What's the problem?

As Eastern Long Island becomes more developed, areas for native plants to live are declining. Native plants can be defined as those plants that were growing locally before the arrival of Europeans. These plants provide habitat: places for native animal life to hide, eat, and reproduce. Many agencies, programs, and civic groups are concerned with the reduction in the variety of native plants and in the quality of habitats. One way to protect what is left and restore altered habitats is to use native plants in home and commercial landscapes.

Many plants rely on insects to pollinate their flowers. While insects are the primary means by which plants are pollinated, birds and bats also pollinate some plants. Other plants have their pollen spread by the wind.

We have come to rely on the non-native honey bee to pollinate many of our agricultural crops. However, in recent years, many honey bee colonies have died. Although many factors have been discussed and explored, the exact cause of the die-off is unknown. As honey bee colonies decline, our interest and reliance on other insect pollinators increases.

Like native plants, our native pollinators are insects that lived here before the arrival of Europeans. Many of the native pollinators are solitary bees. Unlike honey bees which live in colonies, solitary bees, as their name implies, live alone. According to the Xerces Society there are approximately 4,000 species of native bees in North America, hundreds of which contribute significantly to the pollination of farm crops.

Homeowners and landscapers can help reverse or slow down the trend in declining natural areas and habitats by leaving some of the land around their homes and businesses in a natural state if space permits. Another option is to incorporate the use of some native plants in the home, public or commercial landscape. These native plants are becoming more available at local garden centers, and the more that people request them, the more the industry will respond by growing them and making them available.

This is not to say that non-native plants have no habitat value or place in the local landscape. Many of our favorite home landscape plants are from other countries and often produce beautiful flowers or have interesting foliage. It is important to make sure the varieties you plant are not invasive. Check with Cornell Cooperative Extension's Horticultural Program for recommended plants beyond those listed here. They can be reached at 631-727-7850 or at their web page: www.cce.cornell.edu/suffolk. Native plants are sometimes less showy, but the more we learn about them and the more we get to know them, the more we will appreciate them.

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> Bumble bees are beneficial insects, performing pollinating services for a wide variety of crops and native plants.

One researcher and scientist has linked the decline in insect populations in heavily populated areas to the near-exclusive use of non-native plants in suburban neighborhoods. Many of the plants we use around our homes were selected because insects don't feed on them. That may sound fine, until we stop to think that birds rely primarily on insects during the spring and summer, and their young are fed insects. In recent years, many people have noticed and documented the decline in songbirds in suburban areas. If we think of insects as "bird food" we realize how important they are to the food chain.

What can be done?

Homeowners can create small native bee habitats by incorporating native plants in their home landscapes. These plants will attract native pollinators which feed on their pollen and which also use the pollen to feed their offspring. The Xerces Society has these recommendations for planning a native plant garden around the home:

- It should incorporate a succession of flowers in order to provide blooms throughout the entire growing season.
- It should have several different species in bloom at any one time.
- It should combine annuals and perennials.
- The use of pesticides should be minimized.

The more different plants are found in the home landscape, the more different insects will be living there, as each species has its own vegetation or plant preferences. Providing a wide range of plant types is also a way to ensure a healthier and sustainable landscape, so that if a disease problem happens, it does not hit all the plants at once.



This is one type of bee nest that is readily available commercially.

Because our home landscapes are typically well groomed, it is hard for many pollinators to find places to lay their eggs. Homeowners can help cavity-nesting bees by putting out bee nest boxes to provide places for native pollinators to lay their eggs. This is analogous to putting up bird houses around the home. Many garden centers sell them, or they can be constructed easily at home. Solitary bees lay their eggs in the holes drilled into these boxes, and fill the holes with food for the young insects to eat when they hatch from their eggs.



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Some Native Plants for Home Landscapes



Butterfly Weed Joe-Pye Weed Cardinal Flower New England Aster



Reference Books

Pollinator Conservation Handbook. Matthew Shepherd, Mace Vaughan, Scott Hoffman Black. The Xerces Society, Portland, Oregon 2003. www.xerces.org

Bringing Nature Home: How Native Plants Sustain Wildlife in our Gardens. Douglas W. Tallamy, Timber Press, Inc. 2007. www.timberpress.com The orchard mason bee (*Osmia lignaria*) is a beneficial insect that has potential as a pollinator of apples, cherries, and many native plants.