows in hillsides or may dig their own burrow	Red Fox found statewide; Gray Fox found southern third

Mammal	Food	Habitat	Den Site	Distribution
Pocket Gopher	Roots, bulbs and rhizomes; clover, alfalfa, grass, dandelion, plantain, mullein, dock	Prairie, savanna, and scrub lands where soil is loose or sandy	Builds extensive underground tunnels. Look for mounds of dirt without entrance hole	West of Wisconsin River, northwestern half
Snowshoe Hare	Fresh twigs and bark of young trees and shrubs such as pine, alder, aspen, willow, hazelnut, birch, cedar, spruce and sumac, grasses, clover, berries	Brushy woodlands, swamps and heavy forests especially with dense evergreens	Hides in dense forest cover such as low-hanging evergreen branches	Snowshoe, north; White-tailed jackrabbit, western border
American Pine Marten	Voles, mice, squirrels, rabbits, small birds, nuts, fruits	Mature forests of dense evergreens or conifer-hardwood mix	Creates den in hollow logs and tree cavities. Note: Rarely seen	Northern third RARE
Deer Mouse Western Harvest Mouse White-footed Mouse	Seeds, insects, berries, nuts, corn, small grains, soybeans	Forest, grassland, old fields, woodland edge, grain bins	Build small, grassy nests lined with fur, feathers, and plants. May be found on the ground, in wood piles, under old stumps or logs, in holes in trees, inside walls of houses	Statewide, except Harvest Mouse is restricted to southwest
Woodland Jumping Mouse Meadow Jumping Mouse	Seeds, berries, fungi, greens, insects	Woodland Jumping, conifer forest or woodland; Meadow Jumping, forest edge and moist meadows	Hibernate in underground nests; summer nests of leaves and grass near surface or in dense vegetation	Meadow found statewide; Woodland in northern half
Mink	Muskrat, rabbits, mice, squirrels, snakes	Wetlands and forested streams	Burrows into banks of lakes, marshes, rivers	Statewide
Star-nosed Mole Eastern Mole Shrews (5 kinds)	Insects, earthworms, small animals, little vegetable matter	Grasslands, woodlands and wetlands	Moles burrow underground; Shrews build small nests of dry leaves and grasses under old logs, hollow stumps or under piles of grass or brush	Eastern Mole, south and west; Star-nosed Mole, north and central; Masked and Shorttail shrews, statewide
Muskrat	Roots of cattails, arrowheads, water lilies, rushes; periodically eats frogs, turtles, fish, crayfish, mussels	Marshes, ponds, slow streams, banks of larger rivers	Builds dens in banks or a hut of mud, cattail and bulrush	Statewide
Opossum	Carrion, small birds, frogs, mammals, fish, eggs, insects, fruits	Woodlands, hardwood swamps, farmland, hedgerows	Dens in tree cavities, burrows, or hollow logs	Southern half
River Otter	Fish, crayfish, birds, small mammals	Rivers, streams and lakes	Creates dens in stream banks with underwater entrance or builds den in hollow logs	Statewide, most abundant in northern half
Porcupine	Bark and twigs of pines and maples	Forests	Hides in trees, brush, caves, and rock crevices in forests with some evergreens. Note: Can be destructive to trees	Northern and central



Masked Shrew

Opposums



Eastern Mole

Star-nosed Mole



Muskrat



Porcupine

Snowshoe Hare



Pocket Gopher



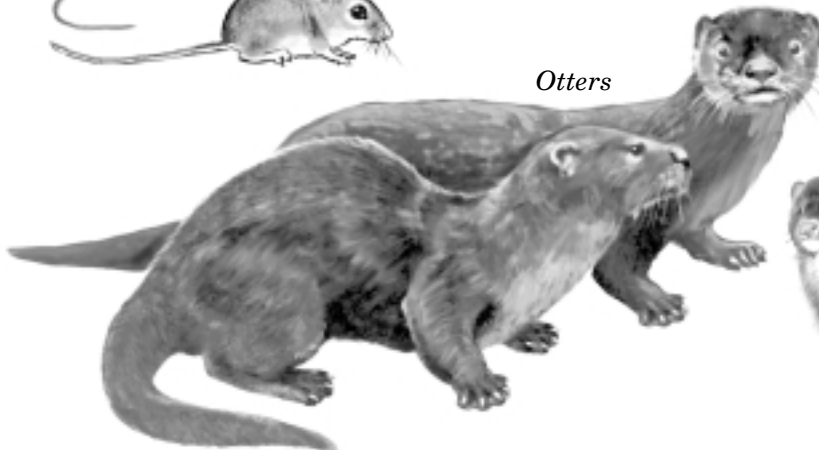
Harvest Mouse



Jumping Mouse



Deer Mouse



Otters



Marten

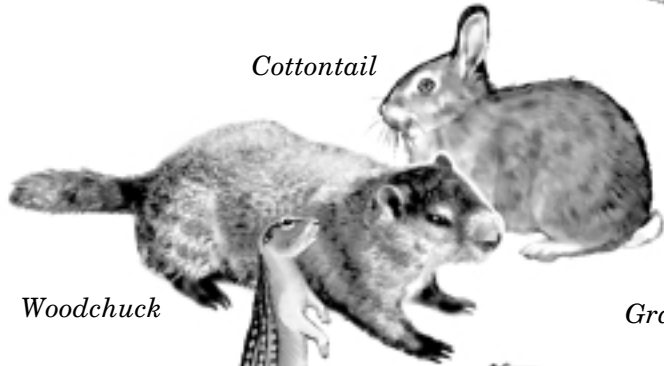


Mink



Flying Squirrel

Cottontail



Woodchuck



Gray Squirrel

Fox Squirrel

*13-line
Ground
Squirrel*



Red Squirrel

Long-tailed Weasel



Short-tailed Weasel



*Striped
Skunk*

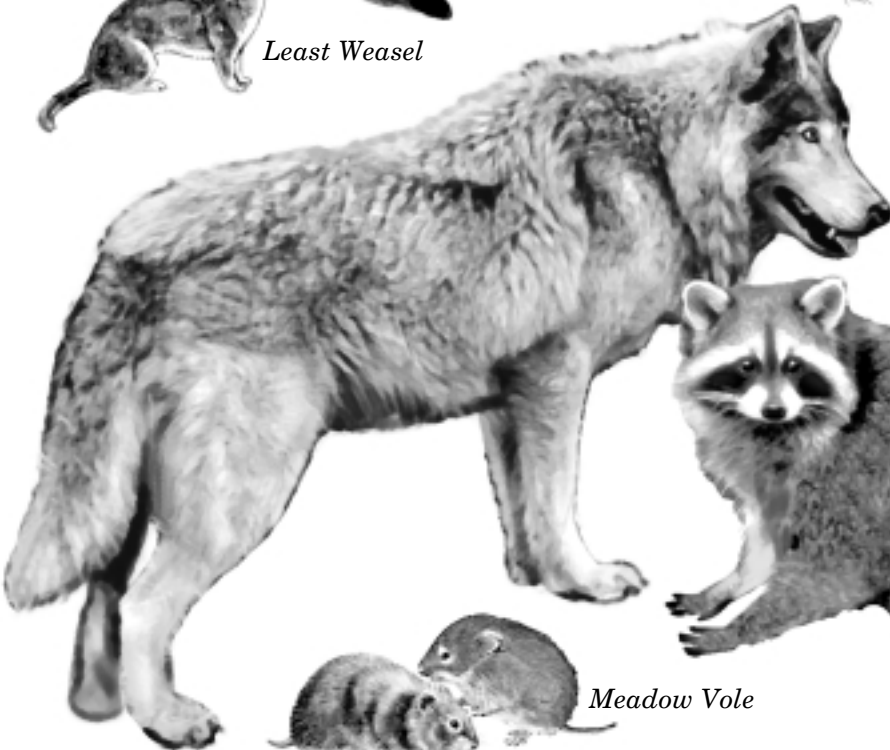


Least Weasel

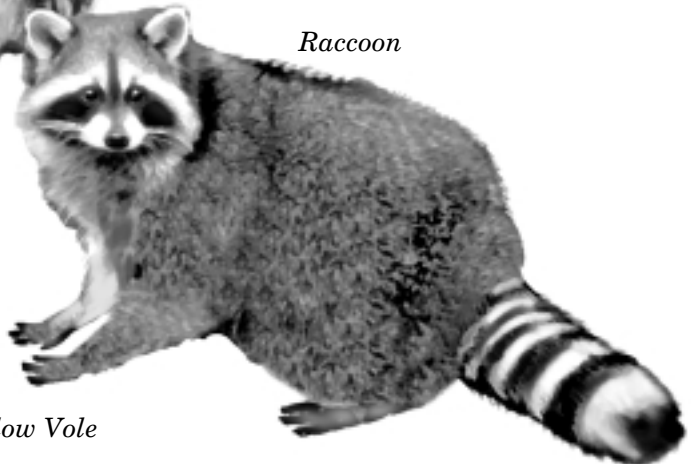


*Spotted
Skunk*

Wolf



Raccoon



Meadow Vole



Bog Lemming

Mammal	Food	Habitat	Den Site	Distribution
Cottontail Rabbit	Raspberries and other briars, dandelions, plantain, clover, fruit; in winter, tree bark, dried corn	Forest, farmland with forest and grassland edges	Seeks shelter in dense shrubs, briars, and brush piles in sparse woodlands and farmlands. Note: Protect ornamental fruit trees and shrubs from rabbits in winter and early spring	Statewide
Raccoon	Frogs, fish, shellfish, small mammals, birds, eggs, reptiles, insects, fruit, field and sweet corn, nuts	Forest edge and farmland	Dens in hollow trees or logs, especially those near water. Note: Protect your sweet corn crops with electric fencing	Statewide
Striped Skunk Spotted Skunk	Insects, small mammals, eggs, snakes, crayfish, poultry	Farmland, woodland edge, brush along streams and ditches	Burrows among tree roots. Seeks shelter in abandoned buildings or under porches	Striped, statewide Spotted, no recent records
Fox Squirrel Gray Squirrel	Nuts, seeds, buds, fungi, bird eggs, corn	Hardwood forests, or small woodlots interspersed with farmland	Nests in hollow trees or builds leaf nests high in branches	Gray Squirrel, statewide; Fox Squirrel, statewide except northeast
Southern Flying Squirrel Northern Flying Squirrel	Seeds, nuts, buds, berries, insects, bird eggs, fledgling birds	Forests with large den trees	Nests in old woodpecker holes, sometimes in attics	Southern, southern half Northern, northern half
Thirteen-lined Ground Squirrel Franklins Ground Squirrel	Seeds, leafy material, insects, eggs	Grasslands, prairie, lawns	Underground burrows for raising young and hibernation	Thirteen lined, statewide; Franklins, western
Red Squirrel	Pine nuts, seeds, berries, sap, mushrooms, insects, bird eggs, fledgling birds	Forests with pine, fir, hemlock; some mixed hardwood forests	Dens in tree cavities, old woodpecker nests	Northern two-thirds
Voles (5 kinds, Meadow Vole is common) Lemmings	Grasses, sedges, roots, bulbs, clover, plantain, dandelion, goldenrod, yarrow, insects; in winter, bark on young trees and shrubs	Low, moist grasslands, forest, bogs for some kinds	Build nests of dry grasses and sedges under debris or in underground tunnels. Note: Protect young saplings with wire mesh	Statewide
Least Weasel Short-tailed Weasel Long-tailed Weasel	Mice, voles, insects, small birds, chipmunks	Longtail, shorttail: forest, brush land, prairies; Least: meadows and fields	Dens in abandoned mole runs, or beneath a rock pile, wood pile or in abandoned buildings	Statewide
Gray or Timber Wolf	Deer, beaver, snowshoe hares, small mammals	Pack territories cover 20–110 square miles in dense expanses of forests	Den in 6–12 foot deep holes, hollow logs, or caves	Northwest and central
Woodchuck	Grass, clover, plantain, apples, insects, snails, crops, weeds, garden vegetables	Farmland, edges of brushy forests or creeks	Burrows in ground, wood piles, stone walls, old stumps, foundations of abandoned buildings; multiple entrances to den	Southern half