

NEW PLANT SPECIES DISCOVERED IN 2015



Dendrobium cynthiae, photo by A. Schuiteman

More than 140 species new to science were uncovered by researchers at the botanic gardens in 2015, twice as many as the previous year, raising hopes that new types of medicines, essential oils and crops may be developed.

The discoveries were made across the world as botanists sought to catalogue and study unknown plants and fungi, and to determine their chemical properties. Among the most exciting are 22 new species of trees and shrubs in the myrtle family. They were identified in Brazil's coastal rainforest, and have potential for use in medicines, perhaps as antiseptics or diuretics, and by the aromatherapy industry.

Several of the finds have potential uses in agriculture, including a type of sweet potato found in Bolivia. It was one of 18 new species belonging to the Ipomoea family – familiar to British gardeners as morning-glory. The new sweet potato is unlikely to be grown as a crop in its own right, but it could be cross-bred with the commercial species to create new varieties that might be more disease-resistant or able to grow in drier or wetter areas. Specific genes might also be transferred to create genetically modified strains.

Other discoveries likely to interest commercial growers include five that are relatives of the custard apple, or sugar apple, and ylang-ylang, another important source of essential oils; these were unearthed in Malaysia and Indonesia.

The largest and heaviest discovery of the year was a tree, *Gilbertiodendron maximum*, which grows 45m high and has a 1.4m-diameter trunk. It grows only in Gabon and was one of eight rainforest giants located in the Cameroon - Congolian region.

Six new orchids were described by Kew researchers, including a 3-metre slipper orchid, *Selenipedium dodsonii*, from Ecuador. It was identified from a specimen taken from the wild decades ago and stored unnoticed in a US herbarium.

Researchers identified 25 new acanthuses, more than any other family of plants this year, while in Mozambique a small patch of land described by botanists as “highly threatened” by a French petroleum company yielded an astonishing 36 previously unknown species.

Dr Martin Cheek, a senior scientist at Kew, said finding new plants is vital. “They could be important to our survival. If we wipe them out they aren't going to be of any help.” ■