

INTRODUCTION

Common Butterflies and Skippers of Ohio Second Edition

Text by: Dave Parshall, Jim Davidson, & Jim McCormac

The popularity of butterflies (order Lepidoptera) is booming. This is not at all surprising. Not only are butterflies among the most beautiful animals in the world, but their behavior and habitats are fascinating. The advent of close-focusing binoculars has vastly improved our ability to make field identifications and observations. Today, people interested in butterflies have a much easier time pursuing this hobby due to a big increase in recent years in the number of butterfly-related publications.

There are 137 species of butterflies and skippers recorded from Ohio. This publication covers fifty-nine of the species you are most likely to encounter in the state. We hope that this booklet will help you better appreciate a fascinating part of Ohio's rich natural history.

HOW TO USE THIS BOOKLET

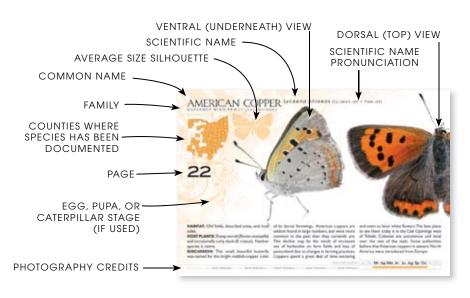


TABLE OF CONTENTS

- 4 Attracting Butterflies
- 5 Butterfly Life History
- 6 Why Are They Important?
- 7 Habitats and Host Plants

- 8 Butterfly Conservation
- 9 Migration and Monitoring
- 10 Basic Butterfly Anatomy
- 12 Butterflies
- 73 Tips and Acknowledgments

- 74 Glossary
- **75** Organization Contacts
- **76** Butterfly Hotspots
- 80 Butterfly Checklist

SPECIES INDEX

SWALLOWTAIL FAMILY

- 12 Pipevine Swallowtail
- **13** Zebra Swallowtail
- 14 Black Swallowtail
- 15 Giant Swallowtail
- 16 Eastern Tiger Swallowtail
- 17 Spicebush Swallowtail

SULPHUR & WHITE FAMILY

- 18 Cabbage White
- 19 Falcate Orangetip
- 20 Clouded & Orange Sulphur

GOSSAMER-WING FAMILY

- 21 Harvester
- 22 American Copper
- 23 Bronze Copper
- 24 Coral Hairstreak
- 25 Edward's Hairstreak
- 26 Banded Hairstreak
- 27 Henry's Elfin
- 28 Gray Hairstreak
- 29 Eastern Tailed-Blue
- 30 Spring & Summer Azure
- Northern Metalmark

BRUSHFOOT FAMILY

- 32 American Snout
- 33 Great Spangled Fritillary
- **34** Aphrodite Fritillary
- 35 Meadow Fritillary
- 36 Silvery Checkerspot
- 37 Pearl Crescent
- 38 Baltimore Checkerspot
- 39 Question Mark
- **40** Eastern Comma
- 41 Mourning Cloak
- **42** Red Admiral
- 43 American Lady
- 44 Common Buckeye
- **45** Red-spotted Purple
- 46 Viceroy
- **47** Hackberry Emperor
- **48** Tawny Emperor
- 49 Monarch
- 50 Northern Pearly-eye
- **51** Little Wood-Satyr
- **52** Common Wood-Nymph
- 53 Appalachian Brown

SKIPPER FAMILY

- **54** Silver-spotted Skipper
- **55** Hoary Edge
- 56 Southern Cloudywing
- 57 Dreamy Duskywing
- 58 Wild Indigo Duskywing
- 59 Common Sootywing
- 60 Least Skipper
- 61 European Skipper
- **62** Leonard's Skipper
- 63 Peck's Skipper
- 64 Northern Broken-Dash
- 65 Delaware Skipper
- 66 Hobomok Skipper
- 67 Zabulon Skipper
- 68 Dun Skipper

RARE BUTTERFLIES IN OHIO

- 69 Karner Blue
- **70** Frosted Elfin
- 71 Purplish Copper
- **72** Dusted Skipper

ON THE COVER:

ZEBRA SWALLOWTAIL PHOTO BY BILL HULL W W W . M A N G O V E R D E . C O M ON THE BACK:

CHECKLIST OF OHIO BUTTERFLIES AND SKIPPERS

ON THE WEB:

WWW.WILDOHIO.COM

ATTRACTING BUTTERFLIES

An astonishing array of butterflies can be lured to gardens and landscapes that contain appropriate plants. This is especially true if you are fortunate enough to live near large, natural butterfly habitats like woodlands, old fields, or wetlands. A good rule of thumb is to use native plants. Not only can the butterfly gardener plant suitable host plants, but attractive nectar plants should also be installed. Many of the plants that are most effective in luring butterflies are also very aesthetically pleasing. Most nurseries sell good butterfly plants.

Another technique for attracting butterflies may seem strange, but can be very effective. Placing old, rotting fruit like apples and bananas around the garden will often lure in many butterflies, and allow observers to closely admire them.

Monarch chrysalis. By planting appropriate host plants, some butterflies, like the monarch, can be enticed to lay eggs and reproduce in your vard.



Wildlife Diversity Endangered Species Program

PUBLICATION FUNDING

Funding for this publication was provided by donations to the state income tax checkoff program and sales of the wildlife conservation license plate.

To make donations, mailed to:

Wildlife Diversity Fund 2045 Morse Road Bldg G. Columbus, OH 43229-6693 To purchase a license plate: visit your local registrar's office or call **BMV 1-888-PLATES3**

For more information about Ohio's native wildlife, please contact the Division of Wildlife at:

I-800-WILDLIFE

(I-800-750-0750 Ohio Relay TTY only) www.wildohio.com



BUTTERFLY LIFE HISTORY

The beautiful butterflies we admire are in the final adult phase of their interesting life history. Adults often live for only a few weeks; the longest-lived Ohio butterfly is the monarch, which might survive for ten months. The principle activity of adult butterflies is to reproduce. The butterfly life cycle is known as complete metamorphosis and has four stages. It begins when a female butterfly lays her eggs on a suitable host plant. After several days, the eggs hatch into

caterpillars, which go through several distinct periods of growth stages known as instars. Each successive instar is larger than the previous one and requires the caterpillar to shed its skin. In many species of gossamer-winged butterflies (Lycaenidae), larvae are tended by ants.

When the fully mature caterpillar is ready to transform into a butterfly, it enters the chrysalis or pupal stage. A chrysalis is a protective, often camouflaged "bag" in which the caterpillar

undergoes a physiological transformation into a butterfly. This stage can last anywhere from a week to several weeks and in some cases, the butterfly overwinters in this form. The adult that emerges is the final stage of the butterfly's life cycle. One might think of caterpillars as voracious eating machines, butterflies as breeding machines, and eggs and chrysalises are the tools of transformation.



Many gossamer-wing butterflies have a mutualistic relationship with ants known as myrmecophily. This dusky azure larva is being tended by ants, who receive nutritious secretions from the caterpillar. In return, the ants guard the larvae from predators such as wasps.



The eggs of the question mark, like most other butterflies, are tiny and easily missed. These eggs are on the foliage of an elm.



A chrysalis is the pupal stage of a butterfly. The adult will emerge from the chrysalis, often after overwintering in this form, as with swallowtalls and whites. While some chrysalises are quite showy, many are drab and leaf-like, including the red admiral chrysalis pictured above. Red admirals do not overwinter in the chrysalis stage, but usually as adults and to the south of Ohio.

WHY ARE THEY IMPORTANT?

Butterflies are among the most spectacular and easily observed winged creatures. Many people enjoy observing them, and seeking out rare species. Because many butterflies are well-known and easily recognized, they are an effective group of organisms to use as barometers of ecological health. Many butterflies also play an important role in the pollination of our native plants.

Interest in butterflies has soared in popularity in recent years and now contributes to ecotourism. A number of butterfly-oriented festivals have sprung up in North America that draw large numbers of people to prime butterfly-watching locales. Perhaps the most dramatic example involves the monarch. Not only do Ohioans enjoy observing them, so do the large numbers of people who travel to their Mexican wintering sites to observe the huge masses of roosting monarchs cloaking fiir trees.

Finally, our forests and fields would be far quieter places without butterflies. The role of their larvae — caterpillars - in nature cannot be understated. A great many of our songbirds feed heavily on butterfly and moth larvae, to the point where populations of some birds would decline alarmingly or disappear if there were no caterpillars.



Chestnut-sided warbler (Dendroica pensylvanica) with moth larva. Birds eat tremendous numbers of Lepidopteran larvae and without butterflies and moths, the populations of many songbirds would crash, if not disappear altogether.

PARASITISM OF CATERPILLARS

Numerous species of birds, mammals, insects and other animals are adept at seeking out caterpillars and consume huge numbers of them. Many others are parasitized by any of a number of species of wasps and flies. The adults of these parasites seek out specific types of caterpillars and either attach their eggs to the outside of the host, or inject them into the body. When the larvae hatch, they begin consuming the caterpillar, which will remain alive for some time. Eventually, the larvae kill the host, as parasitoid infestations are nearly always fatal. In the photo below, a Fawn Sphinx moth caterpillar (Sphinx kalmiae) has been infested by a wasp, and the larvae have formed conspicuous cocoons surefire proof of parasites. Some species' cocoons resemble tiny white oblongshaped eggs sticking from

the caterpillar.

HABITATS AND HOST PLANTS

Road through Shawnee State Forest, which at 65,000 acres harbors tremendous numbers and diversity of forest-dependent Lepidoptera.



Cedar Bog is an unusual fen that supports a diversity of wetland-dependent butterflies. It was one the last known sites for the swamp metalmark in Ohio.



One of the most spectacular of the Oak Opening habitats, the oak savannas of Kitty Todd Preserve are carpeted with wild lupine in May. This was the first site of successful reintroductions of the endangered Karner blue in Ohio.



At least some butterflies can be found almost anywhere. Cabbage whites, clouded sulphurs, and migratory monarchs turn up everywhere from gardens to inner-city parks to wild prairies and nearly all points in between. Most species are far more specific and a basic understanding of habitat requirements will greatly aid in finding butterflies. In general, most butterflies are found along the edges of woods and in sunny fields rich with flowering plants. Many species seldom stray far from the presence of their host plants and are best sought in those habitats. An understanding of the habitat, host plants, and the time of year that a species flies will greatly improve your chance of finding a specific butterfly. Descriptions of habitats for the species included in this booklet can be found under each species' account.

Most butterflies require certain species of plants on which to lay their eggs; these are known as host plants. Host plants provide specific nutrients that the caterpillar must have and inappropriate plants will usually be shunned. Some butterflies are rather general in their host plant requirements. For instance, pearl crescents will utilize many species of asters. Others, like the zebra swallowtail, are far more specific. It uses only pawpaw (Asimina triloba) as a larval host plant. Thus, a little botanical knowledge is useful in learning more about butterflies and in finding them. This booklet includes the host plants for each butterfly listed.



Turtlehead (Chelone glabra) is a host plant for Baltimore checkerspot (page 38). This plant is rather uncommon and local and largely confined to high-quality wetlands. As a consequence, so is the checkerspot.



One of the most common of Ohio's thirty-three species of native asters. New Enaland aster (Symphyotrichum novae-angliae) is freauently found in old fields. Alona with other common asters, this aster is the host plant for the pearl crescent (page 37). This explains the butterflv's widespread abundance.

BUTTERFLY CONSERVATION

Many species of butterflies are very habitatspecific and sensitive to environmental changes. For instance, of the eight species currently listed as endangered in Ohio, three depend on wetlands. Four of Ohio's rare species are detailed towards the back of this booklet. Since the time of European settlement, Ohio has lost over 90% of its original wetlands and wetland-dependent butterflies such as the purplish copper, swamp metalmark, and Mitchell's satyr have declined accordingly. Some butterflies are intimately associated with rare plants and their populations are limited by the presence of these suitable host plants. Other species seem to be sensitive to climate change or factors not yet fully understood and often first begin to vanish on the edges of their range. This has been the case with the regal fritillary in Ohio and throughout the eastern U.S. Finally, excessive use of pesticides has played a role in diminishing butterfly populations. The grizzled skipper and Olympia marble are examples of populations of butterflies that have been greatly reduced by use of chemicals in attempts to control Gypsy Moth populations. Habitat loss and the overuse of pesticides are the primary causes of the decline of butterflies.

Fortunately, efforts to manage butterfly populations are increasing. One of the best examples in Ohio involves the beautiful Karner blue (page 69). Because of collaborative efforts between the Ohio Division of Wildlife, Toledo Zoo, The Nature Conservancy, Metroparks of



Once known from 51 of Ohio's 88 counties, the striking regal fritillary has not been seen in the state since 1988.

the Toledo Area, Ohio Division of Forestry, The Ohio Lepidopterists, U.S. Fish and Wildlife Service, and the Detroit Zoo, these tiny butterflies still fly in Ohio. The Ohio Division of Wildlife and other land management agencies own not only Karner blue habitat, but tens of thousands of acres of varied butterfly habitats throughout Ohio.

Butterfly enthusiasts in increasing numbers are planting butterfly gardens and becoming involved in butterfly recovery programs. Private organizations such as The Ohio Lepidopterists, www.Ohiolepidopterists.org , The Xerces Society http://www.xerces.org, and the Butterfly Initiative www.butterflyrecovery.org are just a few examples of groups whose mission is to help conserve butterflies and moths. These organizations can also help you plan a butterfly garden. Ohio's zoos, including the Toledo Zoo and the Cleveland Zoo, work in partnerships with the Ohio Division of Wildlife and other agencies to reintroduce some of Ohio's butterflies that are gone or nearly gone from Ohio. If you appreciate butterflies and want to conserve them, ample opportunities exist for getting involved.

BUTTERFLY MIGRATION AND MONITORING



Huge, showy cloudless sulphurs often invade Ohio in large numbers from the south, especially in mid to late summer. Their primary range is the southern Gulf and Atlantic states south into Mexico and Central America.

Birds aren't the only members of the winged world that migrate. Many species of butterflies also engage in long-distance migrations. The monarch is the most famous example. Many of Ohio's monarchs travel to Mexico in fall, where they winter in high-elevation fir forests. Some species of butterflies engage in northward migrations in summer and fall; these movements are known as immigrations. Immigrants normally breed well south of Ohio, and their num-

bers here can vary widely from year to year. Most immigrants can't survive winters this far north, even though some species do lay eggs and attempt to reproduce in Ohio. Southern immigrants that arrive in Ohio early enough in the season, like cloudless sulphurs sometimes do, occasionally produce a brood.

COMMON MIGRANTS

Cloudless Sulphur, Phoebis sennae
Little Sulphur, Eurema lisa
Sleepy Orange, Eurema nicippe
Variegated Fritillary, Euptoieta claudia
Painted Lady, Vanessa cardui
Buckeye, Junonia coenia
Checkered Skipper, Pyrgus communis
Fiery Skipper, Hylephila phyleus
Sachem, Atalopedes campestris

RARE MIGRANTS

Checkered White, Pontia protodice Southern Dogface, Colias cesonia Dainty Sulphur, Nathalis iole Goatweed Leafwing, Anaea andria Ocola Skipper, Panoquina ocola



Bronze coppers are wetland-dependent and important indicators of habitat.

Butterflies utilize unique ecological niches and are barometers of changing environmental conditions. Many environmental changes are first felt by butterflies and birds. In recent years, an increasing number of organized long-term surveys have sprung up around the country that are designed to record butterfly numbers and diversity from year to year. In Ohio, the first butterfly monitoring project was established by The Ohio Lepidopterists and the Ohio Division of Wildlife in 1995. There are now 60 sites and more are being added each year. If you would like to become a butterfly monitor, contact The Ohio Lepidopterists or the Ohio Division of Wildlife. Many individuals have discovered the joy of butterflies and are taking up butterfly gardening and butterfly watching. In turn, they are keeping lists of butterflies that visit their backyards or elsewhere on field trips. The first step in increasing enjoyment of Ohio's butterflies and skippers, and recording accurate data, is being able to correctly identify the butterflies that you see.

BASIC BUTTERFLY ANATOMY

In order to best use this booklet, understanding some simple butterfly anatomy will be helpful. Butterflies and skippers belong to the insect order Lepidoptera. The word Lepidoptera comes from two Greek words: *lepis* meaning "scale" and *pteron* meaning "wing". Butterflies have two pairs of wings that are covered with thousands of very small and colorful scales. The front pair nearest the head is the forewings and

the back pair are the hindwings. The color and pattern of wing scales is unique to a particular species, and is the first key to identification of butterflies. It is important to know the names of the visual areas on each wing (see the wing diagram). This information will help you navigate your way through butterfly descriptions.

Butterflies and skippers have three body regions: head, thorax, and abdomen. The two pairs of wings and three pairs of legs are attached to the thorax. The top of the wings are called the dorsal surfaces and the undersides of the wings are called the ventral surfaces. Butter-

flies and skippers have many specialized sensory organs. One such organ, the antennae, is found

in a pair on the head. Antennae have several sensory functions, one being the sense of smell. Butterflies have mainly clubbed or knobbed antennae and most skippers have antennae that are hooked at the end in a structure known as the apiculus. The difference in the shape of antennae is one way to separate butterflies from skippers. In addition skippers are usually brown, tan, or yellow-orange and have special-



The eight-spotted forester is a common, boldly marked day-flying moth. Note its thread-like antennae and plump, fuzzy body – characters that help identify it as a moth.

ized wing structures that differ from butterflies (see wing diagram).

Moth or Butterfly? These two groups of Lepidoptera can look similar and telling moths apart from butterflies is sometimes confusing at first. In general, moths fly at night while butterflies are strictly day-fliers. Butterflies have knobbed or clubbed tips to their antennae, while moths' are either thin and thread-like or feathery. Moths

have fat, fuzzy bodies, while butterflies have sleeker, smooth bodies. Also, in general, moths are dull and plain-colored while most butterflies are much more brightly colored in comparison. Finally, butterflies create a chrysalis; a specialized case in which the transformation from caterpillar to adult occurs. The chrysalis varies in color, size, and shape, but is usually smooth to slightly textured with a hard shell. Moths create a cocoon, which is soft, often silky or hairy, and includes leaves that are woven together and contains the pupa. Some day-flying moths, of which there are relatively few in Ohio, can be easily mistaken for

butterflies at first glance. However, a close look will reveal the differences mentioned above.



HABITAT: Typically found in forested areas. Virginia snakeroot is uncommon and local and this may account for the butterfly's scattered distribution. South of Ohio, where plants in the pipevine family become far more common, so does the pipevine swallowtail.

HOST PLANTS: Pipevine family (Aristolochiaceae). In Ohio, there are only two natives in this family, Virginia snakeroot (Aristolochia virginiana) and wild ginger (Asarum canadense). The butterfly probably only uses the former.

DISCUSSION: The pipevine swallowtail has a very distinct ventral hindwing. The row of

submarginal red-orange spots on the ventral hindwings separates it from other Ohio swallowtails. The larvae of this species store toxins from the host plants. Predators find them distasteful and learn to avoid pipevine swallowtails. Females of this species are much duller in color with more prominent white submarginal dorsal spots. Other swallowtail species whose females resemble the deep iridescent purple of the pipevine include dark female tigers, spicebush, and black. These swallowtails and a few other dark species are thought to gain protection because of their

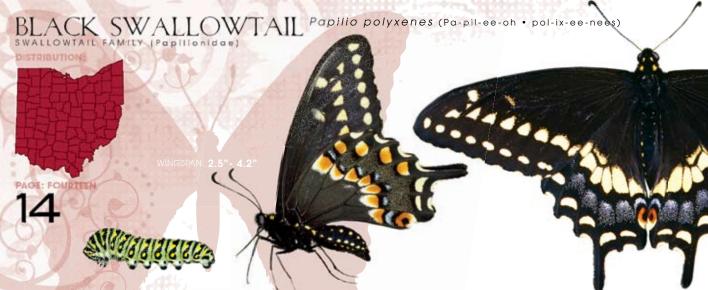
close resemblance to the distasteful pipevine swallowtail. This protective form of imitation is called Batesian mimicry. Predators, such as young birds, learn from adults to avoid these mimic species. Pipevine swallowtails are uncommon to rare north of Columbus. They seem to establish short lived colonies in northern Ohio. This may be due to climatic factors or scarcity of suitable host plants. This species, like most of our swallowtails, spends sunny days soaring in the upper canopy of the forest. Males will often seek salts at mud puddles.



HABITAT: The greatest numbers occur in rich deciduous woods and woodland borders that have pawpaw as an abundant understory plant. HOST PLANTS: Pawpaw (Asimina triloba), a shrub or small tree of rich woods, particularly on stream terraces.

DISCUSSION: Our smallest swallowtail and among Ohio's showiest and most unmistakable butterflies. It has the longest tails of any "tailed" Ohio butterfly. Males patrol favored flight paths during the warmest part of the day looking for females and will often fly uphill to locate a mate. This hill-topping behavior is favored by many species of swallowtails. They sometimes

form "puddle clubs" on muddy soil along roads through suitable woodlands and bottom lands. Several seasonal forms have been named. The spring form is smaller, has shorter tails and is whiter than late spring or summer forms, which are blacker and have longer tails. Two or three broods of zebra swallowtails are produced annually.

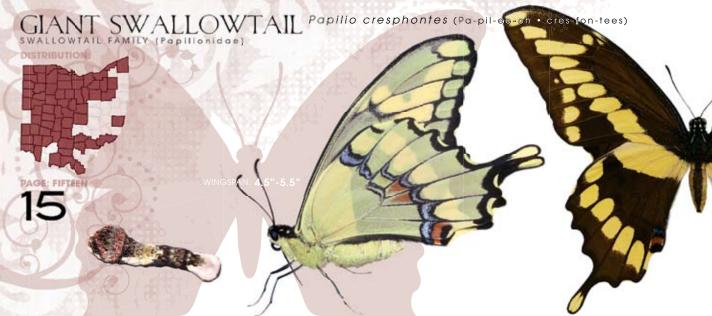


HABITAT: A wide variety of open landscapes, ranging from gardens, old fields and pastures, woodland openings, and weedy roadsides.

HOST PLANTS: A generalist on a variety of species, both native and non-native, in the parsley family (Apiaceae). Commonly used Ohio host plants include Queen Anne's lace (Daucus carota), wild parsnip (Pastinaca sativa) and garden herbs like fennel (Foeniculum vulgare) and dill (Anethum graveolens).

DISCUSSION: A very common species, the black swallowtail is a frequent garden visitor. This is in part because suitable host plants are often grown in gardens. Among swallowtails, only the spring form of zebra swallowtail is smaller, and the combination of small size and dark overall coloration with a prominent yellow band on the upper wing make male black swallowtails easy to separate from other species. Females resemble pipevine swallowtails but aren't as prominently blue on the hindwing and have a small yellowish

spot near the tip of the forewing. The caterpillars, if disturbed, shoot forth orange protuberances from their head known as osmeteria, which release a surprisingly foul odor. There are two broods a year. The summer brood females have a large blue area on the dorsal hindwing and fewer yellow markings on the dorsal forewing. The smaller spring form of the female has more blue on the dorsal hindwing than the male, but also has the yellow markings on the forewing much like the male.



HABITAT: Most often seen around damp woodlands where the host plants occur. Forages in openings, roadsides, and occasionally gardens where flowering plants are common. Giant swallowtails are avid flower visitors.

HOST PLANTS: Members of the citrus family (Rutaceae). There are only two species in Ohio, wafer-ash (*Ptelea trifoliata*) and prickly-ash (*Zanthoxylum americanum*). Neither species is

widely abundant and they tend to form localized colonies. Both plants are more frequent in western Ohio and so is this swallowtail.

piscussion: Although numbers are cyclical from year to year, even in boom years this is Ohio's least common swallowtail. They are usually observed in close proximity to host plant populations. Giant swallowtails are mammoth; our largest butterfly and one of

the biggest North American species. They are swift, powerful flyers and can quickly vanish to the tree canopy if disturbed. The caterpillar resembles a bird dropping. As a further deterrent, if disturbed it extends a horn-like appendage called an osmeterium that expels a noxious odor and an irritating chemical. A wide-ranging species, occurring south into the Caribbean and into South America.

OCCURRENCE:	Ja	Fb	Mr	Ар	Ма	Jn	Ju	Ag	Sp	Nv	Dc

EASTERN TIGER SWALLOWTAIL Papillo glaucus (Pa-pil-ee-oh · glaw-kus)



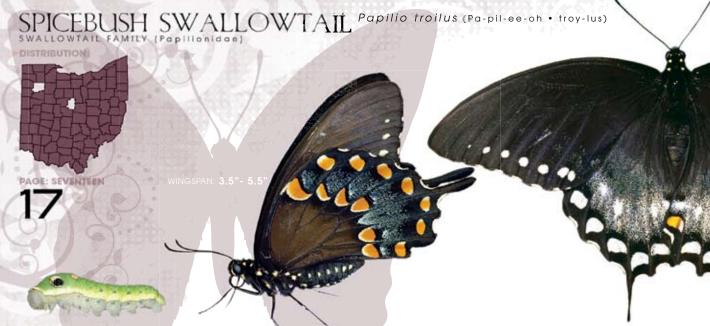
HABITAT: Peak numbers occur in larger tracts of forests, but wide-ranging and appears in parks, gardens, meadows and other habitats.

HOST PLANTS: Uses a variety of woody plants, including various ash (*Fraxinus* species), tulip tree (*Liriodendron tulipifera*), sassafras (*Sassafras albidum*), and black cherry (*Prunus serotina*).

DISCUSSION: This striking and often abundant swallowtail can be expected anywhere in the

state. Males, with their tiger-like striping pattern, are unmistakable. In southern Ohio, up to half of female tiger swallowtails are dark forms; dark females becomes progressively scarcer northward. These black females mimic toxic pipevine swallowtails and look very similar to that species. However, they usually retain traces of the tiger-like stripes, and the underwing pattern differs. Tiger swallowtails often soar

high in woodland canopies. This is the most common and wide-ranging Ohio swallowtail. They often alight to siphon mineral salts from muddy soil in damp areas, and sometimes form sizeable "puddle clubs." Like most swallowtails, they are very strong fliers and often can be seen soaring high in woodland canopies, where they lay their eggs.



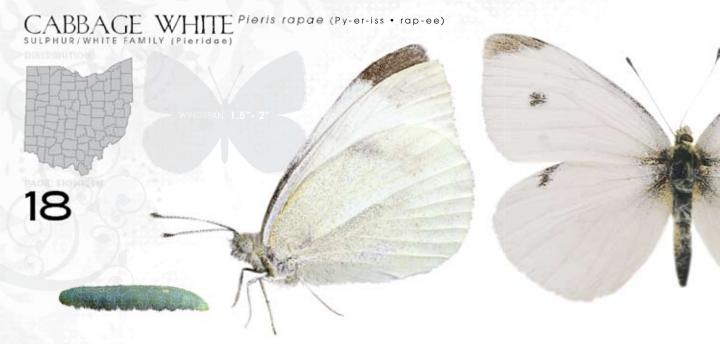
HABITAT: Most frequent within deciduous forests and in nearby openings; often visits gardens, especially those near wooded areas.

HOST PLANTS: Members of the laurel family (Lauraceae), sassafras (Sassafras albidum) and spicebush (Lindera benzoin).

DISCUSSION: Another apparent pipevine swallowtail mimic, this species is seemingly

avoided by predators due to close similarity with the toxic pipevine. Females are marked with splashes of brilliant blue on the dorsal hindwings; in males this area is greenish. Spicebush swallowtails reach peak abundance in large forests of southern Ohio, where it can be numerous. There are normally two broods, in spring and late summer. Because hatches of

each brood extend over several weeks, this species can be found from early spring into late fall. The caterpillar is an exceptional example of deceptive camouflage. It appears to have a fearsome snake-like face, which presumably can frighten off potential predators. The spicebush gets its name from one of the host plants of its larvae, spicebush, a common woodland shrub.



HABITAT: A generalist that can be found nearly anywhere, except deep woods.

HOST PLANTS: A wide variety of plants in the mustard family (Brassicaceae), including both native and non-native species such as cabbage, broccoli, brussel sprouts, mustards, and radish. **DISCUSSION:** This is our only established non-

native butterfly and is now the most common species in the state. Cabbage whites were first introduced in Quebec, Canada about 1860 and subsequently spread throughout North America. This species was first reported near Cleveland in 1873, and by 1882 it was abundant and widespread in Ohio. Cabbage whites fly

earlier and later in the season than our other butterflies and have regularly been seen in every month except December, January, and February. The caterpillars occasionally become pests on cabbage. Cabbage whites are by far the most frequently encountered butterfly in urban and suburban situations.

OCCURRENCE:	Ja	Fb	Mr	Ар	Ma	Jn	Ju	Ag	Sp	Ос	Nv	Do



HABITAT: Primarily upland oak-hickory forests, although occasionally in wooded lowlands; rarely turns up far from wooded habitats. A good way to find falcate orangetips is to look for sunny openings with blooming spring flowers such as its host plants.

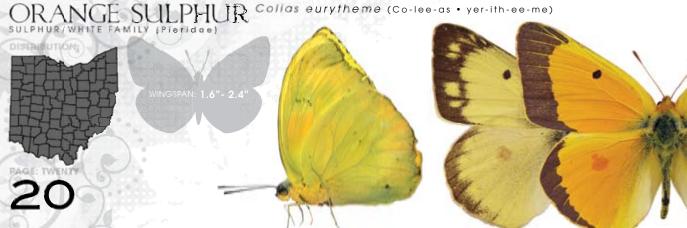
HOST PLANTS: Exclusively mustards (Brassicaceae family), normally native species like cut-leaved toothwort (*Cardamine concatenata*), bitter cresses (*Cardamine* species), and probably smooth rock cress (*Arabis laevigata*).

DISCUSSION: The falcate orangetip is named

for the sickle (falcate) shape of the outer tip of its forewing and the yellow/orange subapical patch on the dorsal forewing. This species is restricted to deciduous woods of southern and eastern Ohio. It becomes progressively rarer northward. Falcate orangetips are one of the first butterflies to emerge each spring, along with spring azures. Males emerge first followed by females a week or so later, as is the general rule with butterflies. Males fly uphill to the tops of hills and ridges in search of females. This hill-topping behavior increases the chances

of males pairing with females. Hill-topping is a common pratice for members of the white family and some species of swallowtails. Falcate orangetips can be quite local in distribution, but locally common where found. Sometimes males seek organic salts at mud puddles, where they can be closely studied. One of our most delicate butterflies, falcate orangetips appear flimsy, as if made of tissue paper. The bright orange flashes of the male's wing tips stands in stark contrast to barren early spring leaf litter which they overfly, a sure sign of winter's end.

CLOUDED SULPHUR Collas philodice (Co-lee-as • fil-oh-dy-see) OD ANICE SI II DUI 117) Collas eurytheme (Co-lee-as • yer-ith-ee-me)



HABITAT: All manner of open spaces. Tremendous numbers sometimes congregate in mowed hayfields dominated by alfalfa and other clovers in fall. These two species should be among the easiest to record on any butterfly expedition.

HOST PLANTS: Non-native legumes (pea family, Fabaceae), primarily red clover (*Trifolium pratense*), white clover (*T. repens*), and alfalfa (*Medicago sativa*).

DISCUSSION: The clouded sulphur and the closely related orange sulphur are perhaps the most abundant native butterflies in Ohio. They

are treated together as they frequently hybridize (interbreed), and some individuals can be hard to identify to species. Both sulphurs frequent wide open spaces, shunning shaded habitats. They are seen nearly anywhere, including gardens in very urban sites. Multiple broods are produced, making these species a common sight from early spring into late fall. Orange sulphurs are extremely similar to cloudeds and are best differentiated by their color. Generally, orange sulphurs are orange; clouded sulphurs are yellow. Some females of both species can be

nearly white in fall. The males of both species have narrow dark dorsal outerwing margins. The females have wider dark outerwing margins, which are broken up by a few yellow spots. Both species hold their wings upright and pressed together when perched, so that the observer can usually only admire the underwings. The larger fall forms of the orange sulphur are some of the most beautiful butterflies found in Ohio and are often associated with prairies and cultivated clover fields. Both species pass the winter in the chrysalis stage.



HABITAT: Most often encountered around swamp margins, stream borders, moist thickets, and other sites that harbor suitable aphid host plants.

HOST PLANTS: Caterpillars are predatory, feeding on woolly aphids (family Eriosomatidae). Aphid host plants include several species of alder (*Alnus* species), winterberry (*Ilex verticillata*), and American beech (*Fagus grandifolia*).

DISCUSSION: There is no other small butterfly in Ohio that resembles the Harvester. The ventral wing surface has fine white markings that look much like bird droppings or water droppings. Harvesters often perch on twigs and leaves with their wings closed. This species has a very small proboscis that makes taking nectar from flowers difficult. They are better adapted to take mineral salts from mud puddles and

animal scat such as bird droppings. Adults also feed on the honeydew excreted by aphids. The larvae of the harvester are unique in that they are carnivorous and feed on woolly aphids. They live amongst dense aphid colonies, normally on alders and beech, and are almost invisible when feeding. Harvester chrysalises are distinctive; they look like a monkey's face. In favorable years, harvesters may have multiple broods.



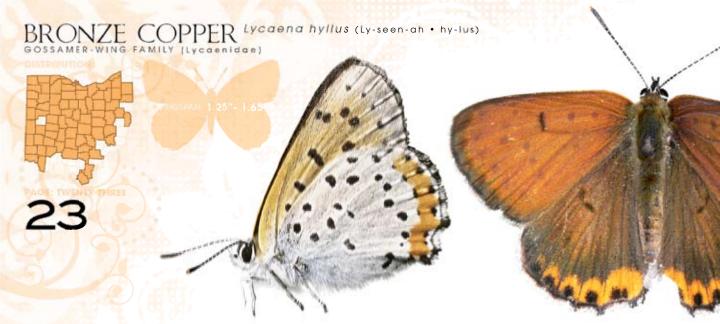
HABITAT: Old fields, disturbed areas, and road sides.

HOST PLANTS: Sheep-sorrel (*Rumex acetosella*) and occasionally curly dock (*R. crispus*). Neither species is native.

DISCUSSION: This small, beautiful butterfly was named for the bright reddish-copper color

of its dorsal forewings. American coppers are seldom found in large numbers, and were more common in the past than they currently are. This decline may be the result of increased use of herbicides on farm fields and loss of pastureland due to changes in farming practices. Coppers spend a great deal of time nectaring

and seem to favor white flowers. The best place to see them today is in the Oak Openings west of Toledo. Colonies are uncommon and local over the rest of the state. Some authorities believe that American coppers in eastern North America were introduced from Europe.



HABITAT: A variety of wet to moist habitats including marshes, damp meadows, fens, well-vegetated roadside ditches, and mud-flats with sparse vegetation. It tends to occur in high-quality wetlands with a good diversity of native flora.

HOST PLANTS: Probably utilizes a variety of docks and smartweeds (family Polygonaceae). Has been documented using great water dock (Rumex orbiculatus).

DISCUSSION: Bronze coppers have very distinctive underwings that separate them from all other Ohio butterflies. Males have bronzecolored dorsal forewings and females have orange dorsal forewings with black spots. This species is not as common in Ohio as it once was due to the loss of 90% of Ohio's original wetlands. Modern agricultural practices have further reduced the quality of available habitat.

Colonies tend to be quite localized, and adult butterflies typically remain in close proximity to the host plants. A good spot to look for bronze coppers is in the wet roadside meadows near the Black Swamp Bird Observatory headquarters at the entrance to Magee Marsh Wildlife Area. This species has two broods a year.

OCCURRENCE:	Ja	Fb	Mr	Ар	Ма	Jn	Ju	Ag	Sp	Ос	Nv	Dc



HABITAT: Overgrown clearings, fields, woodland borders, weedy roadsides, and meadows.

HOST PLANTS: Woody plants in the rose family (Rosaceae), including black cherry (Prunus serotina) and American plum (Prunus americana).

DISCUSSION: The coral hairstreak is our only hairstreak that lacks thread-like "tails" at the base of the hindwing, other than the very rarely

seen early hairstreak (*Erora laeta*). Genetically, it is closely related to the banded hairstreak. It is not as restricted to forested areas as are our other hairstreaks. This butterfly is often seen nectaring on flowers of butterfly-weed (*Asclepias tuberosa*) with Edward's and banded hairstreaks. They nectar with their wings closed vertically, as do other hairstreaks. The

brownish-gray underwings conspicuously bordered with reddish-orange dots make this species our most easily identifiable hairstreak. Coral hairstreaks have a penchant for perching on the tips of shrubs and other plants, and darting out to investigate passing butterflies or other insects. There is one brood a year, with peak numbers in mid-summer.



HABITAT: Prairie barrens, red cedar glades, and woodland openings dotted with scrubby young oaks, always where conspicuous earthen nests of Allegheny mound ants (Formica exsectoides) are present. This species is most common in the Blue Grass region of Adams County.

HOST PLANTS: Young oaks, principally black oak (Quercus velutina), but probably post oak (Q. stellata) and other species.

DISCUSSION: This species is rare and local, but

is included here because of its fascinating life history. Edward's hairstreaks are myrmecophilous, meaning that they have an intimate association with ants. Allegheny mound ants, which construct large conical nests of barren earth, tend the hairstreak larvae inside their mounds. The ants "milk" the caterpillars by stroking them with their antennae to stimulate favored secretions which the ants consume. In return, a phalanx of guard ants protects the

vulnerable larvae from parasitic wasps when they ascend nearby oaks to feed. Keying in on open habitats containing conspicuous ant mounds along with scattered scrubby oaks may produce new populations of Edward's hairstreak. Colonies can have hundreds of adults during their flight season, but are intensely local and easily overlooked. New colonies of this butterfly should be reported to The Ohio Lepidopterists or the Ohio Division of Wildlife.



HABITAT: In and around oak-hickory woodlands. The banded hairstreak is most often seen in clearings and along wooded edges nectaring at flowers. Sometimes enters gardens near appropriate habitat.

HOST PLANTS: Primarily oaks (family Fagaceae), especially white oak (*Quercus alba*). Also uses hickories (*Carya* species) and black walnut (*Juglans nigra*).

DISCUSSION: The banded hairstreak is our most common hairstreak. Hairstreaks get their

name from hair-like tails that extend from their hindwings. An "eye spot" of red or blue usually accompanies the tails. Hairstreaks constantly rub their hindwings together when at rest. This motion, aided by the bluish or red eyespot and antenna-like tails at the hindwing, create the illusion of a butterfly head replete with twitching antennae. This forms a visual attractant for predators, luring them to the "wrong" end. The predator grabs this area and gets nothing but a mouth full of membrane and scales. Banded

hairstreaks, like many of our hairstreaks, spend most of their adult life high in the tops of large trees. They typically come down to nectar for an hour or two early in the morning and again in the late afternoon. Their favored nectar source is Indian-hemp (*Apocynum cannabinum*). The banded hairstreak undergoes occasional localized population explosions, and thousands of individual adults can be found. The following summer, only a few adults may be found in the same area. This species is single brooded.



HABITAT: Forest edges, forest roads, and quarries where redbud proliferates.

n redbud (Cercis canadensis). Maple-leaved viburnum (Viburnum acerifolium), huckleberry (Gaylussacia baccata), and various blueberries (Vaccinium species) are used elsewhere and might be in Ohio, too.

DISCUSSION: The nickel-sized Henry's elfin is always found in forests with redbud trees. While this elfin is mainly restricted to localized habitats in southern Ohio, a disjunct population

was recently found in northern Ohio in an old quarry which is part of the Erie County Park system. Additional sites may turn up, and Henry's elfin should be watched for wherever redbuds are found. At Tranquility Wildlife Area in Adams County more than four hundred adults were counted on one stretch of road. However, numbers vary greatly from year to year. Elfins often can be found by shaking a redbud and looking to see if they fly off. Males often perch on the branches and foliage of shrubs, grasses,

and other plants, and on gravel roads, waiting for females. Males will visit mud for mineral salts. When disturbed, Henry's elfin flies up into the air in a jerky spiral flight, and returns to its original perch. This behavior is common among elfins and hairstreaks. Redbud blossoms and other spring flowers are the preferred nectar sources. Eggs are laid on the branches near the flower of the redbud or directly on the buds. Henry's elfin is single-brooded and passes the winter in the chrysalis stage.



HABITAT: All manner of sites, including roadsides, gardens, forest edges, old fields, powerline right-of-ways, and prairies.

HOST PLANTS: Uses a wide variety; species in over 20 families have been documented as hosts. In Ohio, it has mostly been found on members of the pea family (Fabaceae), including everlasting pea (Lathyrus latifolius), wild senna (Senna hebecarpa), and bush clovers (genus Lespedeza) as well as various mallows (Malvaceae family).

DISCUSSION: Gray hairstreaks are akin to cedar waxwings in the bird world: suave and dapper-looking. Their smooth dove-gray underwings set off by a bright orange spot create a striking effect. Some years this species is absent or scarce. It is most common during late summer and fall, especially in southern Ohio. The red eye spots above the tails on the

dorsal wing surfaces and its overall gray color separate this hairstreak from other hairstreak species. Other hairstreaks bask with wings closed; gray hairstreaks often hold them open at rest. This is the widest-ranging hairstreak in North America. It can produce several broods in Ohio. The first brood is noticeably smaller and darker than later broods.

EASTERN TAILED-BLUE Cupido comyntas (Cue-pih-doh · co-min-tahs)



HABITAT: Found in practically all open habitats, only shunning deep shaded woods.

HOST PLANTS: A wide variety of species in the pea family (Fabaceae).

DISCUSSION: The eastern tailed-blue is our most common blue butterfly. It can be found almost anywhere during the growing season.

While they have tail-like projections from their hindwings, eastern tailed-blues are not true hairstreaks. Males have light blue dorsal wing surfaces, and females have deep rich "charcoal" colored dorsal wing surfaces. The eastern tailed-blue has three or more generations a

season and can be found on the wing from April to October. It is common in gardens and urban areas. Eastern tailed-blues often bask with their wings outstretched horizontally, unlike azures, which hold their wings pressed together over their back.

SPRING AZURE Celastrina ladon (Sel-ah-stree-nah · lay-don)

SUMMER AZURE Celastrina neglecta (Sel-ah-stree-nah • ne-glek-tah)
GOSSAMER-WING FAMILY (Lycaenidae)



30



HABITAT: In and around woodlands and nearby openings; frequently seen along muddy trails and roads bisecting forests.

HOST PLANTS: Spring azures use flowering dogwood (Cornus florida) and possibly other dogwoods; black cherry (Prunus serotina) and a variety of other woody plants; summer azures use wingstem (Verbesina alternifolia).

DISCUSSION: These species are extremely similar and until recently were considered to be different forms of the same species. Both are very common in Ohio and sometimes form

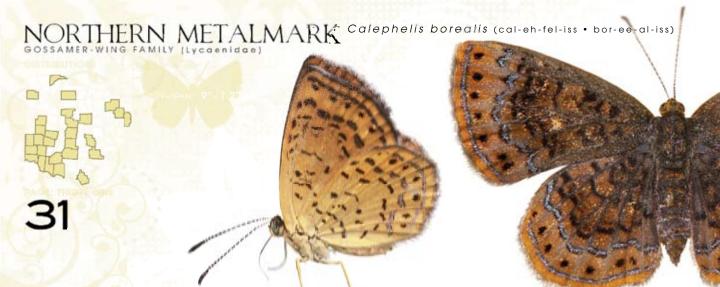


huge "puddle clubs" at favored muddy spots. The spring azure is one of the first non-hibernating butterflies to appear each spring. Occasionally, it can be found near the Ohio River as early as mid-March. The range of these species in Ohio is unclear due to possible confusion with newly discovered sibling (similar) species. The spring azure is more violet-blue on its dorsal surfaces than the summer azure, and has grayer ventral wing surfaces with duller black spots. The summer azure has white ventral



wider darker dorsal wing margins than males of either species. The larvae of the spring azure favor wild dogwood and black cherry and the summer azure seem to favor wingstem as hosts. Spring azures are single brooded and fly only in early spring while summer azures have several broods with strong flights in May/June and August/September.

OCCURRENCE:	Ja	Fb	Mr	Ар	М	a	Jn	Ju	Ag	Sp	Ос	Nv	Dc



HABITAT: Edges of dry woodlands and associated dry open meadows. Where its host plant and favored nectar plant, black-eyed susan (*Rudbeckia hirta*) occur in close proximity are good places to look.

HOST PLANT: Round-leaved ragwort (*Packera obovata*). May use other closely related species, such as prairie ragwort (*P. plattensis*).

DISCUSSION: The northern metalmark is rare to uncommon in Ohio. Its common name comes from the medial and submarginal bands of

metallic-silver marks on both dorsal and ventral wing surfaces. This species is found in Ohio where the bedrock is limestone or dolomite. Central Ohio and the bluegrass physiographic region of southern Ohio support several colonies of this butterfly. Northern metalmarks are always found in close association with its larval host plant. The butterflies prefer shaded wood edges, semi-shaded woodland trails, and areas near wooded stream banks. They can be found nectaring on black-eyed susan (Rudbeckia hirta)

or butterfly weed (Asclepias tuberosa) in adjacent fields. Adults often rest with their wings held horizontally while they are at flowers. On hot days they can be found underneath flowers in the shade with their wings folded and nectaring from this protective position. Metalmarks often perch in this manner when disturbed. They have a low, delicate flight pattern, making them easy to overlook or confuse with a dark moth.



HABITAT: A variety of woodlands, usually along streams and lower slopes. Largely confined to the limestone bedrock regions of Ohio, as that is where its host plants are most frequent.

HOST PLANTS: Hackberry (*Celtis occidentalis*) and possibly dwarf hackberry (*Celtis tenuifolia*). **DISCUSSION:** The American snout is the only butterfly species originally described from Ohio.

The early Cleveland naturalist, Jared P. Kirtland, described it in 1852 from a Mahoning County collection. Some authorities believe that the American snout migrates to Ohio each summer and is not a breeding resident. The fact that it is absent from Ohio in some years and at low population numbers in other years would seem to support this theory. However, it most likely

does reproduce at least locally in the state, but only survives mild winters. One of the largest concentrations of snouts ever recorded in Ohio was on Kelly's Island during the summer of 1999 when several hundred were observed. American snouts are aptly named. Their long palpi (snout) is distinctive and makes confusion with other species unlikely.



HABITAT: Open woodlands and nearby open areas such as meadows, roadsides, powerline clearings, and gardens. Sometimes roams far from woods in search of flowers.

HOST PLANTS: Violets (genus Viola), probably many of the twenty-six native species known in Ohio.

DISCUSSION: This is a large butterfly with a strong flight. Fortunately, they frequently stop at

flowers, especially milkweeds, so that observers can admire them. Several adults can often be found together on a single flower head. Males often gather at mud puddles and animal scat, taking in mineral salts and proteins. Females are larger and darker than males, and do not appear until later in the summer when many males are already flight worn. Fritillaries employ a rather haphazard reproductive strategy. Females lay

eggs near host plants – violets – but often not on the plants. Newly hatched larvae overwinter without feeding. In spring, they must make their way to the hosts, upon which they only feed at night. This strategy probably increases mortality and may account for declines in a number of fritillary species. For instance, the regal fritillary is listed as endangered in Ohio and has not been seen in the state since 1988.



PAGE: THIRTY, FOUR

34





HABITAT: Similar to the great spangled fritillary: open woodlands and nearby open areas such as meadows, roadsides, powerline clearings, and gardens.

HOST PLANTS: Violets (genus Viola), probably many of the twenty-six native species known in Ohio.

DISCUSSION: The Aphrodite fritillary is frequently confused with the great spangled fritillary. They often fly together, increasing the likelihood of confusion. This species can easily be separated from the great spangled fritillary

by two field marks. The Aphrodite has a single black basal spot in the cell near the inner margin. The dorsal hindwing ground color is a rich reddish-brown color that overtakes the submarginal row of large silver spots. The tan or buff submarginal band found in the great spangled is almost or entirely gone in the Aphrodite. Females of both species are larger and darker than males. The aphrodite fritillary is found in most of eastern Ohio and the Oak Openings region in northwest Ohio. Aphrodites are rare or absent from much of western Ohio. The

best places to look for this butterfly are forests and fields in the Appalachian plateau region of southern Ohio. They are strong fliers, but often visit flowers where they can be closely admired. Females lay eggs near violets in late summer, and the larvae must then navigate to the host plant. This imprecise method of reproduction may account for the great seasonal fluctuation in numbers. The larvae feed at night. There is one brood, with males emerging in June, weeks before females emerge in late July.

OCCURRENCE:	Ja	Fb	Mr	Ар	Ма	Jn	Ju	Ag	Sp	Nv	Dc



HABITAT: Usually in wet to mesic (moist) open sites: damp fields, wet meadows, often with many sedges, low-lying pastures, open stream margins, fens and prairies.

HOST PLANTS: Violets (genus Viola), probably many of the twenty-six native species known in Ohio, especially those that occur in more open habitats.

DISCUSSION: Meadow fritillaries are much smaller than the other two fritillaries in this booklet and are sometimes referred to as "lesser" fritillaries. Larger species in the genus *Speyeria* are referred to as "greater" fritillaries. This fairly common species can occasionally be found in large numbers at favored sites. More typically, they are found in scattered small colonies. Because this species is tolerant of

disturbed habitats and has two and sometimes three broods, it has not suffered declines to the degree that closely related less tolerant species have, such as silver-bordered fritillary (threatened in Ohio). Nonetheless, this species seems to be losing ground in Ohio. Peak numbers occur in summer and fall and males and females look identical. Meadow fritillaries pass the winter in the larval stage.



HABITAT: Margins and openings adjacent to mesic (moist) forests and streamside woodland trails.

HOST PLANTS: Primarily wingstem (*Verbesina alternifolia*); also sneezeweed (*Helenium autumnale*). Probably a few other species in the sunflower family.

easily separated from other checkerspot can be easily separated from other checkerspots by the distinctive dark pattern of silver/white spots on its ventral hindwings. This checkerspot is most frequent in southern Ohio, and can be abundant in some years. They are notorious cyclical and may be nearly absent in sites where they were

common the prior year. Population explosions have been recorded in Champaign and Vinton counties. Males visit wet soil and animal remains and both sexes visit flowers for nectar. There can be considerable size variation, with some females nearly double the size of males. This butterfly passes the winter in the larval stage.



HABITAT: All manner of open habitats and can turn up nearly anywhere; shuns only the shadiest habitats.

HOST PLANTS: Asters, probably several species. Pearl crescents are thought to use the Aster subgenus *Euaster* in particular, which includes twenty-two of Ohio's thirty-five aster species, many of which are abundant.

DISCUSSION: Almost as common as the cabbage white, pearl crescents should be recorded on any field outing in season. Females are larger than males and are darker with white markings on their dorsal forewings. Like some other butterfly species, males are very aggressive, darting out to investigate other butterflies – even other types of insects! They

have a fast erratic flight, and often perch on the ground with wings outstretched. Pearl crescents are particularly frequent in old fields with an abundance of asters. They have three to four broods. Thus, this species is on the wing and common spring to fall, with peak numbers in the fall. Pearl crescents pass the winter in the larval stage.



HABITAT: High quality wetlands and riparian terraces that support populations of the host plant.

HOST PLANTS: Turtlehead (*Chelone glabra*) is the primary species that females lay eggs on. This beautiful member of the figwort family is somewhat local and scattered, typically occurring in relatively undisturbed habitats. Older wandering larvae can later be found on other plant species.

DISCUSSION: This is one of Ohio's true wetland butterflies, and one of the most beautiful of any species. Baltimore checkerspots are particularly attracted to swamp milkweed nectar. Colonies of this butterfly are quite localized, but large numbers are usually present where found. Eggs are laid in a mass on leaves and stems of the larval host. Larvae begin life feeding en masse in a silken, bagworm-like nest. Eventually,

mature larvae leave the nest and feed solitarily on a variety of plant species such as wood betony (*Pedicularis canadensis*), English plantain (*Plantago lanceolata*), and others. Baltimore checkerspot larvae overwinter in the leaf litter in a hibernation-like phase. There is one brood a year. Populations have undoubtedly declined significantly over the last decade due to the loss of suitable wetland habitats.

OCCURRENCE:	Ja	Fb	Mr	Ар	Ма	Jn	Ju	Ag	Sp	Ос	Nv	Dc



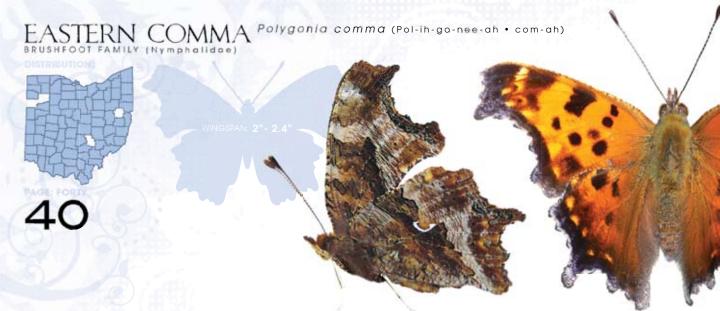
HABITAT: A woodland species occurring in all manner of forested habitat and sometimes ranging into more open habitats if suitable nectar plants are available.

HOST PLANTS: American elm (*Ulmus americana*) and red elm (*U. rubra*); also reported using the introduced Siberian elm (*U. pumila*), hackberry (*Celtis occidentalis*), stinging nettle (*Urtica procera*) and false nettle (*Boehmeria cylindrica*).

DISCUSSION: This butterfly gets its name

from the silver markings on the center of each ventral hindwing which look like a question mark. There is a summer form with the dorsal hindwings a dark brown; this is form "umbrosa." The dorsal forewings of the question mark have one more black mark than the comma butterfly. Question marks often rest with their wings closed vertically. This gives the butterfly the appearance of a dried leaf. The fall adults hibernate over the winter months in hollow

logs and in earthen crevices. Hibernators such as the question mark, comma, and mourning cloak are some of longest-lived butterflies in Ohio, surviving as long as eight months. These species, including the question mark, often become active on warm, sunny winter or early spring days. The males are attracted to mud puddles, tree sap, rotten fruit, animal scat, and carrion. There are two broods a year.



HABITAT: A woodland species occurring in all manner of forested habitat and sometimes ranging into more open habitats if suitable nectar plants are available.

HOST PLANTS: Several species of nettle (family Urticaceae), elms (family Ulmaceae), and hops (*Humulus lupulus*).

DISCUSSION: Similar to the question mark, but smaller, has only three black marks in a row on the upper forewing, and the silver mark on

the lower hindwing is comma-shaped. There is a summer form of the eastern comma with the dorsal hindwings a dark brown color. The fall adults hibernate in hollow logs and in earthen crevices over the winter months. They can be seen during warm sunny days in winter and early spring basking on fallen logs and flying around clearings in woods. The eastern comma is fond of mud puddles and animal scat, and like the question mark, only occasionally visits

flowers. When at rest, it holds its wings closed vertically, giving it the appearance of a dead leaf or tree bark. This butterfly is a strong erratic flier and can be hard to approach. Seemingly aggressive, the males often launch at passing butterflies, dragonflies, or other large insects – sometimes even birds and people. They are probably investigating for potential mates. The eastern comma is found throughout forested Ohio and has two broods a year.

OCCURRENCE:	Ja	Fb	Mr	Ар	Ма	Jn	Ju	Ag	Sp	Ос	Nv	Dc



HABITAT: Woods, forested stream and river corridors, borders of marshes, and wetlands.

HOST PLANTS: Black willow (*Salix nigra*), Siberian elm (*Ulmus pumila*), and American elm (*U. americana*). May also use cottonwood (*Populus deltoides*).

DISCUSSION: This stunning insect has one of the broadest distributions of any butterfly, ranging through North America, as well as

continental Europe, Eastern Siberia, and Japan. Adults are hibernators, wintering in tree crevices and other sheltered spots. It can be a shock to see one flying about on a warm sunny winter day, as they sometimes do. Mourning cloaks do not usually visit flowers; rather, they feed at decomposing fruit or animal scat. They are normally seen as lone individuals, but during favorable years may occur in greater numbers.

Some evidence suggests that mourning cloaks may seek shelter and aestivate (type of summer hibernation) during the hottest months of summer. Admiring their beauty can be a challenge – mourning cloaks are often wary and hard to approach. Mourning cloaks are single-brooded, and may live for ten months, as they spend much time aestivating in summer and hibernating in winter.



HABITAT: Typically in and around forested areas, especially those that support host plant populations, but often ranges widely into fields, gardens, and other open landscapes.

HOST PLANTS: Stinging nettle (*Urtica dioica*), wood nettle (*Laportea canadensis*), and pellitory (*Parietaria pensylvanica*).

DISCUSSION: The red admiral is a common Ohio butterfly, but can have "boom and bust"

years. In 2007, this butterfly was seemingly everywhere, a once in a century event. Red admirals can be common in urban settings and gardens. It frequents many species of flowers and often visits mud puddles and animal scat. When perched with wings outspread, red admirals are rather gaudy and conspicuous. At rest on tree trunks, with head downward and wings closed, admirals greatly resemble bark

or dead leaves. Making rotten fruit bait stations is a great way to lure this species and other brushfooted butterflies to your yard. The red admiral is a fast and erratic flier and can be hard to approach for photographing. Red admirals were once thought to be migrants to Ohio, but recent evidence suggests that they can survive milder Ohio winters.



HABITAT: All manner of open habitats, including meadows, prairies, overgrown fields, roadsides, hayfields, and gardens.

HOST PLANTS: Plantain-leaved pussy-toes (Antennaria plantaginifolia), fragrant cudweed (Gnaphalium obtusifolium), and burdock (Arctium species). DISCUSSION: The ornate inscriptions on the underwing surfaces of this common butterfly

are quite striking, as if an abstract artist used the wings as a canvas. It was once known as the American beauty, an apropos name. This butterfly is first seen on the wing in early spring, but is more common in June. The two large eyespots on the ventral hindwings make separation from the painted lady (*V. cardui*)

simple. The latter has four small eyespots and is an occasional to common immigrant to Ohio. This somewhat wary species is best approached when nectaring at favored flowers, like Indianhemp (Apocynum cannabinum) and various milkweeds (Asclepias species). There are two or three broods a year.



HABITAT: Open areas of all kinds, but especially attracted to sites with very low vegetation, often with barren areas of soil.

HOST PLANTS: A wide array of hosts, including plants in the figwort family (Scrophulariaceae), plantain family (Plantaginaceae), vervain family (Verbenaceae), and acanthus family (Acanthaceae). DISCUSSION: The common buckeye is an immigrant to Ohio, not a permanent resident. It

first appears in late summer in southern Ohio, spreading northward by fall, and can be abundant. However, some years it is rare or nearly absent from the state. A subspecies of the common buckeye from the southern U.S. is famous for large-scale migrations. In Ohio, observers often report the common buckeye's progress northward, but a large migration of hundreds of adults does not occur. This species is found

at mud puddles, rotten fruit, carrion, animal scat, and in barren fields. They often bask, sitting on soil and low vegetation. It is thought that the large, showy eyespots on the wings may draw the focus of potential predators, allowing the butterfly to escape, albeit with tattered wings. Common buckeyes will produce several broods once they reach Ohio.



HABITAT: A wide variety of forested habitats, sometimes ranging into parks, gardens, and other open to semi-open habitats.

HOST PLANTS: Black cherry (*Prunus serotina*), poplars and aspen (*Populus* species).

DISCUSSION: Tropical in appearance, the red-spotted purple ranks high among North America's showiest butterflies. They are most

common in extensive forested areas, and can be found in large numbers along forest roads in southern Ohio in spring. This species can be confused with females of several of our dark swallowtail butterflies because of the brilliant blue on the dorsal hindwings, but red-spotted purples lack eyespots and tails. It is thought that red-spotteds are Batesian mimics. They imitate the appearance of poisonous pipevine swallowtails to discourage potential predators. Fond of animal scat and rotten fruit, large numbers sometimes congregate at such food sources. The red-spotted purple has two broods each year and passes the winter in the larval stage.

OCCURRENCE:	Ja	Fb	Mr	Ар	Ma	Jn	Ju	Ag	Sp	Ос	Nv	Dc



HABITAT: Most often seen around wetlands and moist habitats with cottonwoods and willows, but can occasionally appear in nearly any open habitat.

HOST PLANTS: Cottonwood (*Populus deltoides*), pussy willow (*Salix discolor*), black willow (*S. nigra*) and sandbar willow (*S. interior*).

DISCUSSION: The viceroy butterfly is often confused with the monarch. However, it can easily be separated from that species by the

presence of a narrow black curved bar across the middle of the dorsal hindwing. They are also smaller than monarchs and have a more rapid, less buoyant flight, holding their wings flat when gliding rather then the v-shaped glide of the monarch. Viceroys are usually found close to stands of willow, the most frequent larval host plant. It was widely believed that the viceroy was a classic Batesian mimic of

the toxic monarch, and predators would consequently avoid this species. We now know that viceroys are distasteful in their own right, and unpalatable to eat. Birds quickly learn to avoid both of these species. The homely looking caterpillars resemble bird droppings and are the only bird scat mimic caterpillars that have horns. There are two broods a year and viceroys overwinter in the larval stage.



HABITAT: Wherever hackberry trees occur, which includes stream bottom forests, mesic to dry woodlands, parks, overgrown fields, and even residential areas.

HOST PLANTS: Hackberry (*Celtis occidentalis*). **DISCUSSION:** Very active and pugnacious, hackberry emperors are noted for dashing out to investigate people, often alighting on them.

They are drawn to white colors, and are fond of landing on white shirts and even the sides of buildings that are painted white. Although not brightly colored, the hackberry has one of the most beautiful patterns of any of our butterflies, including noticeable white antennae clubs. They are attracted to mud puddles, animal scat, rotten fruit, human perspiration, road tar, and even oil

drippings from your car. Hackberry emperors are seldom found away from areas where their larval host tree occurs. When found, they are usually plentiful. Interestingly, these butterflies often become more active towards dusk and have even been caught at light sources after dark. The hackberry has two broods each season and overwinters in the larval stage.

OCCURRENCE:	Ja	Fb	Mr	Ар	Ma	Jn	Ju	Ag	Sp	Ос	Nv	Dc



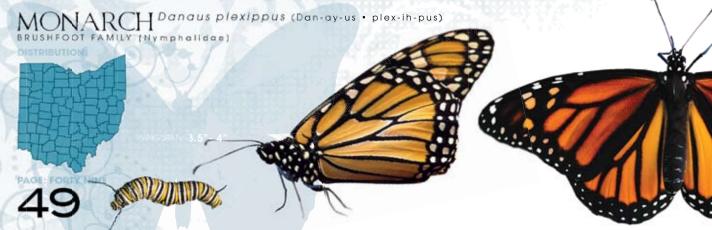
HABITAT: Forested areas and associated openings, where hackberry trees occur.

PLANTS: Hackberry (*Celtis occidentalis*) **DISCUSSION:** The tawny emperor is easily confused with the hackberry emperor. It can be separated from the hackberry by the distinctive pattern on the emperor's ventral hindwing and the lack of dark brown eyespots on the

medial outer margin of the dorsal forewings. Tawny emperors, like hackberry emperors, are always associated with hackberry trees. The two species often fly together. However, the tawny has only a single brood and most individuals found after mid-July are flight worn. This butterfly is most common in mid-June to mid-July. Most records are from the western

part of the state and the species appears to be most common in the southwestern part of Ohio. Like hackberries, tawny emperors are pugnacious, often investigating people and sometimes alighting on them. Tawny emperors often visit oozing tree sap and mudpuddles, and can be attracted to rotten fruit bait stations. This species passes the winter in the larval stage.

OCCURRENCE:	Ja	Fb	Mr	Ар	Ma	Jn	Ju	Ag	Sp	Nv	Dc



HABITAT: Occurs commonly in nearly any open landscape, often turning up in gardens and highly urbanized areas.

HOST PLANTS: Common milkweed (Asclepias syriaca), swamp milkweed (A. incarnata), and butterfly-weed (A. tuberosa). May use others of the thir teen species of milkweed found in Ohio. DISCUSSION: Without doubt, the most widely recognized butterfly in Ohio and North America. In addition, the life cycle of the monarch is probably the best known in the butterfly world. It is also the longest-lived butterfly found in Ohio, with some adults surviving more than ten months. Most of the monarchs produced in Ohio and elsewhere in the north make an incredible fall migration to high elevation fir forests in Mexico. After overwintering there, they return

north in increments, stopping along the way to lay eggs and thus recolonize the southern states. It is the offspring of this first spring brood, and even second or third broods, that returns to Ohio and points north. Males can easily be told from females by the presence of small black scent glands on a vein of the dorsal hindwing. Caterpillars are distinctive, and are commonly found eating milkweed plants. The chrysalis is also easy to recognize, and is often placed rather conspicuously, hanging from all manner of plants. Because monarch caterpillars eat milkweed, which contains toxins called cardiac glycosides, they and the adults are foul-tasting and shunned by birds and other predators. The fall migration of monarchs is one of nature's great spectacles. Resting swarms can number in the thousands, and

cloak entire trees. Canadian monarchs cross Lake Erie, and often occur in profusion on islands in Ohio, such as South Bass and Kelleys islands. The biggest recorded Ohio concentration dates from 1892, when millions of monarchs poured into Cleveland after crossing Lake Erie. Protection of the fir forests where monarchs winter, in the Michoacan state of Mexico, is vital to conserving eastern North American monarch populations. In excess of 100 million butterflies descend upon these forests, drawing ecotourists from around the world. Fortunately, the Mexican government has recently taken strong measures to protect these forests from illegal logging, which was threatening the butterflies, and millions of additional trees will be planted to help reforest monarch wintering sites.



HABITAT: Shady forested habitats, often near watercourses. Sometimes found in shrubby edges of wetlands, especially in northern Ohio. HOST PLANTS: A number of species of grasses, especially bottlebrush grass (Elymus patula), river oats (Chasmanthium latifolium), longawned wood grass (Brachyelytrum erectum), and white grass (Leersia virginica). Larvae have also been found on non-native tall fescue (Lolium arundinaceum).

DISCUSSION: Northern pearly-eyes get their

name from the ringed eye-spots on the ventral hindwing. It is one of the few Ohio butterflies that strictly inhabits deep, shady wooded habitats. Pearly-eyes typically rest on tree trunks, head downward. Their dark coloration and striped and spotted wing pattern allow them to blend well with their surroundings. When disturbed, they shoot off in an erratic flight that is hard to follow among the trees and dappled sunlight of the forest. Like many species of satyr butterflies, pearly-eyes are most active in early

morning and late afternoon. This species rarely visits flowers, although occasionally gravid (with fertile eggs) females seek nectar. Rather, they typically visit tree sap, rotting fruit, and animal remains. Males take mineral salts from moist trails and roads in woods. The northern pearly-eye is single-brooded in northern Ohio and double-brooded in southern Ohio. It is locally common in the south, becoming rare to uncommon in northern parts of the state. It passes the winter in the larval stage.

OCCURRENCE:	Ja	Fb	Mr	Ар	Ма	Jn	Ju	Ag	Sp	Ос	Nv	Do



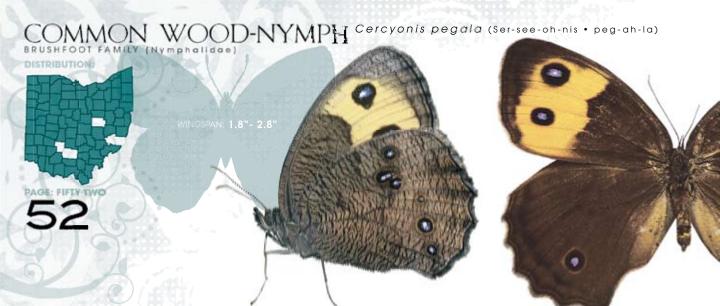
HABITAT: Woods, woodland edges and openings; nearby fields and meadows.

HOST PLANTS: Various grasses, probably including Virginia wild rye (*Elymus virginicus*). Known to use the introduced orchard grass (*Dactylis glomerata*) throughout its range.

DISCUSSION: This species flies mainly in late spring, but individuals can be found into late

August. The little wood-satyr, like all satyrs, flies with a bouncing erratic flight, usually staying low to the ground. However, unlike other satyrs it often flies high up into trees and will rest in the canopy on a leaf blade. While this species superficially resembles other satyrs, it is easily differentiated by the conspicuous eyespots on

the upper wings. Little wood-satyrs infrequently nectar at flowers; they more often are attracted to dung, rotting fruit, and moist soil. Females, when ready to lay eggs, are more likely to visit flowers than males. Of the seven species of satyrs that are known from Ohio, this species is easily the most common and widespread.



HABITAT: Ranges into a variety of habitats, including woodland edges, brushy fields, pastures, prairies, fens, and sedge meadows.

HOST PLANTS: Grasses of many species, probably including purpletop (*Tridens flavus*), which is abundant across Ohio.

DISCUSSION: The common wood-nymph is regularly encountered around small trees and shrubs in Ohio fields. Two forms occur in the state. Adults in southern and central Ohio

populations have much yellow around the eye spots of the forewings. More northerly populations lack yellow on the forewings. Interesting intermediate forms with varying amounts of yellow are found in populations north of Columbus; however, there is no sharp north-south line of transition between the two forms. The common wood-nymph has a low bouncing flight similar to that of the little wood-satyr, but

it never flies high into trees, and prefers more open areas. Adults seldom take nectar, preferring rotten fruit, dung, etc. Common wood-nymphs may be more common now than historically, due to large-scale habitat changes. Early Ohio collectors seldom saw them, although today the species is widespread and locally common. There is one brood a year. The common wood nymph overwinters as first stage larvae.

OCCURRENCE:	Ja	Fb	Mr	Ар	Ма	Jn	Ju	Ag	Sp	Nv	Dc



HABITAT: Sedge-dominated fens, shrubby margins of shaded swamps, and shaded wet woods.

HOST PLANTS: Lake sedge (*Carex lacustris*) is apparently the only confirmed host. However, this butterfly may use the very similar sweet marsh sedge (*C. hyalinolepis*), which is actually more common in some areas where Appalachian browns occur. Other species of sedges may also be used.

DISCUSSION: The Appalachian brown is often

confused with the eyed brown (Satyrodes eurydice) and the two were once considered to be the same species. One way to separate these two wetland butterflies is by their habitats. Appalachian browns occur in shaded swampy woods with lots of sedges, while the eyed brown is found only in open sunny wet sedge meadows. They sometimes can be found in the same general area, but will be separated according to the habitat types described above. A field mark useful in separating the two species

is the shape of the curved brown medial line on the ventral hindwing. On the Appalachian brown, this line is a uniformly smooth curve and on the eyed brown, the curve is a zigzag line. The populations of both species have declined because of the loss of many of Ohio's wetlands. Appalachian browns can be baited with rotten fruit, allowing closer inspection. It will perch on fallen logs and in vegetation, where they can be hard to see. This species is single brooded and passes the winter in the larval stage.

OCCURRENCE:	Ja	Fb	Mr	Ap	Ма	Jn	Ju	Ag	Sp	Ос	Nv	D

SILVER-SPOTTED SKIPPER Epargyreus clarus (Eh-par-jy-ree-us • clar-us) SKIPPER FAMILY (Hesperildae) WIJSPAN: 1.75"- 2.4" PAGE: FIETY-FOUR

HABITAT: Often found along woodland edges, brushy thickets, fencerows, and powerline clearings, but can be seen in nearly any type of open habitat.

HOST PLANTS: Various species in the pea family (Fabaceae), including black locust (*Robinia pseudoacacia*), honey-locust (*Gleditsia triacanthos*), and hog-peanut (*Amphicarpaea bracteata*).

DISCUSSION: If only all of our skippers were so easy to identify! Big, bold, and distinctively

marked, the common and wide-ranging silver-spotted skipper is far more conspicuous than most of the other skipper species found in Ohio. It, like almost all of Ohio's skippers, has a curved tip to its antennae called an apiculus. Silver-spotteds have a strong and fast flight pattern. They can be hard to follow, but often stop to take nectar at flowers of milkweeds, thistles and other blooming plants. The large silver patch on the ventral hindwing, which suggests

the outline of the continent of India, gives this skipper its name and is its most prominent field mark. Males are aggressive and often dart out at passing butterflies from prominent perches. The larvae are green and robust with large black heads, but in general, most skipper larvae look similar. There are two to three generations each season and this skipper passes the winter as a chrysalis.

HOARY EDGE Achaiarus lyclades (Ah-ka-lar-us • ly-see-ay-dees)

BAGE: FIFTY FIVE





HABITAT: Wooded edges, utility line right-of-ways, open woodlands, overgrown fields.

HOST PLANTS: Several species in the pea family (Fabaceae), probably most commonly tick-trefoils (Desmodium species), of which 17 species occur in Ohio, many very commonly. DISCUSSION: The hoary edge is one of a group

wings held horizontally. It gets its name from the large grayish-white (hoary) patch on its ventral hindwings. Hoary edges can be separated from silver-spotted skippers by this patch, and by the gold bars on the dorsal forewings that form a closed triangle against the brown ground color. This is an aggressive skipper, often darting from perches to investigate other passing butterflies.

Double-brooded over most of Ohio, hoary edges pass the winter in the larval stage. This species should be expected statewide, but it is uncommon or rare in northern Ohio. Most records come from southern Ohio forests. Both sexes visit flowers, as well as wet soil and animal remains.

OCCURRENCE: Ja Fb Mr Ap Ma Jn Ju Ag Sp Oc Nv Dc

of skippers that often bask or nectar with the

SOUTHERN CLOUDYWING Thorybes bathyllus (Thor-ih-bees · bath-ih-lus)



HABITAT: Generally dry wooded or brushy habitats such as the margins of oak-hickory forests, powerline right-of-ways, overgrown fields, etc.

HOST PLANTS: Primarily tick-trefoils (*Desmodium* species) and bush clovers (*Lespedeza* species); nearly all occur in dry, well-drained habitats.

DISCUSSION: This is one of two cloudywing

species that are residents of Ohio. The southern cloudywing can be separated from the northern cloudywing by the lack of a costal fold on the edge of the forewing, a white patch at the bend of the antennae, white patches of scales on the head, and the extensive white markings on the forewings. The white markings on the northern cloudywing's forewing are greatly reduced

or absent. A medium-sized skipper, southern cloudywings are among a group of skippers that bask with their wings held open horizontally. They often rest on the dirt of forest roads and trails. They have two broods a season and spend the winter as fully grown larvae. The cloudywings are one of the first skippers on the wing each spring.

OCCURRENCE:	Ja	Fb	Mr	Ар	Ma	Jn	Ju	Ag	Sp	Ос	Nv	Dc

DREAMY DUSKYWING Erynnis icelus (Ee-ry-en-iss • eye-sel-us)

DISTRIBUTION

Magazan 1"- 1.6"

57



HABITAT: Generally associated with oakdominated woodlands; often seen in forest openings, and along trails and forest roads.

HOST PLANTS: Usually cited as willows and poplars (Salicaceae family), but some authorities believe that oaks (*Quercus species*) may serve as hosts in Ohio.

DISCUSSION: There are seven duskywing species in Ohio, and all are similar in appearance.

This is the smallest, and most closely resembles the sleepy duskywing (E. brizo). Dreamys have longer labial palps (facial extensions), and the background color of the forewing is grayer. This species also frequently has a single white spot at the end of the submarginal row of marks termed the "wrist chain" on the dorsal forewing. Females have more mottling on the dorsal surfaces. Adult males of both dreamy

and sleepy duskywings can be found together at mud puddles. The dreamy duskywing is one of the first skippers on the wing each spring. It has only one brood - spring/early summer - and passes the winter as larvae. Both sexes will bask on dry dirt. It seems to be more common in the unglaciated forests of Ohio than elsewhere in Ohio.



HABITAT: Roadsides, fields, prairie openings, pastures, and sometimes even gardens that have host plants.

HOST PLANTS: Prairie false indigo (Baptisia alba), yellow false indigo (B. tinctoria), and crown vetch (Securigera varia).

DISCUSSION: The wild indigo duskywing was once one of our rarest skippers. Its native hosts, various species of wild indigo, were restricted to prairie-like openings in Ohio. However, in

the 1980's the state began to plant crown vetch along highways for soil retention. Wild indigo duskywings adopted crown vetch as a larval host and began to spread over much of Ohio. It is now one of our most common skippers, especially in southern Ohio, and continues to spread. The wild indigo duskywing flies with and is similar to Juvenal's (*Erynnis juvenalis*) and Horace's (*E. horatius*) duskywings. It is separated

from juvenal's and Horace's by the lack of a white spot near the end of the forewing cell, and this species also has a deep purplish shine much like indigo ink. There are at least three broods of Wild indigos, while Horace's Duskywing flies spring and late summer. Juvenal duskywings fly in the spring only. Like all duskywings, they frequent mud puddles and often bask on dry roadbeds and leaf litter.

COMMON SOOTYWING Pholisora catullus (Fol-ih-sor-ah • cat-ull-iss)

OISTRIBUTION

59





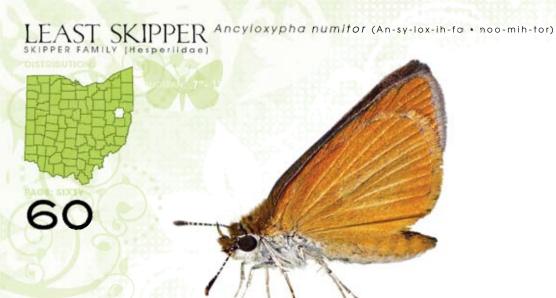
HABITAT: All manner of open areas, and is quite tolerant of disturbed, often weedy sites.

HOST PLANTS: Various amaranths (Amaranthus species) and lamb's-quarters (Chenopodium album).

DISCUSSION: This skipper is often found in places where you might not think to look for butterflies. The host plants of the common

sootywing are quite weedy and are typically found in highly disturbed situations, which accounts for the widespread presence of this butterfly. Common sootywing larvae feed on lamb's-quarters, and spend the winter in a nest made of a rolled leaf and silk spun by the caterpillar. Sootywings are small and black, with a row of little white dots along the dorsal wing

margins that form the shape of a question mark. They are fond of mud puddles, and often take nectar from flowers near the ground. The flight is weak and erratic, and typically low to the ground. In the manner of duskwings, common sootywings bask on the ground and plants with their wings held horizontally. There are two to three broods each year.



HABITAT: Low-lying wet areas with dense grasses or sedges; ditches, wetlands, fens, damp swales and meadows. Sometimes occurs in drier sites with dense grass.

HOST PLANTS: A number of species of grasses (Poaceae family). In Ohio, it likely uses rice cut grass (Leersia oryzoides), prairie cord grass (Spartina pectinata), and various panic grasses (Panicum species).

DISCUSSION: Our smallest skipper, this species has a weak, fluttery flight and invariably remains well down in the dense cover of grasses and sedges. Thus, least skippers can be easily overlooked in the thickly vegetated habitats that they frequent. Least skippers have showy golden wings, which they hold closed over their back when perched. Wing margins are dark-brown, and in females this area is more extensive. The

antennae are quite short, and lack the prominent apiculus (curved terminal extension) of most other skippers. Least skippers often visit mud puddles and flowers This species has been documented in eighty-seven of Ohio's eighty-eight counties and is common statewide. There are three broods in most of Ohio and least skippers overwinter as late instar larvae.

EUROPEAN SKIPPER Thymelicus lineola (Thy-mel-ih-cus • lin-ee-ole-ah) SKIPPER FAMILY [Hesperlidae]



HABITAT: Open grassy sites, such as pastures, agricultural areas, open fields, weedy roadsides, pastures, and muddy roads.

HOST PLANTS: Timothy (*Phleum pratense*), a non-native grass abundant in pastures.

DISCUSSION: The European skipper was accidentally introduced at London, Ontario, Canada in 1910. Since then it has spread far and

wide across northeastern North America, and has become quite common in some areas. It was first found in Ohio in 1927, and is now locally frequent in much of the state. It is a golden-colored skipper that is nearly without markings on dorsal surfaces. The wide golden-yellow fringe of the ventral hindwing is a good field

mark to help separate the European skipper from similar skippers. This skipper sometimes can be found by the thousands at mud puddles. European skippers are less common in southern Ohio than in northern regions of the state. There is one brood and this species passes the winter as an egg.

OCCURRENCE:	Ja	Fb	Mr	Ар	Ma	Jn	Ju	Ag	Sp	Ос	Nv	Dc

LEONARD'S SKIPPER Hesperia leonardus (Hes-per-ee-ah ·len-ar-dus)





HABITAT: Prairie openings, dry ridgetops and forest openings, and various meadows and fields. **HOST PLANTS:** Bluestem grasses; in Ohio, probably big bluestem (*Andropogon gerardii*) and little bluestem (*Schizachyrium scoparium*).

DISCUSSION: This species has a scattered and local distribution, but can be locally common. It is one of a large group of golden skippers whose males have a stigma on the dorsal surface of the forewing. The stigma is a patch

of specialized scales that release pheromones during courtship. Leonard's skipper holds its forewings semi-vertically when at rest in the "skipper position". In this distinctive perch profile, the forewings are held vertically, and the hindwings are outstretched horizontally, just like the profile of an F-22 fighter jet. Females are larger with more rounded wings and the amount of golden scales on the dorsal forewings is greatly reduced or absent, or replaced with

cream or white markings. Leonard's skipper can be separated from other golden skippers by the distinctive pattern of squared white to cream spots on the ventral hindwing. These spots form a chevron pattern against the deep red of the ground scales. This species is often frequent around colonies of blazing-star (*Liatris aspera* or *L. squarrosa*), which are favored nectar sources. There is one brood, and this species spends the winter as an egg or immature larvae.



HABITAT: All types of open habitats; fields, pastures, woodland edges and openings, yards and gardens, ditches, etc.

HOST PLANTS: Various grasses; in Ohio it likely uses rice cut grass (*Leersia oryzoides*), which is widespread and common, and even crab grasses (*Digitaria* species).

DISCUSSION: This common skipper occurs statewide, and is rather easily recognized by the golden-colored tooth-like dash on the ventral hindwing that projects beyond the adjacent patches. From afar, these golden marks contrast with the dark brown ground color of the underwing and create a colorful blotchy effect. Peck's skipper is among the most likely skippers

to visit suburban butterfly gardens. Females lack the golden areas on the dorsal forewings and are a deep brown color with a few contrasting golden marks. This skipper also commonly visits mud puddles. There are two or three broods and it passes the winter as immature larvae or pupae.

OCCURRENCE:	Ja	Fb	Mr	Ар	Ма	Jn	Ju	Ag	Sp	Ос	Nv	Dc



HABITAT: Usually near wooded areas, but also found in open areas such as old fields, brushy pastures, weedy roadsides. Sometimes visits gardens.

HOST PLANTS: Various grasses, and in Ohio it likely uses deer's-tongue grass (Panicum clandestinum), forked panic grass (P. dichotomum), and switch grass (P. virgatum).

DISCUSSION: The unusual common name

"broken-dash" refers to the male's stigma; a dark broken line on the dorsal surface of the forewing. Northern broken-dashes can be difficult to identify, and closely resemble some other dark skippers. In general, the amount of golden scales on the dorsal forewing is guite variable. Males can be identified by the triangular mark (arrowhead-like) at the end of the dorsal forewing stigma. Females also have

the triangular mark, as well as a small light buffcolored square near the same spot. The ventral hindwing has a smudged submarginal curved line of white or cream-colored marks. The northern broken dash often visits flowers and frequently basks on branches, leaves or grass blades. This species is single-brooded and passes the winter in the larval stage. There may be a partial second brood in southern Ohio.

OCCURRENCE:	Ja	Fb	Mr	Ар	Ма	Jn	Ju	Ag	Sp	Nv	Dc

DELAWARE SKIPPER Anatrytone logan (An-ah-try-toh-nee · lo-gan)





HABITAT: Open, often damp grassy habitats such as fens, wet meadows, low-lying old fields, and marshes.

HOST PLANTS: Various grasses including switch grass (*Panicum virgatum*) and bluestems (*Andropogon* species). Some species of sedges (*Carex* species) may also be used.

DISCUSSION: Another golden-colored skipper

that holds its wings pressed together over its back when at rest and nectaring. Its small size, black scaling along the wing veins and margins, and a black bar at the end of the cell on the dorsal forewings rule out other golden skippers. Delaware skippers also have a much faster and more direct flight than does the similar European and least skippers. The males

frequently dart out at passing butterflies from a perch. Single-brooded and with a rather brief flight period, Delaware skippers are more common in the northern half of Ohio, becoming scarcer to the south. In addition to visiting flowers, males can also be found at mud puddles taking mineral salts. This species passes the winter in the larval stage.

OCCURRENCE:	Ja	Fb	Mr	Ар	Ма	Jn	Ju	Ag	Sp	Ос	Nv	Dc



HABITAT: In and around forested habitats; woodland openings, forest roads and trails, forest edges, and nearby open fields and meadows.

HOST PLANTS: Various grasses; in Ohio it likely uses Kentucky bluegrass (*Poa pratensis*), rice cut grass (*Leersia oryzoides*), and several species of panic grass (*Panicum species*).

in spring; they are one of the first skippers on the wing. The only similar species out as early is the Zabulon skipper. They often fly together, but Hobomoks differ in their wide, dark wing margins, and shape of the yellow patch on the upper hindwing. This patch is visible on both upper and underwing surfaces, and its shape

suggests the outline of the state of Texas. A rare melanistic (blackish) form of the female is named "Pocahontas". The characteristic hindwing patches still show, but are much fainter. Hobomok skippers are very fond of nectaring on blackberries and raspberries (*Rubus species*). They pass the winter in the larval stage.



HABITAT: Varied open habitats such as open woodlands and clearings, trails and roads through forests, powerline clearings, and fields near woods.

HOST PLANTS: Grasses, including Kentucky bluegrass (*Poa pratensis*), love grasses (*Eragrostis species*), and purpletop (*Tridens flavus*).

DISCUSSION: Male Zabulon skippers can be separated from other golden skippers by the

three brown marks on the ventral hindwing near the anal angle. Females are dimorphic, with dark garnet-brown coloration and white dorsal forewing spots. They also have noticeable white scales on the crest of the leading hindwing margin. This species is rare to uncommon in northern Ohio, becoming more frequent southward. It often flies with and is similar

to Hobomok skippers (see previous page). Zabulon skippers are very pugnacious. Males will fly out from favored perches to investigate nearly anything that moves, thus increasing their odds of encountering female Zabulons. It is double brooded, and most common in central and southern Ohio. This species passes the winter in the larval stage.

OCCURRENCE:	Ja	Fb	Mr	Ар	Ма	Jn	Ju	Ag	Sp	Nv	Dc



HABITAT: Typically occurs in wetlands; sedge meadows and low-lying fields, fens, swamp margins, etc. Also ranges into drier open habitats with attractive nectar sources.

HOST PLANTS: Sedges, including tussock sedge (Carex stricta) and lake sedge (C. lacustris). May use other species of Carex as well.

of our wetland skippers, and appear dark and unmarked. Close inspection will reveal that the males have a stigma on the dorsal forewing that is noticeably darker. Females have a small white dot and adjacent white crescent on the dorsal forewing, although these marks can be quite faint. In general, small dark unmarked **DISCUSSION:** Dun skippers are the smallest skippers, especially in wetland habitats, will be

this species. Dun skippers have apparently increased significantly in abundance in the last century, in part due to their tolerance of disturbed habitats. It is common throughout the state. There are two broods in northern Ohio, and often three in southern regions of the state. This species passes the winter as last stage larvae.

OCCURRENCE:	Ja	Fb	Mr	Ap	Ма	Jn	Ju	Ag	Sp	Ос	Nv	Dc

KARNER BLUE Lycaeldes melissa samuelis (Ly-see-lh-dees • me-lis-ah • sam-u-el-is)

DISTRIBUTIONS

WIN GSPAN, 1"- 1.35

PAGE: SIXTY NINE

69

HABITAT: Oak savannas containing healthy populations of wild lupine.

HOST PLANTS: Wild lupine (Lupinus perennis). DISCUSSION: By 1988, the Karner blue had been eliminated from Ohio. The primary factor in its disappearance was the loss of suitable habitat, including its host plant. A major reason for habitat changes detrimental to this butterfly was fire suppression. Over much of the 20th century, lack of fire in fire-dependent Oak Openings ecosystems allowed open savanna habitats to become thickly reforested. These conditions did not favor Karner blues or their host plant. As fire was reintroduced into Oak Openings habitats in the 1980's by land managers,

habitats once again became favorable for this state-endangered species as lupines rebounded.

In 1992, a coalition including the Toledo Zoo, The Nature Conservancy, Michigan Department of Natural Resources, U.S. Fish and Wildlife Service, Metroparks of the Toledo Area, The Ohio Lepidopterists, and the Ohio Department of Natural Resources' divisions of Wildlife, Natural Areas and Preserves, and Forestry was formed to reintroduce the Karner blue back into Ohio. The Nature Conservancy's Kitty Todd Preserve in the Oak Openings was selected as the site most suitable for reintroduction. Grants from the Ohio Division of Wildlife and the U.S. Fish and Wildlife Service supported the project.

In 1997, live stock from Michigan was brought to the Toledo Zoo, where a population of adults was bred. In the summer of 1998, adults were released at Kitty Todd. They have reproduced and to date are doing well. Additional release sites in the Oak Openings are under consideration. This reintroduction project of an

endangered butterfly was not only a first for the State of Ohio, but also a first for the nation. The Karner blue is easily confused with two other blue butterflies, the eastern tailed-blue and summer azure. Karner blues have large redorange spots on their ventral hindwings and lack tail-like projections, characters that separate it

OCCURRENCE: Ja Fb Mr Ap Ma Jn Ju Ag Sp Oc Nv Dc

from those two species.

FOUR RARE OHIO BUTTERFLIES

FROSTED ELFIN Callophrys irus (Cal-oh-frees • eye-rus)





HABITAT: Oak savannas with wild lupine.
HOST PLANTS: Wild lupine (Lupinus perennis)
DISCUSSION: Like the Karner blue, this rare butterfly is another Oak Openings specialty. It is rare for the same reasons as the Karner blue, and its populations also seem to be on the upswing due to better habitat management. By

far our rarest elfin, the frosted elfin is similar to Henry's elfin but it has a more jagged line on the lower forewing, and a black dot towards the rear of the lower hindwing. Interestingly, a specimen was collected in Hamilton County in 1937, at the opposite end of the state. It

may have been that frosted elfins formerly occupied suitable habitats that harbored wild indigo (Baptisia species), host plants that are used elsewhere in the frosted elfin's range. Cincinnati-area habitats appropriate for frosted elfins are mostly long gone.

OCCURRENCE:	Ja	Fb	Mr	Ар	Ma	Jn	Ju	Ag	Sp	Ос	Nv	Dc





HABITAT: Wetlands with a diversity of sedges and flowering plants.

HOST PLANTS: Water smartweed (*Polygonum amphibium var. emersum*; the hairy, more terrestrial variety of this variable species); possibly other plants in this family.

DISCUSSION: Just as the Karner blue and frosted elfin tell the story of habitat loss in

the Oak Openings, this gorgeous little copper speaks to the disappearance of Ohio's wetlands. While never widely distributed, it was known historically from eleven counties of western Ohio, and likely occurred in others. As high-quality wetlands fell to the plow, development, or were altered by drainage activities, purplish coppers began to slip away. Today, only one

tiny population is known, near Toledo. It is not the only wetland-dependent Ohio butterfly to become endangered or vanish. The swamp metalmark (*Calephelis muticum*) has not been found since 1988, and the Mitchell's satyr (*Neonympha mitchellii*) was last reported in 1950.

FOUR RARE OHIO BUTTERFLIES

DI ISTED SKIDDED Atrytonopsis hianna (At-ry-to-nop-sis · hy-an-ah)

KIPPER FAMILY (Hesperlidge)



HABITAT: Prairies, savannas, and other dry openings dominated by bluestem grasses.

HOST PLANTS: Big bluestem (Andropogon gerardii) and little bluestem (Schizachyrium scoparium).

DISCUSSION: Dusted skippers were once known from prairie openings and dry grasslands in northwest Ohio, and a few colonies in southeastern Ohio. It has not been seen in the southeast for more than a decade and is now

known from only two small colonies in the Oak Openings west of Toledo. Males rest on the ground where the grasses have been matted down. They will fly up in fast spiral-like flight and then settle back down a short distance away. Many males will join in this flight. They nectar on various spring-blooming flowers like dwarf-dandelion (Krigia virginica), cinquefoils (Potentilla canadensis and P. simplex), and others. Only one of the known colonies is protected. This species

may need state protection and records should be reported to The Ohio Lepidopterists. This medium size skipper, (wings I 3/8 – I 11/16 inches), can be separated from other skippers by the white dot on the ventral hind wings near the thorax and the large white markings on the dorsal forewings of females. These white forewing marks are greatly reduced in males. The dusted skipper flies in late May and early lune.

OCCURRENCE:	Ja	Fb	Mr	Ар	Ма	Jn	Ju	Ag	Sp	Ос	Nv	Do

OBSERVATION AND IDENTIFICATION TIPS



While similar to the American lady, the painted lady is strictly an immigrant, invading Ohio each year from the south. Adults cannot withstand our winters, and must recolonize northern areas each year.



Skippers have club-tipped antennae that resemble little hooks. They also tend to be duller-colored than butterflies, and have stockier bodies.



Butterflies, like this Northern metalmark, have knob-tipped antennae, thinner, sleeker bodies than skippers, and are usually more colorful and ornately marked.

This booklet is small enough to be carried into the field. Onsite identification is always better than trusting one's memory. Many butterfly observers take photographs of the insect in the field to further check identification later. The advent of digital cameras has greatly increased the ease in which good photographs can be taken. A method of butterfly

popular involves the use of a pair of close-focusing binoculars that will focus sharply at a distance of six feet or less. Joining groups with more ex-

watching that is becoming very

perienced butterfly enthusiasts is an invaluable strategy to improving your butterfly identification skills. For instance, The Ohio Lepi-

dopterists has a butterfly observers group that welcomes enthusiasts.

There is much we still do not know about the butterflies and skippers of Ohio. If you feel that you have found a rare Ohio butterfly or skipper, even if it is not in this booklet, you are encouraged to contact the Ohio Division of Wildlife or The Ohio Lepidopterists (www.OhioLepidopterists.org).

ACKNOWLEDGMENTS

We gratefully acknowledge the contributions of the following individuals: Leslie Angel, Tom Arbour, Tim Daniel, Jim Davidson, Cheryl Harner, Bill Hull, John Howard, Larry Jeanblanc, Dave Lewis, Dave Parshall, Valerie Passoa, John Pogacnik, John Watts, and Jeff Wolfinger. We are indebted to staff of the Ohio State University Museum of Biological Diversity for allowing us to utilize the collections. In addition, we thank the Ohio Lepidopterists for their support.

The Ohio Survey

GLOSSARY OF TERMS USED IN THIS BOOKLET

AESTIVATE – A type of hibernation during summer months.

APICULUS – a bend at the end of the antennae of many skippers.

BASKING – a thermal regulating behavior performed by opening or closing the wings while resting.

BROOD – A given generation. For instance, some butterflies are single-brooded; i.e. have but one hatch a year. Others might have two or three broods, or different distinct hatches, in a season.

CELL – the elongated open wing area near the costal margin of the forewing, and another more centrally located on the hindwing.

COSTAL MARGIN – the edge of the forewing from the body to the wing apex or tip.

CHEVRON – a field mark consisting of two lines meeting to form a "V" shape on the ventral hindwing, and pointing backwards.

CRYPTIC SPECIES – a species that visually blends into its environment.

DORSAL – back, or top side.

 $\mathbf{EYE}\mathbf{-SPOT}-\mathbf{a}$ round mark with a dark or light center.

FIELD MARKS – structures or scales on the wings or bodies of butterflies and skippers which are important in species identification.

FOREWINGS – the pair of wings that join the thorax closest to the head.

GRAVID FEMALE- a fertile female.

HILL-TOPPING – Many species of butterflies congregate at the highest points of land available, probably to increase the likelihood of male and female interactions.

HINDWING – the pair of wings that join the thorax closest to the abdomen.

HOST PLANT – A specific species of plant required for food by a butterfly larva.

HYBRIDIZE – the mating of two different species usually producing infertile offspring; e.g. red-spotted purple x viceroy.

LABIAL PALPS – the paired olfactory and cleaning structure on the face of butterflies and moths.

LARVAE – the caterpillar stage of complete metamorphosis.

LEADING MARGIN – the apical curve of the outer margin on the hindwing leading to the base of the wing.

LEPIDOPTERA – The order of insects that includes butterflies and moths.

MEDIAL - middle.

MIMICRY – when one species gains protection by looking like (mimicking) another often distasteful species (model).

MINERAL SALTS – dissolved organic salts taken in by males while "puddling" and transferred to females during mating.

MOTTLING – a variegated wing pattern often like that of wood grain, often creating a splotchy appearance.

OSMETERIUM – A fleshy organ, normally hidden, attached to the heads of caterpillars in the swallowtail family. It is often thrust out when the caterpillar is threatened, and expels foul-smelling secretions.

OUTER MARGIN – the edge of the wings farthest from the butterfly body.

PHEROMONE – a specialized chemical released by insects to aid in mate location.

PROBOSCIS – a paired-tube on the head of butterflies used to siphon nutrients; a tongue, essentially.

PUDDLE CLUB – Gatherings of many butterflies at attractive sources of minerals, usually damp spots, mud puddles and the like.

STIGMA – specialized scales on the male forewing and the source of male pheremones.

THORAX – chest or middle body region, where legs and wings attach.

VENTRAL - underside.

WRIST CHAIN – a series of brown dots that line up much like the beads of a necklace.

ORGANIZATION CONTACT INFORMATION

AULIWOOD AUDUBON CENTER & FARM

1000 Aullwood Rd. • Dayton, OH 45414 937-890-2382 http://aullwood.center.audubon.org

BEAVER CREEK WETLANDS ASSOCIATION

P.O. Box 42 • Alpha, OH 45301 937-320-9042

www.beavercreekwetlands.org

CINCINNATI MUSEUM CENTER

1301 Western Avenue • Cincinnati, OH 45203 513-287-7000 www.cincymuseum.org

CUYAHOGA VALLEY NATIONAL PARK

15610VaughnRoad • Brecksville, OH 44141 216-24-1497 www.nps.gov/cuva

DARKE COUNTY PARK DISTRICT

PO. Box 801 • 4267 State Route 502 Greenville, OH 45331 937-548-0165 www.darkecountvbarks.org



FRANKLIN COUNTY METROPARKS

1069 W. Main Street • Westerville, OH 43081 614-891-0700 www.metroparks.net

HAMILTON COUNTY PARK DISTRICT

10245 Winton Road • Cincinnati, OH 45231 513-521-7275 www.hamiltoncountyparks.org

LAKE METROPARKS

11211 Spear Road • Concord Twp., OH 44077 440-39-7275 www.lakemetroparks.com

LORAIN COUNTY METROPARKS

12882 Diagonal Road • LaGrange, OH 44050 I-800-LCM-PARK www.loraincountymetroparks.com

METROPARKS OF THE TOLEDO AREA

5100 W. Central Avenue • Toledo, OH 43615-2100 419-407-9700 www.metroparkstoledo.com

OHIO HISTORICAL SOCIETY

1982 Velma Ave. • Columbus, OH 43211 614-297-2300 www.ohiohistory.org

OTTAWA NATIONAL WILDLIFF REFUGE

14000 West State Rte. 2 Oak Harbor, OH 43449 419-898-0014 www.fws.gov/Midwest/Ottawa

THE NATURE CONSERVANCY, OHIO CHAPTER 6375 Riverside Drive, Suite 50 • Dublin, OH 43017

614-717-2770 www.nature.org/wherewework/northamerica/ states/ohio/preserves/

THE OHIO LEPIDOPTERISTS

274 Westview Ave. • Columbus, OH 43214-1428 www.ohiolepidopterists.org

THE WILDS

14000 International Road • Cumberland, OH 43732 740-638-5030 www.thewilds.org

DIVISION OF FORESTRY

2045 Morse Rd., H-I • Columbus, OH 43229 614-265-6694 www.dnr.state.oh.us/forestry

DIVISION OF NATURAL AREAS & PRESERVES

2045 Morse Rd., F-I • Columbus, OH 43229 614-265-6453 www.dnr.state.oh.us/dnab

DIVISION OF PARKS AND RECREATION

2045 Morse Rd., C-2 • Columbus, OH 43229 614-265-6561 www.dnr.state.oh.us/parks

DIVISION OF WILDLIFE

2045 Morse Rd., G-3 • Columbus, OH 43229 614-265-6300 www.wildohio.com

SUGGESTED-REFERENCES

Glassberg, Jeffrey. 1999. **Butterflies Through Binoculars**, the East Oxford University Press, NY.

Daniels, Jaret C. 2004. **Butterflies of Ohio**.

Adventure Press, Cambridge, Mn.

Itner, David C., John A. Shuey, & John V. Calhoun. 1992. **Butterflies and Skippers** of Ohio. Ohio Biological Survey,

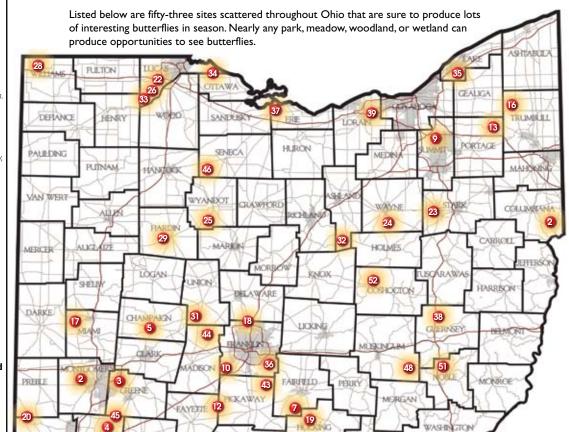
Columbus, OH.

Kaufman, Kenn, & Jim P. Brock. 2003. **Kaufman Field Guide to Butterflies of North America**. *Houghton Mifflin Company*, NY.

Mitchell, Robert T., & Herbert S. Zim. 1987. **A Golden Guide: Butterflies and Moths** (Revised edition). *Golden Press, NY.*

Opler, Paul A. 1998. A
Field Guide to Eastern
Butterflies. Peterson Field
Guide Series, Houghton
Mifflin Company, NY.

BUTTERFLY HOTSPOTS IN OHIO



Scott, James A. 1986. **The Butterflies of North America.** Stanford University
Press, Stanford, Ca.

Wagner, David L. 2005.

Caterpillars of Eastern North America. *Princeton University Press, Princeton, NJ*



- I. AULLWOOD AUDUBON CENTER & FARM
- BEAVER CREEK STATE PARK
- 3. BEAVER CREEK WETLANDS
- 4. CAESAR CREEK STATE PARK
- 5. CEDAR BOG STATE MEMORIAL ohio historical society
- 6. CHAPARRAL PRAIRIE STATE NATURE PRESERVE
- 7. CLEAR CREEK VALLEY METROPARK franklin county metroparks
- 8. CROWN CITY WILDLIFE AREA
- 9. CUYAHOGA VALLEY NATIONAL PARK
- 10. DARBY CREEK METROPARK franklin county metroparks
- II. DEAN STATE FOREST
- 12. DEER CREEK WILDLIFE AREA
- 13. EAGLE CREEK STATE NATURE PRESERVE
- 14. EDGE OF APPALACHIA PRESERVE the nature conservancy/cincy museum cntr
- 15. FORT HILL STATE MEMORIAL ohio historical society
- 16. GRAND RIVER WILDLIFE AREA
- 17. GREENVILLE FALLS STATE NATURE PRESERVE
- 18. HIGHBANKS METROPARK franklin county metroparks
- 19. HOCKING STATE FOREST
- 20. HUESTON WOODS STATE PARK
- 21. INDIAN CREEK WILDLIFE AREA
- 22. IRWIN PRAIRIE STATE NATURE PRESERVE
- 23. JACKSON BOG STATE NATURE PRESERVE
- 24. KILLBUCK MARSH WILDLIFE AREA
- 25. KILLDEER PLAINS WILDLIFE AREA
- 26. KITTY TODD PRESERVE the nature conservancy
- 27. LAKE KATHARINE STATE NATURE PRESERVE
- 28. LAKE LA SU AN WILDLIFE AREA

- 29. LAWRENCE WOODS STATE NATURE PRESERVE
- 30. MIAMIWHITEWATER FOREST METROPARK hamilton county park district
- 31. MILFORD CENTER PRAIRIE STATE NATURE PRESERVE
- 32. MOHICAN STATE FOREST
- 33. OAK OPENINGS METROPARK metroparks of the toledo area
- 34. OTTAWA NATIONAL WILDLIFE REFUGE
- 35. PENITENTIARY GLEN RESERVATION lake metroparks
- 36. PICKERINGTON PONDS METROPARK franklin county metroparks
- 37. RESTHAVEN WILDLIFE AREA
- 38. SALT FORK STATE PARK
- 39. SANDY RIDGE RESERVATION lorain county metroparks
- 40. SCIOTO TRAIL STATE FOREST
- 41. SHAWNEE PRAIRIE PRESERVEdarke county park district
- 42. SHAWNEE STATE FOREST
- 43. SLATE RUN METROPARK franklin county metroparks
- 44. SMITH CEMETERY STATE NATURE PRESERVE
- 45. SPRING VALLEY WILDLIFE AREA
- 46. SPRINGVILLE MARSH STATE NATURE PRESERVE
- 47. TAR HOLLOW STATE FOREST
- 48. THEWILDS
- 49. TRANQUILITY WILDLIFE AREA
- 50. WATERLOO WILDLIFE AREA
- 51. WOLF RUN STATE PARK
- 52. WOODBURY WILDLIFE AREA
- 53. ZALESKI STATE FOREST

LOCATION

DATE

SPECIES

	Silver-spotted Skipper, Epargyreus clarus	ct
	Long-tailed Skipper, Urbanus proteus -K- Golden-banded Skipper Autochtan cellus	
JL	Hoory Edge Arhamis haides	
	Spathallus) V
	Northern Cloudywing, Thorybes pylades	
Ш	Confused Cloudywing, Thorybes confusis -R-	
Ш	Hayhurst's Scallopwing, Staphylus hayhurstii	
Ш	Dreamy Duskywing, Erynnis icelus	7
	Sleepy Duskywing, Erynnis brizo	
	Juvenal's Duskywing, Erynnis juvenalis	
	Horace's Duskywing, Erynnis horatius	
	Mottled Duskywing, Erynnis martialis	
	Columbine Duskywing, Erynnis lucilius X	
	Wild Indigo Duskywing, Erynnis baptisiae	\sim
	Funereal Duskywing, Erynnis funeralis -K-	
	Persius Duskywing, Erynnis persius	
	Grizzled Skipper, Pyrgus centaureae	
	nunis	
	Common Sootywing, Pholisora catullus	<u></u>
	Swarthy Skipper, Nastra Iherminier	
	Clouded Skipper, Lerema accius -R-	
	Least Skipper, Ancyloxypha numitor	
	na -R-	
	European Skipper, Thymelicus lineola	
	Fiery Skipper, Hylephila phyleus	
Ш	Leonard's Skipper, Hesperia leonardus	
	Cobweb Skipper, Hesperia metea	
	Indian Skipper, Hesperia sassacus	
	Peck's Skipper, Polites peckius	\sim
	Tawny-edged Skipper, Polites themistocles	
	Crossline Skipper, Polites origenes	
	Long Dash, Polites mystic	
	Northern Broken-dash, Wallengrenia egeremet	4
	Little Glassywing, Pompeius vema	
	Delaware Skipper, Anatrytone logan	10
	Mulberry Wing, Poanes massasoit	
	Zobulon Clyinon Bonno Periods	0 -
	Zabuloti Skipper, routies zabuloti Prood winged Kripper Popper Proper virtor	
JL	Dion Skinper, Futhwes dion	
	Duke's Skipper, Euphyes dukesi	
	Two-spotted Skipper, Euphyes bimacula	
	Black Dash, Euphyes conspicua	
Ш	Dun Skipper, Euphyes vestris	~
Ш	Dusted Skipper, Atrytonopsis hianna	
Ш	Pepper and Salt Skipper, Amblyscirtes hegon	
Ш	Common Roadside-skipper, Amblyscirtes vialis	
	Bell's Roadside-skipper, Amblyscirtes belli -R-	
	Eufala Skipper, Lerodea eufala -K- B	
	Draziliali əkipper, carpodes etilidə -K- Ocola skipper Pananina ocola -N-	
Í	Committee Maintenance Maintenance Maintenance Maintenance Metalmonte Manachal Strongers	2

Hairstreaks, & Blues Metalmarks Brushfooted Skippers ★ Threatened ▼ Endangered **R** Rare/stray Swallowtails Whites & Sulphurs Harvesters, Coppers, X Extirpated from Ohio Non resident

SPECIES DATE LOCATION	Z
Early Hairstreak, Erora laeta	
Reakirt's Blue, Echinargus isola -R-	
Red-banded Hairstreak, Calycopis cecrobs	
Gray Hairstreak, Strymon melinus	
Marine Blue, Leptotes marina -R-	
Eastern Tailed-Blue, Cupido comyntas	
Spring Azure, Celastrina ladon	
Summer Azure, Celastrina neglecta	
Appalachian Azure, Celastrina neglectamajor	
Dusky Azure, Celastrina nigra	
Silvery Blue, Glaucobsyche lygdamus	
Narner Diue, Lycaeides meilssa samuelis	PG09
Northern Metalmark, Calephelis Borealis	
Swall by Lecallitar K, Curephens mancant 💉	
Variegated Fritillary Eutholeta claudia	
Diana Fritillary, Speverio diana X	
Regal Fritillary, Speyeria idalia ▼ *	
Atlantis Fritillary, Speyeria atlantis -R-	
Great Spangled Fritillary, Speyeria cybele	
Aphrodite Fritillary, Speyeria aphrodite	PG34
bordered Fritillary, Boloria selene 🖈	
Meadow Fritillary, Boloria bellona	
Silvery Checkerspot, Chlosyne nycteis	
Harris's Checkerspot, Chlosyne harrisii	
Pearl Crescent, Phydodes tharos	PG37
Baltimore Checkerspot, Euphydryas phaeton	
Question Mark, Polygonia interrogationis	PG39
Eastern Comma, Polygonia comma	
Gray Comma, Polygonia brogne	
Compton Tortoiseshell, Nymphalis vaualbum	
Mourning Cloak, Nymphalis antioba	
Milbert's Tortoiseshell, Aglais milberti	
Red Admiral, Vanessa atalanta	
American Lady, Vanessa virginiensis	
Painted Lady, Vanessa cardui -N-	
Common Buckeye, Junonia coenia -N-	PG44
Red-spotted Purple, Limenitis arthemis	PG45
Viceroy, Limenitis archippus	PG46
Goatweed Leafwing, Anaea andria -R-	
Hackberry Emperor, Asterocampa celtis	PG47
Tawny Emperor, Asterocampa clyton	PG48
American Snout, Libytheana carinenta	PG32
Northern Pearly-Eye, Enodia anthedon	PG50
Eyed Brown, Satyrodes eurydice	
Appalachian Brown, Satyrodes appalachia	
Gemmed Satyr, Cyllopsis gemma	
sybius	
Mitchell's Satyr, Neonympha mitchellii 🔻 🛪	
Little VVOOG - Satyr, Megisto cymeia	
Common Wood-14ympn, Cercyonis pegaia	PG52
Ouses Danus ailthus - R-	PG49
it, Dandas giilppus	Skinpers
Swellowdais Whites & Sulphus -1. Swellowdais Whites & Sulphus -1.	ushfooted

* Threatened ▼ Endangered **R** Rare/stray allowtails "Whites & Sulphurs "Harvesters, Coppers

* Extirpated from Ohio II Non resident OHIO DEPARTMENT OF NATURAL RESOURCES • DIVISION OF WILDLIFE Graham, Chief Σ David Sean D. Logan, Director Strickland, Governor Ted

SKIPPE



PUBLICATION 204 (808)
Total Quantities Printed XX00 Unit cost \$XXX Publication date 200



The following is a comprehensive listing of all of the species of butterflies that have been documented in Ohio.

LOCATION	PG 12	PG 13	PG 14	PG 15	PG 16	PG 17																															
DATE		S			ncns		_	8						:a -R-										us -R-			dsii		vorus			6					mile
SPECIES	Pipevine Swallowtail, Battus philenor	Zebra Swallowtail, Eurytides marcellus	Black Swallowtail, Papilio polyxenes	Giant Swallowtail, Papilio cresphontes	Eastern Tiger Swallowtail, Papilio glaucus	Spicebush Swallowtail, Papilio troilus	Checkered White, Pontia protodice -N	West Virginia White, Pieris virginiensis	Cabbage White, Pieris rapae	Olympia Marble, Euchloe olympia 🗙	Falcate Orangetip, Anthocharis midea	Clouded Sulphur, Colias philodice	Cloudless Sulphur, Phoebis sennae -II-	Orange-barred Sulphur, Phoebis philea -R-	Orange Sulphur, Colias eurytheme	Southern Dogface, Colias cesonia -N-	Little Yellow, Pyrisitia lisa -N-	Sleepy Orange, Abaeis nicippe -N-	Dainty Sulphur, Nathalis iole -N-	Harvester, Feniseca tarquinius	American Copper, Lycaena phlaeas	Bronze Copper, Lycaena hyllus	Purplish Copper, Lycaena helloides 🔻	Great Purple Hairsteak, Atlides halesus -R	Coral Hairstreak, Satyrium titus	Acadian Hairstreak, Satyrium acadica	Edwards' Hairstreak, Satyrium edwardsii	Banded Hairstreak, Satyrium calanus	Hickory Hairstreak, Satyrium caryaevorus	Striped Hairstreak, Satyrium liparops	Oak Hairstreak, Satyrium favonius	Juniper Hairstreak, Callophrys gryneus	Brown Elfin, Callophrys augustinus	Frosted Elfin, Callophrys irus 🔻	Henry's Elfin, Callophrys henrici	Eastern Pine Elfin, Callophrys niphon	White M Hairstreak, Parrhasius m-album

■Metalmarks ■Brushtooted ■Skippers ★ Threatened Endangered R Rare/stray Non resident X Extirpated from Ohio wrails Whites & Sulphurs