Identification of potential species to be planted in poor forests of the central forest spine (CFS) wildlife corridor Gerik, Perak

ABSTRACT

Central Forest Spine (CFS) of Malaysia serves as a corridor for wildlife to move around from one large forest to another to find food, water and shelter. Proposed rehabilitation of pockets of poor forest stands within CFS requires sound knowledge on appropriate tree species and planting technique to ensure its success. The main objectives of this study were to elucidate the vegetation composition, and to propose potential trees species to be planted along the wildlife corridor. A total of 5 plots, each with a radius of 10 metres were set up for this study and focused on three parts of the forest: forest edge (with more-or-less an opened canopy), 'middle' forest (an area between forest edge and closed-canopy forest, and this area is a semi-opened canopy) and forest valley. All trees of more than 5 meters high were recorded in terms of tree species, DBH and number of individuals. Analyses on species composition, the Importance Value Index (IVI) and Simpson's Index Analysis were carried out. The stand is dominated by non-dipterocarps with a very high percentage of 95.88%, with a total of 97 trees and 32 species in 18 families. Dominant species in the study area include Elateriospermum tapos Pternandra echinata, Sapium baccatum and Neolamarckia cadamba with the IVI value 19.47, 14.15, 12.14, and 11.34, respectively. The soil pH of the study area ranged from 3.34 to 6.08; the canopy; closure of (Plot 1) seemed to reduce the pH level, probably due to higher rate of decomposition (after the heavy litter fall). The presence of canopy (Plot 1) also has a positive effect on soil moisture, with highest soil moisture percentage of 25.24% to 27.12%. The potential species recommended for rehabilitation are Elateriospermum tapos, Sapium baccatum, Ficus fulva, Castanopsis inermis, Castanopsis megacarpa, Garcinia nigrolineata and Macaranga hypoleuca because they are readily adapted in the study area and also known to attract wildlife.

Keyword: Central forest spine; Rehabilitation; Wildlife corridor