



## Acknowledgments

**Andi Pupke**, Education/Outreach Coordinator of the Chesapeake Wildlife Heritage, has supplied the list of butterflies and other butterfly information for this brochure. The Chesapeake Wildlife Heritage is a private, non-profit organization dedicated to creating, restoring and protecting wildlife habitat, and establishing a more sustainable agriculture through direct action, education and research in partnership with private and public landowners.

Native plant suggestions were supplied by **George Corey, ASLA**. Mr. Corey, a registered landscape architect and owner of Wye Tree Landscapes, Inc. in Easton, MD, designed and installed the butterfly garden at Blackwater.

In the garden itself, the butterfly sculpture, entitled *Monarchs (Danaus plexippus)* was designed and executed by **Steven and Stewart Wegner**. The twin brothers collaborate in creating bronze works of art at their foundry, Wegner Metal Arts, Inc., in Fredericksburg, VA.

**Glenn Carowan**, Project Leader of the Chesapeake Marshlands National Wildlife Refuge Complex, has spent countless hours in helping the butterfly garden become a reality. We appreciate his dedication to the work at Blackwater National Wildlife Refuge.

**The Friends of Blackwater, Inc.**, have also enthusiastically given their support to this project. The organization assists in carrying out public use missions at the refuge which include education, interpretation and wildlife oriented recreation.

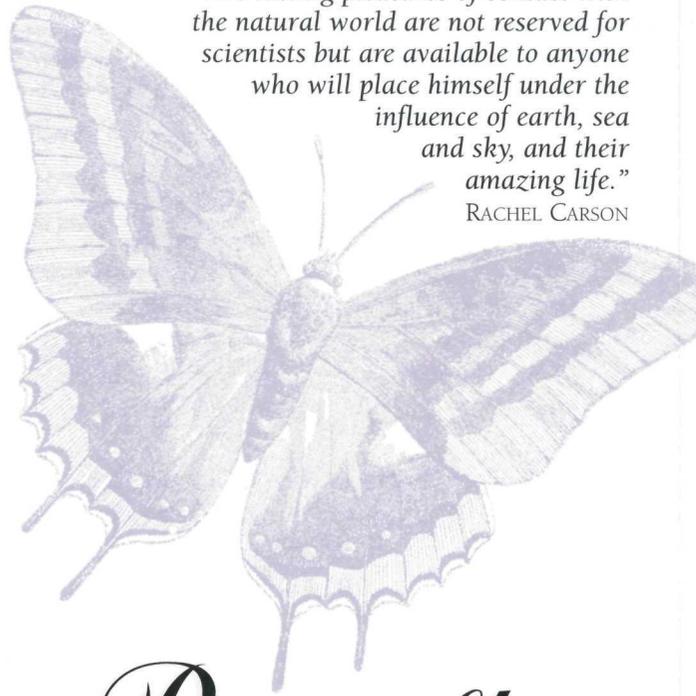
A special thank you to **Chris Wilke**, president of the Dorchester Garden Club. Her vision and untiring efforts, along with the support of members of the club and the community at large, have led to the creation of the Butterfly Garden at Blackwater.

**Blackwater National Wildlife Refuge**  
2145 Key Wallace Drive  
Cambridge, MD 21613

Blackwater is one of over 500 refuges in the National Wildlife Refuge System administered by the U.S. Fish and Wildlife Service. It was established in 1933 as a refuge for migratory birds, primarily ducks and geese. The refuge includes more than 26,000 acres. Blackwater is one of the chief wintering areas for Canada geese using the Atlantic flyway. Two endangered or threatened species also call Blackwater home: the bald eagle and the Delmarva fox squirrel.

**Directions:** From Route 50 in Cambridge, take Route 16 south (across from main entrance to Hyatt). Continue on Route 16 through traffic light at intersection of Race Street (shopping area called Snow's Turn). Cambridge-South Dorchester High School will be on left. Pass school grounds; turn left onto Egypt Road. Follow Egypt Road approximately 8 miles until it ends. Make right onto Key Wallace Drive. Visitor Center is one half mile on left. The Butterfly Garden is located directly behind the Visitor Center.

*"The lasting pleasures of contact with the natural world are not reserved for scientists but are available to anyone who will place himself under the influence of earth, sea and sky, and their amazing life."*  
RACHEL CARSON



# Butterflies at Blackwater

NATIONAL WILDLIFE REFUGE  
DORCHESTER COUNTY, MARYLAND



## Dedication

KATHERINE CARLON HOLDT

**K**atherine Carlon Holdt, Kit to her many friends, has been a member of the Dorchester Garden Club since 1971 and has served the Club and the Federated Garden Clubs of MD with distinction, humor, and boundless enthusiasm. In 1997 she became the National Garden Club's Maryland Chairperson for the Butterfly Garden at the National Botanic Garden in Washington, DC. Thanks to Kit's efforts, Maryland's contributions ranked in the top three states nationwide in overall donations and she enhanced our awareness of the need for butterfly and beneficial insect conservation.

The Dorchester Garden Club has created this garden, at Blackwater National Wildlife Refuge, to express its appreciation of Kit and to serve as a lasting centerpiece to our commitment to the art of gardening and our awareness of environmental concerns.

For many, there are few pleasures in life that rival those found in the time spent in a garden. The butterfly garden in particular fosters an awareness of the interdependences between plants, animals and man. As a profound symbol of transformation and restoration, the butterfly offers hope that affirmative change is possible and is at work in our own lives. It is our hope that this endeavor will encourage visitors to establish small butterfly habitats in their gardens and understand that we can effect positive ecological change with remedial action taken in our own backyards.

Chris Wilke, Chairman  
DGC Butterfly Garden

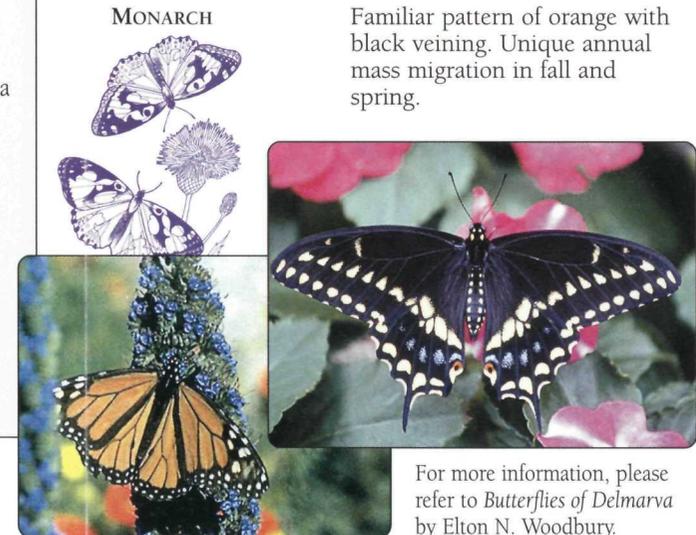
*"The Butterfly – a flying flower..."*

JOHN MILTON HAY



## SOME OF THE BUTTERFLIES YOU MIGHT SEE

- TIGER SWALLOWTAIL** Large butterfly with "tail" from hind wing. Characteristic yellow and black tiger stripes.
- BLACK SWALLOWTAIL** Large, mostly black with "tail". Female: blue on hind wings. Male: yellow on edges of wings.
- CLOUDED SULPHUR** Small with yellow wings.
- ALFALFA BUTTERFLY** Similar to Clouded Sulphur but more yellow-orange on top wing. Each frequents open fields.
- LITTLE COPPER** Small, red-orange with black spots. Spotted gray hind wing.
- EASTERN TAILED BLUE** Small, tailed butterfly. One of Delmarva's most common species. Male: blue with black margin.
- QUESTION MARK** Orange with irregular wing outline. Resembles a dead leaf when wings closed.
- PAINTED LADY** Intricate patterns of tans and pinks with "eyespot" markings on wings.
- RED ADMIRAL** One of earliest butterflies in spring. Mostly dark with red-orange band.
- MONARCH** Familiar pattern of orange with black veining. Unique annual mass migration in fall and spring.



For more information, please refer to *Butterflies of Delmarva* by Elton N. Woodbury.

## PLANTS FOR BUTTERFLIES

One of the joys of planning a butterfly garden is in selecting all of the beautiful flowers to plant in that garden. When pouring through plant catalogs or visiting local garden centers it is important to remember that, although some adult butterflies are attracted to a wide range of nectar sources, others have definite preferences for fragrance, color and shape of flowers.

Sizes of flowers matter too. The relationship of the size of the butterfly to the size of the flower it perches on is directly related. Smaller butterflies may like to feed near the ground on smaller flowers, while larger Swallowtails need larger flowers to land.

Be sure to include flowers with a variety of bloom times as well. Staggering blooming throughout the season will ensure available nectar for the earliest spring arrivals and the latest Monarch migrating south.



## BUTTERFLY CONSERVATION

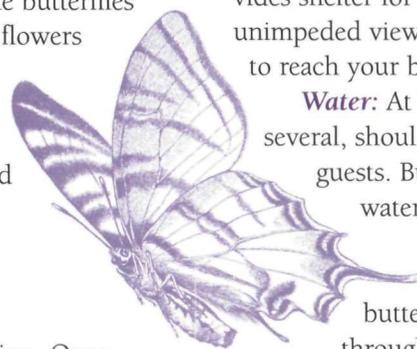
There has been an extensive loss of places for butterflies to live and to find food in recent years. These losses of butterfly habitats have been due to development and other land management practices, but YOU can have a positive effect on your local butterfly populations. As suburbia is covering an ever greater percentage of land, a transition from lawns and exotic plants to a more butterfly friendly environment will allow at least some butterflies to visit your yard and may help sustain local populations of some species.

By creating a butterfly garden, you can provide the essential requirements to sustain butterflies, in addition to benefiting from the color and life they bring to your yard. Not only are the butterflies themselves a joy to watch, but the flowers that attract them can be a pleasure to view as well. Even more importantly, butterflies perform the vital service of pollination of flowers and other crops.

### TIPS IN CREATING YOUR BUTTERFLY GARDEN

**Sunlight:** Choose a sunny location. Open spaces filled with sunlight are important to most common garden butterflies. They need the sun to warm their bodies for flight. Equally important, many flowering plants need sun to produce food for themselves and nectar for the butterflies.

**Flowers:** Provide nectar-laden flowers. Maybe the most challenging step in choosing the right plants is to learn which butterflies may be in your area, and what plants attract these species. Local field guides can help you select the best plants for your particular situation.



**Host Plants:** Include food for caterpillars too. In order to encourage the butterfly species that live in your garden to remain throughout their life cycle, you need to know the host plants for each stage of their lives. Butterflies lay their eggs on the host plants that the emerging caterpillars will eat. The sight of a butterfly emerging from its chrysalis will more than make up for chewed leaves!

**Shelter:** Plant borders as windbreaks. To offer shelter to butterflies visiting your garden, groups of shrubs or trees can provide adequate protection from wind. It is not necessary to completely surround the garden with a barrier. By planting tall plants in the rear of the garden and shorter beds in front, a terraced effect can be achieved that provides shelter for your butterflies and allows you an unimpeded view. Remember to leave space for sun to reach your butterfly garden.

**Water:** At least one puddle, but preferably several, should be provided for your butterfly guests. Butterflies cannot drink from open water. They get all the fluids they need from nectar, but wet sand and mud provide critical parts of a butterfly's diet. Minerals obtained through puddling are vital to males in order to reproduce. Place rocks or sticks on sand or mud so they may be used as perches for the butterflies as they suck on the wet sand or mud.

**Pest Management:** One of the more important aspects of managing your butterfly garden is dealing with pests. Rather than using chemical insecticides that kill butterflies, caterpillars and other helpful insects, try natural methods of pest control instead. Plant marigolds, mints and other herbs that naturally repel pests. Encourage ladybugs and dragonflies to live in your garden.

## NATIVE PLANTS ~ NATURAL ATTRACTORS



There are a number of important reasons for choosing native plants that will attract butterflies and provide food for their larvae. By selecting plants that are used to your environment, you should not need to rely on chemicals for pest control or as many fertilizers to encourage plant growth. Native plants will also fulfill the nutrient requirements of the butterfly's larva. Be sure to obtain these plants from a reliable source rather than disturbing ones already growing in the wild.

Here are a few suggestions to include for nectar, host plants and shelter:

### Perennials

- Columbine
- Butterflyweed (Asclepias)
- Asters
- Wild Indigo (Baptisia)
- Turtlehead (Chelone)
- Tickseed (Coreopsis)
- Joe-Pye Weed
- Blazingstar (Liatris)
- Cardinal Flower (Lobelia)
- Black-eyed Susan
- Coneflower
- Goldenrods
- New York Ironweed

### Shrubs

- Blueberry
- Maple-leaved Arrowwood
- Buttonbush
- Summersweet (Clethra)
- Silky Dogwood
- Witch Hazel
- Spicebush
- Bayberry

### Trees

- Serviceberry (Amelanchier)
- Eastern Redbud
- Dogwood
- Sweetbay Magnolia
- Eastern Redcedar
- American Holly