Missouri's Most *Irritating Plant*

For instigating itches, rashes and discomfort, few plants can compete with *poison ivy*.

by John D. Miller, photos by Jim Rathert

Don't remove poison ivy if it isn't causing problems or isn't a threat. The plant provides valuable food and cover for a variety of wildlife, like this female eastern bluebird.

Although a fortunate few are immune to poison ivy's rashes and blisters, between 50 and 70 percent of people experience physical reactions to contact with the plant. The unpleasant results of a "brush" with poison ivy may last for days, weeks or months.

Some people are so sensitive to the plant that they suffer after petting a dog that has been in poison ivy, inhaling smoke from burning poison ivy or handling the clothes of someone who has walked through poison ivy.

Poison ivy has been irritating people for quite some time. In 1609, Captain John Smith was the first to call it poison ivy. He said it resembled the English ivy or Boston ivy, but he noted that the plant "caused itchynge, and lastly blisters."

Identification

Poison ivy is a member of the cashew family (*Anacardiaceae*). Most Missourians probably have heard of at least three "poison" members of this family: poison ivy (*Toxicodendron radicans*), poison oak (*Toxicodendron toxocarium*) and poison sumac (*Toxicodendron vernix*). However, only poison ivy is common in Missouri. Poison oak is rare, and poison sumac has never been recorded here.

Poison ivy is the most widespread of the three plants. Found from the East Coast to the West Coast and from southern Canada to Mexico, it has been found in every county in Missouri and in every type of terrestrial habitat, including prairies, swamps, forests, fields and glades. Poison ivy can grow in full sun and in nearly full shade. You might find it in your flower garden or lawn, or along your driveway. Its most preferred habitats are forest edges and recently disturbed open fields.

"Leaves of Three"

Poison ivy can be a woody shrub or a vine. As a shrub, it can grow about 6 feet high. As a vine, it can climb 40 feet up a tree.

The best way to distinguish it from other plants is to look at its leaves and aerial roots.

The old saying "Leaves of three, leave it be" is good advice. Poison ivy has a compound leaf with three leaflets. However, many useful plants, including aromatic sumac, strawberries, and even green beans, also have three leaflets.

The leaves of poison ivy (each with three leaflets) are arranged alternately, rather than opposite one another, on the stem.

Poison ivy leaves are sometimes—but not always—waxy or shiny. The three leaflets are pointed. The middle or upper leaflet is symmetrical. The two sides are mirror images of one another, but they are not symmetrical.

Each side leaflet often has a distinct notch on its lower half, while its upper half is relatively smooth, with few or no notches. Many times, the side leaflets resemble pointed mittens. They have a short stalk connecting them to the main leaf stem or petiole, while the middle leaflet appears to have a longer stalk.

Poison ivy exhibits some degree of variation, so take the time to look carefully. For example, poison ivy sometimes, but not always, has a red stem. Although green all summer, poison ivy leaflets are among the first to turn color in the fall, usually becoming bright red or orange before falling.

Because you can get a rash from poison ivy in the fall and winter, it's helpful to be able to recognize the plant when it has no leaves. Poison ivy vines are easy to spot. They cling tightly to their host with dark brown, hairlike aerial roots.

Poison?

Poison ivy, as well as poison oak and poison sumac, produce an oleoresin called urushiol. The name is derived from the Japanese word for lacquer. This clear and sticky oil contains chemical transmitters and resins that bind to the surface of skin cells. The oil can trigger immunologic responses that can usually lead to a rash or "Rhus" dermatitis.

Urushiol is highly potent. It's estimated that the amount needed to make 500 people itch

Poison Ivy Web Sites

- Poison Ivy, Oak, and Sumac Information Center: http://poisonivy.aesir.com
- USDA Plants Profile: http://plants.usda.gov
- Poison Ivy Basics Prevention, and Treatment (reviewed by the American Academy of Family Physicians Foundation): http://quickcare.org/skin/poison.html
- US Food and Drug Administration: http://www.fda.gov/fdac/features/796_ivy.html

Poison Ivy (*Toxicodendron radicans)*
(a.) Growth form with flower clusters and aerial rootlets, (b.) Stem with fruit cluster

ILLUSTRATION BY PAUL NELSON

Poison oak grows in only a few Missouri counties. Its three leaflets each resemble oak leaves.

would cover the head of a pin. The resin is also stable and long-lasting. It can stay active for up to five years on a dead plant. In fact, centuries-old specimens of urushiol have caused dermatitis in people highly sensitive to it.

Urushiol is found throughout the year in every part of the poison ivy plant. This includes the leaf, the stem and the roots. The oil can remain active on dead and dried plants for two to five years. Unwashed clothing can deliver active urushiol a year or two later. It is truly a plant for all seasons!

People vary in their reactions to urushiol. An encounter with the same plant may cause a mild rash on one person and severe blisters on another. A third person might not experience any effect. Predicting reactions to urushiol becomes even more confusing because people's reactions to it often change. As a child, you may not have any reaction to poison ivy, but later in life you could have severe reactions.

Urushiol becomes an irritant only when the oil has been absorbed into the skin and begins to metabolize with other skin proteins. Your body's immune system reacts to it, causing itching, inflammation and blistering of the skin. Only after your body has destroyed these new proteins do the symptoms subside.

Depending on your sensitivity and amount of exposure, symptoms generally appear after 12 to 48 hours. Contrary to popular belief, you cannot get a poison ivy rash from someone else's rash or blisters. The liquid inside your blisters is not urushiol, but fluids your body has produced. Still, breaking the blisters is not recommended because it could prevent healing and lead to infection or permanent scarring.

Preventing Pain

The oil from poison ivy is sticky and begins to bind with the skin in as little as five minutes. Shortly after exposure, you might notice a slight red rash or small blisters. The sooner you wash the exposed area, the less likely you will have a serious rash or blisters.

Wash with lots of cool running water. Use soap only if it doesn't contain lanolin or another oil that could help spread the urushiol. Old-fashioned lye soap is good for removing poison ivy oil, as are Fels-Naptha and Ivory soaps.

You also could use rubbing alcohol or a mild solution of bleach, but use them sparingly, and immediately follow with a good rinse. These are harsher on the skin.

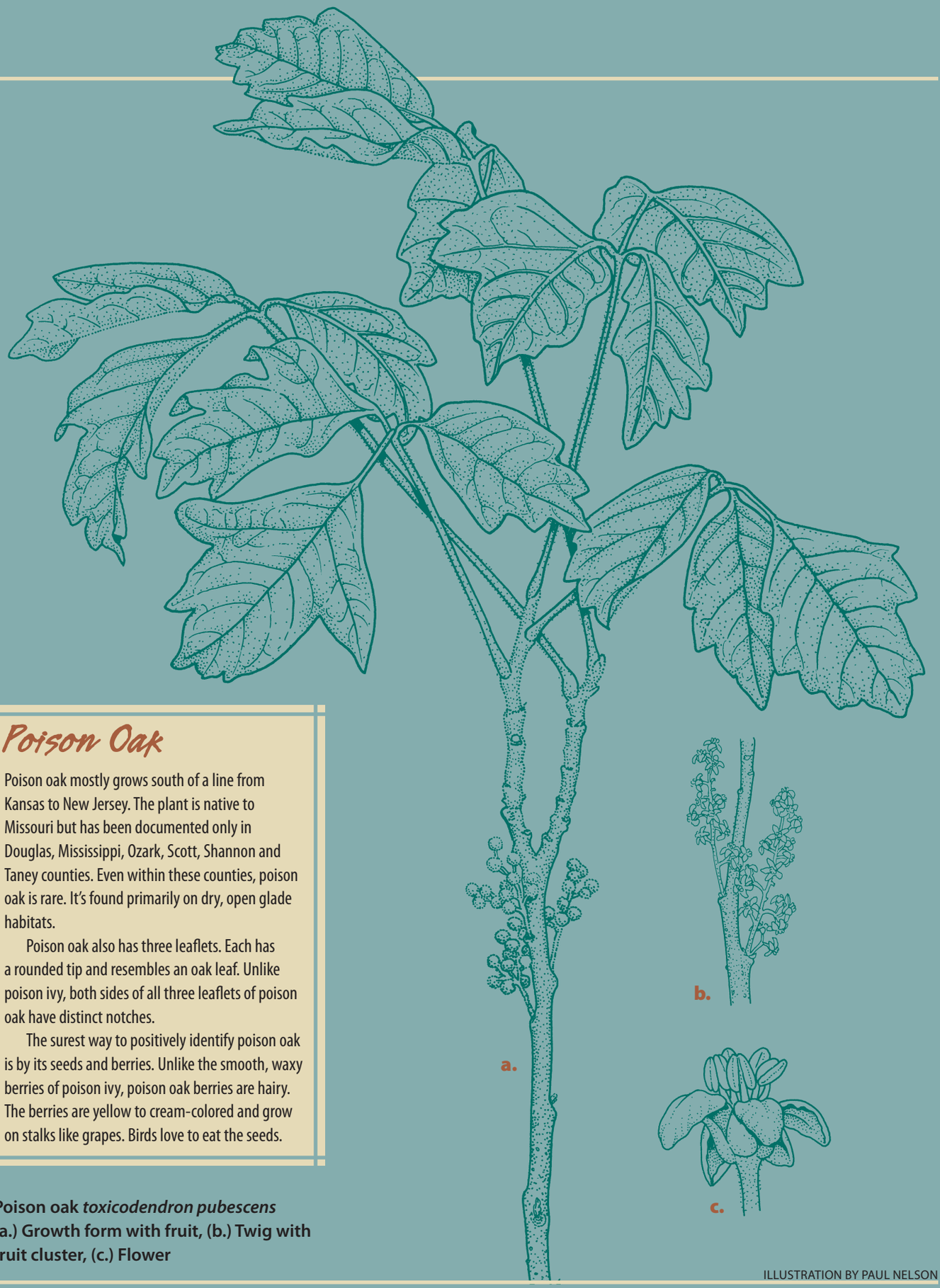
A few commercial products are marketed for their ability to remove urushiol from the skin. Products such as Tecnu and Enviroderm are available in the pharmacy section of most large retail stores.

Folk wisdom calls for the application of jewel weed or spotted touch-me-not to exposed areas. These plants can remove both the oil and soothe the rash, but they should be used only if you are sure you can identify them, and if you have permission to collect them.

Avoiding Irritating Plants

The best preventative for poison ivy is to avoid it. Don't touch it or walk through it. Don't grab leaves along the trail or your fencerow. If you must walk through poison ivy, step on the plants with the sole of your shoe. If you have to remove the plant from a walkway or garden, use gloves for protection.

The next best way to avoid a rash is to put



Poison Oak

Poison oak mostly grows south of a line from Kansas to New Jersey. The plant is native to Missouri but has been documented only in Douglas, Mississippi, Ozark, Scott, Shannon and Taney counties. Even within these counties, poison oak is rare. It's found primarily on dry, open glade habitats.

Poison oak also has three leaflets. Each has a rounded tip and resembles an oak leaf. Unlike poison ivy, both sides of all three leaflets of poison oak have distinct notches.

The surest way to positively identify poison oak is by its seeds and berries. Unlike the smooth, waxy berries of poison ivy, poison oak berries are hairy. The berries are yellow to cream-colored and grow on stalks like grapes. Birds love to eat the seeds.

Poison oak *toxicodendron pubescens* (a.) Growth form with fruit, (b.) Twig with fruit cluster, (c.) Flower

ILLUSTRATION BY PAUL NELSON

Knowing its benefits, we can coexist with poison ivy, and even respect it as another fascinating aspect of Missouri's natural beauty and diversity.

something between you and poison ivy. You can use a commercial urushiol block or extra clothing to help protect skin.

Remember to avoid anything that has touched poison ivy. Clothing protects you from direct contact with the urushiol, but it can be a source of later contact. Unwashed clothing can contain active urushiol for as long as two years. If your clothes have contacted poison ivy, don't rub your hands on your clothes. If you have used gloves to pull out poison ivy, don't touch exposed skin or eyes with the gloves. Don't touch saws, shovels, or other tools that have been used to remove poison ivy until they have been cleaned.

Don't burn vines. The urushiol oil can withstand burning. It can be carried by the soot and dust in the smoke and cause irritation to eyes, nose, and throat. Remove all vines from firewood.

If you suspect your dog has been running through poison ivy, avoid handling your pet until you are confident no urushiol is on its coat.

Washing clothes with ordinary laundry soap will remove urushiol. Tell those doing your laundry that you may have encountered poison ivy. If you are washing clothes for someone who has been outdoors, handle the clothes with another clean cloth to avoid direct contact with your skin.

Treatment

If you have a mild rash with slight irritation, the application of cool, wet compresses will help. For more irritating rashes, several over-the-counter topical corticosteroid remedies are available. Several companies have homeopathic products for poison ivy treatment and prevention. Several brands of antihistamines also provide temporary relief.

If you experience extreme itching—or the exposure involves the eyes, throat, lungs, genitals, or if infection sets in—you should seek medical attention. A severe reaction can be fatal if left untreated.

Controlling Poison Ivy

The most effective way to kill young poison ivy plants is to pull them up by the root or to dig them up. The most effective time to remove poison ivy is from May through July.

Dispose of the dead plants by chopping them into smaller pieces and burying them, or make a brushpile of them. If you pile up the dead poison ivy plants, make sure you tell your friends and family so they know not to burn the pile. Avoid using the poison ivy parts in mulch or compost.

When removing poison ivy vines, sever the main stalk of the vine between 4 and 6 inches above the ground. Apply herbicide to the stump to prevent new growth. Repeat applications may be necessary.

Avoid pulling vines from trees. Sap from the vines can fall on unprotected skin, eyes or clothing.

Spraying poison ivy allows you to avoid physical contact. Herbicides also have a few risks associated with them. Pre-mixed and ready-to-spray herbicides containing glyphosate are generally considered safe and effective. These are sold under the brand names of Roundup, Rodeo, Accord and Kleenup. The main problem with these "general use" or "broad-spectrum" herbicides is that they can kill your prize roses along with your poison ivy. When other plants are at risk, you should consider using a plant-specific herbicide.

Removing poison ivy isn't always necessary, especially if the plant grows where it won't bother anyone. Even if poison ivy grows in an area where people could come in contact with it, you could put up a warning sign.

Although poison ivy causes many of us discomfort, the plant has some merits. Many birds—including warblers, woodpeckers, bluebirds and vireos—eat poison ivy berries. Rabbits, deer, black bear, muskrats and other animals eat the fruit, stems and leaves.

Thick stands of poison ivy provide cover for small wildlife. The plant's ability to thrive in disturbed habitats also makes it valuable in protecting soil from erosion.

Poison ivy doesn't have to get under our skin. With a little practice and some preventive measures, we can easily identify and avoid it. Knowing its benefits, we can coexist with poison ivy, and even respect it as another fascinating aspect of Missouri's natural beauty and diversity. ▲

Ten Questions

1) *Can I get poison ivy from someone's blisters?*

No. The fluid in the blisters was created by your body. It will not spread the rash.

2) *Can I eat poison ivy to develop an immunity to it?*

This homeopathic method is not recommended. It could cause you to become hypersensitive to poison ivy.

3) *Can I get poison ivy from smoke?*

Yes. Soot and smoke can deliver particles of urushiol that can irritate eyes, nose and throat. Never burn poison ivy.

4) *Will washing clothes spread the poison ivy to other clothes?*

No. Washing clothes with detergent is the best way to remove the poison ivy oil.

5) *Can you tell the difference between a rash from poison ivy and poison oak?*

No. The rashes are similar, and the treatment is the same.

6) *Will scratching the blisters spread the rash?*

No. Unless urushiol oil remains on your skin, scratching will not cause more of a rash. Scratching does delay healing and increases the likelihood of infection.

7) *Can I get a rash from looking at poison ivy?*

No. Only direct contact with urushiol oil can cause a rash. Remember, though, that urushiol can be carried by smoke from burning poison ivy.

8) *Can I get poison ivy if I never leave the house?*

Yes. Anything or anybody who has come into contact with poison ivy could spread it. Common agents for spreading urushiol are clothing, tools, sporting goods and pets.

9) *Is poison ivy a problem only in summer?*

No. The leaves, stems and roots of poison ivy contain urushiol throughout the year.

10) *Will poison ivy vines strangle trees?*

No. Poison ivy doesn't kill trees, but it can stress them by blocking sunlight, sapping nutrients and adding weight.

Serving nature and you

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