

# "Bug of the Month"

During the December holiday season in the Pacific Northwest, insects are pretty much forgotten. The cooler temperatures have forced most insects to seek places for overwintering where they spend the winter with visions of warmer temperatures dancing in their heads. In other parts of the world, this is a time of early summer insect emergence. In Australia there is a beetle that coincides with the holiday season and is called the Christmas Beetle (*Anoplognathus* spp.).

**WHAT DO THEY LOOK LIKE?** There are about 35 species of Christmas beetles in Australia. The adults are fairly large, ranging from 20 to 35 mm in length. Their coloration varies, with many of the species glossy or brightly colored. The larvae are the typical "C" shaped scarab grubs that are found in the soil.

**WHAT DO THEY DO?** The larvae develop in the soil feeding on decaying organic matter or the roots of grasses, sugar cane, corn, and other crops, and can be serious pests themselves. They can also cause considerable damage to the roots of newly planted trees and nursery stock. The adult, however, is the more noticeable stage. The life cycle takes one or two years to complete, depending on the species. Eggs are laid into the soil in the spring or early summer. The number of winters that the larvae spend in the soil depends on whether the species has a one or two-year



cycle. In late winter and early spring the fully grown larvae move closer to the surface and hollow out a chamber for pupation. Pupation lasts several weeks and then the adults dig to the surface, usually when the soil has been softened by rain. The adults fly to a food source to feed and mate.



The emergence of many of the Christmas beetle species coincides with the holiday for which it is named. Drawn to lights at night, large numbers of these beetles are attracted to cities and houses, and some species are drawn in large swarms. More importantly, the adults can completely defoliate their Eucalyptus host trees. Repeated defoliation over several years can kill mature trees, although it is younger trees, up to three years old, that are at the most risk. The younger trees are less able to recover from a single defoliation. Most Eucalyptus trees can tolerate up to 40-50% defoliation without suffering growth loss.

## MANAGEMENT.

Control of Christmas beetles is difficult. The soil-living larvae are difficult to reach with insecticides and the adults appear suddenly and can do a lot of damage in a short time. Some cultural control methods include:

- Cultivate the soil at new sites to kill the larvae and to attract birds that will feed on the larvae.
- Use tree management practices that promote tree vigor and thereby lessen the impact of feeding.
- Use effective weed control and fertilization when trees are young (caution should be used to avoid problems from other insects that prefer rapidly growing trees).
- Plant tree species, such as the Gympie messmate (*Eucalyptus cloeziana*), that have shown some resistance to the Christmas beetles.

**MORE QUESTIONS?** Please do not hesitate to give your "Bug Docs" a call at comm.: (360) 315-4450, DSN: 322-4450 or you can e-mail us at [ndveccmei@pnw.med.navy.mil](mailto:ndveccmei@pnw.med.navy.mil).