

**BONUS
SECTION**

Which Butterfly Is That?



The petals of this zinnia make a great landing pad for the giant swallowtail (*Papilio cresphontes*) to steady itself as it sips from the small yellow flowers in the center.

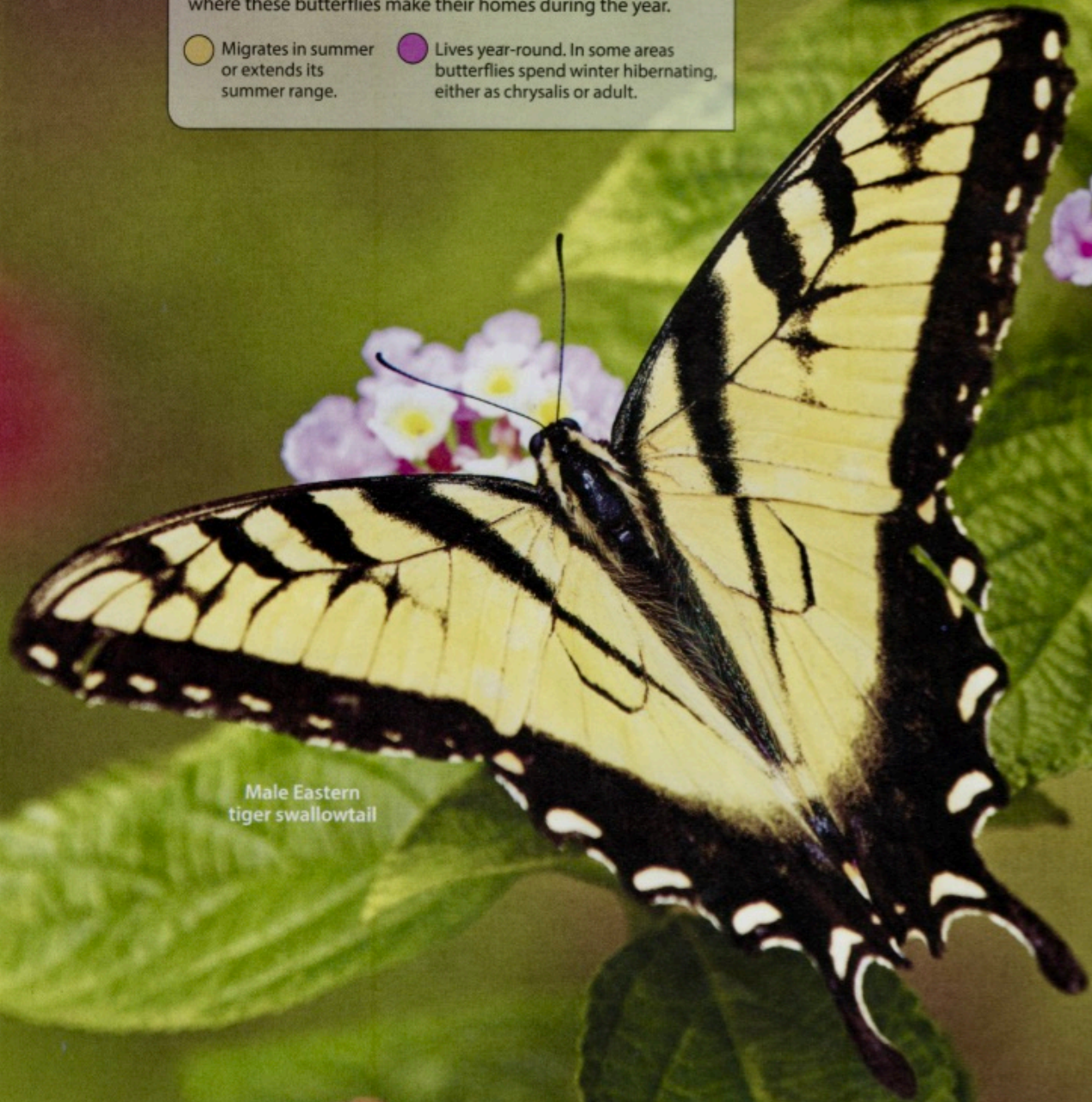
Giant Swallowtail Butterfly

Knowing a little bit about your favorite butterflies will help ensure you're doing all you can to bring them in. Ever see one you didn't recognize? Identification can be a bit of a challenge because some butterfly species mimic others to fool predators; then there are seasonal variations and the differences between male and female. This guide will get you started. In addition, visit www.butterfliesandmoths.org for more identification tips. >>

KEY: Butterfly Range

The color-coded maps on the following pages will show you where these butterflies make their homes during the year.

-  Migrates in summer or extends its summer range.
-  Lives year-round. In some areas butterflies spend winter hibernating, either as chrysalis or adult.



Male Eastern
tiger swallowtail

Male Eastern Tiger Swallowtail Butterfly

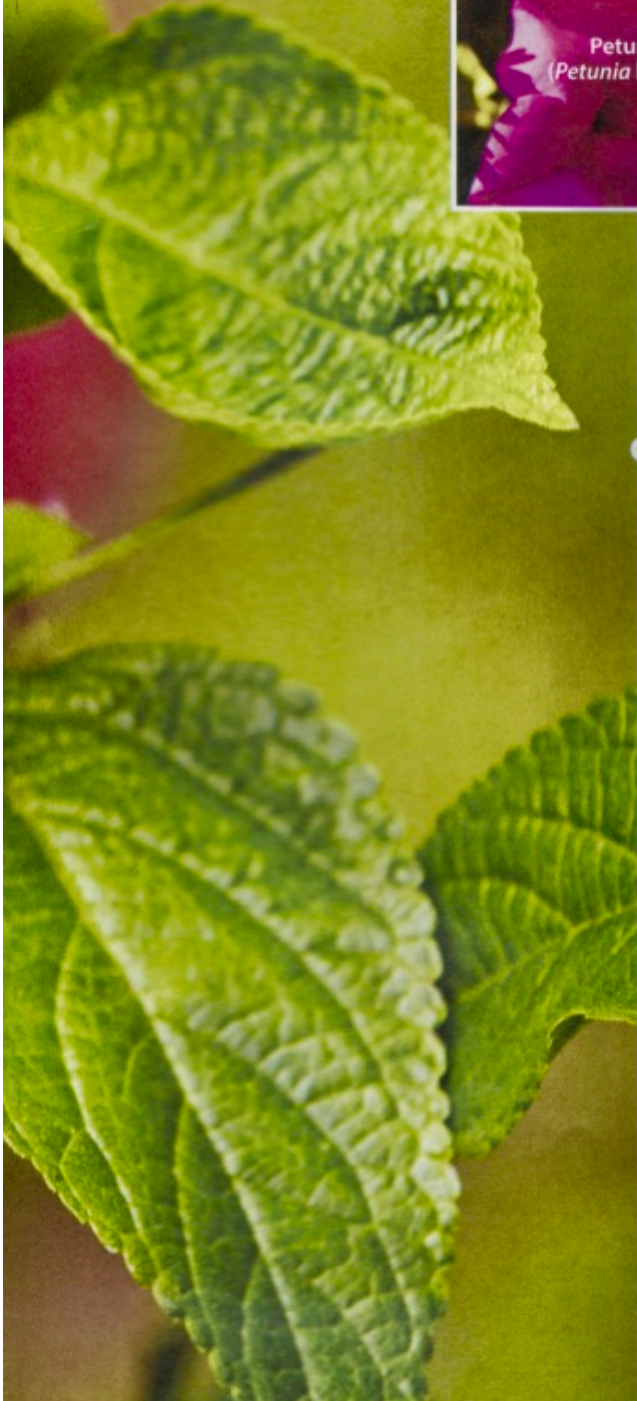


Lantana
(*Lantana hybrid*)



Female Eastern
tiger swallowtail

Petunia
(*Petunia hybrid*)



Eastern tiger swallowtail

Papilio glaucus



These big butterflies are hard to miss as they flit through the garden. Their signature tails extend from the lower wings, and tigerlike black stripes taper down from the top. Males and females look very similar but the females have the iridescent blue you see in the photo below. Females can also be dimorphic, which means some of them emerge from the chrysalis with the color variation you see in the illustration below.

Both the adult and caterpillar eat from a variety of plants, and there are usually two generations in the North and three in the South, with the last one overwintering as a chrysalis until spring, instead of migrating. Eastern tiger swallowtails have a wide distribution and are found in many different areas, from deciduous woods to backyard gardens.

WINGSPAN: 2½ to 4½ in. **ADULT FOOD:** Joe-Pye weed (*Eutrochium* spp. and hybrids), lilac (*Syringa vulgaris*), milkweed (*Asclepias* spp. and hybrids) **LARVAL PLANTS:** Ash (*Fraxinus* spp.), cottonwood (*Populus* spp.) and sweetbay magnolia (*Magnolia virginiana*)



Female
dimorphic
coloration

Final instar size
up to 2 in.



BUTTERFLY & LARVA ILLUSTRATIONS: David Kalllemyn

Eastern Tiger Swallowtail Butterfly



Giant swallowtail

Papilio cresphontes

This is the biggest swallowtail in North America. While it's beautiful to watch adults darting from flower to flower, the caterpillars can sometimes be a pest when you're growing small citrus trees. They love the tender new growth. Larger trees seem to tolerate the damage without a problem. Giant swallowtail doesn't migrate but spends winter as a chrysalis suspended from slender silk threads attached to a small twig or branch. It has two or three generations each summer.

When caterpillars are threatened, they extend the osmeterium, a gland on the head that looks like orange antennae. The osmeterium exudes a foul smell.

WINGSPAN: 4 to 6 in. **ADULT FOOD:**

Azalea (*Rhododendron* spp. and hybrids), lantana (*Lantana* spp. and hybrids) and goldenrod (*Solidago* spp. and hybrids)

LARVAL PLANTS: Trees in the citrus family, including hop tree (*Ptelea trifoliata*) and prickly ash (*Zanthoxylum americanum*).

The underside of the wings is yellow and black with iridescent blue on the hindwing.



Final instar size up to 2½ in.



Zinnia
(*Zinnia* spp. and hybrids)

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Monarch

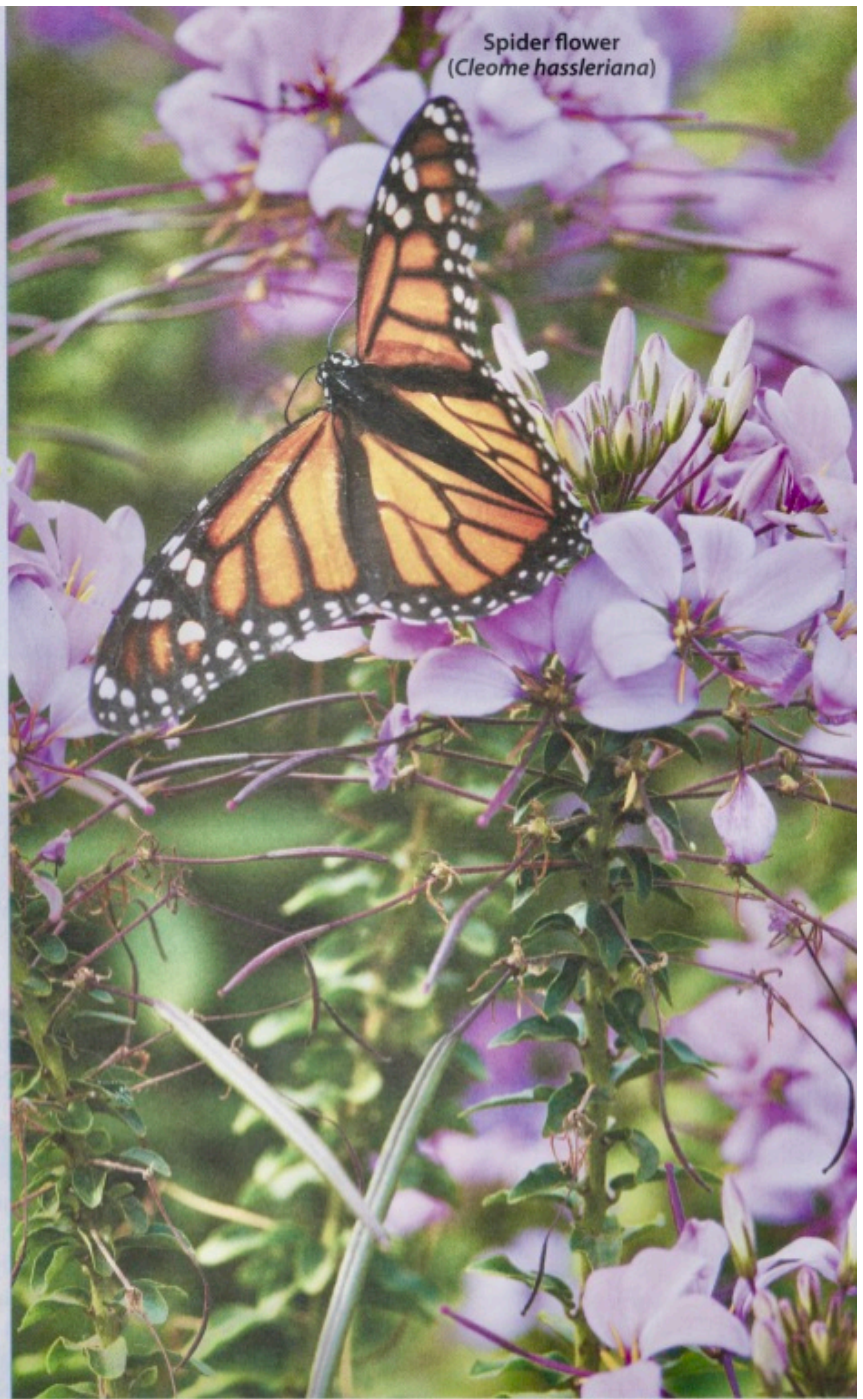
Danaus plexippus

The familiar orange and black coloring of this migration superstar is actually a warning for predators to “look out!” That’s because the caterpillar spent weeks eating milkweed, which is filled with cardenolides that are toxic to vertebrates. These are stored in the body, making even the adults hazardous to eat.

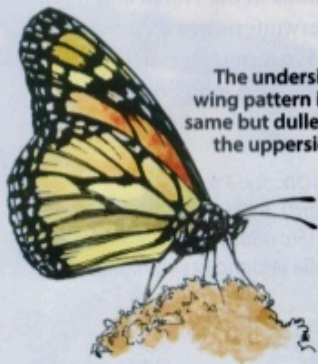
Monarchs are often confused with a couple of similar butterflies. Compare them in the illustrations below and you’ll see the differences.

Adults don’t survive cold winter temperatures so they migrate south. In summer, the butterflies that don’t migrate live 2 to 5 weeks but the final generation migrates and lives up to 9 months, laying eggs in spring. Cool weather slows their metabolism down to conserve energy.

WINGSPAN: 4½ to 6 in. **ADULT FOOD:** Milkweed (*Asclepias* spp. and hybrids), lantana (*Lantana* hybrids) and spike blazing star (*Liatris spicata*) **LARVAL PLANTS:** Milkweed (*Asclepias* spp. and hybrids)



Spider flower
(*Cleome hassleriana*)



The underside wing pattern is the same but duller than the upperside.

Final instar size up to 2 in.



Monarch



Viceroy

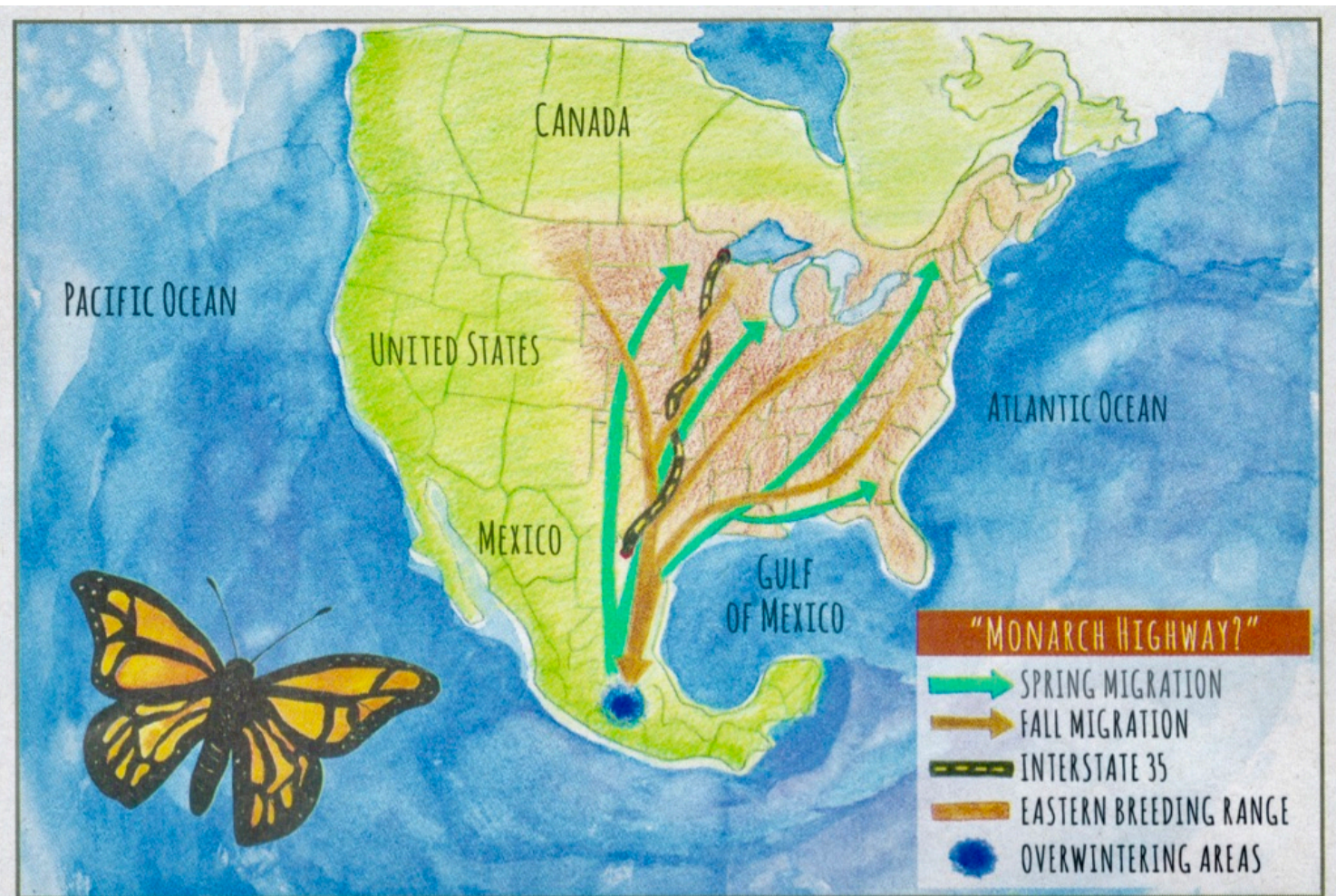


Queen

Stripe

Which butterfly is which?

The quickest way to tell a monarch, viceroy and queen apart is to look for the prominent stripe the viceroy has across its lower wing.



ELISE LAW

Most North American monarch butterflies (right, on butterfly weed) breed east of the Rocky Mountains and overwinter in high-elevation Mexican forests. To help the imperiled insects, scientists propose restoring patches of habitat extending 100 miles from each side of Interstate 35, a project that would help monarchs across a large swath of breeding and migratory ranges.

Migration pattern of the Monarch Butterfly

Common buckeye

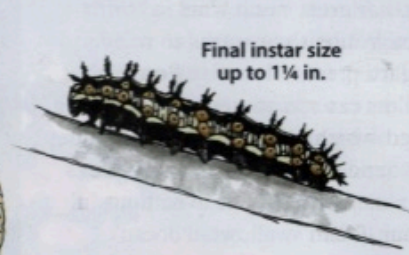
Junonia coenia



It's easy to identify the common buckeye with those big eyespots on its wings. Females are larger than males, and individuals of either sex may have duller coloring than others. This wary butterfly is quick to fly away and does so in erratic bursts close to the ground. It can often be found basking on the ground in open areas.

Common buckeye lives year-round in the southern part of the United States, along the coast of central California and North Carolina. In spring, the first of two generations moves north as far as parts of southern Canada until late summer to fall, when the adults migrate south.

WINGSPAN: 1¾ to 2¾ in. **ADULT FOOD:** Aster (*Symphyotrichum* spp. and hybrids), white clover (*Trifolium repens*) and chicory (*Cichorium intybus*) **LARVAL PLANTS:** Snapdragon (*Antirrhinum* hybrids), verbena (*Verbena* spp. and hybrids) and plantain (*Plantago major*)



Final instar size up to 1¼ in.

When the wings are closed, the eyespots are not as prominent.



Common Buckeye



Painted lady

Vanessa cardui

Found all over the world, painted lady is a common garden visitor. It migrates north from the southwestern United States and northern Mexico in spring and summer and in fall returns to warmer areas, where adults hibernate.

Both the adult and caterpillar eat a wide variety of plants. Any daisylike flower, such as this zinnia in the photo, is attractive to painted ladies.

Though similar to the American lady butterfly, the painted lady has four eyespots on the outside hindwings, instead of two like the American lady.

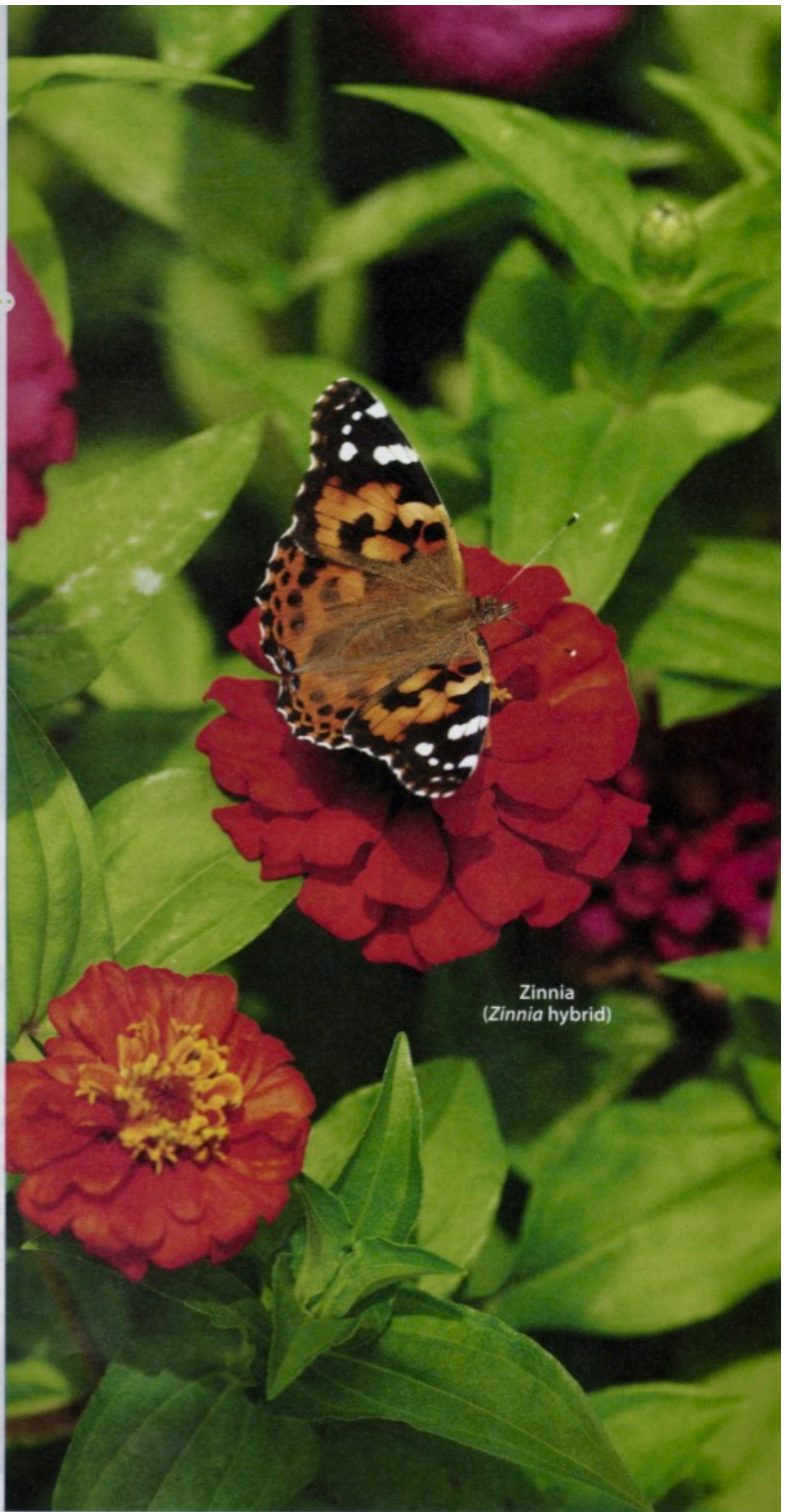
WINGSPAN: 2 to 3 in. **ADULT FOOD:** Aster (*Symphotrichum* spp. and hybrids), cosmos (*Cosmos* spp. and hybrids) and spike blazing star (*Liatris spicata*) **LARVAL PLANTS:** Thistle (*Cirsium* spp.), hollyhock (*Alcea rosea*) and mallow (*Malva* spp. and hybrids)



Painted lady has a duller underside wing pattern.



Final instar size up to 1¼ in.



Zinnia
(Zinnia hybrid)



Male

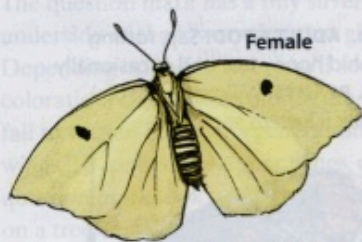


California dogface

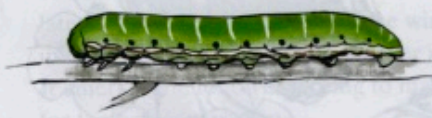
Zerene eurydice

This little butterfly is only found in California. There are two generations a year and adults hibernate in winter. There's also a southern dogface (*Zerene cesonia*), which has a wider range and looks very similar.

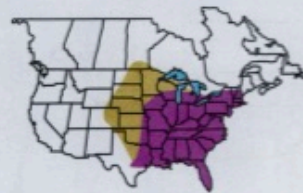
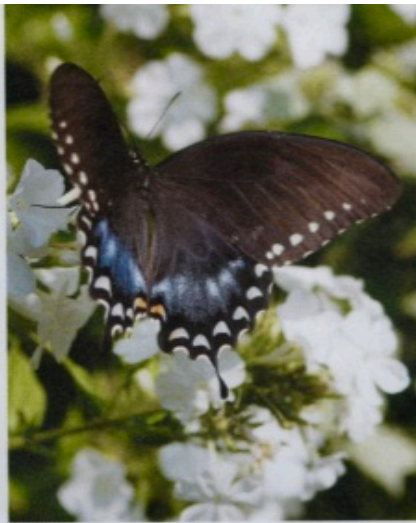
WINGSPAN: 2 to 2½ in. **ADULT FOOD:** California buckeye (*Aesculus californica*), thistle (*Cirsium* spp.) and white clover (*Trifolium repens*) **LARVAL PLANT:** False indigo bush (*Amorpha californica*)



Female



Final instar size up to 1 in.

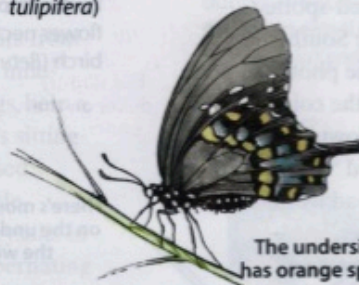


Spicebush swallowtail

Papilio troilus

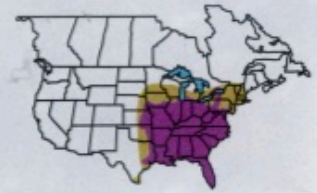
Dramatic wings of black and blue (for females) or blue-green (for males) make this butterfly hard to miss. Caterpillars spin a mat of silk that pulls the sides of the leaves together, giving protection as they feed. There are two to three generations each year.

WINGSPAN: 3 to 4 in. **ADULT FOOD:** Honeysuckle (*Lonicera* spp.), milkweed (*Asclepias* spp. and hybrids) and azalea (*Rhododendron* spp. and hybrids) **LARVAL PLANTS:** Spicebush (*Lindera benzoin*), sweetbay magnolia (*Magnolia virginiana*) and tulip tree (*Liriodendron tulipifera*)



The underside has orange spots.

Final instar size up to 1½ in.



Zebra swallowtail

Eurytides marcellus

Zebra swallowtails have the longest tail of any butterfly in North America. There are two or three generations each year. Late-season chrysalises overwinter and those spring adults are smaller with shorter tails.

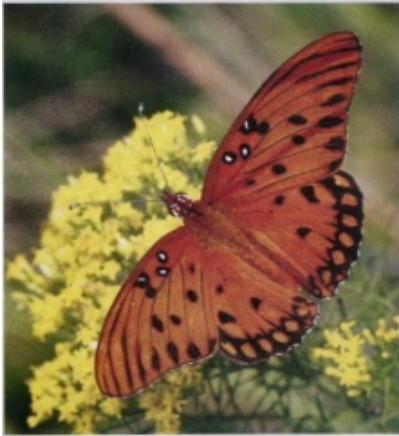
WINGSPAN: 2½ to 4 in. **ADULT FOOD:** Flowers of blueberry (*Vaccinium* spp. and hybrids), lilac (*Syringa* spp. and hybrids) and redbud (*Cercis canadensis*) **LARVAL PLANTS:** Pawpaw (*Asimina* spp.)



A red stripe runs through the wings on the underside.

Final instar size up to 2 in.





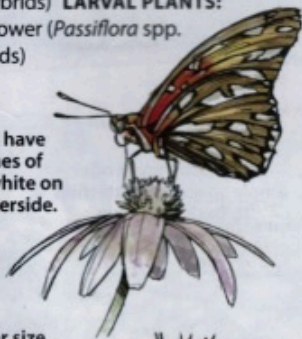
Gulf fritillary

Agraulis vanillae

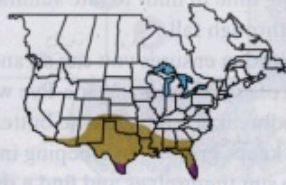
This butterfly makes its home mostly around the Gulf of Mexico, but it does wander as far north as parts of the Midwest in summer. Cold temperatures send adults back south in fall, though. There are one or two generations each year. The caterpillar's harmless spines are dull yellow after a molt and turn black after they've dried, usually by the following day.

WINGSPAN: 2½ to 3¾ in. **ADULT FOOD:** Lantana (*Lantana* hybrids), butterfly bush (*Buddleja* spp. and hybrids) and zinnia (*Zinnia* hybrids) **LARVAL PLANTS:** Passion flower (*Passiflora* spp. and hybrids)

Adults have splashes of silvery white on the underside.



Final instar size up to 1½ in.



Zebra longwing

Heliconius charithonia

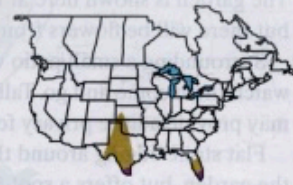
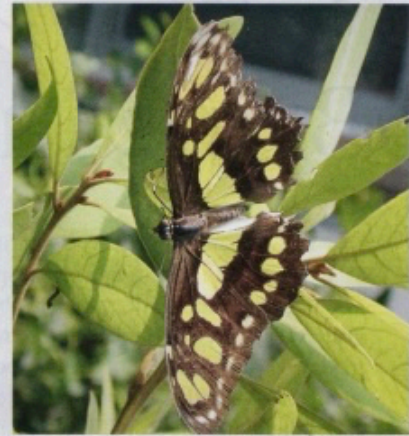
The showy zebra longwing is easy to spot leisurely flying from plant to plant. Adults sip nectar from many flowers and eat pollen, too. At night, groups of 25 to 30 individuals will roost within 6 ft. of the ground on trees or shrubs. There are three generations each year.

WINGSPAN: 2¾ to 4 in. **ADULT FOOD:** Lantana (*Lantana* hybrids), shepherd's needle (*Bidens alba*) and pollen **LARVAL PLANTS:** Passion flower (*Passiflora* spp. and hybrids)

Wings look the same but slightly duller on the underside.



Final instar size up to 1½ in.



Malachite

Siproeta stelenes

The distinctive green spots of the malachite vary in size and shape among individual butterflies. Caterpillars are black with red markings and spines that will cause a rash if you touch them. By sticking to warm winter areas, the malachite has multiple generations a year, and you can see adults anytime.

WINGSPAN: 3¼ to 4 in. **ADULT FOOD:** Rotting fruit, mud, and nectar from woody vines **LARVAL PLANTS:** Yerba maravilla (*Ruellia coccinea*) and green shrimp plant (*Blechum brownei*)

The underside of the wings are a paler brown than the upper side.



Final instar size up to 2 in.

