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Gone... orchid that's all roots

Once common in our forests, this orchid was last seen here in the 1990s. Now, scientists studying this evolutionary wonder say its disappearance is a worrying sign of the health of the forest

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IT LOOKS like a spider and would be shunned by most orchid lovers, because it is all roots.

But this evolutionary marvel, now likely extinct in Singapore, is being studied by scientists who say its presence is a litmus test of how healthy the forest is.

Called the *Taeniophyllum obtusum*, the orchid needs high levels of humidity to flourish, which isn't possible when too many trees in the forest disappear.

The small, light plant, which has tiny yellow flowers, grows on the ends of tree branches. It could have evolved this way to avoid competing with other plants for space and light, scientists think.

'It used to be common here, and for it to have failed to survive in Singapore is not a good sign for our forests,' said researcher Alvin Lok of the biological sciences department at the National University of Singapore (NUS).

Forests here have become less humid, allowing more light and wind through the trees, proving fatal for some delicate plants.

The same reasons that this species vanished could also explain why Singapore has lost most of its native orchids, added Mr Lok. Only five or six common species remain, from an estimated 40 to 50 in the 1920s.

The last time the *Taeniophyllum obtusum* was spotted here was in the Nee Soon swamp forest in the late 1990s, said Associate Professor Hugh Tan, a plant expert with the NUS.

It can still be found in the region and is a common sight in Malaysian forests and plantations.

Its stem and leaves have been reduced to very tiny structures about 1mm to 2mm long, and the roots, which are about 4cm by 6cm, do most of the work. They anchor the plant to tree branches, absorb water and mineral nutrients, and make food.

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