

# Of Moths, Wasps and Nighthawks

By John Anderson

There are approximately 10,500 species of moth yet to be identified on this continent north of the Mexican border. Most are nocturnal. Few ever capture our attention unless their caterpillars cost us money by damaging either crops or household goods. Peterson's *Guide to Eastern Moths* lists 1300 of the 10,500 North American moths as 'common.' A fair representation of those can be found near my house here on the corner of Green Mountain Camp and Hague Roads.

For years, every summer—as a way to learn a bit about those moths—I've run a black-light trap. It's simply a large plywood box with a slightly offset, two-part glass front and a blacklight hanging inside. Night-flying moths attracted to the light pass between the offset glass panes, and, once inside the box, most do not find their way back out. In the morning I can study the trapped moths at my leisure and then, come nightfall, release them unharmed.

Big showy moths were always the highlight of a night's trapping. Luna moths and Polyphemus moths were favorites, as were some of the big eye-spotted sphinx moths such as the blinded sphinx and the small-eyed sphinx. For the last few years, however, moth populations have been in decline. I am catching no giant silk moths at all in recent years and very few large sphinx moths—although I still see a few specimens of the rather drab poplar sphinx.

One explanation for declining moth populations may be a parasitic wasp (*pimpla disparis*) that is one of the ichneumon wasps. This wasp was introduced into the United States around 1970 as a biological control for gypsy moths. It lays its eggs on the gypsy moth caterpillar. When the egg hatches, the wasp larva feeds on the moth caterpillar, eventually killing it.

Unfortunately, *pimpla disparis* is rather indiscriminate. It is very much a generalist in its choice of prey, attacking moths from thirteen different families, including giant silk moths and sphinx moths, and many experts blame it for the recent steep decline in moth populations throughout the Northeast. Furthermore,

the wasp has not proven at all effective in controlling gypsy moths. According to one study, only one to two percent of gypsy moth caterpillars were parasitized by *p. disparis*.

This ill-conceived bit of environmental tinkering will, of course, have far-reaching consequences. You cannot introduce a predator that takes a big chunk out of the food chain and not have subsequent losses farther along that same chain. And one predator that feeds heavily on nocturnal flying insects, including moths, is the common nighthawk—a species now feared to be in a precipitous decline.

It is obvious to me that *pimpla disparis*, by killing moths, negatively impacts nighthawks. To what degree I couldn't guess, and no one may ever really know. But, obviously, those moths parasitized by *p. disparis* were a vital food supply—probably for many different creatures—and their loss will have a far-reaching ripple effect. Removing a vast, incalculable tonnage of nocturnal flying protein from the environment must, realistically, create equally vast and incalculable losses to everything dependent on that source of protein. And those losses, in turn, must negatively affect others . . . and those losses affect others . . . and those yet others . . . on and on . . . ad infinitum.

The nighthawk is losing habitat in the Northeast due to the reforestation of abandoned fields and also due to forest fire control. (Nighthawks were once known as burnt-land birds.) It is also losing nest sites, as flat, tar and gravel roofs are being replaced with newer rubberized membrane roofs. And there are probably other problems facing this species that we have not yet, and may never, identify.

I see nighthawks in late August and early September over my back field, here on the corner of Green Mountain Camp and Hague Roads. A few years ago I saw approximately one hundred fifty in one big, wheeling, amorphous mass. Last fall the most I saw in one flight was thirteen. But I'm not fool enough to believe that the few birds I personally saw in any given year were an indication of the overall health of the species. Only consistent, long-term counts will tell just how nighthawk populations are faring.

In the meantime, if anyone should feel the need to, once again, save us from the gypsy moth, I would hope that they would not release any more exotic wasps. Any such release implies either a knowledge and wisdom that we seemingly have not yet acquired, or a hubris that we obviously have.

## Invasives Workshop For Landowners

By Bill Schmidt

On August 25 from 10 a.m. to 3 p.m. John Evans and Bill Schmidt will host in their Dummerston woodlots a workshop on controlling invasive plants that threaten the health of fields and forests in southeastern Vermont. These include buckthorn, barberry, honeysuckle, bittersweet, and multiflora rose among others.

Participants will learn some basics in identifying common invasives and effective control methods that include pulling smaller plants and spraying and stump treatment of larger ones. The timing of treatments, techniques of application, safety precautions, and a review of control materials, including some non-restricted chemicals, will be described.

An invasive control specialist from Vegetation Control Service (VCS) is being invited to lead the workshop along with John and Bill. VCS does invasives control throughout New England and its staff is both very knowledgeable and well experienced in the subject. John and Bill, while not professionals themselves, have learned from professionals like those at VCS and have put what they know to work in their efforts to control invasives in their own

woodlots over the past four years.

The workshop will begin at the Schmidts' Elysian Hills Tree Farm at 10 a.m.. The group will go to the Evans' woodlot after lunch. Visits will be to sugarbush and maple stands with Japanese barberry, a red pine stand with buckthorn, a white pine stand with oriental bittersweet, a wildlife habitat aspen regeneration clearcut which has been invaded by honeysuckle, and tree lines at the edges of fields which is a favorite location for many invasive plants. Control practices at each site will be demonstrated.


Participants are to bring a bag lunch. Drinks will be provided.

This workshop is being sponsored by the Dummerston Conservation Commission and also has support from the Woodland Owners Association and Bonnyvale Environmental Education Center.

Directions: Elysian Hills Tree Farm is off Middle Road, off Tucker Reed Road which is one half mile from Route 5 and one and three quarter miles south of Dummerston Center. The Evans woodlot is on Kipling Road, across from Naulakha, the Kipling house.

For more information contact John Evans (256-2688) or Bill Schmidt (257-0233).

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