



SPECIAL POINTS OF INTEREST:

- "WHAT'S THE BUZZ??" POLLINATOR TRAINING
- VOLUNTEER SPOTLIGHT
- MILKWEEDS FOR MONARCHS



Our national program review in June led to funding for some major needs at the PMC, such as a new tractor to replace one with faulty hydraulics and a roller-crimper for cover crop research

PMC IMPACT

DEC 2011

THE SUNSHINE STATE'S

What's the Buzz??

(or, more information about native bees in Florida than you probably wanted to know)

Facts about pollinator habitat and the Plant Materials Program were covered by Plant Materials Specialist, Mimi Williams, at the recent Florida NRCS Conservation Planning Course, Modules 6-9, held in Kissimmee, FL. Here are some interesting facts from the training:

- Ten conservation practices used in Florida mention pollinator habitat as a purpose or consideration.
- About 80 to 90% of the ¼ million flowering plants in the world need an insect or other animal to move their pollen around.
- About one third of crop plants require a pollinator.
- Insects, birds, bats, and even a few reptiles are known to be pollinators, but insects, particularly bees, are the most important group.
- Some 300+ species of bees occur in Florida.
- Nesting sites, overwintering sites, and food sources are all components of pollinator habitat.
- Most native bees nest in the ground.
- Native trees and shrubs, such as redbud (*Cercis canadensis*) and wild plums (*Prunus* spp.) are the most important source of food for bees in the late winter and early spring.

As part of the nationally funded Operation Pollinator project, University of Florida Entomologists, with the assistance of the Brooksville PMC, are trying to identify which native herbaceous plants are most important plants for native pollinators. So far they have indentified 9 species of annuals and perennials that are particularly attractive to native bees. From top to bottom on the right: Goldenmane Tickseed or Dyeflower (*Coreopsis basalis*), Lanceleaf Tickseed (*C. lanceolata*), Partridge Pea (*Chamaecrista fasciculata*), Blanketflower (*Gaillardia pulchella*), Black-eyed Susan (*Rudbeckia hirta*), Dotted Horsemint (*Monarda punctata*), Leavenworth's Tickseed (*C. leavenworthii*), Ironweed (*Vernonia* spp.), and Narrowleaf Sunflower (*Helianthus angustifolius*). Seed of Florida ecotypes of all these species are available commercially.



There's Always Time

"There's always time." That is what one of our Earth Team volunteers says. Just about three years ago, Pat Leach came to us and said "Well I can do just about anything but, I want to weed". Three years and approximately 756 hours later she is still here ... and still weeding.

She has never been known to be short of an opinion, or lacking in enthusiasm. Retired from hospital administration, her hobbies include

being a Sumter County Master Gardener, where she is coordinator of the county demonstration garden, participating in dog conformation in herding trials, and home gardening. She has performed numerous additional tasks at the Brooksville PMC, including seed germination testing, planting field plots, greenhouse production, and assisting with Earth Day activities. Her support is very valuable to us and we just would like to say ...Thank You.



PMC Earth Team volunteer Pat Leach hard at work



Pinewoods (top) and swamp milkweed (middle); Monarch caterpillars "harvested" from swamp milkweed plants (bottom)

A Population in Need — Milkweeds for Monarchs

Monarch butterflies (*Danaus plexippus*), with their orange wings, bordered by black margins with rows of white dots, and intricate patterns of black-colored veins are highly recognizable. They are renowned for their annual migration to California and Mexico, which spans several generations. However, annual counts have shown that Monarch populations are declining. This has been attributed to a loss of suitable breeding habitat and food sources throughout their migratory route.

Host plants for Monarch caterpillars are milkweeds (*Asclepias* spp.). The larvae feed on milkweeds to obtain toxic chemicals found within the plants, which they store in their tissues to protect them from predators. Sites where milkweeds are generally found growing are disturbed, open spaces, such as road and railroad right-of-ways, crop fields, and pastures. However, urbanization and changes in agricultural production practices have resulted in shrinking native milkweed populations.

The PMC is teaming with the Xerces Society for Invertebrate Conservation to produce seed of Florida milkweeds to act as sources to enhance future commercial seed production in the Southeast. A local contractor hired by the Xerces Society collected seed of pinewoods milkweed, *A. humistrata*, and swamp milkweed, *A. perennis*, to begin production at the PMC.

We currently have trials in the greenhouse to determine the best growing medium for pinewoods milkweed, because this species is very sensitive to wet growing conditions. Swamp milkweed seed collection efforts were disappointing, so a number of containerized plants were purchased from a native plant grower. These were planted in one of our fields to provide a seed source on the PMC. As the bottom photo on the sidebar shows, the Monarchs had no trouble finding these plants. So, ironically, we will also have to look for non-toxic methods to protect the plants until we can harvest seed.

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