

# CREATION MOMENTS

*Proclaiming Evidence for Truth*

## THIS WEEK'S CREATION MOMENT

### Smart Trees and Clever Bugs



*O LORD, how manifold are thy works! in wisdom hast thou made them all: the earth is full of thy riches. (Psalm 104:24)*

How smart is the smartest tree you ever met? Does it sound silly to speak of trees as being smart? Botanists are learning that some trees have elaborate defenses against insect pests.

Studies have shown that a cottonwood tree sets up an elaborate zone defense when attacked by aphids. Some branches will manufacture poisons to resist the aphids. Branches that offer the aphids poisons can be dozens of times more resistant to aphids than neighboring branches. Should an aphid land on a leaf that is not manufacturing poisons, that leaf is very likely to be shed by the tree. This squeeze play by the tree keeps both strategies viable in resisting aphids.

However, sometimes insects are almost as clever as trees. The eastern tent caterpillar eats a fatal dose of cyanide with each mouthful of cherry tree leaves without harm. The poison is combined with two sugar molecules in the leaves. Normally an insect's digestive system would separate those sugars, releasing the cyanide. However, the tent caterpillar's digestive system releases only one sugar, leaving the cyanide bound and harmless. On the other hand, the pink sawfly larva concentrates and stores the toxic oils of the eucalyptus leaves it eats. When threatened, the worm-like larva rears up and spits droplets of the poisonous oils at its attackers.

There is no level at which the creation fails to show forth intelligence and planning. Every level of creation glorifies God!

Ref: Brownlee, Shannon. 1983. "The silent battle." *Discover*, Sept. p. 28. Photo: Tent made by eastern tent caterpillar. Courtesy of Greg Hume. (CC BY-SA 4.0)

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