

Jewels of the Night
Part One

By Kim Smith

On a balmy midsummer's evening, while walking past our white flowered butterfly bushes (*Buddleia davidii* 'White Profusion'), I was overjoyed to see a collection of moths nectaring contentedly along the lengths of the vanilla scented panicles of starry white florets. There were owlets and sphinxes and the aptly named, delicately patterned Large-lace Border. Serenely peaceful in the quiet of a moonlit night, nocturnal nectaring surely has its advantages. Few predatory birds are on the wing and human disturbances are kept to a minimum.

There are several very effective ways to attract moths to our gardens. Why, you may ask, would anyone wish to attract moths? Aren't they terribly destructive? Yes, there are a handful of moths that are not welcome, approximately one percent of the roughly 11,000 thousand species found in North America. The most infamous of all, the larvae of the Clothes Moth, feed on wool, feathers, fur, leather, paper and occasionally cotton, linen, and silk. Darkened and undisturbed cavities and crevices with high humidity are where the female prefers to lay eggs. Good housekeeping will go a long way in preventing an infestation of Clothes Moths—a vacuum cleaner with strong suction, well-lit closets, periodically refreshing the cedar oil in cedar storage facilities (the oil dries out and needs replenishing every two years or so), and exposure to air and sunlight. Several introduced species, the loathed Gypsy Moth, defoliator of trees, and the household pests, Indian Meal Moth and Mediterranean Flour Moth have only added to this contempt for moths. And, agricultural food crop monocultures create havens for pests such as the Coddling Moth. Enough with the pests! This is a series on how to attract the Jewels of the Night!

“True vespertine flowers are those that withhold their sweetness from day and give it freely at night.” (Louise Beebe Wilder). Imagine the dream-like enchantment of the night garden planted with starry white and pale hued flowers. Mountain laurel, white flowered lilacs (*Syringa vulgaris* 'Beauty of Moscow', 'Florent Stepman' and the species *alba*) bloom early in the season, followed by the Madonna Lily, evening primrose, *Philadelphus*, honeysuckle, *Lilium regale*, tobacco (*Nicotiana glauca*), Oriental lily, *B. davidii* 'White Profusion', tuberose, night phlox, and peacock orchids. Morning glories and moonflowers extend the season through late summer, along with pots of *Jasminium sambac*, *Brugmansia* and *Datura*. During the workday we can imagine our evening gardens of fragrance beckoning, a haven for ourselves and the night pollinators.

Moths are attracted to, and their eyes are very sensitive to, light. There are many interesting hypothesis as to why they are attracted to light, but for our purposes, we'll just use this information. Hang an old double or queen-size plain white sheet between two trees, a clothesline, or whatever is on hand. Anchor it along the bottom with heavy stones so it will not whip around in the breeze. This is best attempted on a still night. Behind the sheet, approximately two thirds of the way up and in the center of the sheet hang a lantern. We use an ultraviolet light, one of those horribly ineffective (and deadly to

harmless insects) mosquito zappers. Very important note: my husband *disconnected* the bug zapping wire. Now it is simply a harmless, weatherproof ultra violet lantern. The moths are most active from 10:00 pm to midnight and, attracted to the light, they will cling to the sheet. You will be able to see, from the opposite side of the sheet, the silhouettes of the moths. The preceding is not my idea, I had read it in half a dozen books about moths, and have successfully lured myriads of moths. Parents and grandparents, this is an activity that will thrill young children—creeping about with flashlights on a warm summer evening, long past bedtime!

If you wish to examine your specimen, gently (and swiftly) tap the moth into a large glass jar and refrigerate immediately. Refrigeration slows the metabolism of the moth and serves to prevent it from injuring its wings by repeated attempts to fly within the confines of the jar. Photograph or draw your specimen the next morning. I have never kept a moth longer than midday, as I don't want to harm it.

Moths and butterflies belong to the Order Lepidoptera of the Class Insecta. Lepidoptera means "scale wings," from Greek *lepis* for "scale" and *ptera* for "wing." Many moths appear to look furry. Real fur does not grow on moths or butterflies. The dense covering that resembles fur is a form of modified scales. The simplest way to tell the difference between a moth and a butterfly is that butterflies have clubbed antennae, whereas the antennae of moths are feathered, combed or tapered.

As with all species of Lepidoptera, the role of the moth caterpillar is to eat and molt and pupate. The role of the adult moth is to mate and lay eggs. Some moths, like the evanescent Luna Moth, emerge from pupation, and like other members of the sub-family Saturniinae, eclose with no mouthparts, unable to nectar. They emerge in early summer, mate, lay eggs of the next generation, and perish soon after, all within a week's time.

The easiest way to learn about a new topic is to break it down into sizable portions. Moths, like butterflies, are grouped into families. Butterflies are categorized by fairly-easy-to-identify families, for example—Swallowtails, Brushfoots, and Gossamer Wings. Far greater in number are the families and species of North American moths.

The Luna Moth, one of the most stunning and easily recognized, belongs to the Giant Silkworm Family or Saturniidae. Moths in the Saturniidae are generally medium to large, with bulky bodies, dense, fur-like scales, and eyespot patterns on the wing. There are roughly forty species of Saturniidae in North America, including the Prometheus moth, often seen at twilight, and the giant *Cercropia* moth, with a wingspan of a half-foot or more! They are so named the Giant Silkworm Family because of their pupating silky cocoon. The caterpillars of the Luna Moth feed on many trees including alders, beech, cherries, sweet gum and willows.

In part two, we will look at the day flying clearwing moths and other sphinx moths commonly seen in our gardens. I thought I would start early in the growing season with this article on moths, because if you do so choose to familiarize yourself with moths,

each month brings a new collection to our gardens. The endnotes will include information on interesting moths to look for, month by month.

End Notes: Stop by Toad Hall over the weekend of April 21-22 and sign-up for an opportunity to win a signed copy of Maria Rodale's Organic Gardening. On Saturday afternoon, Mary White will be available to answer all your non-toxic gardening questions. Meet author Anita Sanchez "The Teeth of the Lion: The Story of the Beloved and Despised Dandelion."

Recommended reading: *Discovering Moths* by John Himmelman and *A Field Guide to the Moths of Eastern North America* by Charles Covell, Jr.

Large-lace Border

