



An Invasive Plant Species Threatens Monarch Butterflies

By Kate Sanders

Recently, a new invasive plant species was found in Fort Wayne. In the midst of battling Bradford pear, bush honeysuckle, autumn olive, tree of heaven, garlic mustard, burning bush, and many others, we have a new bad guy to contend with.

Black swallow-wort (*Cynanchum louisea*) is closely related to milkweed, and sometimes Monarch butterflies lay their eggs on it. Unfortunately, the plant is toxic to Monarchs. When the Monarch eggs hatch and the larvae eat the leaves of this plant, they die. Observation has shown that Monarch females will lay their eggs on black swallow-wort even in fields where there is plenty of milkweed, the Monarch plant of choice.



Black swallow-wort is a vine native to Spain and Portugal. The shiny dark-green leaves are opposite, untoothed, and oval- to heart-shaped with a pointed tip. It has small clusters of dark purple flowers, usually 6 to 10 in a cluster. It can grow up to seven feet a year and spreads by sending out shoots from a mature plant, and also by seed. The seed is fluffy, just like milkweed seed, and can be blown fairly long distances on the wind, or into the water where it can travel even further. This vine thrives in both sunny and shady areas, and will twine over any plant in its path to crowd it and out-compete it.

Not only is black swallow-wort an invasive species that out-competes our native plants (including milkweeds), it is also luring our precious Monarch butterflies to lay eggs on it, resulting in a reproductive disaster where the caterpillars cannot survive.

It is not all bad news though. Within a week of its being discovered, a group of people from a variety of agencies and organizations got together to talk about how to control black swallow-wort. It has been a fast-moving and strong effort. Many thanks to all the groups and individuals who care deeply about saving Monarch butterflies and managing invasive species!

But wait: there's more! There's also a Pale Swallow-wort! Keep reading for an article by Christina Johnston.....

Black and Pale Swallow-wort: Dangerous for the Monarch

By Christina E. Johnston

Black swallow-wort (*Cynanchum louiseae*, also known as *Vincetoxicum nigrum*) and pale swallow-wort (*Cynanchum rossicum*, also known as *Vincetoxicum rossicum*) are invasive perennial twining vines. They hail from Europe and were introduced to the U.S. during the 1800's. Tolerant of a wide range of environmental conditions, they can be found along roadsides, pastures, and open fields, as well as in shrub, woodland and upland habitats. Typically, these invasives grow from 2' to 6.5' tall with a support, or can be found trailing along the ground. When not flowering, the black and pale swallow-worts look quite similar with leaves that are opposite, glossy, pointed and long with smooth margins. Black swallow-wort leaves are dark green in color while pale swallow-wort displays lighter green leaves in comparison. The seed pods of both invasives are green, long and slender, with seeds that are wind-dispersed and resemble those of common milkweed. *C. louiseae* and *C. rossicum* can easily be distinguished from one another by their petals. Black swallow-wort flowers are star-shaped, with small, triangular, dark purple petals that are as long as they are wide with yellow centers. Pale swallow-wort flowers are also star-shaped, but their petals are typically pink or maroon and longer than they are broad with a less conspicuous yellow center. Unlike humans, the monarch butterfly (*Danaus plexippus*) is unable to adequately differentiate between milkweed and these swallow-wort species, resulting in decreased reproductive success for the monarch.



Female monarchs are known to oviposit on milkweed, using special sensory organs to locate and identify this primary and preferential host plant. Unable to distinguish milkweed from the swallow-worts, females will oviposit on black and pale swallow-wort. The larvae, unable to feed on these invasives, ultimately starve to death. In addition, black and pale swallow-worts are allelopathic, releasing chemicals that decrease root and shoot growth in surrounding plants such as milkweed. These invasive plants can change the soil composition and their seeds are viable in soil for up to five years. Their tolerance to a wide range of environmental conditions, toxicity to native plants, and persistent seeds make control difficult. Not only do black and pale swallow-worts kill the monarch's larvae, they also decrease milkweed populations, making themselves highly detrimental plants for monarchs.

What can we do? Management strategies for swallow-wort are varied. Currently, we do not have one clear-cut method for control. Early detection of these plants is crucial. The earlier these plants are identified the better chance we have at eradicating them before they outcompete native plants and decrease biodiversity. If you see black or pale swallow-wort, please report it and help save our monarchs and milkweed! **Invasives can be reported by going to <https://www.eddmaps.org/indiana/> or by using the Great Lakes EDN app on your smartphone.**

POP! Goes the Mustelid

By Jeff Ormiston

On a recent Saturday, at Fox Island, the Fisher family came into the Vera Dulin Wildlife Observation Building brandishing a cell phone photograph of what was later identified as a Long Tailed Weasel (*Mustela frenata*). The weasel had crossed the path ahead of the family, hid in the underbrush, then reappeared as they approached and seemed to pose for the photograph.

While rarely seen at Fox Island, Long Tailed Weasels are members of the Mustelid family of carnivores along with mink, martins, badgers and wolverines. Mustelids are North America's largest family of carnivorous mammals and a very diverse group. Weasels have long endured a reputation as a blood thirsty animal that enjoys killing for the sheer fun of killing, but the reality is more of an issue of survival for the weasel. The fact that weasels are designed to seek out prey in long narrow burrows endows them with long slender bodies with short hair and an extremely rapid heart rate. Because this combination makes it difficult to generate and maintain their necessary body temperature it requires weasels to feed regularly. One thing weasels do to keep from starving is something called "surplus killing". This means that they kill everything they can and then store the excess for times when prey is scarce. This often means that a weasel that enters a hen house will kill all hens in the house driven by instinct and not a love of killing.

Long Tailed and Least Weasels (*Mustela ermine*) are the two varieties of weasels native to Indiana. Their main diet is mice, voles and other small prey but they are not shy about attacking larger prey. My niece recently reported that her husband watched a weasel attack and kill a rabbit while he sat in his deer blind. Long Tailed Weasels weigh in at about 6-8 ounces and reach about 18" long. Least weasels on the other hand are only 6"-8" long, including tail, and weigh barely over an ounce and is the world's smallest true carnivore. The Long Tailed Weasel only turns white in the winter in the most northern parts of its range but the Least Weasel turns white in all but the most southern part of its range. Weasels are notorious for showing little fear around humans and may account for how Jennifer Fisher was fortunate enough to get her wonderful photograph.



Upcoming events: Natalie's popular scrapbooking/ crafting/socializing will start up on August 24, September 21, and October 19, Friday nights from 6-midnight. These cost \$5, and you must preregister and pay 5 days in advance. Pizza can be ordered for an additional \$5, and you can bring snacks if desired. This fall there's an additional class ALL DAY on August 25th! Call 449-3426.

Tai Chi with Sandy Gebhart will be starting September 19-November 14; Wednesdays 6-7. Cost \$50 for the 8 weeks; call Ron at 449-3186 to preregister.

Queen Anne's Lace

By Carol Gaham

It's that time of year again when the roadsides are dotted with those beautiful, lacy weeds we commonly call Queen Anne's lace. It is such a commonly seen plant it is hard to believe that it was naturalized here from Europe and Southeast Asia (Iran, Pakistan, and Afghanistan). Its formal name is *Daucus carota*, but it is more commonly known as wild carrot or bird's nest. It would be known as cow parsley if you are from the British Isles, but the two are actually slightly different plants. Where my relatives are from it is called chigger weed. I was warned as a child to not touch Queen Anne's lace, but that's a different article.

It is thought that the plant gets its most common name from Queen Anne, who was famous for making lace, the art form known as tatting. There is speculation as to which Queen Anne is being referred to; Queen Anne of Denmark (1574-1619), or Queen Anne of England (1665-1714), although most think the Queen of England gets the nod.

Common lore has it that the tiny purple-red floret in the center is from Queen Anne's blood when she pricked her finger tatting lace. Scientists have since discovered the tiny red flower is there to attract insects.



The flower was brought here by European settlers as a medicinal plant. It acts as a diuretic and has been used to support digestive disorders, kidney and bladder diseases. It has been used to counter cystitis and kidney stone formation, as well as to diminish stones that have formed. It has also been used as a treatment for diabetes. The seeds have been used as a 'morning after' contraceptive. Some believed that you could eat the dark colored floret to cure epileptic seizures. Other uses of this plant include laxative and as a vermicide, as well as treatment of liver conditions. Also suitable for chapped and dry skin, carrot essential oil is sold in stores today. Recipes using wild carrot can be found on the internet, and of course someone figured out how to make wild carrot wine. It also can be used as a creamy, off-white dye for fabric.

Queen Anne's lace is biennial plant, which means it lasts for two seasons. First year leaves can be chopped and used in salads. The flower clusters can also be french-fried and used in salads. The seeds can be used as flavoring in stews and soups. The roots are edible, but only the first year. After that they become too woody to be good.

The plant grows up to 40 inches tall and grows in most types of soils. It can be found in fields, meadows, waste areas, roadsides, and disturbed habitats. Leaves are alternate and form a feather-like pattern that separates into thin segments, almost resembling parsley. It grows very well in a dry environment and thrives in sun to partial shade. The plant has been labeled invasive in several states, but tillage and mowing prevent seed production and helps to control the plant.

Queen Anne's lace flowers have a flat-topped, terminal umbrel which is made up of tiny white flower clusters of approximately 3-4 inches. Flowers bloom from late spring until mid-fall. The buds may be pink or white. The first year the plant will emerge and grow as a rosette, producing only leaves. It is in the second year that the plant produces a stem and flowers.

The flower cluster starts out curled up, but opens to allow for pollination. The cluster then rolls shut again when it goes to seed, and even becomes a mini-tumbleweed as it dries and detaches from the stem. Some people deadhead the flower as it rolls up to go to seed to slow its spread.

Queen Anne's lace is sometimes confused with poison hemlock, which is a highly toxic plant. It is extremely important to be able to tell the difference between the two plants, and the easiest way to distinguish between the two is to crush the plant in your fingers. Queen Anne's lace smells like carrots. Poison hemlock smells...not at all like carrots. In addition, the stem of wild carrot is hairy where the stem of poison hemlock is smooth. Poison hemlock is what killed Socrates, so it is important to know the difference.

The plant is a beneficial companion crop and is said to boost tomato production when grown nearby. It can provide a microclimate of cooler, moister air for lettuce when planted alongside. However it can cause gastric issues in cattle and horses, so farmers do not like it in their fields. Wild carrot is susceptible to the same issues as the commercial plant: Fusarium Dry Rot, Crown Rot, and Black Root Rot.

Here is one final interesting tidbit about Queen Anne's lace. If you pull it out of the ground to see the taproot, you will notice it is pale yellow. The deep orange commercial carrot we see in grocery stores today was cultivated in 17th century Netherlands. However, variations of red, purple, white and yellow are making a comeback. What goes around comes around.





by Pam George

Have you ever had the chance to trek through the woods on a warm summer evening during a Night Hike led by one of Fox Island's Naturalists? It's an experience you will long remember! As your ears tune in to the night sounds and your eyes change to their natural night vision, the woods take on a whole new life. As fireflies flash, twigs crack, and leaves rustle with the wind, the sounds that critters make as they scurry away from intruding hikers are magnified and set your imagination in motion!

One nocturnal creature that might be spotted, especially around Bowman Lake or the Nature Center pond, would be the North American Raccoon. A raccoon is distinguished by a black mask across its eyes and a bushy tail with anywhere from four to ten black rings. Their forepaws with their five toes resemble slender human hands, making the raccoon very dexterous. The coloration of the raccoon's body ranges from grey to reddish brown.

Another nighttime critter, the opossum, commonly known as a "possum", is the only marsupial that is native to the United States. It is light gray in color and basically looks like a big rat. The opossum also has five toes on each foot but displays a tail with no fur.

What could these two mammals possibly have in common besides having five toes on each foot and being nocturnal? Well, according to an American Native myth, had everything gone well, both creatures could have been blessed with beautiful bushy tails!



Why Opossum Has a Bare Tail

"One day, Opossum was walking in the woods around sunset when he spied Raccoon. Now Opossum had always admired Raccoon because he had a beautiful tail with rings all around it.

So Opossum went up to Raccoon and said: "How did you get those pretty rings on your tail?"

Raccoon stroked his fluffy long tail fondly and said: "Well, I wrapped bark around the tail here and here and here," he pointed. "Then I stuck my tail into the fire. The fur between the strips of bark turned black and the places underneath the bark remained white, just as you see!"

Opossum thanked the Raccoon and hurried away to gather some bark. He wrapped the bark around his furry tail, built a big bonfire, and stuck his tail into the flames. Only the bonfire was too hot and too fierce. It instantly burned all of the hair off the Opossum's tail, leaving it entirely bare.

Opossum wailed and moaned when he saw his poor tail, but there was nothing he could do but wait for the fur to grow back. Opossum waited and waited and waited. But the tail was too badly burnt by the fire and the fur did not grow back. Opossum's tail remained bare for the rest of his life. Opossum tails have been bare ever since."

Naturalist Programs this Summer at Fox Island

Sunday afternoons with Jeff Ormiston:

August 19, 1-3 p.m. Toxic Plants of Fox Island. Watch but don't touch! See the plant responsible for the death of Abraham Lincoln's mother in southern Indiana.

September 30, 1-3 p.m.: Walk the Yahne Farm, a walking history of Fox Island using the early foot traffic in SW Allen County. See the place where thousands of clay pigeons met their demise!

Free with park entrance fee, but preregister a week before.

Preschool Discovery Hours with Ron Zartman: Tuesday afternoons from 1-2 p.m.

These cost \$3 per child and \$2 per adult; preregister a week ahead. Snack and drink provided.

July 3, Fossil Hunt! Explore them indoors, then go outside to find some that you can keep and carry home! (no dinosaurs, though.)

August 28: Bug Hunt! Learn a little about them, and then grab bug boxes to catch some.

September 18: Flutterbies. Explore the lives of butterflies, enjoy a story and search for some in our butterfly garden.

For families: **Year of the Bird hikes** on July 4 (Wednesday) and September 15 (Saturday) from 9-11 a.m. National Audubon Society and others have declared 2018 "The Year of the Bird." Dress for the weather and bring bug spray. Binoculars provided. Preregister a week ahead.

September 15, Saturday: Edible Wild Plant Hike. Discover some of the many wild edibles found in parks and public places, but learn why they should not be collected there. Dress for the weather, bring bug spray for this one to two-mile walk. Preregister by 9/10. Cost \$2/person.

September 29, Saturday, 8-9:30 p.m. Glow-in-the-Dark Hike. Search for glowworms and luminescent mushrooms. If you like, bring a luminescent toy or object, but no flashlights or glow sticks to preserve night vision. Cost \$2; preregister by 9/24.

September 8, Saturday 1-3: Natural Plant Dyes, for Trail Guide Training. Discover the fall colors revealed when used to dye wool. You **must register** by 9/2 so Natalie can order supplies. Free for trail guides.

Fox Kit Club Adventure "Patriotic Prairie Hike" with Natalie Haley:

September 11, Tuesday 10-11 a.m. Program developed for preschool children and their families or teachers. Meet a naturalist at the Nature Center. Preschool teachers are free; Cost \$3 per child, \$2 per parent: Fees include free gate entrance for the day. Preregister by 9/7.

Mark your calendars for the Big Sit Bird Count, Sunday afternoon October 14. Free with park admission. Maximum: carrying capacity of the back deck! No preregistration needed: Just show up and we'll let the birds come to us.





Fox Island Alliance

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Roanoke, IN 46783

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The **Fox Island Alliance** is a volunteer not-for-profit organization. Its purposes are to help preserve the natural features of Fox Island County Park, to assist its orderly development as a nature preserve, to raise funds to facilitate its development, to promote Fox Island's use as an educational center, and to coordinate volunteer efforts.

MEMBERSHIPS EXPIRE ON MARCH 31

Fox Island Alliance Membership Application **New** **Renewal**

Name _____

Address _____

City, State, Zip _____

Phone _____ Email _____

Check if you would like to receive your Fox Tale by email

Check if you do not want your name published

Check if you are interested in volunteering

Membership Category (Please Circle One)

Students \$5 - Senior \$5 - 2 Seniors \$10 - Indiv. \$15 - Family \$20

Sustaining \$30 - Patron \$50

Additional gift (Please Indicate Amount)

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