

Elucidating the influence of reproductive traits on population genetic structure in mangroves from the Malay Peninsula

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Abstract

Mangroves have a high potential for long distance dispersal due to their intertidal habitat and water-dispersed seeds (i.e. hydrochory). However, among mangrove species, hydrochory characteristics (e.g. floatation duration) and pollination syndromes differ greatly. Since the vector for propagule dispersal is nearly identical for all mangrove species, differences in genetic structure among species found in the same localities could be attributed largely to differences in reproductive traits. Until now, there have been limited inter-species or -genera genetic studies relating reproductive traits to difference in patterns of gene flow. Here, we sampled four mangroves species with widely varied reproductive traits - *Avicennia alba* (insect-pollinated; relatively short floatation period), *Sonneratia alba* (bat-pollinated; relatively short floatation period), *Bruguiera gymnorhiza* (bird-pollinated; relatively long floatation period) and *Rhizophora mucronata* (insect-pollinated; relatively long floatation period) - from the Malay Peninsula. Initial data will be presented for selected target species to demonstrate the impact of reproductive traits on gene flow.

Keywords

genetic diversity, microsatellite, SSR