

# VILLAGE VIEW

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Wind, hail, sleet, and freezing cold will do no harm to these creatures. Scraping them to the ground will not destroy them. Come spring, they will emerge and begin their life-cycle all over again.

Look at the numbers of egg cases on just one tree! Millions of caterpillars, asleep there, snoozing comfortably through the cold months, await the warm May day when they will stretch, burst forth, and start a new attack on every bit of greenery they can find.

What can be done? We have six months to take action, half-a-year to eradicate the gypsy moth from our immediate neighborhoods. We probably can't destroy every one, but we could, if we would make the effort, reduce their numbers greatly.

If the egg masses are scraped into a can of kerosene, the oil will suffocate the developing insect. Every egg case that is eliminated in this manner will mean up to a thousand fewer caterpillars eating our trees next summer.

Forty years ago when Cape Cod was sparsely populated, the gypsy moth destroyed many square miles of forested woodlands. Entire groves of oak were wiped out. Towns appropriated funds to spray poisons on trees that bordered roads; for that reason you often find huge old trees along the edges of streets today, but no mature trees thirty or forty feet back from the roadsides.

After World War II the chemical DDT was employed to control many kinds of insects. Gypsy moths, Dutch elm beetles, budworms, cankerworms, tent caterpillars, bagworms, and spanworms were successfully controlled with DDT. Decades later, however, DDT was showing up in fish, birds, and mother's milk. Because of widespread use of DDT, the osprey became an endangered species. Even the eggshells of domestic hens became thin and brittle.

DDT was banned as an insecticide. Populations of insects soared to new heights. We're back to square one. I recall walking through woodlands as a child and hearing the noise of the gypsy moth caterpillars, chewing, and their droppings, falling. The scene has been repeated in woodland after woodland again this past summer.

Modern science has developed some deterrents. We have Sevin (carbaryl), a milder chemical insecticide with a much shorter life than DDT. We have Dipel, a biological rather than chemical, insecticide; it contains a natural bacterium, one that seldom occurs in nature in sufficient concentrations to control leaf-eating caterpillars. The bacterium, *Bacillus thuringiensis*, affects caterpillars only. One bite of a treated

leaf and caterpillars stop feeding and die within a few days.

Spray programs with either Sevin or Dipel are expensive but effective. Spraying with Sevin is likely to arouse environmentalists who fear effects of chemical insecticides on other life-forms, including human. As is the case with DDT, there could be long-term effects of which we are so far unaware. Sevin, unless sprayed at night when bees and other beneficial insects are dormant, can destroy these as well.

The gypsy moth's only known predator is a small wasp; no one should kill the wasp that preys on the gypsy moth. They should be grown commercially!

Much of Cape Cod, today, is populated with humans as well as with gypsy moths. If every property owner inspects his trees, shrubs, shingles, eaves, and chimneys, and destroys gypsy moth egg cases by scraping them into kerosene, depredation by the caterpillars could be greatly reduced. And if Cape Codders encourage our local elected officials to use biological insecticides in spraying programs, the caterpillars can be controlled.

We may never wipe out this scourge entirely; if DDT didn't do the job, probably nothing ever will. But we can control the infestation. We can start now, and we can follow up next spring with a spraying program that will save our trees, gardens, forests, and scenery.

Just because the gypsy moth is out of sight at the moment, don't let it slip out of mind.

Out of sight, out of mind? There's danger of that. The selectmen of every town on Cape Cod are turning their attention to the matter. That doesn't mean they'll come up with a solution. In fact, it would be surprising were they to achieve accord, let alone concerted action.

I'm talking about gypsy moths. Six months ago millions of tiny caterpillars hatched from eggs laid by the moths and, spinning gossamer threads, began their destructive life-cycle. In this first visible stage of their lives, the caterpillars are about a quarter-inch long and approximately the diameter of a common pin. Insignificant-looking little black worms, they are.

Practically weightless as they swing earthward on their webs, the winds can carry them as far as three miles.

Once they find firm footing on the ground, they inch-worm to the nearest vertical surface and, driven by voracious appetites, head skyward once more. Up trees, walls, telephone poles, drainpipes, shrubs, bushes, up and up, they climb in search of something green to eat. They prefer leaves of deciduous trees, but their diet is not limited by their preferences.

They eat every kind of leaf and needle.

During the height of the foliage season this fall, a visit to the New Hampshire mountains was disappointing because the usual colorful display was, in places where the gypsy moths had been active early in the summer, much muted. They ate maple, birch, and beech leaves. They ate oak, of course; it's a favorite. When the deciduous trees were bare, they ate hemlock and white pine needles. They even ate rhododendron, mountain laurel, and garden plants such as geraniums, marigolds, and petunias.

Up-countrymen describe the mountains as looking "as though a fire had burned through the hills and valleys. It wasn't like winter; then we have the evergreens, but they ate the evergreens, too."

Most of the deciduous trees recovered enough to put out a second suit of leaves; even the white pines managed to generate new candles, and while we were there in early October, the thin, sparsely-needled branches of the white pines swayed in the breezes.

"We don't know yet, of course, whether the white pines can survive our severe winter, or if they'll die," New Hampshiremen reported. "And the hemlocks show no sign of recovery at all."

It was true. Every hemlock and every tamarack was nude of needles, starkly bare, as though already dead. Will those towering trees survive? Many will not.

Here on the Cape some areas suffered similar damage. Once its insatiable jaws begin their chewing, the caterpillar grows to a length of an inch-and-a-half in only a few weeks before sating its appetite, pupating, and becoming a moth, in which state it mates. The females lay their eggs, oval deposits, in sheltered places.

All that has now been accomplished by the 1981 generation of the gypsy moth. The only visible sign that's left of them are the egg masses to be seen on tree trunks, branches, and other hard-to-reach spots in areas where the caterpillars and moths were most active last summer.

The egg masses appear innocuous. They are a pale tan and covered with a soft fuzz. They feel like suede on the surface. Inside each deposit are as many as a thousand tiny grainy eggs, and each egg contains one potential chewing caterpillar.