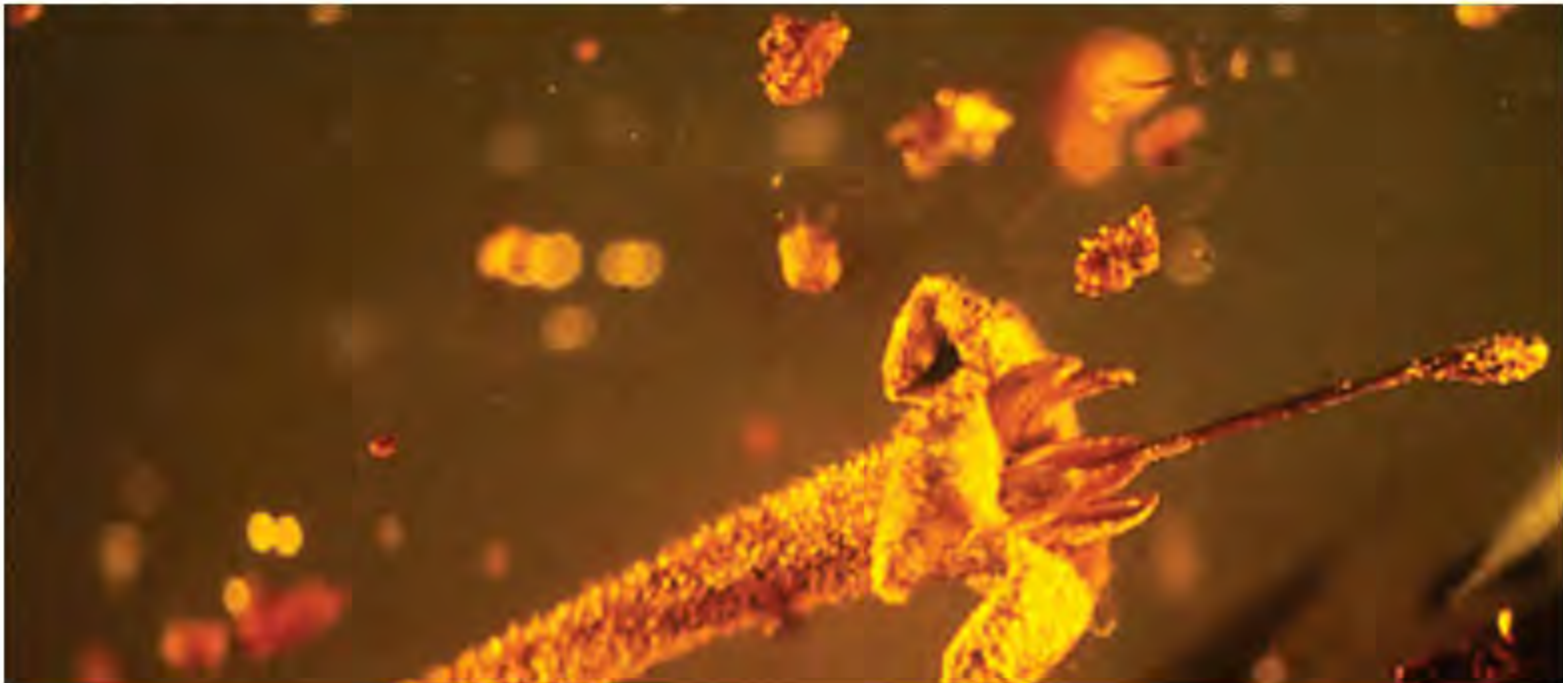


DAILY NEWS
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Beautiful amber fossil flower reveals plant history of New World



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George Poinar

This perfectly preserved prehistoric flower embedded in amber is thought to be a long-lost relative of modern plants including sunflowers, coffee, peppers, potatoes and mint.

Its discovery in a mine in the Dominican Republic represents the first evidence that this major group of plants – the asterids – comprising some 80,000 species, had reached the New World by between 15 and 45 million years ago, the estimated age of the fossil amber.

“It’s the first example of an asterid in the New World,” says [Lena Struwe](#) of Rutgers University in New Brunswick, New Jersey. “It tells us the plants were there in the Mid-Tertiary, 20 to 40 million years ago. It also tells us that these plants were very similar to their modern day relatives, and allowed us to give our discovery a species name – *Strychnos electri*.”

The plant is thought to be related to the strychnine tree from which the strychnine poison is extracted.

Asterids account for a third of all flowering plants. We knew that the other two main groups – the rosids, including roses and beans, and the monocots, mainly orchids, grasses and palms – had already reached the New World by that time, says Struwe.

Amber spyglass

The amber specimen is just under 2 centimetres long. Its five petals flop outwards from the rim of the trumpet-like horn of the flower, with five corresponding anthers – the male parts which make pollen – pointing upwards. The central shaft pointing upwards is the style, the female part of the plant, with a stigma at its summit to capture pollen. Some pollen is preserved in the amber, but Struwe says it is too degraded to enable cross-pollination with modern relatives. “I doubt there’s anything still viable in the pollen grains, so I don’t subscribe to the Jurassic Park idea,” she says.

Struwe says the structure is very similar to that of flowers from other modern-day relatives, which include tree-climbing lianas and savannah trees. But it’s difficult to know what the rest of the plant looked like, or how big it was. “We don’t have any leaves or stems,” she says.

George Poinar of Oregon State University in Corvallis, who found the samples while exploring the amber mine, says the habitat may have been humid and tropical. “Based on a range of insects and other plants found in the amber,” he says, “I think the forest was tropical and humid, rich in lianas, shrubs and large trees.”

Although insects are the life forms most often found in [amber](#), [many ancient plants have been preserved](#) this way too, including [orchids](#) [and](#) [carnivorous plants](#).

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By Andy Coghlan

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