PLANT BY NUMBERS:

Butterflies and Moths

Plants, growing steps, and a sample design to support native butterflies and moths, and the birds that eat them

Meet the Butterflies and Moths

Here are a few of the butterflies and moths (and their caterpillars) supported by this theme, along with the associated host plant.

- More than 140 species of butterflies and over 2,000 species of moths have been observed in Ohio.
- Most adult butterflies and some moths visit flowers for nectar. These carbohydrate-rich foods provide fuel for flight and other adult activity.
- Adult female butterflies and moths will seek out specific plants to lay their eggs. These “host plants” provide food for developing caterpillars.
- Native plants serve as host plants for many species of caterpillars. Most often, these caterpillars feed unnoticed on plants.

Caterpillars and adult butterflies and moths provide an essential role in the ecosystem as food for birds. Many bird species collect caterpillars and other insects as food for developing chicks.

Here are a few of the many Ohio-nesting birds that depend on caterpillars to feed their young:

- Black-capped Chickadee
- Northern Cardinal
- Red-eyed Vireo
- Wood thrush
Planting for Butterflies and Moths

Use this diagram to plant a small 6’x10’ garden plot to support butterflies and moths in your Ohio garden, landscape, or nearby park.

The plants in this design are caterpillar host plants, nectar sources for adults, or both. The plant list offers a first and second plant option for each number, with the quantity of plants recommended in parenthesis. The full plant list is in the Design Section.

Planting

- The planting site should be in full sun (6 or more hours per day)
- Prepare the site by completely smothering or removing all grass
- For best results, consider adding 2 inches of compost or other organic soil amendment to the site before planting.
- Water plants after planting, then water as needed (possibly weekly) if the season is dry.
- Be on the lookout for caterpillar activity, and learn to tolerate leaf feeding to support these important creatures.
- To prevent reseeding, cut off spent flowers, or leave seed heads as food for birds. Then, weed out or share extra seedlings.
- The full design is presented here, but even a few plants will provide habitat for butterflies and moths.

Maintenance

- Be on the lookout for caterpillar activity, and learn to tolerate leaf feeding to support these important creatures.
- To prevent reseeding, cut off spent flowers, or leave seed heads as food for birds. Then, weed out or share extra seedlings.
- Cut back standing dead stalks in late winter to heights of between 12 and 18 inches. These standing stalks can provide nesting sites for wild bees in spring and summer.
- To attract even more butterflies and moths to the garden, consider providing water, sandy areas for puddling, and even a feeder for rottent fruit.
- Reduce or eliminate the use of pesticides in the garden to protect all butterfly and moth life stages as well as other pollinators. Consult your local Ohio State University Extension office for pollinator-friendly pest management strategies.

Native Plants for Butterflies and Moths

**FIRST PLANT OPTION**

- **SWAMP MILKWEED**
  - Asclepias incarnata (6)
  - 12 species
- **APPALACHIAN SEDGE**
  - Carex appalachica (4)
  - Multiple species
- **LANCELEAF TICKSEED**
  - Coreopsis verticillata (3)
  - 10 species
- **‘Solar Cascade’**
  - NEW ENGLAND ASTER
  - Symphyotrichum novae-angliae (3)
  - 104 species
- **‘Purple Dome’**
  - BONESET
  - Eupatorium perfoliatum (3)
  - 100 species
- **GOLDEN ZIZA**
  - Zizia aurea (3)
  - 1 species

**SECOND PLANT OPTION**

- **OHIO SPIDERWORT**
  - Tradescantia dioica (6)
  - 3 species
- **PRAIRIE DROPSEED**
  - Sporobolus heterolepis (4)
  - Multiple species
- **BLUE WILD INDIGO**
  - Baptisia australis (2)
  - 17 species
- **TALL BLAZING STAR**
  - Liatris aspera (4)
  - 5 species
- **AMERICAN SENNA**
  - Senna hebecarpa (3)
  - 29 species
- **COMMON BONESET**
  - Eupatorium perfoliatum (3)
  - 102 species
- **BLUE GIANT HYSSOP**
  - Agastache foeniculum (3)
  - 5 species

The number in parenthesis is the number of plants needed for the design. The number of butterfly and moth species this host plant supports by providing food for caterpillars. Source: Garden for Wildlife by National Wildlife Federation, Keystone Native Plants. Planting the full “First Plant Option” design provides habitat for about 330 butterfly and moth species. The full “Second Plant Option” design provides habitat for about 34 butterfly and moth species.
Trees and Shrubs for Butterflies and Moths

Consider growing any of these native plants to invite even more birds, butterflies, and moths to the garden:

Apple (Malus spp.) 237 species
Birch (Betula spp.) 284 species
Blueberry (Vaccinium spp.) 217 species
Cherry (Prunus spp.) 340 species
Maple (Acer spp.) 238 species
Oak (Quercus spp.) 436 species
Poplar (Populus spp.) 249 species
Willow (Salix spp.) 289 species

Source: Garden for Wildlife by National Wildlife Federation, Keystone Native Plants.

Spring azure and over 300 other butterfly and moth species use black cherry (Prunus serotina) as a caterpillar host plant.

Finding Native Plants

Native plants are becoming easier to find and purchase at local nurseries and online. Check with both large and small nurseries as well as mail-order catalogs. To find native plant sales nearby, check with local or regional groups such as arboreta, botanical gardens, nature centers, zoos, county Soil and Water Conservation District offices, and local garden clubs and groups including Master Gardener Volunteers.

Ohio Nurseries Selling Native Plants

- Ohio Native Plant Month’s website (ohionativeplantmonth.org/native-plant-sources)
- Lake Erie Allegheny Partnership’s website (leapbio.github.io/nurseries)

For More Information

- Backyards for Butterflies (free PDF). Ohio Department of Natural Resources.
- Garden for Wildlife by National Wildlife Federation, Keystone Native Plants (free PDF), including number of caterpillar species using each plant as host.

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