

Native Plants and Insects: A Love Affair



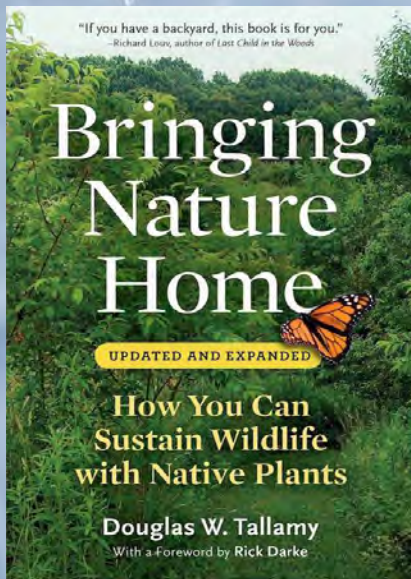
Presented by Andy Brand
The CIPWG Invasive Plant
Symposium
October 7, 2014

The Importance of Insects

A blue-tinted photograph of a moth on a plant with small white flowers. The moth is positioned in the lower right quadrant, facing right. Its wings are dark with a prominent white patch on the forewing. The plant has numerous small, white, bell-shaped flowers hanging from a stem. The background is a soft-focus view of more foliage.

- Pollinate many of our fruits, flowers, and vegetables.
- Excellent decomposers
- Help control pest populations (insects or plants).
- Play a vital role in the food web
- Aerate the soil
- Provide beauty and enjoyment

“Our nearly universal animosity toward insects is understandable, but seriously misplaced. Of the 9 million or so insect species on earth, a mere 1% interact with humans in negative ways. The other 99% of the insect species pollinate plants, return the nutrients tied up in dead plants and animals to the soil, keep populations of insect herbivores in check, aerate and enrich the soil, and as I [Tallamy] keep stressing, provide food either directly or indirectly for most other animals.”



“I cannot overemphasize how important insect herbivores are to the health of all terrestrial ecosystems. Worldwide, 37% of animal species are herbivorous insects. These species are collectively very good at converting plant tissue of all types to insect tissue, and as a consequence they also excel at providing food—in the form of themselves—for other species. In fact, a large percentage of the world's fauna depends entirely on insects to access the energy stored in plants.”

Invertebrates Rule!



E.O. Wilson has called insects .."the little things that run the world."

Plant Species that Attract the Most Lepidoptera

Common Name	Plant Genus	Butterfly/ moth species supported
Oak	Quercus	534
Black cherry	Prunus	456
Willow	Salix	455
Birch	Betula	413
Poplar	Populus	368
Crabapple	Malus	311
Blueberry	Vaccinium	288
Maple	Acer	285
Elm	Ulmus	213
Pine	Pinus	203

Common Name	Plant Genus	Butterfly/ moth species supported
Goldenrod	Solidago	115
Asters	Aster	112
Sunflower	Helianthus	73
Joe pye, Boneset	Eupatorium	42
Morning glory	Ipomoea	39
Sedges	Carex	36
Honeysuckle	Lonicera	36
Lupine	Lupinus	33
Violets	Viola	29
Geraniums	Geranium	23

The question of cultivars

"The studies to prove this have not been done, but the chances are slim that a genetic change in the flower color or the fall leaf coloration of a native species would substantially change the palatability of that genotype for native insect specialists."

From: Bringing Nature Home by Doug Tallamy



A Different Approach to Gardening

- Expect and don't worry about some damage to your plants.
- Don't remove every weed. They may be somebody's food!
- Leave part of your yard "wild."
- Eliminate more of your lawn.
- Reduce or eliminate the use of pesticides and herbicides.

Quercus sp.

Oak













Prunus serotina
Black Cherry

















Blinded Sphinx



Cornus florida Flowering Dogwood





Clethra alnifolia
Summersweet





Clethra alnifolia 'Ruby Spice'

'Sixteen Candles'





Lindera benzoin
Spicebush





Parthenocissus quinquefolia
Virginia Creeper







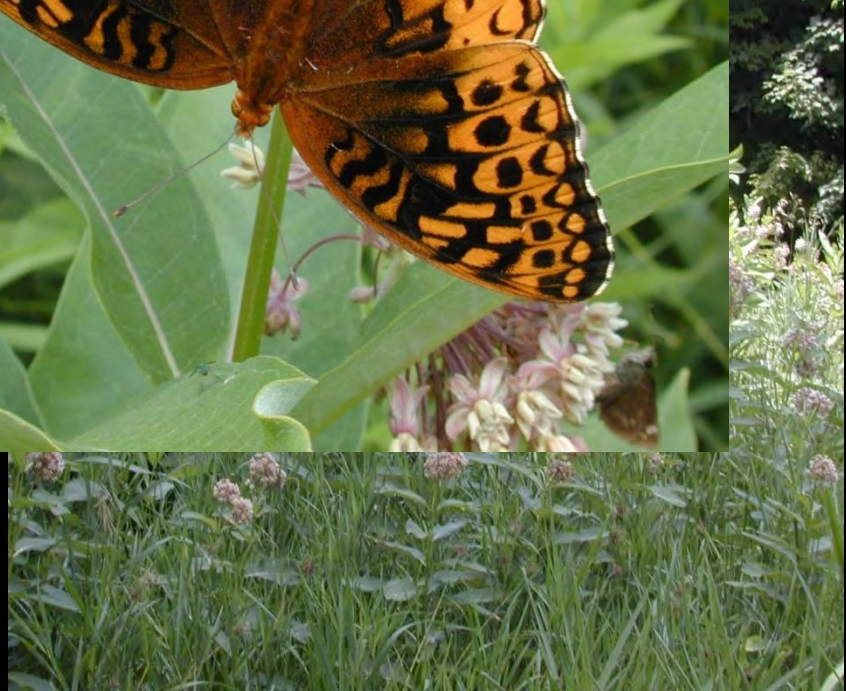
Field of
Gold







Asclepias sp.
Milkweed





Asclepias syriaca Common Milkweed



Asclepias exaltata Poke Milkweed

Asclepias incarnata
Swamp Milkweed



Asclepias tuberosa
Butterflyweed









Schizachyrium scoparium
Little Bluestem

Least Skipper



Common
Ringlet



Common Wood Nymph





Leave Some Weeds



