

Poison Ivy – Live and Let Live

I haven't thought about poison ivy (*Toxicodendron radicans*) in a very long time. When a friend sent two photos of it for ID confirmation last week, it became a highlight of my week. As we discussed this plant, the initial response was to get rid of it. Yet it's native and wildlife depend on native plants. How many depend on this "unpopular" plant? I had to know.

As humans, we immediately want to eradicate anything that might cause us harm. Rather than learn to live with it and understand its value, our reaction is to kill it and remove it.

What if...we left it?

Electing to live in harmony with poison ivy means my small piece of the earth could gain from the diversity and benefits of this native plant and I could keep myself safe. Solid identification skills, a grasp of what makes it hazardous, and a list of wildlife using the plant makes living with poison ivy safe and enjoyable.

Wildlife Uses Poison Ivy

Studying the biota as we restore our land's native ecosystems caused me look at these "plants that could hurt me" differently. Each native plant is a host to insects, meaning they require this plant to sustain the next generation. These insects, in turn, are the protein birds, reptiles, amphibians, and small mammals require to raise their young. Berries and seeds are adult food; the babies require protein and that means insects. Aha! I began to look at all native plants with new eyes.

A little research uncovered 153 invertebrates, 48 birds, and 7

mammals that depend on or use this plant in some way to sustain life. The list is at the end. While not an exhaustive list, it is an impressive list.

Poison Ivy Has Leaves of Three, But...

Poison ivy can be tricky to identify. While the “leaves of three” mantra is what I grew up learning as a way to identify the plant, it was confusing as there are many plants with 3 leaves. Adding to the complexity of this plant is its color changes – “reddish in the spring; green in the summer; and yellow, orange or red in the fall” (Wilson, nd). And compounding that, poison ivy can be found as a hairy-looking vine climbing a tree, a small shrub, or a mass collection of short plants. However you might encounter it, all parts (roots, stem, leaves) can cause a skin rash.



Poison ivy in spring. Photo by Chris Noll

The oily substance in poison ivy is “...urushiol (oo-roo-shee-ohl). Its name comes from the Japanese word “urushi,” meaning

lacquer”(Wilson, nd). When urushiol makes contact with the skin, the body sends the white blood cells to fight this foreign substance. As the body’s immune system neutralizes this foreign agent some normal tissue gets damaged in the process. This damage is what we see on our skin as a rash.

To avoid the negative effects of poison ivy while letting the wildlife enjoy the positive aspects, here’s a couple of websites that offer ID help for all the stages of poison ivy. Poisonivy.org provides a great ID photo tool. When you’re ready, you can take a [quiz](#) to test your skills.

A Listing of Wildlife Using Poison Ivy

This is an impressive but not exhaustive list of wildlife using poison ivy.

Coleoptera (Beetles)

Altica chalybea (Habeck 1988)

Analeptura lineola (Senchina, 2005, Senchina and Summerville 2007)

Apsectus hispidus (Habeck 1988, Senchina 2005)

Astyleiopus variegatus (Habeck 1988)

Astylidius parvus (Steyskal 1951, Habeck 1988, Senchina 2005)

Astylopus macula (Senchina 2005)

Bassareus brunnipes (Habeck 1988)

Calligrapha floridana (Habeck 1988)

Chalcodermus aeneus (Habeck 1988)

Chauliognathus marginatus (Senchina, 2005)

Chauliognathus pennsylvanicus (Senchina, 2005, Senchina and Summerville 2007)

Cryptorhynchus fuscatus (Habeck 1988, Senchina 2005)

Ctenicera hamatus (Habeck 1988, Senchina 2005)

Derocrepis erythropus (Habeck 1988)

Diplotaxis bidentata (Habeck 1988, Senchina 2005)

Enoclerus rosmarus (Senchina, 2005, Senchina and Summerville 2007)

Euderces picipes – Senchina and Summerville 2007
Eugnamptus collaris (Habeck 1988)
Eupogonius vestitus (Senchina 2005)
Eusphyrus walshi (Steyskal 1951, Senchina 2005)
Hypothenemus toxicodendri (Habeck 1988, Senchina 2005)
Leiopus variegatus (Senchina 2005)
Leptostylus albescens (Habeck 1988, Senchina 2005)
Lepturges querci (Habeck 1988, Senchina 2005)
Lepturges signatus (Steyskal 1951, Habeck 1988, Senchina 2005)
Madarellus undulatus (Habeck 1988, Senchina 2005)
Molorchus sp. – Senchina and Summerville 2007
Oberea ocellata (Senchina 2005)
Orthaltica copalina (Steyskal 1951, (Habeck 1988, Senchina 2005)
Pachnaeus opalis (Habeck 1988)
Pachybrachys tridens (Steyskal 1951, (Habeck 1988, Senchina 2005)
Phyllophaga uklei (Habeck 1988, Senchina 2005)
Pityophthorous consimilis (Senchina 2005)
Pityophthorous rhois (Senchina 2005)
Pityophthorus corruptus (Habeck 1988)
Pityophthorus crinalis (Habeck 1988)
Pityophthorus tutulus (Habeck 1988)
Saperda lateralis (Habeck 1988, Senchina 2005)
Saperda puncticollis (Steyskal 1951, Habeck 1988, Senchina 2005)
Serica vespertina (Habeck 1988, Senchina 2005)
Strangalia acuminata (Senchina, 2005, Senchina and Summerville 2007)
Synchroa punctata (Steyskal 1951, (Habeck 1988, Senchina 2005)
Thanasimus dubius (Senchina 2005)
Trischidias atoma (Habeck 1988)
Xyleborus affinis (Habeck 1988, Senchina 2005)
Xyleborus ferrugineus (Habeck 1988)
Xyleborus pecanis (Senchina 2005)

Lepidoptera (Moths and butterflies)

Acronicta impleta (Habeck 1988)
Acronicta longa (Habeck 1988)
Amorbia humerosana (Habeck 1988)
Anavitrinella pampinaria (Habeck 1988)
Antepione thisoaria (Habeck 1988)
Archips argyrospila (Habeck 1988)
Caloptilia diversilobiella (Habeck 1988)
Caloptilia ovatiella (Habeck 1988)
Caloptilia rhoifoliella (Habeck 1988)
Cameraria guttifinitella (Habeck 1988)
Celastrina neglecta (Senchina, 2008b, Senchina and Summerville 2007)
Choristoneura rosaceana (Habeck 1988)
Cingilia cantenaria (Habeck 1988)
Dichorda iridaria (Habeck 1988)
Ecpantheria scribonia (Habeck 1988)
Epipaschia superatalis (Habeck 1988)
Epipaschia zeleri (Habeck 1988)
Episimus argutanus (Habeck 1988)
Eutelia furcata (Habeck 1988)
Eutrapela clemataria (Habeck 1988)
Hyphantria cunea (Habeck 1988)
Lambdina fiscellaria somnaria (Habeck 1988)
Lophocampa maculata (Habeck 1988)
Lymantria dispar (Habeck 1988)
Marathyssa basalis (Habeck 1988)
Nystalea eutalanta (Habeck 1988)
Orgyia leucostigma (Habeck 1988)
Oxydia vesulia transponens (Habeck 1988)
Paectes oculatrix (Habeck 1988)
Platynota rostrana (Habeck 1988)
Prolimacodes badia (Habeck 1988)
Sibine stimulea (Habeck 1988)
Sparganothis reticulatana (Habeck 1988)
Stigmella rhoifoliella (Habeck 1988, Steyskal 1951)

Thyridopteryx ephemeraeformis (Habeck 1988)

Xanthotype sp. (Habeck 1988)

Hymenoptera (Bees, wasps, sawflies)

Agapostemon viriscens (Senchina and Summerville 2007)

Andrena spp (Senchina and Summerville 2007)

Andrena crataegi (Illinois wildflowers website)

Apis mellifera (Senchina and Summerville 2007)

Arge humeralis (Habeck 1988)

Augochlora pura (Senchina and Summerville 2007)

Bombus fervidus (Senchina and Summerville 2007)

Cimbex americana (Habeck 1988)

Eumenes fraternus (Senchina and Summerville 2007)

Lasioglossum spp. (Senchina and Summerville 2007)

Osmia lignaria (Senchina and Summerville 2007)

Sceliphron caementarium (Senchina and Summerville 2007)

Vespuła sp. (Senchina and Summerville 2007)

Xylocopa sp. (Senchina and Summerville 2007)

Diptera (Flies)

Anthrax analis (Senchina and Summerville 2007)

Dasineura rhois (Habeck 1988)

Laphria sp. (Senchina and Summerville 2007)

Lasioptera sp. (Habeck 1988)

Hemiptera

Alconeura sp. (Habeck 1988)

Aulacorthum rhusifoliae (Habeck 1988)

Carolinaia caricis (Habeck 1988)

Carolinaia carolinensis (Habeck 1988)

Carolinaia rhois (Habeck 1988)

Clastoptera obtusa (Habeck 1988)

Coelidia sp (Habeck 1988)

Cyrpoptus belfragei (Habeck 1988)

Duplaspidotus claviger (Habeck 1988)

Ferrisia virgata (Habeck 1988)

Glabromyzus schlingere (Habeck 1988)
Graphocephala versuta (Habeck 1988)
Heterothrips vitis (Habeck 1988)
Lygaeus kalmii (Senchina and Summerville 2007)
Metcalfa pruinosa (Habeck 1988)
Nezara viridula (Habeck 1988)
Orthezia insignis (Habeck 1988)
Osbornellus rotundus (Habeck 1988)
Penthemiafloridensis (Habeck 1988)
Phenacoccus pettiti (Habeck 1988)
Pseudaonidia duplex (Habeck 1988)
Pseudococcus longisetosus (Habeck 1988)
Pulvinaria acericola (Habeck 1988)
Pulvinaria floccifera (Habeck 1988)
Pulvinaria rhois (Habeck 1988)
Pulvinaria urbicola (Habeck 1988)
Rugosana querci (Habeck 1988)
Saissetia oleae (Habeck 1988)
Selenothrips rubrocinctus (Habeck 1988)

Acari (Mites)

Aculops rhois (BugGuide website)
Aculops toxicophagus (Habeck 1988)
Eriophyes rhois (Habeck 1988)

Birds

Bluebird (Martin et al 1951)
Bobwhite (Martin et al 1951)
Bush-tit (Martin et al 1951)
Catbird (Martin et al 1951)
Cedar waxwing (Martin et al 1951)
Chickadee, Black-capped (Martin et al 1951)
Chickadee, Carolina (Martin et al 1951)
Chickadee, chesnut-backed (Martin et al 1951)
Chickadee, Mountain (Martin et al 1951)
Crow (Martin et al 1951)

Finch, Purple (Martin et al 1951)
Flicker, red-shafted (Martin et al 1951)
Flicker, Yellow-shafted (Habeck 1989, Martin et al 1951)
Grouse (Martin et al 1951)
Junco (Martin et al 1951)
Kinglet, Ruby-crowned (Martin et al 1951)
Magpie, American (Martin et al 1951)
Magpie, Yellow-billed (Martin et al 1951)
Mockingbird (Martin et al 1951)
Pheasant (Martin et al 1951)
Phoebe (Martin et al 1951)
Quail (Martin et al 1951)
Sapsucker, Red-breasted (Martin et al 1951)
Sapsucker, Yellow-bellied (Illinois wildflower website)
Sparrow, Fox (Martin et al 1951)
Sparrow, Golden-crowned (Martin et al 1951)
Sparrow, White-crowned (Martin et al 1951)
Sparrow, White-throated (Martin et al 1951)
Starling (Illinois wildflower website)
Thrasher, Brown (Martin et al 1951)
Thrasher, California (Martin et al 1951)
Thrush, Hermit (Martin et al 1951)
Thrush, Russet-backed (Martin et al 1951)
Thrush, Varied (Martin et al 1951)
Titmouse, Tufted (Martin et al 1951)
Towhee, Spotted (Martin et al 1951)
Turkey, Wild (Martin et al 1951)
Vireo, Warbling (Martin et al 1951)
Vireo, White-eyed (Martin et al 1951)
Warbler, Cape May (Martin et al 1951)
Warbler, Myrtle (Martin et al 1951)
Woodpecker, Downy (Martin et al 1951)
Woodpecker, Hairy (Martin et al 1951)
Woodpecker, pileated (Martin et al 1951)
Woodpecker, Red-bellied (Martin et al 1951)
Woodpecker, Red-cockaded (Martin et al 1951)
Wren, Cactus (Martin et al 1951)

Wren, Carolina (Martin et al 1951)

Wren-tits (Habeck 1989)

Mammals

Black bear (Martin et al 1951)

Cottontail rabbit (Illinois wildflower website)

Deer, mule (Martin et al 1951)

Deer, White-tailed (Illinois wildflower website)

Muskrat (Martin et al 1951)

Pocket mice (Habeck 1989, Martin et al 1951)

Wood rat (Martin et al 1951)

Resources:

BugGuide website, <https://bugguide.net/node/view/15740>,
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Habeck, Dale H. 1988. Insects associated with poison ivy and their potential as biological control agents. Proceedings VII International Symposium, Rome Italy

Illinois Wildflower website.
https://www.illinoiswildflowers.info/trees/plants/poison_ivy.htm. Accessed 13 May 2020.

Martin, Alexander C., Herbert S. Zim, and Arnold L. Nelson. 1951. American Wildlife and Plants: A Guide to Wildlife Food Habits. New York: Dover Publications, Inc.

Senchina, David S. 2005. Beetle interactions with poison ivy and poison oak. The Coleopterists Bulletin, 59(2): 328-334.

Senchina, David S. and Keith S. Summerville. 2007. Great diversity of insect floral associates may partially explain ecological success of poison ivy. The Great Lake Entomologist 40(3, 4)

Steyskal, George. 1951. Insects feeding on plants of the Toxicodendron section of the genus Rhus. The Coleopterists Society 5(5/6): 75-77.

Wilson, Stephanie. How Poison Ivy Works.
<https://science.howstuffworks.com/life/botany/poison-ivy.htm>.
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