

**Distribution and abundance of the land snail *Pollicaria elephas* (Gastropoda: Pupinidae) in limestone habitats in Perak, Malaysia**

**ABSTRACT**

This study aimed to reveal the habitat variables that determine the distribution and abundance of the land snail *Pollicaria elephas* in limestone habitats in Perak, Malaysia. Seventeen plots were selected on a limestone hill to determine the effect of environmental variables on the abundance of this land snail. The environmental variables we considered included habitat (canopy cover and leaf litter thickness), topography (elevation, aspect, ruggedness, and slope), microclimate (soil temperature, air temperature, and humidity), and vegetation (abundance of respective vascular plant species). The correlation analyses suggested that the snails' abundance was positively correlated with the abundance of the four vascular plant species: *Diospyros toposia* var. *toposoides*, *Croton cascarilloides*, *Kibatalia laurifolia*, and *Mallotus peltatus*. Plots with lower soil temperatures had more snails than plots with higher soil temperatures. Our results show that plots in the southern part of the limestone hill, in which *P. elephas* were absent, were similar in habitat, topography, microclimate, and vegetation to the plots in the northern part of the limestone hill, where specimens were mostly present. The absence of this species in suitable habitats may be due to their low dispersal ability rather than adverse environmental conditions.