Abstract

The genetic diversity assessment of *Hoya purpureofusca* Hook.f. (Apocynaceae: Asclepiadoideae) has been conducted by using RAPD markers. The research was aimed to provide information on the genetic diversity of *Hoya purpureofusca* population in Gunung Gede Pangrango National Park in order to support the development program of this species as an ornamental plant. This plant has nice flowers and become popular as an ornamental plant in Europe and USA. The origin distribution was restricted in high mountain of Java and Bali. The assessment was based on the 15 samples from 3 populations of Gunung Gede Pangrango National Park West Java, Indonesia. The limited number of samples was based on the limited population size at the location. According to the cluster analyses (NTSYS pc 2.02 SIMQUAL Symply matching coefficient), the polymorphic band was 87.27 percent and monomorphic band was 12.73 percent. The three populations were divided into two groups at 60 percent similarity. The Cibodas population was separated in genetic and spatially with the Salabintana and Situgunung. The two populations (Salabintana and Situgunung) have a close relationship at 66.67 - 75.56 percent similarity and state as metapopulation. The similarity among Cibodas population was 84.34 percent-95.83 percent.