A new *Vanilla* species from Peninsular Malaysia

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Abstract: A new species, ***Vanilla sanguineovenosa*** R. Go & A. Raffi, from Peninsular Malaysia is described, illustrated, and other aspects of interest discussed. It is so far known from a small population in lower montane forests at Tapah, Perak. A field key to the Peninsular Malaysian taxa, including *V. sumatrana* is also provided.

Key words: lower montane forests, Perak, Malaysia, taxonomy

INTRODUCTION

The genus *Vanilla* Plum. ex Mill. is distributed in the tropical and subtropical regions except that of Australia. It belongs to the subfamily Vanilloideae, characterized as hemiepiphytic vinous orchid, monopodial growth habit, fleshy fruits and wingless seeds with a hard seed coat (Soto Arenas, 2003; Soto Arenas and Cribb, 2010). The number of species, however remains unsolved but the recently accessed checklist stated that there are nearly 108 species worldwide including 30 species from the Asian region (Govaerts et al., 2015). Malaysia has nine native species, six of which are found in Peninsular Malaysia namely, *V. albida, V. aphylla, V. borneensis, V. griffithii, V. montana* and *V. kinabaluensis*. Reports on vanilla distribution in Peninsular Malaysia have been documented as early as the 1950s (Holttum, 1964), later revised by Seidenfaden and Wood (1992) without any change. Though there are 108 known Vanilla species worldwide, but only about three species (*V. planifolia*, *V. tahitensis* and *V. pompona*) are commercially viable for production of vanillin, an organic compound extracted from cured vanilla beans, which is important for flavoring, aromatherapy and perfumery industry. The vanilla exports generate revenue of US$60-80 million in foreign exchange for producing countries in the 90s (Smith et al., 1992). Vanilla is the most profitable crop of the warm tropics and second most expensive spice after saffron.

Taxonomically, Vanilla is difficult to identify due to scarcity of flowering materials, vast vegetative variations and characters attributed to its hemiepiphytic growth habit. In Peninsular Malaysia, there are only six known species namely *V. albida* Blume*, V. aphylla* Blume*, V. borneensis* Rolfe*, V. griffithii* Rchb.f., *V. kinabaluensis* Carr and *V. montana* Ridl. However, through field observations in various habitat types and the sporadic nature of its distribution, Peninsular Malaysia might have more than the above known species.

The current study was carried out by revisiting the recorded localities throughout Peninsular Malaysia and further explores new potential locations. However, drastic and severe habitat fragmentation had deterred the effort of recovering them from the published and documented localities. Massive conversion of forests into agriculture land has indirectly contributed to the displacement and reduction of wild population.

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