

**The invasion of alien species *Miconia crenata* (Vahl) Michelang in  
disturbed/undisturbed lowland mixed dipterocarp and Kerangas forests in  
Sabah, Malaysia**

**ABSTRACT**

Understanding the factors that make a site susceptible to invasion is essential to mitigate the impacts of invasive alien plant species (IAPS) on biodiversity. *Miconia crenata* is one of the few IAPS that can colonize undisturbed tropical rainforests. In this study, we investigate the abundance of *Miconia crenata* in disturbed and undisturbed lowland mixed dipterocarp forest and Kerangas forests in Sabah, Malaysia. Three 400 m long transects were established within each of the four sites. The transects ran from the forest edge into the interior, and eight 25 m<sup>2</sup> plots were established at fixed distances along each transect. A further twenty 100 m<sup>2</sup> plots were established in each of the undisturbed sites of Kabili-Sepilok Forest Reserve. We found that the density of *Miconia crenata* was significantly lower along the transects in the Kerangas forest, compared to mixed dipterocarp forest. *Miconia crenata* densities were also significantly lower along transects in the undisturbed forest compared to the disturbed forest. Within the undisturbed sites, *Miconia crenata* was 13 times more abundant in the mixed dipterocarp forest compared to the Kerangas forest. This difference in *Miconia crenata* abundance between the two forest types is probably due to soil fertility, with fertile sites more susceptible to invasion by *Miconia crenata*.