

- Some non-native plants grow with excessive vigor and compete for space with native plants. Because some non-natives could “escape” from your garden and threaten nearby wild habitat, they should be specifically avoided (see Landscaping for Wildlife with Native Plants, AG-636-03, <http://content.ces.ncsu.edu/landscaping-for-wildlife-with-native-plants>).
- Most ornamental plants are bred for color and bloom size, not for nectar production. While these cultivars may be attractive to us, many provide little benefit to wildlife.

Creating a butterfly habitat

Diversity

An effective butterfly habitat provides everything a butterfly needs to complete its life cycle.

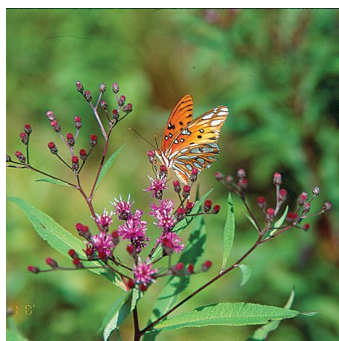
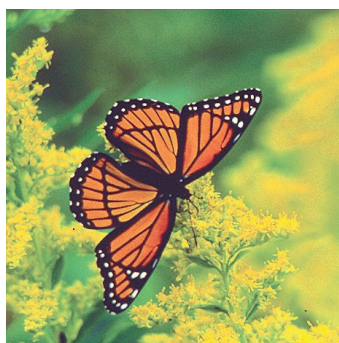


Figure 13. Goldenrod (top), ironweed (bottom), and other late-flowering plants provide important nectar sources for butterflies like the Viceroy (top) and Gulf Fritillary (bottom) during a time of the year when many popular ornamentals are not in bloom. Top photo courtesy of Thomas G. Barnes; bottom photo by Chris Moorman

Table 1. Some native host plants for North Carolina butterflies.

Scientific Name	Common Name	Butterfly Larvae
Trees		
<i>Betula alleghaniensis</i>	Yellow Birch	Mourning Cloak, Dreamy Duskywing
<i>Betula lenta</i>	Sweet Birch	
<i>Betula nigra</i>	River Birch	
<i>Carya glabra</i>	Pignut Hickory	Banded Hairstreak
<i>Carya tomentosa</i>	Mockernut Hickory	
<i>Celtis laevigata*</i>	Hackberry	American Snout, Mourning Cloak, Question Mark, Hackberry Emperor, Tawny Emperor
<i>Celtis tenuifolia</i>	Sugarberry	
<i>Chamaecyparis thyoides</i>	Atlantic White Cedar	Hessel's Hairstreak
<i>Fraxinus americana</i>	White Ash	Eastern Tiger Swallowtail
<i>Ilex opaca</i>	American Holly	Henry's Elfin
<i>Juniperus virginiana</i>	Eastern Redcedar	Juniper Hairstreak
<i>Liriodendron tulipifera*</i>	Yellow Poplar	Eastern Tiger Swallowtail
<i>Persea borbonia</i>	Redbay	Palamedes Swallowtail
<i>Pinus echinata</i>	Shortleaf Pine	Eastern Pine Elfin
<i>Pinus taeda</i>	Loblolly Pine	
<i>Populus deltoides</i>	Cottonwood	Viceroy, Red-spotted Purple
<i>Prunus americana</i>	Wild Plum	Coral Hairstreak, Eastern Tiger Swallowtail, Red-spotted Purple, Spring Azure, Viceroy
<i>Prunus angustifolia</i>	Chickasaw Plum	
<i>Prunus serotina*</i>	Black Cherry	
<i>Quercus</i> spp.	Oaks	Banded Hairstreak, Edward's Hairstreak, Gray Hairstreak, White-M Hairstreak, Horace's Duskywing, Juvenal's Duskywing
<i>Robinia pseudoacacia*</i>	Black Locust	Clouded Sulphur**, Zarucco Duskywing, Silver-Spotted Skipper
<i>Salix caroliniana</i>	Carolina Willow	Eastern Tiger Swallowtail, Mourning Cloak, Eastern Comma**, Red-spotted Purple, Viceroy
<i>Salix nigra*</i>	Black Willow	
<i>Sassafras albidum*</i>	Sassafras	Spicebush Swallowtail
<i>Ulmus alata</i>	Winged Elm	Painted Lady**, Eastern Comma, Mourning Cloak, Question Mark, Red-spotted Purple**
<i>Ulmus americana*</i>	American Elm	
Small Trees		
<i>Alnus serrulata</i>	Alder	Harvester (carnivorous larvae eat woolly aphids commonly found on alder)
<i>Amelanchier arborea</i>	Serviceberry	Red-spotted Purple, Viceroy**
<i>Asimina triloba</i>	Pawpaw	Zebra Swallowtail
<i>Carpinus caroliniana</i>	Ironwood	Eastern Tiger Swallowtail, Red-spotted Purple
<i>Cercis canadensis</i>	Redbud	Henry's Elfin
<i>Cornus florida</i>	Flowering Dogwood	Spring Azure
<i>Crataegus</i> spp.	Hawthorn	Gray Hairstreak, Red-spotted Purple**, Viceroy**
<i>Myrica cerifera</i>	Wax Myrtle	Red-Banded Hairstreak
<i>Rhus copallina</i>	Winged Sumac	Red-Banded Hairstreak
<i>Rhus glabra</i>	Smooth Sumac	
<i>Symplocos tinctoria</i>	Sweetleaf	King's Hairstreak
Shrubs		
<i>Asimina parviflora</i>	Dwarf Pawpaw	Zebra Swallowtail
<i>Ceanothus americanus</i>	New Jersey Tea	Mottled Duskywing
<i>Gaylussacia dumosa</i>	Dwarf Huckleberry	Henry's Elfin
<i>Gaylussacia frondosa</i>	Blue Huckleberry	
<i>Ilex glabra</i>	Inkberry	Henry's Elfin
<i>Lindera benzoin</i>	Spicebush	Palamedes Swallowtail, Spicebush Swallowtail
<i>Phoradendron serotinum</i>	Mistletoe	Great Purple Hairstreak
<i>Vaccinium arboreum</i>	Sparkleberry	Brown Elfin
<i>Vaccinium corymbosum</i>	Highbush Blueberry	
<i>Vaccinium stamineum</i>	Deerberry	

Table 1. Some native host plants for North Carolina butterflies (continued).

Scientific Name	Common Name	Butterfly Larvae
Vines		
<i>Aristolochia macrophylla</i>	Dutchman's Pipe	Pipevine Swallowtail
<i>Passiflora incarnata</i>	Passionflower	Gulf Fritillary, Variegated Fritillary, Zebra Heliconian
Herbs and Wildflowers		
<i>Agalinus</i> spp.	Gerardia	Common Buckeye
<i>Antennaria plantaginifolia</i>	Plantain-Leaved Pussytoes	American Lady
<i>Antennaria solitaria</i>	Solitary Pussytoes	
<i>Aristolochia serpentaria</i>	Virginia Snakeroot	Pipevine Swallowtail
<i>Aruncus dioicus</i>	Goat's Beard	Dusky Azure
<i>Asclepias incarnata</i>	Swamp Milkweed	Monarch
<i>Asclepias syriaca</i>	Common Milkweed	
<i>Asclepias tuberosa</i>	Butterfly Weed	
<i>Asclepias variegata</i>	White Milkweed	
<i>Aster carolinianus</i>	Climbing Aster	Pearl Crescent
<i>Aster novae-angliae</i>	New England Aster	
<i>Baptisia tinctoria</i>	Wild Indigo	Wild Indigo Duskywing
<i>Boehmeria cylindrica</i>	False Nettle	Eastern Comma, Question Mark, Red Admiral
<i>Chamaecrista fasciculata</i>	Partridge Pea	Cloudless Sulphur, Little Yellow, Sleepy Orange
<i>Chelone glabra</i>	White Turtlehead	Baltimore Checkerspot, Common Buckeye**
<i>Cimicifuga racemosa</i>	Black Cohosh	Appalachian Azure
<i>Cirsium horridulum</i>	Yellow Thistle	Little Metalmark, Painted Lady
<i>Desmodium</i> spp.	Beggarlice	Silver-Spotted Skipper, Hoary Edge, Northern Cloudywing, Southern Cloudywing, Gray Hairstreak, Eastern Tailed-Blue
<i>Eupatorium fistulosum</i>	Joe-Pye-Weed	Pearl Crescent
<i>Gnaphalium obtusifolium</i>	Rabbit Tobacco	American Lady
<i>Helianthus atrorubens</i>	Sunflower	Silvery Checkerspot
<i>Laportea canadensis</i>	Wood Nettle	Eastern Comma, Red Admiral
<i>Lespedeza capitata</i>	Bush Clover	Eastern Tailed-Blue
<i>Lespedeza virginica</i>	Virginia Bush Clover	
<i>Linaria canadensis</i>	Blue Toadflax	Common Buckeye
<i>Penstemon laevigatus</i>	Smooth Beardtongue	Common Buckeye
<i>Ruellia caroliniensis</i>	Wild Petunia	Common Buckeye
<i>Tephrosia virginiana</i>	Goat's Rue	Southern Cloudywing, Northern Cloudywing
<i>Thaspium barbinode</i>	Meadow Parsnip	Black Swallowtail
<i>Thaspium trifoliatum</i>	Hairy-Jointed Meadow Parsnip	
<i>Trifolium carolinianum</i>	Carolina Clover	Clouded Sulphur, Eastern Tailed-Blue, Orange Sulphur, Gray Hairstreak, Northern Cloudywing
<i>Trifolium reflexum</i>	Buffalo Clover	
<i>Urtica chamaedryoides</i>	Heartleaf Nettle	Painted Lady**, Eastern Comma, Question Mark, Red Admiral
<i>Urtica dioica</i>	Stinging Nettle	
<i>Viola</i> spp.	Violets	Fritillaries
<i>Zizia aptera</i>	Heart-Leaved Alexanders	Black Swallowtail
<i>Zizia trifoliata</i>	Golden Alexanders	
Grasses and Sedges		
<i>Andropogon</i> spp.	Bluestem, Broomsedge	Common Wood-Nymph, Various Skippers
<i>Erianthus</i> spp.	Plumegrass	
<i>Panicum</i> spp.	Panic Grasses	
<i>Schizachyrium scoparius</i>	Little Bluestem	
<i>Tridens flavus</i>	Purple Top	
<i>Arundinaria gigantea</i>	Switchcane	Southern Pearly-eye, Creole Pearly-eye, Various Skippers
<i>Carex</i> spp.	Sedges	Various Satyrs
<i>Uniola latifolia</i>	River Oats	Northern Pearly-eye

* Trees that can be pruned and kept at shrub size by cutting them to the ground every 2-3 years. In this way, people with small yards can increase tree species diversity.

** Rarely uses this host plant in North Carolina.

- Provide a good diversity of host plants to attract a variety of butterflies and their caterpillars (see Table 1). Caterpillars are voracious but picky eaters, and many feed only on a particular species of plant.
- Choose a variety of nectar plants that will provide food throughout the growing seasons, as different species of butterfly are active from early spring through late fall (see Table 2) (Figure 13).
- Choose flowers with blooms of different sizes and depths (Figure 14). Smaller butterflies, such as hairstreaks and skippers, have shorter proboscises and are unable to reach the nectar in larger blooms. Larger butterflies, such as swallowtails, favor larger blooms.
- Consider the moisture and light requirements of plants before introducing them to your butterfly habitat. Choose only the plants most appropriate for your area.

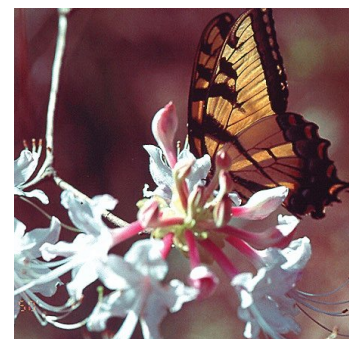


Figure 14. Smaller butterflies, like this Red-banded Hairstreak (top), have short proboscises and are unable to reach the nectar in large blooms. Larger butterflies, like the Eastern Tiger Swallowtail (bottom), favor larger blooms. Photos by Chris Moorman