



Two new species of *Vatica* (Dipterocarpaceae) from Peninsular Malaysia

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Abstract

Two new species of Dipterocarpaceae, *Vatica mizaniana* and *V. abdulrahmaniana* are described from Peninsular Malaysia. *Vatica mizaniana* differs markedly from *V. pedicellata*, a Bornean endemic, in characters of the leaf and nut. *Vatica abdulrahmaniana* is differentiated from similar species *V. nitens*, by its pubescent stellate hairs on young and flowering twigs and semi-persistent floral bracts. The species description is accompanied with illustrations, distribution maps and ecological notes.

Key words: *Vatica mizaniana*, *Vatica abdulrahmaniana*, Dipterocarpaceae, Malaysia

Introduction

The genus *Vatica* L. comprises about 66 species distributed from Sri Lanka, southern and eastern India, southern China, Myanmar, Thailand, Indochina and throughout Malesia. Symington (2004) recognized 23 species in his most recent revision for the genus in Peninsular Malaysia. Throughout its range, members of this genus are small in comparison to genera such as *Cotylelobium* Pierre, *Dipterocarpus* C.F.Gaertn. and *Shorea* Roxb. ex C.F.Gaertn., that reach timber proportions and form the bulk of the highly sought-after tropical hardwoods. As occupants of dense tropical understory, many species remained to be discovered. In fact, the discovery of *Vatica yeechongii* Saw (2002: 247) and these new species was the result of a long-term monitoring effort that started in 2002. This monitoring focused on Peninsular Malaysia's critically threatened and endangered Dipterocarpaceae (Chua *et al.* 2010).

Our new species *Vatica mizaniana* was first noticed during the search for the critically endangered *Dipterocarpus sarawakensis* Slooten (1961: 465) in Jerangau Forest Reserve (FR) in the state of Terengganu. Prior to this, the species was collected from Sekayu and Pelong in Terengganu by T. Suppiah, a collector based at the Herbarium of the Forest Research Institute of Malaysia (KEP). Suppiah's collections included flowering specimens, but there were no fruits known. The other new species, here named *Vatica abdulrahmaniana*, was first recognized by Symington as a new species and listed as *Vatica* sp. "A". Although the cited specimen FMS 25466 collected presumably by him between 9 and 11 April 1931 in Kledang Saiong is not held in any Malaysian herbaria, a description and a photograph is available in his *Foresters' Manual of Dipterocarps* (Symington 2004). As a result of our long-term monitoring activity, flower and fruits for both species are now available, and we can describe these species here as new to science.

Material and methods

Flowering and fruiting material was collected from wild populations. These were prepared for the herbarium using standard procedures. Flower and fruit samples were preserved in Copenhagen Mixture (70% alcohol, 29% water, 1% glycerol). Additionally, collections in Herbarium SING, SAN and SAR were scrutinized to determine their identity.

Mapping of the spatial distribution of trees was undertaken for *V. mizaniana*. Once the population was located, a careful search was made to identify the outliers; these outliers demarcated the population. This method enabled the team to search a larger area, but inadvertently some trees may have been missed. Standard methods of tagging and dbh measurement were used (Manokaran *et al.* 1990). Impulse 200, a laser instrument that measures distance, inclination