

An assessment of genetic variation in vulnerable Borneo Ironwood *Eusideroxylon zwageri* Teijsm. & Binn. in Sarawak using SSR markers

ABSTRACT

Borneo Ironwood *Eusideroxylon zwageri* Teijsm. & Binn. has high market value for its valuable and durable timber, which has put it at risk due to illegal logging. This study analyzed *E. zwageri* genetic variation using four microsatellite markers in populations at Nirwana Rehabilitation Forest (NRF), and Tatau, Sarawak. We found that 20.1% of total genetic variation corresponded to differences between populations, while 79.9% was attributed to differences among individuals from the same population. The Tatau population had lower genetic diversity compared to NRF, and both populations showed depressed heterozygosity indicative of inbreeding. Allelic data were also used to confirm variety level differences proposed by earlier workers, and three informal varieties: *zwageri*, *grandis*, and *exilis* were recognized in the study area. It is expected that the results from this study could serve as baseline data for conservation of this vulnerable species.