

GARDEN CLUB OF EAST HAMPTON
REPORT ON
PROJECT TO MONITOR AND CONSERVE THE NATIVE ORCHIDS OF THE
SOUTH FORK OF LONG ISLAND
A GCA PARTNERS FOR PLANTS FUNDED PROJECT

In the spring of 2015, Garden Club of East Hampton (GCEH) applied for and were accepted by the Garden Club of America's (GCA) Partners for Plants (P4P) program for a project to monitor and conserve the native orchids of the South Fork of Long Island, of which there are 24 species. This is a multi-year project with a long list of partners – the Town of East Hampton, other conservation organizations, and key individuals (ecologists and botanists). The GCEH is proud to have received the maximum grant of \$3,000 to be used to pay for the fees of a consulting botanist, Dr. Eric Lamont, author of the leading field guide to the native orchids of the northeast.

Over the years, GCEH members have studied and worked to conserve the native orchid populations of the area, working with the South Fork Natural History Museum and others. We are reviving and continuing their work under the aegis of P4P.

There are 24 native orchids on the South Fork of Long Island, and almost all of them are in serious decline over the last 30 years. In fact, orchids are in severe decline throughout the state, with many populations dropping by 70% and others no longer found at all. Causes range from the continued development of land to increased herbivory resulting from an unprecedented surge in the deer population in the last 20 years, exceeding what ecologists refer to as the “carrying capacity” of available land resources. New York Natural Heritage (NYNH), whose mission is to assist land managers in protecting rare and endangered plants, is advising us and, we hope, considers our P4P project a prototype for a statewide effort NYNH may develop to conserve these vanishing plants.

The partners we are working with include the following organizations: the Town of East Hampton, South Fork Natural History Museum (SoFo), The Nature Conservancy (TNC), the Long Island Botanical Society (LIBS), Quogue Wildlife Refuge (QWR), NYNH, and the Garden Club of Westhampton (GCW). In addition, the following individuals are

providing expertise and assistance as needed: Dave Taft of the Long Island and Greater New York Orchid Societies, and Dr. Matthew Pace, an orchid specialist and Assistant Curator of the Herbarium at the New York Botanical Garden.

The project has three parts - monitoring the status of local orchids and conserving them at two sites. It is important to know that orchid conservation work must be done in situ as orchids grow in complicated symbiotic relationships with fungi in the soil. These mycorrhizal relationships, which are unique to each species, are poorly understood, resulting in the fact that attempts to conserve orchids by transplanting them inevitably fail. (Native orchids sold in the nursery trade are propagated by cloning and are notoriously difficult to grow once planted in the garden for this reason.)

Following is a status report on each of the three parts of our project:

- 1.) Monitoring. The goal is to update Jim Ash's 1997 list of the 24 native orchids of the South Fork. Jim is the founding director of SoFo and probably the person who knows the most about where populations of orchids have grown in the past and are likely to be found today. Volunteers have been going out orchid hunting, and are documenting the populations we find with geographical coordinates and by noting population sizes broken down by the number of blooming plants versus sterile leaves. (Sterile leaves are juvenile plants building up the energy reserves required to bloom and reproduce in future years.) As our native orchids bloom from late May through October, volunteers anticipate continuing their weekly nature walks into the fall and very definitely over the next several years.

Results so far are that some populations are locally extinct, others are in serious decline, and still others have declined from 20 year ago but still have healthy populations of blooming plants. Highlights have been seeing lady's slippers in bloom in late May/early June, finding the last blooming yellow fringed orchid in the state of NY, exploring a healthy population of 400-500 blooming pale fringed orchids, hiking into a wetland to discover the white bog orchid in bloom, and visiting a small population of very lovely ladies' tresses orchids.

2.) Conserving – Site 1. The first conservation site is at the Quogue Wildlife Refuge, where we will be pruning woody shrubs and trees that otherwise will crowd/shade out the orchids. GCEH recently received the DEC permits required and are in the process of scheduling work for this coming December and January. The area in question is roughly the size of a large living room, in a bog that's home to some wonderful carnivorous plants as well as four types of native orchids: the white fringed orchid, pink lady's slipper, rose pogonia, and some twayblade orchids. In the past, Dr. Lamont cleared woody vegetation from this site with a group of high school students and the four orchid populations rebounded vigorously. This site has been unmanaged for the last 6 years, and consequently the orchids have again declined. Therefore, we are optimistic that resuming this work will prove successful and worthwhile. We also are pleased to be working with the Garden Club of Westhampton at this site.

3.) Conserving- Site 2. The second conservation project is to protect the last remaining population in New York State of *Platanthera ciliaris*, the yellow fringed orchid, which grows at the Barnes Hole Nature Preserve. The population today consists of 1 blooming plant and 20 sterile leaves, down from 120 blooming plants and uncounted sterile leaves 25 years ago. We have assembled an outstanding committee for this project and are in the process of sorting out what permits already exist and what additional permits may be required for restoration work to proceed in the fall and winter. In the meantime, we have protected the existing plants with small cages and visit the site frequently. The GCEH is especially grateful to the Town of East Hampton and The Nature Conservancy for their willingness to partner with us on this project.

Photos of Native Orchid Project:



Quogue Wildlife Refuge team at our conservation site, a bog, on June 20, 2015 searching for the rose pogonia orchid.



Pogonia ophioglossoides, Rose pogonia, Quogue Wildlife Refuge,
on June 20, 2015 (photo by Dr. Eric Lamont).
The team found 27 blooming and dozens more sterile leaves.



The last blooming specimen of *Platanthera ciliaris*
at Barnes Hole Nature Preserve, late July 2015.