Trees under siege

Mysterious insect eats away at Monterey pines

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Monterey pine trees from Santa Cruz to La Selva Beach have been attacked by a mysterious insect that so far has baffled state forestry officials.

Affected trees are mostly along Highway 1 between Highway 17 and the Park Avenue exit, although some reports of branch browning have come from residential areas as far south as La Selva.

David Soho, resource manager at the Department of Forestry office in Felton, said last week that the department's pathologist took samples Aug. 28 and is awaiting test results.

"The pathologist hasn't seen this one for a long time," Soho said. "This is one he hasn't seen on Monterey pines."

Soho said that foresters noticed the damage, which appears to have been caused by an insect, in late July and called in the pathologist. Affected twigs and branches turn brown and have unusual swellings at the ends, he said, with some pitch exuding from the area of the swelling. He was unwilling to speculate as to what insect might be causing the damage.

The insect damage looks different from the yearly browning and dropping of the pines' old needles, Soho said. In a healthy three, the tips of the branches are green even though interior needles may be brown. In the trees affected by this pest, the browning begins at the tips.

Some of the trees in the county, particularly those in Rio del Mar, simply are nearing the ends of their lives and don't look very good, Soho said. The Monterey pine lives only about 50 or 60 years under the best conditions, he said, and the 40- to 45-year-old specimens in Rio del Mar have had the added stresses of passing traffic, paving and planting over their root areas and haphazard topping and pruning.

Forester Bill Ruskin, who accompanied pathologist David Adams, said that he at first thought the bug might be an engraver beetle, but after closer inspection of the trees, saw that it was not. He also said that it looks like the infestation is moving south.

"At Highway 17 and 1," he said, "the trees were affected maybe last year. The trees at New Brighton were affected a little more recently."

Ruskin said that once the pest has been identified, a program of treatment could be started.

"We're probably talking about spraying," he said. "It's just mostly unsightly. It doesn't look like the trees are being killed outright. But a bug like this can weaken a tree and make it more susceptible to other insects."

Ruskin explained that a healthy evergreen tree produces a lot of pitch, and when an insect tries to invade, the pitch flows out and washes out the bug, preventing it from getting under the bark. A sick tree, or a tree under environmental stress, does not produce as much pitch, so insects can gain a foothold more easily.

At that point, he went on, either the bugs or the tree itself send out a signal of some kind that it is fair game. Scientists are not sure how the signal is transmitted, he said, but it is known that pests emit a pheromone, or chemical signal, when they successfully attack a tree.

Stresses such as pollutants along a highway can also make a tree more susceptible to bugs and diseases, he said.

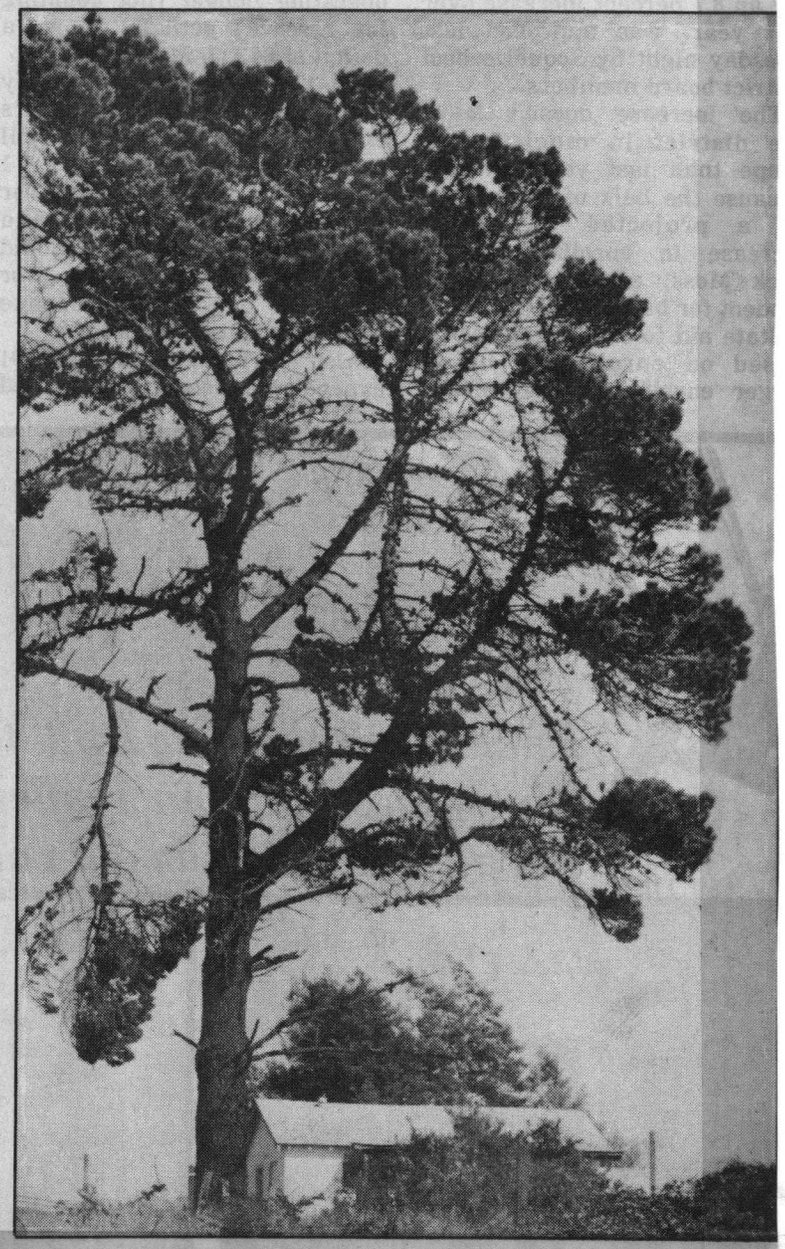
The Monterey pine, Soho said, is particularly susceptible to pests and diseases.

"The Monterey pine is probably the worst," he said. "It's the conifer in California most prone to diseases and pests. It has 90 known insect pests and 110 diseases. Outside its natural stands, it's a pest-prone plant."

The tree grows naturally at Ano Nuevo and in Monterey, he said.

"If you plant them more than about four or five miles from the ocean, you're really asking for problems," he said.

Test results are expected this week, Soho said.



Kurt Ellison

This scraggly Monterey pine near New Brighton is victim of a mysterious insect.