

Conservation Notes



No Natives, No Butterflies

Why Our Native Plants are So Very Important to Insects, Birds, and other Animals

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I have been reading a new book by Carolyn Summers, *Designing Gardens With Flora of the North East*, in which she gives scientific reasoning about why our **native** plants are so very important to insects, birds, and other animals. Our New England ecosystems are truly at risk and they need whatever help we can give.

We are all familiar with the Monarch butterfly and the specificity of the female laying her eggs on milkweed plants. The result if she is fooled by depositing eggs on an invasive swallowwort (get rid of them on your properties and along the roads, PLEASE!) is that the caterpillars will die or be poisoned because the swallowwort is toxic to Monarchs. Ninety percent of herbivorous insects have evolved to tolerate only a few specific plants as food. Non-native plants have alien chemical compounds that our native insects cannot eat. Did you ever wonder why no insects seem to eat the invasive plants around town? Now you know.



There is an indigenous Karner Blue butterfly (*Lycaeides melissa samuelis*) that is solely dependent on native eastern lupines on which to lay their eggs. They do not lay eggs on the big-leaf lupine, and not on the Russell hybrids which many people prefer to plant and which have escaped, naturalizing into the woods from gardens. So the caterpillars emerging will starve or be poisoned eating the Russell's hybrids. The result? There are NO Karner's Blue butterflies, and there are NO native lupines in Maine. And probably they are gone for good. And so it goes for creatures dependent on one host plant when that plant is at risk.

Did you know that privet (*Ligustrum*), doublefile viburnum (*Viburnum plicatum tomentosum*) and buddleia (*Buddleja*) are now on the invasive list? Stay tuned. As the planet warms, more will follow, but these are now being seen in the woods, escapees. We know that buddleias are butterfly magnets, right? But here's the thing. While Mrs. Butterfly is out for a fast food nectar-fest on a non-host buddleia, she is wasting precious time. Her lifespan is a very short few weeks, so time is of the essence and she needs to find a native host plant on which to lay her eggs. As we plant fewer and fewer native plants, the likelihood of her finding a host plant in time to lay her eggs also diminishes. Result? Fewer and fewer butterflies, less and less diversity.

Do you marvel at the beauty of cecropia (*Hyalophora cecropia*) and luna (*Actiux luna*) moths? These gorgeous giant silk moths do not have as hard a time to find host trees. They attach their cocoons to the leaves of maples, oaks, tulips, sassafras, alders, dogwoods and others, the leaves of which will nourish their caterpillars. The cocoons may fall to the ground and overwinter in the leaf litter. This is a good reason to leave the fallen leaves in place on the ground around these trees, or

rake very gently and pile loosely, and do not bag them.

Birds need insects to feed those hungry little baby birdlets. Doug Tallamy, in *Bringing Nature Home*, documents that more than 96% of baby birds need insect larvae as food, and of those larvae, 90% of them depend on native plants for their life cycles. This is huge! No insects, no birds. No plants, no insects.

More scientific studies at the Carey Institute of Ecosystem Studies (in Millbrook, NY) and at Ohio State University have shown that many nestlings are the victims of predators when the parents set up their nests in invasive shrubs – partly a result of being in monocultural stands and partly because of the architecture of the branching and the ease with which the predator can get access. Also, since our native insects do not use invasives as host plants, there is no nearby meals-on-wheels dinner for the babies. The bird parents have to fly off to look for food, leaving the nestlings “home alone” and vulnerable.

There is so much more to write about! Till then, ...
Save our flora, save our fauna!