

Vanda helvola



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DAVID L ROBERTS and MARTIN MOTES discuss what is probably the most widespread species in the genus *Vanda*

WALLACEA, a transition zone between Sundaland (the Malay Peninsula, Sumatra, Borneo, Java, and Bali) and Australia-New Guinea, is a biogeographical region incorporating a number of Indonesian islands (Nusa Tenggara, Sulawesi and most of the Maluku) which lie in deep water. The deep-water channel running through the region persisted even during the last glaciation, when the sea levels dropped, resulting in land-bridges forming in the Sundaland region, and in Australia-New Guinea. This barrier gave rise to distinct fauna and flora on either side of Wallacea.

These distinct differences were first noted by the 19th century naturalist, Alfred Russell Wallace, after whom the region is named. Several lines have been drawn by biologists through the region to demarcate the separate biospheres, the most famous being the Wallace line itself, which runs between Bali and Lombok and carries on north through the Makassar Strait, separating Borneo and Sulawesi. Other lines that have been drawn through the region are

Lydekker's and Weber's. Lydekker's line forms the eastern margin of Wallacea, separating New Guinea and the Aru Islands from Wallacea and Sundaland, while Weber's line passes between Maluku and Sulawesi.

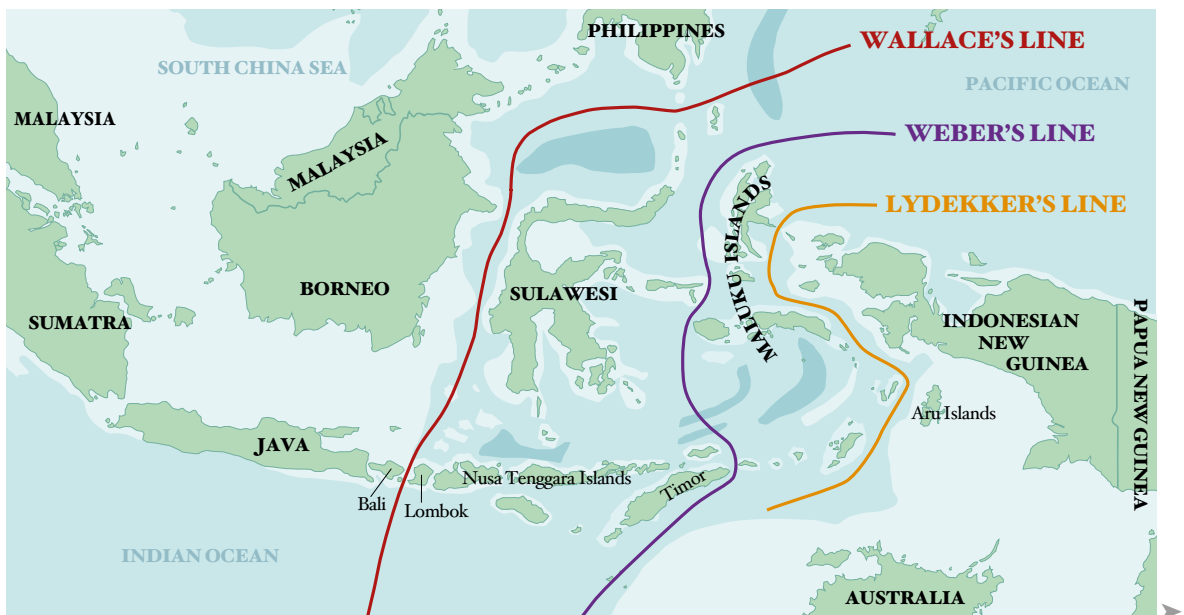
Vanda distribution in Wallacea

Only three species of *Vanda*, a predominately southeast Asian genus, have made it across Lydekker's line. The first is *V. hindsii*, the most southerly species in the genus, which is found from New Guinea through the Solomon Islands and into northern Queensland. The second is Rumphius' enigmatic *V. furva*, which was known until recently, when the taxonomic confusion of this species was unravelled, under its synonym *V. lindenii* (Motes & Roberts 2008). Unlike *V. hindsii*, this species stretches west from New Guinea to the Maluku and the Philippines. The third species, *V. helvola*, has also made it across Lydekker's line to New Guinea.

Vanda helvola is well known from Western Malesia (Peninsula Malaysia, Borneo, Sumatra and Java), although in *Orchids of Borneo* Vol. 1, there is a

personal communication from Neville Howcroft, an Australian forester who was based in Papua New Guinea many years ago, that the species was recently recorded from the island (Chan *et al.* 1994). O'Byrne (1994) mentions the species occurring on New Britain, an island northeast of Papua New Guinea, and on the mainland from Morobe province. In a recent personal communication, O'Byrne said that he never saw it in flower, but that just before leaving New Guinea, Wolfgang Bandisch found it growing in quantity on the shores of Lake Kutubu in the Southern Highlands, while Neville Howcroft reported seeing it in Morobe. The New Britain references came from orchid enthusiasts in Rabaul, where it was known as '*Vanda hindsii* Yellow'. Chan *et al.* (1994) also mention recent records from the Philippines, but we have not been able to verify these.

Recently, we discovered a specimen in the British Museum (538908 BM) collected by CE Carr (coll. no. 16726) on 11 November 1935 at 4,000ft (1,200m) near Boridi, a village in the Owen Stanley Range of the Central Province, Papua





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New Guinea. Carr's Papua New Guinea expedition, between 1935 and 1936, was unfortunately to be his last. Having previously collected extensively from 1919 to 1932 in Peninsula Malaysia, Borneo and Sumatra, he finally succumbed to blackwater fever, a complication of malaria, on his return to Port Moresby in 1936. The Owen Stanley Range, where he collected during this period, is located in the southeast of the country, famous for the Kokoda Track that runs across the range, and the battle that was fought over the track between Australian and Japanese forces in 1942 during World War II.

***Vanda* range in Wallacea**

Its range from the Philippines and Java to the south of Papua New Guinea makes *Vanda helvola* the most widespread species in the genus. As one would expect from such a widespread species, *V. helvola* is very variable, with forms with lighter coloured flowers from northern and western Sumatra being known as *V. leucostele*, which we consider a synonym. In contrast, the forms from Mount Kinabalu are dark, dull purple (see Chan *et al.* 1994 for a photograph of the Mount Kinabalu form).

Another related species is *Vanda merrillii* from the Philippines. It is possible that the concolor red forms of the latter, known as *V. merrillii* var. *rotorii*, may be the source of Philippine reports of *V. helvola*.

Vanda helvola is easily distinguished from all other species by its large, flat, distinctly triangular-deltoid, nearly concolor lip, which is also motile, a feature unique in the genus. The lip of *V. merrillii*, on the other hand, is smaller, roughly triangular, distinctly two-toned yellow and red, and the mid-lobe edges roll backwards longitudinally in living specimens, a character which may be less evident in pressed specimens. In habit, plants



Vanda merrillii



Ascocenda Motes Hot Chestnut
(*Vanda merrillii* x
Ascocenda Bigness)

of *Vanda helvola* are shorter overall with shorter, broader leaves than the other two species, compared to the longer, more narrow, curved leaves of *Vanda merrillii*.

While *V. merrillii* has shown great potential in hybridisation, delivering the darkest red colours to hybrids of considerable size, *V. helvola* has made no contribution. This lack of use is due to the dull colour of the Javanese forms, which are more available in cultivation, and the short, few-flowered inflorescence compared with *V. merrillii*, which produces up to 18 flowers per inflorescence. However, the Mount Kinabalu form of *V. helvola* may offer interesting new colours to *Vanda* breeding. ■



Vanda merrillii var. *rotori* 'Mary Motes'

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MARTIN MOTES is a leading hybridiser of *Vanda* whose hybrids have received numerous awards in international competitions

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