

Kids' KOrner

Insects munch through acres of forest

WASHINGTON — Their names are hardly household words: gypsy moth, spruce budworm, pine beetle

But they're gaining more notoriety all the time as they steadily chomp their way, through million acres of forest each year.

They are, in terms of the devastation they cause, the nation's most important forest insect pests. Their legacy is a multiplying patchwork of brown and dying woodlands.

They've been around a long time, and they'll be around a lot longer. Foresters have little hope of eradicating them, only of controlling them and holding timber losses to acceptable levels.

"Forestry is merely managing death and disaster in the woods," says Lester A. DeCoster, a vice president of the American Forest Institute. "A forest is a continuing process of death and rebirth and disasters, and you try to manage that in a way that fits your needs."

"I'm not sure it's a problem you ever solve," says Robert W. Slocum Jr., manager of private forest management for the National Forest Products Association. "You may temporarily abate it, but like the flu bug and a few other things, chances are the insects will probably adapt eventually and say with us in one form or another."

Two U.S. Forest Service officials who keep close tabs on what's eating the woods are entomologist Thomas H. Hofacker and pathologist Robert C. Loomis.

They are co-authors of a report on forest insect and disease problems in 1983. Among their findings:

— Gypsy moth larvae defoliated about 2.4 million acres, mainly of oaks, in hardwood forests from Maine to Virginia, and as far west as Ohio. The acreage was "down dramatically" from the 8.2 million acres defoliated by the insect in 1982.

— The spruce budworm defoliated nearly 6.5 million acres of white spruce and balsam, chiefly in Maine, after the pest declined for two years in a row.

— Western spruce budworm defoliation of fir, larch, and spruce, principally in Idaho, "increased significantly" for the second straight year to about 11 million acres.

— Mountain pine beetle outbreaks covered 3.5 million acres, mostly in Colorado, Montana, Oregon, Utah, Washington, and Wyoming.

— Southern pine beetles attacked trees in 66 counties in eight states, the second consecutive annual increase; especially hard hit were national forests in Texas.

Dozens of Diseases

These species are only a few among the dozens listed in the Forest Service report. Also included is an even longer list of diseases, many of which work in conjunction with insects to decimate the forests.

Patient research continues, by the federal government and by industries and universities. Genetic improvements, new biological and chemical controls, and improved aerial mapping are a few of the preventive measures being explored.

So are synthetic pheromones, imitations of the chemicals secreted by insects to send subtle



Female gypsy moths lay clusters of eggs on a tree trunk. The eggs of these and countless sister moths will hatch into voracious larvae that will defoliate millions of acres of U.S. hardwood forests. In 1983 the pests devoured some 2.4 million acres of foliage from Maine to Virginia.

signals that govern everything from their eating habits to their sex lives

"Prevention is the thing we're trying to get," says Loomis. "When you really get into the big outbreak, then your options are cut, and you have to go into the very controversial spraying programs and that kind of thing."

The best way to achieve

prevention, many experts agree, is to manage the forests. Hofacker uses the stricken stands of lodgepole pines in the Rocky Mountains as an example.

"The way to manage is not to have these vast areas of trees that are over 80 years old and have relatively large diameters," he says. "Mountain pine beetle and fire working together — the pine

beetle killing the trees, and fire coming in after that, regenerating these large areas of lodgepole pine — have just set the stage for a continuous series of epidemics."

"In the West today," writes Forest Service entomologist Mark D. McGregor of Missoula, Mont., "thousands of acres of gray trees stand as skeletal evidence of

(Turn to Page B12)

COLOR THIS!

- | | |
|-----------|---------------|
| 1. GREY | 6. PEACH |
| 2. RED | 7. GREEN |
| 3. YELLOW | 8. LT. BROWN |
| 4. BLUE | 9. LT. BLUE |
| 5. BROWN | 10. LT. GREEN |

RABBITS AND HARES RESEMBLE THE RODENT AND ARE CLOSELY RELATED. THEY DIFFER FROM THEM IN HAVING TWO PAIRS OF FRONT TEETH IN THE UPPER JAW, WHILE RODENTS HAVE ONLY ONE PAIR. THE RABBIT HAS A MILD DISPOSITION BUT WILL FIGHT VICIOUSLY TO DEFEND ITS YOUNG FROM PREDATORY ANIMALS MANY TIMES LARGER THAN THEMSELVES.

