

## Pollinators of *vanda tessellata* (Roxb)Hook.f. exD.Don.in Sri Lanka

<sup>1</sup>\*Gunasekara RS, <sup>2</sup>Yakandawala K, <sup>3</sup>Jayakody S and <sup>4</sup>Wijesundara DS

<sup>1</sup>National Faculty of Agriculture & Plantation Management, Wayamba University of Sri Lanka

<sup>2</sup>Department of Horticulture & Landscape Gardening, Wayamba University of Sri Lanka

<sup>3</sup>Department of Aquaculture & Fisheries, Wayamba University of Sri Lanka

<sup>4</sup>Institute of Fundamental Studies, Hantana Road, Kandy, Sri Lanka

\*Corresponding author: samantharg555@gmail.com

*Orchid Vanda tessellata* is one of the three extant species of this genus in Sri Lanka where the distribution is limited to selective habitats of certain parts of dry and intermediate zones. This species is indigenous to Sri Lanka and possesses a wide range of floral polymorphism which is continuously maintained by cross pollination. Although flower polymorphism and distribution of the species is known the possible pollinators of these species has not been extensively studied. This is mainly due presence of plants up the tree trunks above normal reach. Current study investigated possible pollinators of *V.tessellata* in its natural habitat in Kurunegala and Polonnaruwa as well as in a cultivated *V.tessellata* plots in Colombo suburbs. Observations were conducted from the origin of the flower spike to the end of flowering. Observations were carried out both during day and night. The Carpenter bee *Xylocopa tenuiscapa* (S: Wadu beem/Ambalam paluwa) (Class: *Insecta*, Family: *Apidae*) was identified as the main pollinator in Colombo area. The arrival of this pollinator occurs between 9.30 am- 12.30 pm. The behaviours involve gathering of pollen and storing them in pollen baskets of the 3rd hind limb of the legs. A visitation lasts up to 30 seconds per flower. This pollinator visits only the fresh flowers. *Xylocopa* spp. is also the main pollinator in Kurunegala and Polonnaruwa area. In addition, *Apis cerana* (E: Honey bee), *Trigona iridipennis*, (S: Kaneiya messa) also visit the flowers for pollination. Additionally Hawk moth spp. (Family: *Sphingidae*) and Tiger Moth spp.(Family: *Arctiidae*) were also detected visiting the flowers but observations so far has not established the role. The study established that several pollinators are present and future investigations requires to establish taxonomy of *Xylocopa* spp. in other regions.

**Keywords:** Floral polymorphism, Pollinators, *Vanda tessellata*