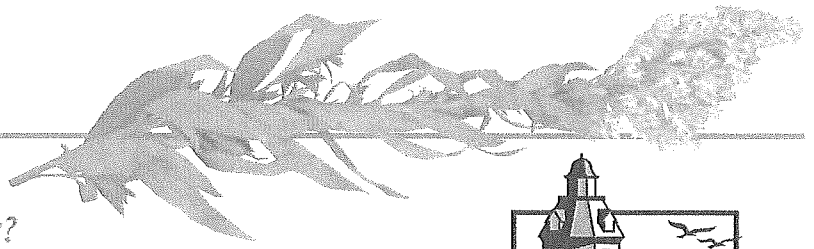


Native Plants



What is the Delaware Estuary?

The Delaware Estuary is located in the Mid-Atlantic region of the United States, surrounded by portions of Pennsylvania, New Jersey and Delaware. An estuary is where fresh water from a river mixes with salt water from an ocean or bay. Estuaries are fragile ecosystems, which support some of the Earth's richest and most productive habitats. The Delaware Estuary stretches approximately 134 miles, from the falls of the Delaware River between Trenton, New Jersey and Morrisville, Pennsylvania, south to the mouth of the Delaware Bay between Cape May, New Jersey and Cape Henlopen, Delaware.

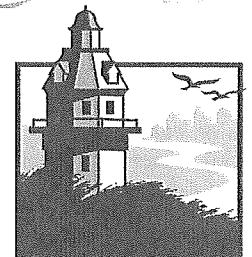
What are our landscaping traditions?

Our landscape history began when the first settlers arrived in the new world. Colonists brought many plants from their homeland and created landscapes that imitated familiar European-style gardens. Three centuries later, our landscapes are dominated by European design elements. Expansive turf-grass lawns with symmetrically planted and shaped trees and shrubs, along with flowerbeds, characterize this landscape tradition. Many of the plants we use are non-natives and because they have not evolved under local conditions, these plants require a great deal of maintenance to survive. Some are aggressive and have escaped from cultivation, thereby invading and threatening the survival of our native plant communities. These plants are known as exotics or non-native species.

Today, few of us have the time or resources needed to maintain formal, high-maintenance landscapes. At the same time, we are recognizing the threats that non-native species pose to biological diversity. As a result, people are exploring environmentally sound and attractive landscapes, reducing the size of lawns, and incorporating locally native plant species.

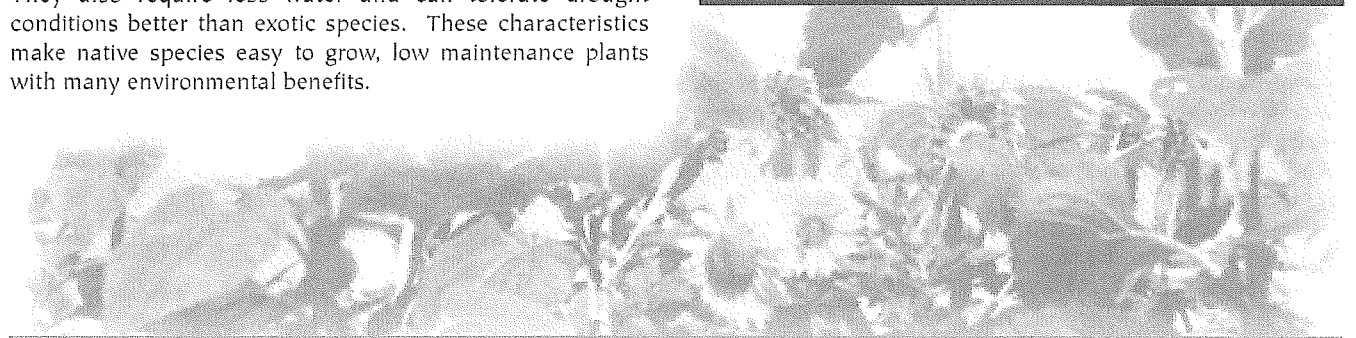
Why native plants?

Native plants are those species that were present before European settlement in North America. These species have evolved in the presence of local soils and climate conditions and have developed natural defenses to insects and disease. They also require less water and can tolerate drought conditions better than exotic species. These characteristics make native species easy to grow, low maintenance plants with many environmental benefits.



Sense of Place

Habitat Enhancement Program



How do native plants benefit the Delaware Estuary?

As rain washes over the land, it carries nutrients and chemicals from lawns and other landscapes to storm drains and groundwater. This rainfall eventually drains into streams and rivers. Because native plants require less fertilizer and pesticides, using them reduces the amount of these pollutants that eventually enter our waterways. Therefore, when we use locally native species on our landscapes we make a meaningful contribution to improving water quality in local watersheds and ultimately the Delaware Estuary.

Native plant species also significantly improve wildlife habitat. Native wildlife has evolved with native plants. Birds, mammals and other wildlife depend on vegetation for food and shelter, including nesting and other types of breeding sites. Unmowed stretches of grass will not only provide valuable habitat, but also help to filter out pollutants in the stormwater.

Exotic invasive plants: What are they?

Exotic plants are any form of vegetation that have been introduced to an area where they would not naturally occur. Because they do not have the same checks and balances as they did in their native lands, many of these species take over and become invasive. These exotic species displace naturally occurring vegetation and in the process, upset nature's balance and diversity.

Invasive plants share the following characteristics:

- rapid growth
- prolific reproductive capabilities including highly successful seed dispersal and germination
- rampant spread and colonization
- costly to control

How can you incorporate locally native plants into your landscape?

Develop a long-term plan to introduce locally native species. A good approach is to work on one section at a time, perhaps designing a native wildflower bed or converting a small section of lawn back into a native meadow. Another approach is to replace non-native plants lost from storm damage, insects or disease, with native species.

Where can you purchase native plant species?

Native plants are sometimes hard to find because of people's fascination with rare and exotic species. During the past few years, the nursery industry has begun to recognize the importance of adding locally native species to their plant inventories that are available for retail sale. If your local garden center has not yet caught onto this trend, explain that you want locally native plant species that need less fertilizer, less pesticide, less water, and that provide better habitat for native wildlife species.

Places where you can purchase native plants and seeds:

Bowman's Hill
Wildflower Preserve
Washington Crossing
Historic Park
P.O. Box 685
New Hope, PA 18938
215/862-2924
www.bhwp.org

Brandywine Conservancy
P.O. Box 141
Chadds Ford, PA 19317
215/388-7601

Croshaw Nursery
P.O. Box 339, Mill Land
Columbus, NJ 08022
609/298-0477

Crownsville Nursery
P.O. Box 797
Crownsville, MD 21032
410/849-3413

Environmental Concern
P.O. Box P
210 West Chew Ave.
St. Michaels, MD 21663
301/745-9620

Ernst Conservation Seeds
9006 Mercer Pike
Meadville, PA 16335
814/336-2402
800/873-3321

Natural Landscapes
354 N. Jennersville Rd.
West Grove, PA 19390
610/869-3788

Niche Gardens
1111 Dawson Road
Chapel Hill, NC 27516
919/967-0078
www.nichegdn.com

North Creek Nurseries
388 North Creek Road
Landenburg, PA 19350
610/255-0100

Octoraro Native Plant Nursery
6126 Street Road
Kirkwood, PA 17536
717/529-4099

Pinelands Nursery
323 Island Rd.
Columbus, NJ 08022
609/291-9486

Sylva Native Nursery & Seeds
1683 Sieling Farm Road
New Freedom, PA 17349
717/227-0486
717/227-0484 fax

Temple University -
Ambler Campus
Native Plant Propagation Center
580 Meetinghouse Rd.
Ambler, PA 19002
215/283-1330

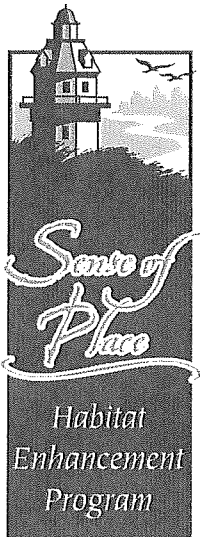
Toadshade Wildflower Farm
53 Everittstown Rd.
Frenchtown, NJ 08825
908/996-7500
www.toadshade.com

We-Du Nurseries
Route 5, Box 724
Marion, NC 28752
828/738-8300
www.we.du.com

Wild Earth Nursery
49 Mead Ave.
Freehold, NJ 07728
732/308-9777
www.wildearth.com



Examples of Native Plants of the Delaware Estuary Region:



Flowering Perennials

Butterflyweed	<i>Asclepias tuberosa</i>
New England aster	<i>Aster novae-angliae</i>
Blazing star	<i>Liatris spicata</i>
Wild Bergamot	<i>Monarda fistulosa</i>
Beard tongue	<i>Penstemon digitalis</i>
Eastern coneflower	<i>Rudbeckia fulgida</i>
Black-eyed Susan	<i>Rudbeckia hirta</i>
Wrinkle-leaf goldenrod	<i>Solidago rugosa</i>

Grasses

Big blue-stem	<i>Andropogon gerardii</i>
Switchgrass	<i>Panicum virgatum</i>
Little blue-stem	<i>Schizachyrium scoparium</i>
Indian grass	<i>Sorghastrum nutans</i>
Purple top	<i>Tridens flavus</i>

Trees

Black gum, tupelo	<i>Nyssa sylvatica</i>
Fringe-tree	<i>Chionanthus virginicus</i>
Flowering dogwood	<i>Cornus florida</i>
River birch	<i>Betula nigra</i>
Redbud	<i>Cercis canadensis</i>
Red cedar	<i>Juniperus virginiana</i>
Serviceberry	<i>Amelanchier canadensis</i>
Willow Oak	<i>Quercus phellos</i>
Wild Black Cherry	<i>Prunus serotina Ehrh.</i>
White ash	<i>Fraxinus americana</i>

Web sites to find out more information on native plants:

Brandywine River Museum
www.brandywinemuseum.org

Delaware Native Plant Society
www.delanet.com/~dnpswp/

Native Plant Society of New Jersey
www.geocities.com/RainForest/5356

Natural Lands Trust
www.natlands.org/Library/nativeplants.html

North American Native Plant Society
www.nanps.org

Pennsylvania Native Plant Society
www.pawildflower.org

Wild Ones
www.for-wild.org/landscap.htm

The following are some non-native invasive plants that have caused problems in the Delaware Estuary region.

Please do not use the following plants:

Amur maple	<i>Acer ginnala</i>
Norway maple	<i>Acer platanoides</i>
Tree of heaven	<i>Ailanthus altissima</i>
Japanese barberry	<i>Berberis thunbergii</i>
Paper mulberry	<i>Broussonetia papyrifera</i>
Butterfly bush	<i>Buddleia davidii</i>
Oriental or Asiatic bittersweet	<i>Celastris orbiculatus</i>
Russian/Autumn olive	<i>Elaeagnus angustifolia</i> and <i>Elaeagnus umbellata</i>
Burning bush	<i>Euonymus alatus</i>
Wintercreeper	<i>Euonymus fortunei</i>
Japanese knotwood	<i>Fallopia japonica</i>
Purple loosestrife	<i>Lythrum salicaria</i>
English ivy	<i>Hedera helix</i>
Japanese honeysuckle	<i>Lonicera japonica</i>
White mulberry	<i>Morus alba</i>
Princess tree	<i>Pawlonia tomentosa</i>
Reed canary grass	<i>Phalaris arundinacea</i>
Common reed	<i>Phragmites australis</i>
Bamboo	<i>Phyllostachys aubea</i>
Kudzu	<i>Pueraria lobata</i>
White poplar	<i>Populus alba</i>
Common/Tall hedge buckthorn	<i>Rhamnus cathartica</i> and <i>Rhamnus frangula</i>
Multiflora rose	<i>Rosa multiflora</i>
Japanese spirea	<i>Spiraea japonica</i>
Japanese yew	<i>Taxus cuspidata</i>
Siberian elm	<i>Ulmus pumila</i>
Periwinkle	<i>Vinca major and Vinca minor</i>
Wisteria	<i>Wisteria sinensis</i>



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For more information about the Delaware Estuary, call 1-800-445-4935, or visit www.DelawareEstuary.org and www.delep.org.

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