Wormsloe Butterfly Gardens
September 13, 2013 report by Ania Majewska
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Tasks accomplished so far:
• 1155 plants placed in the ground
• mulched and found effective weed management strategy
• placed sprinkler system
• certified as pollinator gardens

We continue to:
• survey species of Lepidoptera
• collect data on number of Monarch eggs and larvae on Milkweed
• rear Monarch and Queen larvae pupae in lab
• release marked adults
• disease sampling - Ophryocystis elektroscirrha (OE)

To do list:
• finish gardens (need 375 plants, replace any failed plants)

12 Species of Lepidoptera observed and identified:
Monarch (Danaus plexippus)
Queen (Danaus gilippus)
Gulf Fritillary (Agraulis vanillae)
Palamedes Swallowtail (Papilio palamedes)
Black Swallowtail (Papilio polyxenes)
Spicebush Swallowtail (Papilio troilus)
Clouded Sulphur (Colias philodice)
Tiny Yellow (Pyrisitia lisa)
Long-tailed skipper (Urbanus proteus)
Hackberry Emperor (Asterocampa celtis)
Buckeye (Junonia coenia)
Tersa Sphinx (Xylophanes tersa)

RESULTS:

Disease: OE has not been detected in Queens (15 individuals checked) while Monarchs show high prevalence (81 out of 88 individuals infected, or 92%).

Significantly more Monarch eggs and larvae on exotic Tropical Milkweed compared to native Swamp Milkweed ($F_{1,94} = 10.78$, p-value= 0.00144, $F_{1,94} = 10.38$, p-value= 0.00175, respectively). We found no significant differences in egg or larvae number per plant between blocks, plots, management treatment (high versus low weeding and preening).

DEVELOPING BIGGER QUESTIONS:
Are butterfly gardens effective tools for butterfly conservation or are they ecological traps?
a. Is diversity and abundance of adult butterflies indicative of recruitment (i.e. new members added to population)?
b. Does management (low vs. high) and plant type (native vs. exotic) of gardens affect abundance and recruitment?
c. Does enemy (predation and disease) pressure differ among plots?