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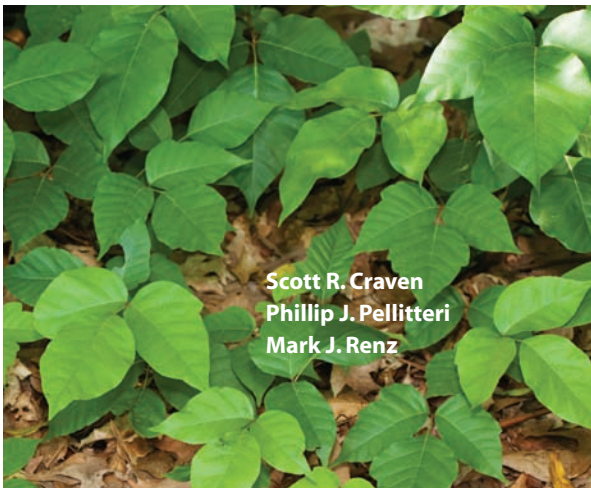
Outdoor Hazards in Wisconsin

A Guide to Insects, Plants, and Wildlife



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Wisconsin's bountiful natural resources—clear lakes and rivers, forests, rolling hills, and interesting landforms—make the state an ideal place for outdoor recreation.

When you hike, camp, hunt, fish, or enjoy other outdoor activities, you may encounter animals, insects, or plants that are capable of causing problems. While wild animals, swarms of biting insects, and poisonous plants do exist in Wisconsin, the risk of meeting them is actually quite low. In most cases, you can avoid these natural hazards altogether or handle them with little difficulty. Using common sense and having a healthy respect for Wisconsin's wild creatures and plants will go a long way toward maximizing your enjoyment of the outdoors.

This guide will help you recognize, avoid, and handle potential problems caused by wildlife, insects, or plants.

Wildlife

Wisconsin's wildlife includes more than 500 species of amphibians, reptiles, birds, and mammals. Millions of dollars and hours are spent hunting, observing, studying, and photographing these animals. The vast majority of the species are absolutely harmless. Some, however, can inflict physical damage or, at the very least, cause a bit of a fright!

Amphibians

All amphibians found in Wisconsin—frogs, salamanders, and toads—are nonvenomous and harmless. In fact, frogs and salamanders make excellent subjects for children to observe and study. These creatures have no claws and do not bite. If you collect them for study, please return them quickly to the site from which they came. Be familiar with Wisconsin regulations about captive wildlife. Do not collect endangered or threatened species for any reason!


Frog


Spotted salamander

Salamanders

Most of Wisconsin's salamanders are small, though some, such as the tiger or spotted varieties (*Ambystoma* sp.), may grow to 10 or 12 inches in length. You won't often see a solitary salamander since these reclusive creatures seldom come into the open. But when environmental conditions are right, you may encounter large numbers of them. For example, a warm early-spring rain may trigger a mass movement of tiger or spotted salamanders from their woodland homes to ponds used as breeding sites. (Water is an essential part of the amphibian life cycle.) When these migrations occur, salamanders may literally fill window wells, cover roadways, or otherwise create the general impression of an invasion.

These animals are harmless and should be removed from natural traps and sent on their way. There is no harm in handling them except for the possibility of transferring their slimy skin secretions into your eyes, which may cause annoying—but not dangerous—eye irritation.


Mudpuppy

MUDPUPPIES The mudpuppy (*Necturus* sp.) is a large aquatic salamander (measuring up to 16 inches) found in rivers and lakes throughout Wisconsin. Though not dangerous, mudpuppies can bite, and their size, bizarre external gills, and extremely slimy skin may startle an angler who inadvertently hooks one. Mudpuppies should be unhooked and released. They are rarely seen in the wild.

Toads

The amphibian that concerns people most often is the toad (*Bufo americanus*). This is mainly due to the myth that handling toads will cause warts. There is no need for concern—the toad's bumpy, warty skin is not contagious to people or other animals.

The largest bumps on the toad's upper back are actually glands. These glands secrete a foul-smelling milky fluid that protects the toad from being eaten by predators and can irritate humans' eye and nose membranes. The only real risk in holding a toad is having it urinate on your hands, which usually causes you to drop the toad—exactly why it is done.


Toad

Reptiles

Wisconsin's reptiles—turtles, snakes, and lizards—are much better equipped to protect themselves than amphibians are. Most reptile species have sharp claws and powerful jaws, and two snake species are venomous. Wisconsin's lizards, which include racerunners, skinks, and slender glass lizards, are quite rare and prefer to dwell in secluded spots. You are much more likely to encounter a turtle or snake than a lizard.

Children are attracted to reptiles as much as they are to amphibians. And reptiles, like amphibians, can be examined or photographed but should always be returned to the point of capture. Endangered or threatened species, such as the ornate box turtle, should be left alone!

Turtles

All of Wisconsin's turtles have claws and strong jaws. You can protect yourself from a turtle's claws by holding the animal securely by the shell, but be sure to keep away from the turtle's head—its powerful jaws deserve respect.

A turtle may walk slowly on land, but its surprisingly long neck and head can move rapidly. Any turtle of more than baseball-size diameter can deliver a bite that is painful, particularly to a child's fingers.

Snapping turtle

SNAPPING TURTLES Wisconsin's snapping turtles (*Chelydra serpentina*) reach impressive size and are frequently seen in spring when females search for nesting sites on land. They are very aggressive out of the water! Stay away from the head end, and if you must carry a snapping turtle by the tail, hold it well away from your legs.

Snapping turtles can deliver a painful bite, but according to Richard Vogt in *Natural History of Reptiles and Amphibians of Wisconsin*, stories of people losing fingers or toes to snapping turtles are "questionable." In fact, snapping turtles rarely bite when they are in the water, and the fear of losing a finger or toe left dangling in the water is unwarranted.

Snakes

While some snakes are harmless and others can deliver a painful bite, only two of Wisconsin's 20-plus snake species are venomous: the timber rattlesnake (*Crotalus horridus*) and the massasauga, or swamp rattlesnake (*Sistrurus catenatus*). Throughout most of Wisconsin, the likelihood of encountering a venomous snake is very slim.

VENOMOUS SNAKES The larger and more dangerous of Wisconsin's two venomous snakes is the **timber rattlesnake**, which sometimes reaches lengths of 4½ feet or more. The timber rattler is a protected species in Wisconsin. It is a yellowish snake with bold, narrow dark bands; an unmarked yellow to yellowish-tan head; a black tail; and tan rattles.

Timber rattlers live mainly near cliffs, rock outcroppings, and steep, rocky hillsides along the Wisconsin and Mississippi rivers and their tributaries in southwestern Wisconsin (see map). However, they may occasionally turn up outside this primary range.

Timber rattlers are aggressive when cornered and are quite venomous. If you are hiking or hunting in the timber rattler's range and habitat, be extremely cautious about where you place your hands and feet when you climb around rocks or walk near thick brush piles, fallen trees, and woodpiles. You should also know, from consulting a first-aid guide, what to do in case you are bitten by a venomous snake.

The **massasauga** is a small- to medium-sized, heavy-bodied snake that lives in low marshy or swampy areas in west-central Wisconsin. It tends to be grayer than the timber rattlesnake and has distinctive stripes on its head.

The massasauga is an endangered species and is rarely seen. It has disappeared from most of the 62 Wisconsin townships in which it was found before 1980, and now only a few isolated populations are known to exist in the southwestern third of the state, as far east as Walworth County.

The massasauga has lethal venom and humans have died from its bite, though no record of such deaths exists in Wisconsin. Its bite is seldom fatal, although it can be serious if left untreated.


Massasauga

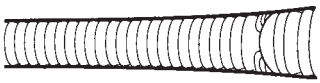

Timber rattlesnake

NONVENOMOUS SNAKES Several nonvenomous Wisconsin snakes, including the bull snake, fox snake, rat snake, and racer, can reach lengths of 4 feet or more. All have numerous sharp teeth and can deliver a painful bite. Rat snakes *(Pantherophis spiloides*) and Northern water snakes (*Nerodia sipedon*) have nasty dispositions and will strike with little provocation, while hognose snakes (*Heterodon platyrhinos*) will rarely bite, even if provoked. Several of the smaller species, such as garter snakes, can be handled safely with only the risk of provoking a foul-smelling excretion.

DISTINGUISHING VENOMOUS AND NONVENOMOUS SNAKES

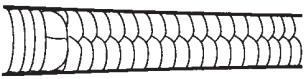
There are several ways to distinguish venomous snakes from nonvenomous snakes. In the field, the timber rattlesnake and massasauga can be identified by their obvious rattles and color patterns. In Wisconsin, any snake that is solid colored or has lengthwise stripes is nonvenomous.

Venomous snake



Single row of scales under end of tail

Nonvenomous snake



Double row of scales under end of tail

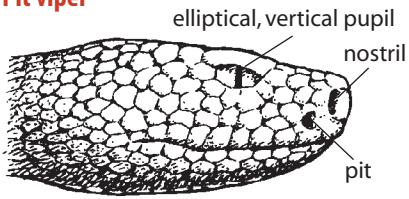
Both of Wisconsin's venomous snakes belong to the pit viper family, so-named because of a pit, or depression, in front of each eye (see diagram below). The pits are heat-sensing organs that aid in locating and seeking warm-blooded prey. Nonvenomous snakes have no pits.

Venomous snakes have elliptical, vertical eye pupils, while nonvenomous varieties have round pupils. Also, the scales on the underside of the tails of Wisconsin's venomous and nonvenomous snakes differ (see diagram at lower left).

You can examine the characteristics of a dead snake in more detail, but don't kill a snake for this purpose. Be careful when approaching and examining an apparently dead snake. It may only appear dead. A freshly "killed" snake can turn its head and bite by reflex action.

For more on snake identification, see the University of Wisconsin-Extension publication *Snakes of Wisconsin* (G3139), the excellent Wisconsin Department of Natural Resources (DNR) publication by the same name (*Snakes of Wisconsin*), or a high-quality field guide.

Pit viper



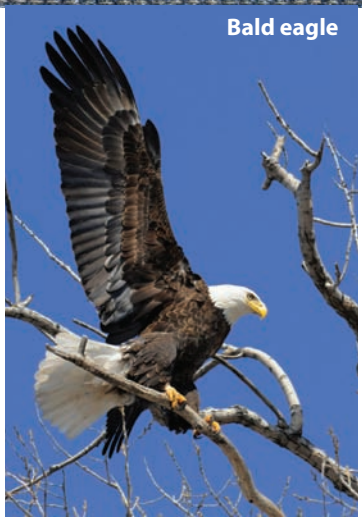
Birds

Birds should be a source of interest and wonder for the outdoors enthusiast—not a safety concern. Although some larger species have sharp talons or impressive bills, they use them only to obtain food or defend themselves. Birds can be dangerous in two situations: when they are defending their nests or territories and when they have been injured or incapacitated.

Defending territory

Many birds, from swallows and blackbirds to hawks, owls, and swans, become very aggressive and defensive during the nesting season. Swallows frequently dive at people who approach their nests, and some may even strike an intruder's head. Such behavior is annoying but is hardly a safety problem.

Red-tailed hawk



Bald eagle

Larger birds can inflict some damage. Large waterfowl (such as geese and swans) and most raptors (including hawks, owls, and eagles) have powerful wings and strong, often sharp, bills; and raptors have dangerous talons. Cooper's hawks nesting in urban and suburban settings are especially aggressive. A sudden strike at a bicyclist or jogger can cause a fall and possible injury. *Never approach a raptor's nest*. It is illegal, potentially destructive to the eggs or young, and dangerous for you. Even experienced researchers have been injured by the blows or talons of such birds while working at nest sites.

Handling birds

People frequently attempt to aid injured birds. While their concern is admirable, birds must be handled properly to avoid further injury to the bird and injury to the person helping.

Calm a large bird by covering it with a box or blanket. If you plan to move the bird by hand, restrain its wings and feet. The bill of a hawk or owl may look threatening, but it is the needle-sharp talons that must be controlled. If the bird is in no immediate danger or can be coaxed or put into a large box, leave the handling to an experienced rehabilitator or biologist.

Mammals

Fears of "wild animals" are usually directed at mammals. Some mammals have the teeth, claws, or size to injure or even kill people, but they rarely do. By nature, wild mammals avoid human contact, and outright attacks are almost unknown. When attacks do occur, they almost always involve cornered, sick, or injured animals, or mothers defending their young. Only one Wisconsin mammal is venomous: the short-tailed shrew.

A few facts and commonsense rules should guide your actions when dealing with any wild mammal:

- Unusual behavior—such as tameness, erratic movement, and activity during unusual hours of the day—suggests that a mammal is sick or injured and should be avoided. Several diseases common in wild mammals are transmissible to humans and are potentially dangerous. Contact a licensed rehabilitator, a biologist, or an animal protection organization such as the Humane Society if you believe an animal needs help.
- Do not encourage or allow children to collect, touch, or make pets of young or mature wild animals.
- Do not corner, grab, or threaten any wild mammal—even one as small as a mouse. Most will fight tenaciously to defend themselves. A rabbit, squirrel, or other mammal can deliver a nasty bite or scratch.

Short-tailed shrews

The short-tailed shrew (*Blarina brevicauda*), found throughout Wisconsin, is a small, dark-gray animal about 4 to 6 inches long, with a short tail. Its fur is very short and sleek, and it has small eyes and a pointed snout. Short-tailed shrews are often confused with meadow mice (*Microtus* sp.). All shrews are carnivorous, and the short-tailed shrew uses its venomous saliva to help subdue prey (such as mice), which may be as large as it is. The bite of a short-tailed shrew may cause painful swelling but is not life threatening.

Bats

Bats are interesting, beneficial creatures. Most common fears of bats are not based on facts. Not all bats are rabid; bats do not bite to consume blood (vampire bats do not dwell anywhere near Wisconsin); and bats will not intentionally entangle themselves in long hair. However, bats should never be handled. The risk of rabies is small but real. If bitten by a bat, seek medical attention. If you have problems with unwanted bat colonies, consult the UW-Extension publication *Bats: Information for Wisconsin Homeowners* (G3096).

Skunks

Everyone recognizes the distinctive black and white pattern of a skunk as something to avoid, and with good reason! Striped skunks (*Mephitis mephitis*) are found throughout Wisconsin in a variety of habitats, including backyards and parks. An encounter with a skunk often results in a smelly situation for people and pets.

As a defensive strategy, skunks use powerful muscles to forcefully expel an oily spray from glands on their backside, and the strategy works rather well. They can project the spray rather accurately up to 10 feet before it becomes more of a mist, effective for about another 10 feet. A direct hit in the eyes creates an intense burning sensation. A hit anywhere else on the body or on clothes just creates a smelly mess. Even if you are not hit by spray, the entire area will smell "like skunk" for quite a while.

If sprayed, wash clothes and pets with a mixture of 3% hydrogen peroxide solution (from the drugstore), ¼ cup baking soda, and a teaspoon of liquid hand soap. Be careful not to get this mixture in your eyes or your pet's eyes, and check for color fastness on clothes. Once the smell has been neutralized, rinse the pet or item of clothing thoroughly. Also, if storing extra mixture for future use, do not keep it in a sealed container, as it will become explosive if confined. Warm, soapy water and commercial skunk deodorizers such as Skunk-Off or Odor-Sol will also work. A variety of home remedies such as tomato juice may provide some relief, but don't count on it.

You can minimize the risk of being sprayed by giving any skunk a wide berth. Unless provoked, skunks are quite docile. A skunk bite is potentially much worse than being sprayed, as skunks are a main carrier of rabies. If you are bitten by a skunk, seek medical attention.

Porcupines

Porcupines (*Erethizon dorsatum*) are large, slow-moving, forest-dwelling rodents that are most abundant in the northern half of Wisconsin. "Porkies" are well protected by a dense coat of sharp, stiff quills—thousands of them. Contrary to popular belief, porcupines cannot throw or direct quills to defend themselves. The quills are loosely attached to the animal's skin, so they fly about as the animal moves suddenly or lashes out with its quill-covered tail. If a person or pet comes in direct contact with a porcupine, a large number of quills can become embedded in the person's hands or the pet's mouth.

Each quill has tiny barbs near its tip (as on a fishhook), so once a quill is embedded, it requires some force and a pair of pliers or forceps to remove it. Any bits of quill left embedded can lead to persistent pain or infection. A pet with many quills in its face or mouth should be taken to a vet for treatment. Porcupines move very slowly, are not aggressive, and should be easy to distinguish from any other animal. Thus they should be easy to avoid.


Wolf

Coyotes

Coyotes have become a concern in some urban and suburban areas in Wisconsin. They have been known to kill cats and small dogs and may attack larger dogs. Keep all pets under close supervision and do not allow them to roam freely, especially in areas known to be frequented by coyotes.

Never feed coyotes or do anything that causes them to loose their natural fear of humans. The risk of a coyote attack on a person is low, but it does exist. Young children should be closely supervised in areas coyotes are known to frequent, where coyotes have displayed little fear of humans, or where attacks on pets have been documented.

In the presence of a coyote, shout, make noise, or throw something in its direction. Report coyote problems and encounters to local authorities.


Coyote

Gray wolves

Gray wolves, or timber wolves, have made a tremendous comeback since 1960, when they were considered extinct in Wisconsin. The comeback started with a few individuals that moved into Wisconsin from Minnesota. By 1980, there were perhaps 25 wolves in Wisconsin, and they were designated an endangered species. From that point on, protection, public education, and the wolves themselves contributed to a steady increase to about 700 animals by 2010. In Wisconsin, most wolves live in the northern half of the state, but there have been regular sightings of wolves in many counties all the way to the Illinois border.

Wolf numbers and management are contentious issues, aggravated by wolf depredations on livestock, hunting dogs, and pets, and by the potential threat to humans as wolves become more habituated to humans and their activities. Wolves have been on and off the endangered species list in recent years, which complicates resource managers' response to wolf problems.

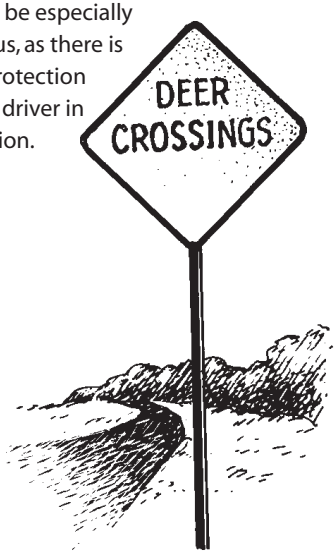
While wolves do kill livestock and dogs in Wisconsin, most dog incidents involve hounds or trailing dogs running through wolf territories. The risk to bird-hunting dogs or pets under close control of their owners is minimal but does exist. Dog owners should know the general location of wolf packs, especially those with a history of aggressive behavior. The DNR can provide you with this information. There have been documented attacks on humans in North America, but they are very rare. And not until recently was a fatal attack documented, in northern Canada.

Potential problems between humans and wolves are worsened by ill-advised feeding and other human activity that causes wolves to lose their fear of people. It is legal to protect domestic animals on your property, and it is legal to protect yourself and others anywhere if threatened with a wolf attack. The DNR, the International Wolf Center, and other organizations provide detailed information on living with wolves. Please report encounters with fearless or aggressive wolves to a local government office (DNR or USDA Wildlife Services).

Deer

Deer are abundant throughout Wisconsin. Deer-vehicle collisions result in human death and injury, millions of dollars in property loss, death and injury to the deer (35,000 or more annually in Wisconsin), and mental anguish for the driver. There is no foolproof way to eliminate deer-vehicle collisions. Fencing, reducing the deer population, intercept feeding, and mechanical gadgets all have limitations.

The best advice on avoiding deer-vehicle collisions is to recognize the risk and drive defensively. Know the seasons when the risk of encountering deer is highest (fall and spring), the times of greatest deer activity (early morning and late evening), and the areas of greatest risk (often marked by deer-crossing signs). Slowing down and being alert for deer will do more to reduce collisions than anything else. Motorcyclists should be especially cautious, as there is little protection for the driver in a collision.



Black bears

Black bears are large, powerful animals. Like the wolf population, the bear population has been growing and expanding southward in Wisconsin. Research in 2007 and 2008 suggests that there could be 30,000 or more bears living in Wisconsin—twice as many as were previously thought to live in the state.

Bears cause damage to some crops, beehives, and structures, and they annoy campers and homeowners in their persistent search for food. They are capable of injuring or killing humans, but attacks are rare. When an attack does occur, it generates headline news, resulting in a distorted perception of the true risk posed by black bears.

Most bears will flee at any sign of humans, perhaps because they remain a popular game animal in Wisconsin. If you see a bear, yell, wave, or bang on something to alert the bear to your presence. A bear habituated to people at a campground or park may be more reluctant to leave a food source. Back away from such an encounter. Eliminate any attractants for bears by properly handling and storing items such as food, garbage, and birdseed.

In the unlikely event of an attack, pepper spray may repel the bear. Remember that bears climb well, so a tree is not a good refuge from an attack. Most experts recommend that you vigorously fight back against an actual attack. For more information, see the **Resources** list at the end of this publication.

Insects & other invertebrates

There are more than 20,000 different insects, spiders, and related creatures that you could meet during a summer walk in Wisconsin. Over 95% of them are completely harmless, and less than 1% of the rest go out of their way to torment people. Insects and other invertebrates attack people for two reasons: to obtain food and to defend themselves.

Mosquitoes, deerflies, horseflies, blackflies, ticks, and chiggers require animal or human blood as food. Any other bite or sting is a defensive or protective reaction by the insect. Most insects, such as adult butterflies, moths, and dragonflies, are not capable of biting or stinging people. But if you are unfamiliar with an insect, it is better to observe it rather than pick it up.

Stinging insects

While some insects do sting, others just seem as if they do. Some insects have a bite that can feel like a sting. Many insects feed on each other or similar small creatures, and such predators have powerful enzymes and proteins in their saliva that paralyze, kill, or digest their prey. If one of these predacious creatures is mishandled, it can inflict a painful bite that may take time to heal. The bite may be mistaken for a sting, but no stinger is left behind. The only treatment required is to put ice on the site if swelling develops.


Honeybee

Some types of hairy or spiny caterpillars are covered with urticating, or stinging, hairs. These hairs contain a poison cell gland, and if rubbed, the hairs will break, releasing enzymes that cause blisters, burns, or rashes. The sensations feel similar to those caused by a stinging nettle plant.

Bees and wasps

Bees and wasps (and some ants) have a special defensive weapon—the stinger. By nature, these insects are not aggressive, but they can become so if their nests are disturbed or if they are trapped or confined.

The **honeybee** stinger is barbed much like a fishhook. The honeybee flies away after stinging but leaves its stinger and poison sac behind, which eventually kills the bee. The muscular poison sac will continue to pump venom, so remove the stinger promptly by scraping it with your fingernail, a knife, or a plastic card. Do not try to pick the stinger off with your fingers because this squeezes the poison sac, injecting more enzymes and poisons into your skin.

All other stinging bees and wasps have unbarbed stingers and can sting repeatedly if given the opportunity. The amount of venom injected will affect the severity of the reaction. Most species of bees and wasps will sting if they feel threatened but will allow you to calmly brush them away if you move slowly.

Yellow jackets are responsible for a marked increase in stings and related problems from early August through September. This black and yellow wasp is slightly smaller than the honeybee. Some yellow jackets build nests of paper in rodent burrows or other cavities. In spring and early summer, when colonies are small, they survive by feeding on other insects. In late summer, when the colonies have increased in size, yellow jackets are forced to seek extra nourishment in the form of sugar or protein. Thus, they compete with anyone trying to eat a sandwich, pick a ripe raspberry, or drink a can of soda outdoors.

Take care when eating or drinking outdoors during the late summer. Keep food covered as much as possible, and dispose of food scraps after meals. To prevent yellow jackets from foraging near garbage, put trash in garbage bins with tight-fitting lids or seal it in airtight bags.

STINGS Some simple measures can help you avoid stings from bees and wasps:

- Don't wear perfumes, hair sprays, suntan lotions, or cosmetics that may attract unwanted attention.
- Don't walk barefoot outside.
- Avoid outdoor cooking and eating during the yellow jacket season.
- If a bee or wasp lands on you, stay calm and gently brush it away. Sudden movements increase your chances of getting stung.

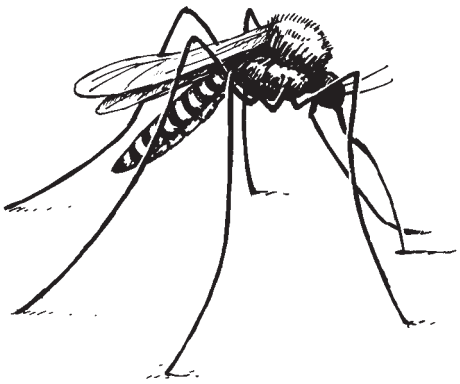
If you are stung, you will first feel intense burning at the site of the sting, followed by swelling and severe itching after several minutes. Swelling may be localized or involve an entire limb. Applying ice or cold

Yellow jacket

compresses to the site will decrease swelling and slow the movement of toxins. Other treatments, such as household meat tenderizer or commercial preparations, will help reduce pain and neutralize the proteins and amino acids in the venom.

Far more serious are the allergic or systemic reactions experienced by about 1% of the population. Symptoms such as throat or chest constriction, dizziness, labored breathing, fever, confusion, wheezing, or unconsciousness indicate serious reactions that require medical intervention. Anaphylactic, or hypersensitive, reactions can be fatal. Such reactions often occur within the first hour after a sting but may be delayed for several hours.

People who are sensitive to stings should carry emergency medical kits at all times during the spring and summer. A person who is sensitive to one type of bee sting may not necessarily be sensitive to the stings of all bees or wasps. There are methods of desensitizing people to various stings. Consult a physician for more information.



Blood-feeding insects

Blood-feeding insects are known for requiring human or animal blood as food, but the males of many species in this group actually feed on nectar and plant juices. In many cases, only the females require blood meals because they need the protein from blood to produce fertile eggs.

Mosquitoes

More than 50 mosquito species live in Wisconsin. Only the females of the species require a blood meal. The most notorious mosquitoes come from the genus *Aedes*—the floodwater mosquitoes. If a pond or riverbank dries up, their eggs can remain dormant for months or years until they come into contact with water again. Adults appear about two weeks after the eggs come into contact with water, and up to 100 mosquitoes can emerge per square foot of water surface per day in good breeding habitat. More than 60% of these adults will migrate approximately 10 to 20 miles from their breeding site in search of a blood meal. Female mosquitoes live for 3 to 6 weeks and can take multiple blood meals during that time.

Mosquitoes are most active under low light conditions, yet some are "day biters." Winds above 10 miles per hour force mosquitoes to land and rest; when the winds die down, they become active again. Avoid brushy, shaded sites, which have the low light and poor air movement that attracts mosquitoes. Temperatures below 50˚F prevent mosquitoes from flying, but it usually takes three or four killing frosts to end the mosquito season.

Mosquitoes use carbon dioxide, lactic acid, and heat to find their hosts. The more active you are, the more of these attractants you give off. Individuals differ in both their attractiveness to mosquitoes and the way their bodies react to a bite. Dark colors and some fragrances also attract certain mosquitoes.

Even if you sit on a sunny, windy hillside and wear light-colored clothing, you can still be bitten by a mosquito. Other than covering up, the only practical way to avoid mosquito bites is to use a repellent spray, cream, or lotion, which does not kill mosquitoes but does prevent them from finding you. The active ingredients in repellents include DEET (N, N-diethyl-meta toluamide), Picaridin [1-Piperidinecarboxylic acid, 2-(2-hydroxyethyl)-, 1-methylpropylester], soybean oil, citronella oil, and Oil of Lemon Eucalyptus [p-menthane 3,8-diol (PMD)]. Effectiveness can vary from 10 minutes to 5 hours, depending on the product, formulation, and user's amount of physical activity. Not all repellents are safe for use on skin, and concentrated repellents should not be used on small children. Some repellents can dissolve or stain watch crystals, eyeglasses, and painted or varnished surfaces, including fishing rods and cars. Even coverage is important. Mosquito netting (23 to 26 meshes per inch) may come in handy for overnight trips.

The wound of a mosquito bite is minor. The intense itching and swelling is an allergic response to the mosquito's salivary secretions. Various treatments such as rubbing alcohol or mild ammonia will help relieve itching.

Although mosquitoes transmit many serious diseases throughout the world, there are only two mosquito-borne diseases seen regularly in Wisconsin: La Crosse encephalitis and West Nile virus. La Crosse encephalitis is a virus that can cause complications in children under 12 years old. West Nile virus affects birds, horses, and people and is most often a late summer and fall problem. Most people do not become ill from these viruses, and the best way to prevent problems is to reduce mosquito bites by avoiding infested areas, wearing protective clothing, and using insect repellent.

Deerflies and horseflies

Deerflies and horseflies are large, robust, somewhat hairy biting flies that are up to 1½ inches long. Many species have bright green or purple eyes; deerflies have dark bands on their wings. These flies feed during the day and are most abundant in low, moist, wooded areas from late May until September. They breed in the mud of ponds, swamps, and ditches. Adult female flies are very strong fliers, and their bite is painful because they make a deep wound as they continually stab the skin with knife-like mouthparts.

Deerflies and horseflies are most active on warm, sunny days. To protect yourself, reduce exposed skin by covering up with a light, long-sleeved shirt and wearing a hat or cap. Applying tick or mosquito repellents to exposed skill will provide added protection.

Horsefly

Blackflies

Blackflies are small, weak-flying, gray or black humpbacked gnats, about the size of fruit flies. These day-biting flies breed in moving water in rivers, streams, and creeks. "Buffalo gnats," as they are sometimes called, bite painlessly on any exposed part of the body but often prefer the forehead, hairline, or wherever clothing fits snugly, such as at collars, cuffs, and sock lines. They are persistent and may crawl into your ears, nostrils, or hair.

A blackfly bite appears as a small, red, central spot surrounded by an area that is red and swollen. Because blackflies use enzymes that prevent blood from clotting, a small trickle of dried blood may remain at the wound. The bite site often remains irritated for several days, and some people develop swollen glands around the ears and neck.

Wearing a hat will put a stop to scalp bites. Repellents prevent biting but will not stop blackflies from flying around your head. Canoeists and people fishing in prime blackfly habitat may have to tape their cuffs shut and use head nets to remain comfortable.

The numbers of most blackfly species peak over a 2- to 3-week period each year. Staying in areas with good air movement and away from stream banks will reduce attacks.

Biting midges

There is a group of tiny biting midges known locally as punkies, sandflies, and no-see-ums. The burning and irritation their bites cause is far greater than their size would suggest. Their weak flying ability usually limits and localizes problem areas. Repellents will help protect you from their bites, as will mosquito netting for tents and sleeping bags.

Ticks

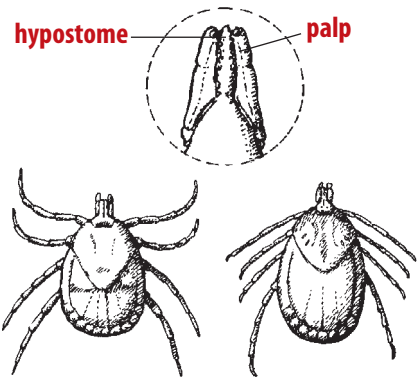
What is a May walk in the woods without ticks? Ticks are eight-legged blood-feeding relatives of mites. Their thick, leathery skin and slow movements allow them to "lie in wait" for months on the undersides of leaves or on twigs. Tick habitat includes long grass or brushy areas near game trails, hiking paths, and sites with large small-rodent populations. Both male and female ticks grab on to pants or socks and start searching for a place to feed. Often the first skin they encounter is the neck area, giving people the impression that ticks drop from above.

Tick feeding is much more complicated than a quick bite. Ticks attach painlessly by means of a barbed hypostome (see figure) and will remain attached for days if left undisturbed. Only 2 of the approximately 15 tick species in Wisconsin normally bite humans.

To remove an attached tick, grasp it with tweezers as close to the head as possible and pull gently and steadily. Take care not to break the mouthparts. If left behind, they can cause infection. The use of home remedies such as petroleum jelly, lighter fluid, hot matches, and nail polish remover do not help removal and can cause other complications.

Preventing tick problems starts with wearing long-sleeved shirts and pants. Tuck pant legs inside socks or boots to cut down on exposed skin. Repellents containing DEET or insecticides/repellents containing permethrin can be sprayed on socks, pants, and shoes.

AMERICAN DOG TICKS What most people call the "wood tick" is the American dog tick, *Dermacentor variabilis*. They are reddish brown with silver or white markings and range up to ¼ inch in length. American dog tick activity starts in early May and slows down in early July. Immature ticks feed primarily on rodents, and a normal life cycle takes 2 years.



American dog ticks transmit Rocky Mountain spotted fever in other parts of the United States, but this disease rarely appears in Wisconsin.

DEER TICKS The deer tick, *Ixodes scapularis,* is smaller than the American dog tick and lacks the silver or white markings on its back. Adults and immature deer ticks feed on humans and pets. Deer ticks seem to be most common in wooded areas with a lush understory of brambles and other shrubby material, and their season extends from early April through November.

Deer ticks are the only known carrier of Lyme disease in Wisconsin. It is important to remember that it takes the tick a number of hours of feeding (24 or more) to transmit Lyme disease. This means that promptly removing the deer tick will prevent you from contracting the disease. Routine total-body tick checks should become a daily ritual.

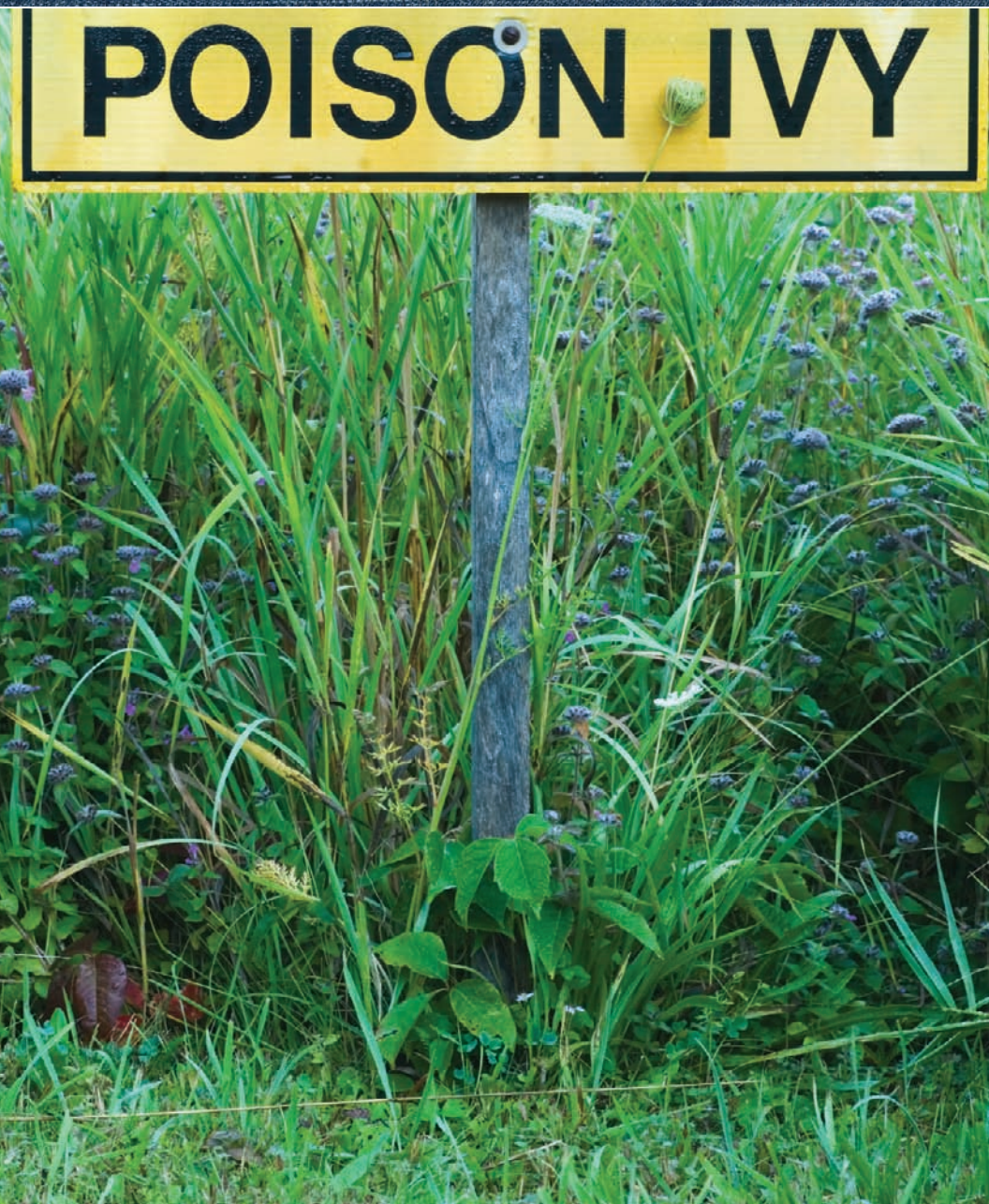
If you experience flu-like symptoms or a spreading rash appears around a tick bite site within 2 weeks, contact your family physician. Prompt treatment with antibiotics has been very successful in treating Lyme disease.

Chiggers

Chiggers are tiny, red, parasitic mites that are scarcely visible. They live on deer, mice, and birds. On humans, chigger bites cause intense itching and small, reddish welts on the skin. They most often appear where clothing fits tightly against the body, such as the ankle, waist, upper arm, or behind the knee. Welts last for 3 to 10 days and often become infected after being scratched. Humans are not a suitable host, and often the mite leaves or dies before a skin reaction is evident.

Chiggers are most numerous in brushy sites or long grass that has large rodent populations. If you have been exposed to chiggers, take a hot, soapy bath or shower as soon as possible. A vigorous rubdown with a towel will remove and kill unattached larvae. Wash all clothing before wearing it again. Various antiseptics or local anesthetic products can be found at drug stores for temporary relief of the itching. To prevent chigger bites, use mosquito repellents, especially along cuffs, waistbands, collars, and ankles. Avoid sitting or reclining on the ground in infested sites.

Plants



Wisconsin is home to over 3,000 plant species. Some of these plants have undesirable traits that cause them to be labeled as unwanted plants, or weeds. Most of these weeds compete with crop and landscape plants or are visually unattractive in places where aesthetics are important. However, some Wisconsin weeds go beyond simply being bothersome and have traits that are actually troublesome to people. These traits include being toxic (to both animals and people), causing skin irritation and blistering, producing pollen that causes hay fever, and having thorns or spines that attach to clothing and hair.

People and animals can generally avoid the hazards imposed by these weeds simply by staying away from the plants. However, to avoid contact with poisonous plants, you must first be able to recognize them. There are many excellent publications available to help you identify and control plants, usually found in the gardening or nature sections of bookstores and libraries. Consult these references for more detailed information on hazardous plants.

Plants that are poisonous when ingested

Only eat plants that have been identified as nontoxic. If someone ingests a plant that is toxic, call the Wisconsin Poison Center immediately (1-800-222-1222) and follow the center's instructions. For more information on ingested plant poisons, visit the Wisconsin Poison Center website: www.wisconsinpoison.org.


Poison hemlock

Poison hemlock

(Conium maculatum)

Socrates was put to death by drinking poison hemlock—a "cup of death." All parts of this plant (a member of the parsley family) contain the toxic alkaloid coniine. Socrates' last drink was made from unripe hemlock seeds.

Poison hemlock has several common names, including deadly hemlock, poison parsley, poison stinkweed, and snakeweed. The plant grows in moist sites, such as along streams and in wet ditches.

Like other biennial plants, poison hemlock produces a rosette of leaves and a fleshy, parsnip-like root the first year. In its second year, it grows to a height of 7 to 10 feet, flowers, produces seed, and dies. There may be four or five leaves on a stem, with finely divided, toothed margins. The leaves are arranged in an alternate pattern along the stem.

The flowers are white and look similar to those of wild carrot. An individual flower may be no wider than $^1/_{10}$ inch. Seeds are found in pairs and are pale brown, ribbed, and highly poisonous. A key characteristic in identifying poison hemlock is the presence of purplish blotches on the stem, which is also hollow and branches many times.

All parts of this plant are poisonous when eaten.

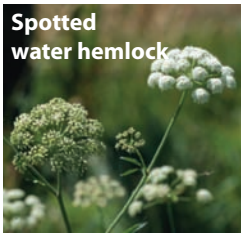
Spotted water hemlock

(Cicuta maculata)

Spotted water hemlock belongs to the parsley family and is also referred to as beaver poison, children's bane, muskrat weed, musquash root, spotted cowbane, and spotted hemlock. It grows in swamps and lowlands, often in or near shallow water.

Spotted water hemlock is a perennial plant that reproduces by seed and tuberous roots. The stems are 3 to 5 feet tall and are streaked with purplish spots. Branching occurs only toward the top of the plant, and leaflets are linear with saw-toothed margins. Individual flowers are small and white and are arranged in clusters.

All parts of the plant are poisonous when eaten, especially the roots. Both roots and seeds have a distinctive parsnip-like odor.



Bittersweet nightshade

(Solanum dulcamara)

Bittersweet nightshade is also known as European bittersweet, blue nightshade, climbing nightshade, woody nightshade, poison berry, and scarlet berry. It grows in moist soils and on trees in woods and orchards. It also climbs on shrubs, fences, and buildings.

Bittersweet nightshade is a slender, woody vine. The plant has simple leaves with one or two lobes. It produces purple flowers, and the fruit is a soft, round berry that is green when immature and bright red when mature.

A member of the nightshade family, bittersweet nightshade's leaves and berries contain solanine, an alkaloid that is toxic when ingested.

Black nightshade

(Solanum ptycanthum)

Deadly nightshade, garden nightshade, and poison berry are other common names for black nightshade, a member of the nightshade family. The plant grows in gardens, fields, and waste areas.

Black nightshade is an annual plant that comes up from seed in spring or early summer and dies in fall after the killing frosts. It has simple alternate leaves, white flowers, and berries that are green when immature and black when mature.

The fruits contain a toxic alkaloid, solanine, which makes them mildly toxic when ingested.

Jimsonweed

(Datura stramonium)

Jimsonweed, another member of the nightshade family, is an annual plant that reproduces by seed. Other names for it include Jamestown weed, mad apple, thorn apple, and stinkwort. Jimsonweed grows in sunny locations and is often found in feedlots, hog yards, and barnyards. It is common in the southern third of Wisconsin.

The plant grows to a height of 2 to 4 feet, and the stem branches toward the top. Its large, coarse leaves alternate along the stem and branches, and they have a distinctive, unpleasant odor. The funnel-shaped flowers of jimsonweed are large (2 to 5 inches long) and are tinted white to pink. The plant's egg-shaped seedpod contains many seeds and is covered with short, stiff spines. It measures about 1 inch in diameter.

Both the foliage and seeds of jimsonweed are poisonous, as the plant contains an alkaloid that is a stomach poison. Some people develop a rash from touching the leaves.

Plants that are poisonous on contact

While some plants are poisonous when ingested, others are dangerous when simply touched. If you're entering areas where plants that poison on contact are present, wear pants and a long-sleeved shirt to protect your skin. If you experience skin irritation, wash the affected area with soap and water as soon as possible.

Poison ivy

(Toxicodendron rydbergii)

Poison ivy, a member of the cashew family, grows as either a low, woody shrub or a climbing vine. It is also called poison creeper or three-leafed ivy. Poison ivy is found in pastures, road banks, fencerows, parks, beaches, campgrounds, and damp forests, especially along rivers. The shrub variety grows out in the open, while the vine climbs trees and fences.

Poison ivy

The leaves of poison ivy are divided into three leaflets, so heed the old adage, "Leaflets three, let it be." The lateral two leaflets are fastened directly to the leaf stem, or petiole, while the terminal leaflet is borne on a short leaf stalk. The three leaves may vary in size, shape, and appearance: The edges may have a smooth margin or be toothed or lobed. The leaves may be smooth or slightly hairy and appear glossy or dull. They may turn yellow, orange, or red before they drop off in the fall.

The flowers are greenish yellow and occur in clusters along the stem, frequently hidden by leaves. The fruit is a yellowish-white round berry, with stripes that make it resemble a peeled orange. The berries are about ¼ inch in diameter.

All plant parts—roots, stems, leaves, flowers, and fruits—contain oils that are poisonous to about half the human population. Poison ivy causes dermatitis in the form of skin irritation and blisters, followed by scabs. Symptoms usually occur within 24 hours of exposure.

Poison ivy is toxic all year, which means that its dry, fallen leaves are just as poisonous as the green, growing plant. Be especially careful when burning poison ivy. Inhaling the smoke can cause a severe reaction.

Birds, not sensitive to the plant, eat the berries and spread the seeds. For humans, eating a leaf, or any part of the plant, does not confer immunity. If exposed to poison ivy, wash the exposed area with water and regular or specialized soap (such as Tecnu) as soon as possible. This is the most effective method to prevent a rash from occurring.

Poison sumac

(Toxicodendron vernix)

Poison sumac is also called poison ash, poison dogwood, poison elder, and swamp sumac. The plant grows as a shrub or small tree but never as a vine. It ranges in height from 5 to 25 feet.

Poison sumac grows in wet areas, such as floodplains, swamps, and bogs. It differs from staghorn sumac, the common sumac often seen on highway banks. Staghorn sumac has bright red berries, while poison sumac produces greenish-white berries similar to those of poison ivy. Birds eat and distribute the seeds. The plant's leaves turn orangish red in the fall.

Contact with poison sumac causes blisters within 24 hours. As with poison ivy, if exposed, wash the exposed area with regular or specialized soap and water as soon as possible.

Poison sumac

Wild parsnip

(Pastinaca sativa)

A member of the parsnip family, wild parsnip is a plant that reproduces by seed. It is also known as bird's nest, hart's eye, and madnip. Wild parsnip is very common in roadside ditches, wastelands, and ungrazed grasslands.

The plant initially produces a rosette of large leaves that somewhat resemble celery leaves and a large, fleshy taproot. In subsequent years, wild parsnip develops a stem 3 to 5 feet tall, produces flowers, generates seed, and dies. Leaves have toothed margins and alternate along the elongated stem. Flowers are arranged in rounded clusters called umbels. Each flower has five small, yellow petals.

Everyone is sensitive to wild parsnip, but you can brush against wild parsnip plants and not be affected. Parsnip is only dangerous when the plant sap from broken leaves or stems gets on your skin.

In cases of mild exposure, affected areas turn red and feel sunburned. In more serious cases, the skin first turns red and then blisters. The sap of wild parsnip can cause severe skin blisters in certain people if skin is exposed to sunlight when the sap is contacted. Blisters form a day or two after sun exposure, and soon after the blisters rupture, the skin starts to heal. However, dark red or brownish scars can remain in the burned areas for months to years. Animals can also get parsnip burns if they have little hair and lightly pigmented skin—characteristics that allow the sap and sunlight to reach the skin.

If exposed to wild parsnip sap, wash the contaminated areas thoroughly as soon as possible. The burning sensation can be relieved by covering affected areas with a cool, wet cloth. If you experience blistering, try to delay the rupturing of the blisters as long as possible, as blisters protect the skin. In cases of extensive blistering, consult a doctor.

To avoid exposure, wear gloves, long pants, and long-sleeved shirts. Planning wild parsnip control activities for the early evening will minimize sunlight and thus minimize the likelihood of blistering.

Stinging nettle

(Urtica dioica)

Stinging nettle is also called slender nettle or tall nettle, and it belongs to the nettle family. It grows in full sun in damp, fertile soil and is frequently found along canals in muck soils, around barnyards, and in fencerows throughout Wisconsin.

Stinging nettle is a perennial plant that reproduces by seed and underground rootstocks. The plant grows 2 to 7 feet tall and is slightly branched near the top. Its stems are stiff, rigid, and covered with stinging hairs. Leaves oppose each other on the square stem and are very dark green. They are typically 3 to 6 inches long with saw-toothed margins and are covered with stinging hairs. The flowers lack petals and grow in clusters in the leaf axils.

Stinging nettle

The stinging hairs on the stems and leaves of the plant can cause welts, inflammation, and a burning sensation when they come in contact with skin. The stinging sensation occurs immediately, as the hairs act as syringes that inject several chemicals into the skin. If possible, try to remove the hairs with the use of tape or tweezers. Cooling creams, lotions, and anti-itch creams reduce most of the symptoms soon after application.

Plants that cause hay fever

Ragweed pollen is carried many miles by the wind, so it is difficult to avoid all exposure. However, you can significantly limit your exposure to pollen by avoiding ragweed plants when they produce pollen in August and September.

Common ragweed

(Ambrosia artemisiifolia)

Common ragweed is a member of the composite family, and its pollen is a major cause of hay fever. It is also called bitterweed, blackweed, hay-fever weed, hogweed, mayweed, and wild tansy. It grows in pastures and grain fields, and along roads.

Common ragweed is an annual plant that ranges in height from 1 to 3 feet. It grows upright and has many branches. The stems are rough and covered with hairs, and the leaves are deeply cut, or lobed. The plant has separate male and female flowers, all lacking petals. The seed is enclosed in a crown-shaped woody hull.

This plant produces abundant pollen, which is shed from early August until the first killing frost—about the same time that goldenrod begins to flower.

Giant ragweed

(Ambrosia trifida)

Giant ragweed, also a member of the composite family, is an annual plant that reproduces only by seed. It is also called great ragweed, bitter-weed, crownweed, horseweed, king-head, and tall ambrosia. This plant is a weed of floodplains and fertile farmland, and it frequently grows along the edges of cornfields.

Giant ragweed ranges in height from 3 to 16 feet. The leaves have three to five lobes and tend to be large and slightly hairy, and the flowers have no petals.

Giant ragweed produces pollen from August until frost kills the plants. Like common ragweed pollen, giant ragweed pollen is a major cause of summer hay fever.

Thorny, barbed plants

Plants with thorny barbs are often more of a nuisance than a danger—they stick to hair, clothing, and fur and can be difficult to remove completely. However, seedlings of some of these plants can be poisonous to livestock, and burs can injure animals' mouths.

Bull thistle

Bull thistle

(Cirsium vulgare)

Bull thistle, also called spear thistle, is a biennial plant that reproduces from seed. Bull thistles grow in undisturbed soil such as pastures, roadsides, and railroad embankments, and are common in lawns. They are found throughout Wisconsin.

Unlike Canada thistle, which forms dense patches of plants, bull thistles grow as solitary plants. In the first year if its 2-year life cycle, bull thistle seed germinates and produces a rosette of spiny leaves and a fleshy taproot. In the second year, the plant sprouts a 2- to 4-foot branched stem, flowers, produces seed, and dies.

Bull thistles produce reddish-purple- to rose-colored flowers in gumdrop-shaped heads at the tips of the branches. Spiny bracts surround the flowers. Bull thistle seeds are attached to a pappus, or parachute, which allows the wind to disperse the seeds.

Beggarticks

(Bidens frondosa)

A member of the composite family, beggarticks is also called bur marigold, devil's bootjack, pitchfork weed, and sticktights. The plant grows in moist soil such as wet meadows and along streams. It grows throughout Wisconsin, especially in muck soils.

Beggarticks is an annual plant that reproduces by seed and grows to a height of 2 to 5 feet. Branching occurs only near the top of the plant. Leaves of beggarticks grow opposite each other and are deeply divided in a featherlike formation. Flower heads are about 1 inch in diameter. The outside flowers, or ray flowers, are bright yellow, while the inside flowers, or disk flowers, are brownish yellow. The seeds are flat and brown and are equipped with two barbed fishhook-type spines that attach themselves to clothing, hair, and fur.

These plants are a particular nuisance to hunters and hunting dogs.

Burdock

(Arctium minus)

Burdock is a biennial plant that reproduces by seed in waste areas, around buildings, and at other undisturbed sites. A member of the composite family, burdock is also called clotbur, cockle button, and cuckoo button.

In the first year of its life cycle, the plant produces a fleshy taproot and a rosette of large leaves that look somewhat like rhubarb. The next year, the plant grows a 3- to 6-foot hairy, grooved stem, produces flowers and seed, and dies. The large leaves are heart shaped and are arranged alternately on the stem. The flowers are small, reddish violet in color, and surrounded by hooked bracts in the form of a bur.

The burs, which are about ½ inch in diameter, hook into clothing, hair, and fur.

Cocklebur

(Xanthium strumarium)

Cocklebur, also known as spiny clotbur, clotweed, dagger cocklebur, and Spanish thistle, is an annual plant that reproduces by seed. It grows in fields, abandoned lands, pastures, and roadsides, and can be found throughout Wisconsin.

Cocklebur has a large, woody taproot and a stem that reaches a height of 2 to 4 feet. Stems are rough, hairy, and covered with reddish spots. The leaves, which are arranged alternately along the stem, are simple and triangular and have long petioles. The flowers are enclosed in a spiny bur covered with hooked spines and two prominent and curved spines, or beaks.

The hard, prickly bur attaches to clothing, hair, and fur and is particularly a nuisance to hunters and hunting dogs. However, the real danger cocklebur poses is that the seedlings are poisonous to cattle.

Sandbur

(Cenchrus longispinus)

Sandbur is an annual warm-season grass that produces seeds in spiny burs. Other common names of the sandbur include bear grass, burgrass, hedgehog grass, and sandbur grass. Sandburs are associated with sandy soils and drought conditions. They are found in pastures, fields, orchards, and cropland.

Sandburs germinate after the danger of spring frost passes. The plants grow from 6 inches to 2 feet tall, and they flower in summer, producing a spiny bur. The spines on the burs have curved barbs that work into the flesh of humans and animals if they are not removed. Stems often lodge, or grow parallel to the soil surface, by late summer, forming large mats of sandbur.

The burs of this plant stick to fur and clothing and injure the mouths of animals that have the misfortune to graze on them.

Resources

Center for Wildlife Information
www.BeBearAware.org

Living with Bears in Wisconsin
Wisconsin Department of Natural Resources
dnr.wi.gov/org/land/wildlife/hunt/bear/

Living with Wolves: Tips for Avoiding Conflicts
International Wolf Center
www.wolf.org

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