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As the weather warms up just a little, many of us are beginning to think about 'bug chasing' again. It's probably not far from the surface at all times but when butterflies and moths appear it really sets us off. As with the beginning of most years thoughts also turn to planting at this time of year. Now is the time to get your butterfly garden prepared and seeded. This issue will review a few of the planting ideas for promoting butterflies and we'll also feature the Royal moths.

Butterflies and plants they like:

Butterfly	Nectar host plant	Larval host plant
Tiger Swallowtail	butterfly bush, honeysuckle	black cherry, catalpa
Spicebush Swallowtail	butterfly bush, lantana	mimosa, sassafras
Gulf Fritillary	lantana, daisy, passion flower	maypop, thistle
Buckeye	milkweed, coreopsis	plantain, verbena
Question Mark	rotting fruit, dung, zinnia	nettle, elm, hackberry
Viceroy	Goldenrod, joe-pye, fruit	willow, aspen, poplar
Monarch	milkweed, lantana, aster	milkweed family
American Painted Lady	thistle, joe-pye, zinnia	100 +plants, mallow, thistle
Clouded Sulphur	clover, dogbane, zinnia	legumes, vetch, clovers
Gray Hairstreak	queen anne's lace, peas	pea and mallow family, clover
Cabbage White	mints, asters, dandelion	mustard family, cabbage

There are a number of great new butterfly plants available for butterfly gardens. Don't hesitate to try some of the newer plants offered. Most of the garden centers indicate 'butterfly plant' on the label. It is also important that gardens be tested for fertility needs, so sample the soil and have it tested then apply only those nutrients needed. There is a great tendency to overdo with fertilizer. Also, if fireants are a problem, now is the time to treat them. Baits are safe to use, but they are slow and will work in the butterfly garden.

The Royal Moths

This is the time of year that many of the larger moths emerge from overwintering habitat and come to lights. I thought it might be good to review the moths which might be seen. The USGS is a neat WEB site which lists these critters and gives life cycles by state, so is very useful. Check it out:

<http://www.npsc.nbs.gov/resource/distr/lepid/moths/ms>

Some of the more common Royal Moths captured by entomologists in our area include Regal Moth, Io Moth, Luna Moth, Imperial Moth, Polyphemus Moth, Promethea Silkmoth, Cercopia Silkmoth, and many others. In general the critters are large and showy, but not often seen because they are active at night.

Io moth



Adults emerge during late morning or early afternoon and mating takes place during the late evening. Eggs are laid in clumps on leaves and stems of hackberry, willow, redbud, blackberry, or pear, as well as a few other plants. Young caterpillars feed as a group in 'trains,' but older caterpillars feed alone. They spin a papery cocoon in leaf or in a crevice in the host. There may be 2-3 broods in the south beginning from February to September. Adult moths do not feed.

Luna moth



Large green moth (2-4 inch wingspan) which is a very strong flier. Mating takes place after midnight and egg laying begins the next evening. Eggs are laid in small groups on white birch, persimmon, sweet gum, hickories, walnuts, and sumacs. Caterpillars are sedentary and solitary feeders. Leaves and silk are used to spin their cocoon in leaf litter under the host plant. There are 2-3 broods of Lunas from March to September in the south. Adults do not feed.

Imperial Moth



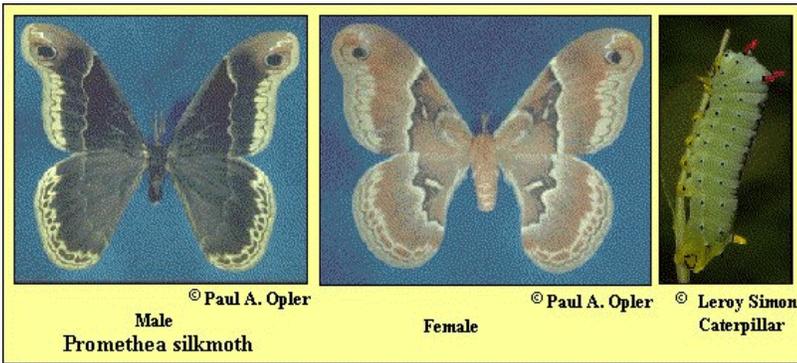
Adults emerge before sunrise and mate after midnight the next day. Eggs are laid singly or in groups of 2-5 on leaves of pine, oak, box elder, maples, sweetgum, and sassafras. Eggs hatch in about 2 weeks and the caterpillars are solitary feeders. Pupation takes place in underground burrows. There is one brood per year, but it may occur from April to October in the south. Adults do not feed.

This information is taken from the USGS - Moths of North America - Moths of Mississippi website cited above.



Polyphemus moth

Adults emerge from cocoons in the late afternoon and mating occurs on the same day from late evening to early morning. Eggs are laid that evening singly or in groups of 2 or 3 on leaves of oak, willow, maple, birch and other shrubs. Newly hatched caterpillars eat their eggshells and caterpillars of all ages are solitary. Older caterpillars eat an entire leaf then cut the leaf petiole so it falls to the ground. At least 2 broods per year in the south. Adults do not feed.



Promethea Moth

Males seek females in the afternoon and early evening with most mating occurring from 4 PM to sunset. Eggs are laid at night in rows of 4-10 on the upperside of leaves of spicebush, sassafras, tulip, sweetbay, white ash, lilac and others. Young caterpillars feed gregariously while older ones are solitary. Older caterpillars cut the leaf petioles of the leaves they have eaten. When ready to pupate the caterpillar strengthens a leaf petiole with silk and spins its cocoon inside

the curled leaf. The cocoon remains on the tree throughout the winter. Two broods, one March-May and another in August in the south. Adults do not feed.



Cecropia Moth

Females lay rows of 2-6 eggs on both sides of leaves of box elder, sugar maple, wild cherry, plum apples, alder, birch, dogwoods and willows. Eggs hatch in 10-14 days. Young caterpillars feed in groups on leaves older caterpillars are solitary. The cocoon is attached along its full length to a twig. It is usually constructed in a dark, protected area. One generation from March-July in most of

its range. Adults do not feed.



Regal Moth

Adults emerge in late evening and mate the following evening. Eggs are laid beginning at dusk the next day in groups of 1-3 on both sides of leaves of hickory, pecan, butternut, black walnut, sweet gum, persimmon, sumacs, cultivated cotton and others. Eggs hatch in 6-10 days and the caterpillars feed alone. Young caterpillars look like bird droppings older caterpillars have large brightly colored

'horns.' These critters are often called 'hickory horned devils.' Caterpillars burrow into the soil to pupate. One brood from May - September. Adults do not feed.

Announcements

Also announcing *CAMP DATES* for 2002. We will have two camps in 2002 and hope to accommodate a few more folks in this manner. The first camp will be in Gulfport beginning the afternoon of May 31 through lunch on Tuesday, June 4. The 2nd camp at Tombigbee State Park, Tupelo, will begin Sunday afternoon July 21 through Thursday lunch, July 25, 2002. We began taking applications for both camps in early February, so make your plans now and come chase bugs with us this summer. Forms are available in this letter and on the Entomology WEB site <http://www.msstate.edu/Entomology/4-H/camp.html>

The 4-H Entomology Linnaean Games continue to gain popularity. Remember, this is a team effort so recruit friends and begin to get prepared for the *GAMES*. We have submitted the manual for publication, but it has not yet been printed, so anyone who needs a copy to begin preparation for the Games may obtain one by contacting me. Most 4-H Agents also have a copy of the manual. Check the rules for the Games at

<http://www.msstate.edu/Entomology/4-H/LINNAEAN.html>

Mississippi Bee Essay Contest Winners

The 2002 Mississippi Bee Essay contest is completed and the National contest is currently being judged. I encourage each 4-Her to write an essay next year and congratulate each one who submitted one this year. Some of those are in for a little monetary surprise.

- 1st place - Chelsea Holland, Tate County**
- 2nd place - Patrick McFadyen, Oktibbeha County**
- 3rd place - Kelly Hamby, Bolivar County**
- 4th place - Hailey Gray, Union County**
- 5th place - Sarah Miller, Oktibbeha County**
- 6th place - Daniel Snyder, Copiah County**
- 7th place - Stephanie Houston, Jones County**
- 8th place - Jessica Watkins, Harrison County**
- 9th place - Leah Scribner, Webster County**

The National Bee Essay Contest winner will be announced in May and the topic for the 2003 essay will be announced in early June. We will invite 4-hers to participate again at that time. The Mississippi Beekeepers Association make awards to the top three winners of the Mississippi Contest.

Happy Bugging,

Michael Williams
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Encl.