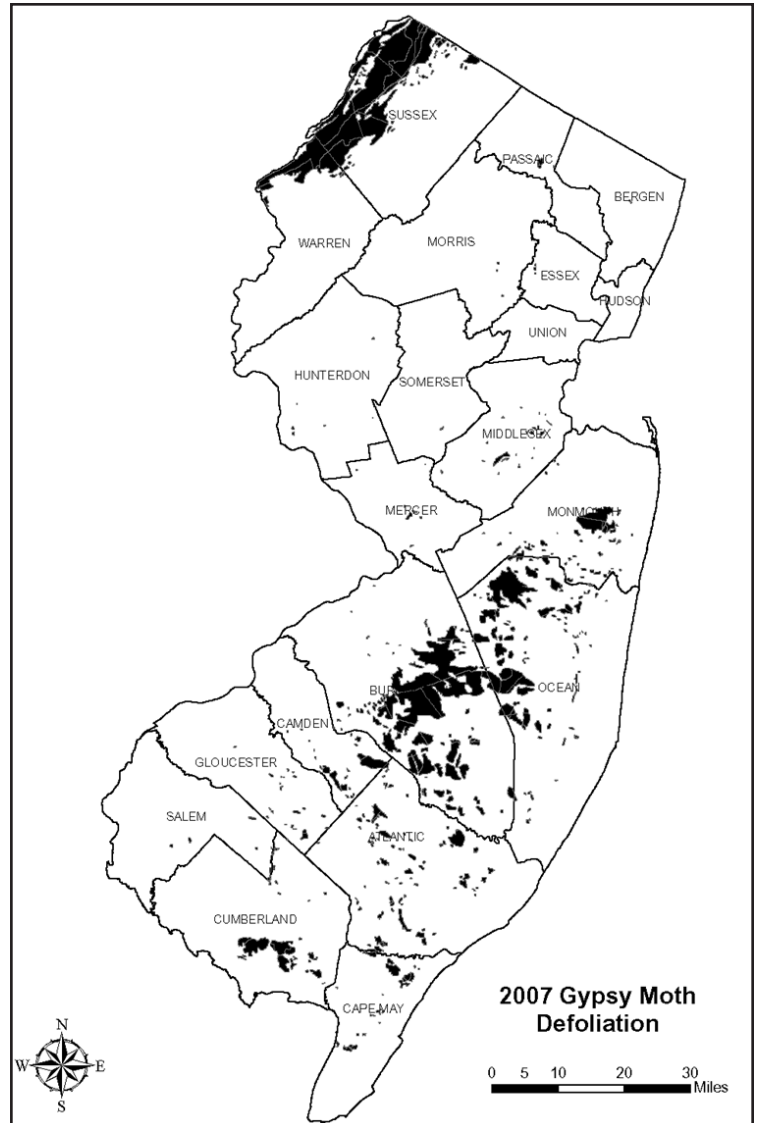




DIMILIN : NOT THE ANSWER FOR NJ'S GYPSY MOTHS

In January 2007, New Jersey's Department of Agriculture proposed to amend regulations to allow aerial spraying of chemical pesticides on state and private lands to control gypsy moth caterpillars. Fortunately, the Department of Environmental Protection decided to not lift the current ban on aerial spraying of chemical pesticides over residential and other non-farm areas. Several towns as well as the Department of Agriculture are trying to persuade the DEP to lift the ban in 2008, so that Dimilin, rather than or in addition to Bt (*Bacillus thuringiensis*), can be applied aerially in New Jersey. If DEP lifts the ban, towns could spray residential areas from the air, ensuring that Dimilin will come into contact with children, adults and pets.

To combat the gypsy moth, Bt was applied to select areas throughout New Jersey. Bt is a naturally occurring bacterium common in soils throughout the world, and is a biological pesticide with no known mammalian toxicity. Several strains can infect and kill insects. Unlike most insecticides, Bt insecticides do not have a broad spectrum of activity, so they do not kill beneficial insects. This includes the natural enemies of insects (predators and parasites), as well as beneficial pollinators, such as honeybees. In addition, Bt is essentially nontoxic to people, pets and wildlife. Bt provides adequate tree protection from defoliation when properly applied. You can find



Map of New Jersey showing the 2007 Gypsy Moth Defoliation. Taken from the DEP website.

what areas in New Jersey were applied with Bt at the following website, www.nj.gov/agriculture/divisions/pi/prog/gmwebtable.html which is maintained by the Department of Agriculture Gypsy Moth Program.

Dimilin, the trade name for Diflubenzuron, is an insect growth regulator, which is classified as a Restricted Use Pesticide by EPA due to its severe

continued on page 2

Dimilin

**** From the label ****

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND
DOMESTIC ANIMALS**

CAUTION

Avoid contact with skin.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and Other Handlers Must Wear: A long-sleeved shirt and long pants; shoes plus socks.

toxicity to aquatic organisms and other hazards to wildlife (University of Maryland, 2000). Diflubenzuron degrades most rapidly in alkaline water and more slowly in acidic water (half life is 16+ days), and the half-life in soil is between four days and four months, depending on the particle size (Willcox and Coffey, 1978). One study reports that 90% of the pesticide could be detected on leaves thirty to sixty days after treatment (Willcox and Coffey, 1978). Based on this research, the Pinelands with its acidic waters and sandy soils would retain Dimilin for a much longer time period than in alkaline ecosystems and thus would likely pose a greater threat to aquatic invertebrates and other wildlife living off of the aquatic ecosystem and to residents who come into contact with the chemical when they use their yards, decks and other items that have been sprayed.

Without human intervention, gypsy moth populations rise and fall in cycles, and are subject to collapse due to a naturally occurring fungus. Spraying has a questionable impact on the cycle; in fact, some scientists believe spraying may actually prolong the cycle.

The included map displays the areas where trees were affected by the gypsy moths. Although the number of affected acres has increased from last year, the leaves on many of these trees return. The Gypsy Moth Program does not provide information on how many acres of the defoliated trees were sprayed with Bt or how many acres of trees refoliated. This important information would better help demonstrate the effectiveness of Bt as well as scale down the inflammatory headlines regarding gypsy moth defoliation.

PPA is concerned about any proposal to lift the ban on aerial spraying of pesticides over residential areas. A change in DEP policy could set a precedent that would allow for aerial spraying of other pesticides that could pose more harm to the natural environment and human health.

As posted in our January/February 2007 Pinelands Watch issue, the use of Dimilin raises significant human and ecological health concerns and provides questionable benefits. This pesticide:

- will continue to have a 6-9 month residual in leaf litter after the chemical has been applied;
- highly toxic to aquatic insects and crustaceans

(i.e., blue crab reproduction is impaired at concentrations with an LC50 (concentration needed to kill 50% of the test population) of only 0.5 parts per billion); breaks down into a probable human carcinogen (called 4-chloroaniline and known as PCA);

- can rob the blood of oxygen;
- is an endocrine disruptor, capable of reducing testosterone; and
- may not relieve and may prolong the gypsy moth infestation.

PPA believes, based on the research, that Bt meets the needs to provide some protection for the trees from defoliation while also minimizing human and wildlife exposure to chemical pesticides, including Dimilin, that have potential adverse effects on humans and wildlife.

What you can do?

PPA and concerned residents need your help in persuading state and local governments not to use aerial spraying of Dimilin to control gypsy moth populations and that DEP should not lift its ban on aerial spraying of pesticides over residential and conservation areas. Please do the following:

- Contact the Department of Agriculture at 609-292-5442 or at agpzolt@ag.state.nj.us;
- Contact DEP Commissioner Jackson at 609-292-2885;
- Contact your local newspapers by writing letters to the editor; and
- Talk to residents in your town. Let them know that you are opposed to the aerial spraying of Dimilin or any chemical pesticide over residential and conservation areas.

For more information, please contact Jaclyn Rhoads at Pinelands Preservation Alliance at 609-859-8860 ext. 18 or jaclyn@pinelandsalliance.org.

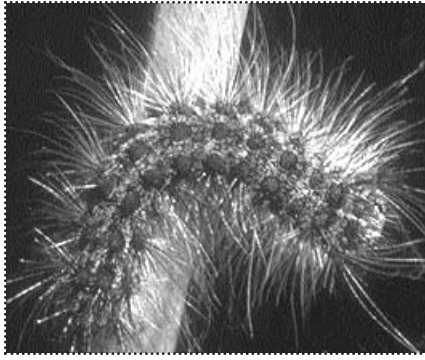
References:

Colorado State University Extension Program. <http://www.ext.colostate.edu/Pubs/insect/05556.html>

University of Maryland, MD Cooperative Extension. 2000. "Restricted Use Pesticides." [http://pest.umd.edu/spatc/Leaflets/Willcox and Coffey, USDA-FS. 1978.](http://pest.umd.edu/spatc/Leaflets/Willcox%20and%20Coffey,%20USDA-FS%201978)

"Environmental impacts of diflubenzuron (Dimilin TM) insecticides." Northeast Area State and Private Forum.

The gypsy moth, *Lymantria dispar*, is one of North America's most devastating forest pests. The species originally evolved in Europe and Asia and has existed there for thousands of years. In either 1868 or 1869, the gypsy moth was accidentally introduced near



Boston, MA by E. Leopold Trouvelot. The gypsy moth is known to feed on the foliage of hundreds of species of plants in North America but its most common hosts are oaks and aspen. In most northeastern forests, less than 20% of the trees in a forest will die, but occasionally tree mortality may be very heavy. The gypsy moth has been an established part of the food chain in New Jersey for over thirty years. A variety of natural agents are known to kill gypsy moths in nature. These agents include over 20 insect parasitoids and predators that were introduced over the last 100 years from Asia and Europe. Small mammals are perhaps the most important gypsy moth predator, especially at low population densities. A nucleopolyhedrosis virus usually causes the collapse of outbreak populations, and recently an entomopathogenic fungus species has caused considerable mortality of populations in North America. Gypsy moth populations will fluctuate and reach a peak time of population growth and will die off after this peak. The outbreak phase is characterized by populations high enough to cause noticeable tree defoliation. Outbreaks are rarely sustained for more than one to two years, after which high levels of mortality, primarily from starvation and disease, bring about a rapid population crash. This is the decline phase.

Vote Yes on Public Question #3

On November 6, 2007, voters will have the opportunity to approve the Green Acres, Farmland, Blue Acres and Historic Preservation Bond Act of 2007. By authorizing the state to issue \$200 million in general obligation bonds, the Act would provide much-needed funds to keep New Jersey's open space, farmland and historic preservation programs afloat for one more year and to begin a new Blue Acres program to purchase flood prone properties.

For more information visit:
www.NJKeepItGreen.org.

Off-road Vehicle Legislation Possible for 2007

Bill A4172 was introduced in May 2007 which would establish a mandatory point-of-sale registration and tagging program for off-road vehicles and would increase fines for ORVs caught on public land. The bill has been referred to the Transportation and Public Works Committee and has to be discussed and voted on before a full assembly vote. The sponsors of the bill, Assemblymen Reed Gusciora, Michael Panter, and Paul Moriarty, hope to move the bill in November after the elections.

Off-road vehicles are becoming a national issue, and former public lands' rangers and administrators in a group called Rangers for Responsible Recreation, including top officials of the US Bureau of Land Management and the US Forest Service, are working on tougher rules on what they are calling the top threat to public lands.

We are long overdue for this type of legislation. Your help is needed once again in making sure a complete bill is passed this year.

A complete bill includes:

- Requiring mandatory point-of-sale registration and tagging for all off-road vehicles;
- Holding parents and guardians responsible for children sixteen and under who violate the provisions of the law;
- Requiring safety education;
- Increasing fines and penalties on public land, and
- Providing funds for enforcement.

Contact the committee chair, Assemblyman John Wisniewski, at (732) 316-1885 and ask him to post the bill for discussion at the first committee meeting.

Contact your elected officials (mayors and legislators) and ask them to support passage with the complete elements listed above before 2008.

Use this link to find your legislator -
<http://www.njleg.state.nj.us/members/legsearch.asp>.

For more information contact Jaclyn Rhoads at PPA -
609-859-8860 ext. 18 or

jaclyn@pinelandsalliance.org

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A Sponsor will receive an *Exploring the Pine Barrens of New Jersey* map
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