

***In vitro* regeneration of Borneo endemic orchid *Vanda hastifera* Rchb.f through protocorm like-bodies**

ABSTRACT

A protocol for *in vitro* regeneration of *Vanda hastifera* via protocorm-like bodies (PLBs) induction from the leaf section was established. In this study, young leaves from the *in vitro*-grown seedlings of *V. hastifera* were divided into apical and basal segments and cultured on Mitra basal media. The effect of individual and combinations of plant growth regulators (PGRs) including 6-benzylaminopurine (BAP), kinetin, α -naphthaleneacetic acid (NAA), indole-3-butyric acid (IBA) and indole-3-acetic acid (IAA) at different concentrations were studied. PLBs were initiated at the cut-end surfaces after 35 days of culture via direct or indirect regeneration pathways. The addition of PGRs singly promoted the formation of (PLBs) from both leaf segments, however, the combination of 4.0mg/L of BAP + 4.0mg/L of NAA obtained the highest PLBs formation (10.45 ± 2.47) from the leaf base explant. The present finding holds significant importance as it not only promotes largescale cultivation but also contributes to the conservation of this native orchid species.