

Conservation of high value native tropical plants for ecological restoration: seed and seedling collection by Universiti Brunei Darussalam's Botanical Research Centre

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Brunei Darussalam is renowned for its flora diversity, particularly as a country with high forest cover and located within the Northwest Borneo hotspot. Universiti Brunei Darussalam's Botanical Research Centre (UBD BRC) has played a pivotal role in the conservation of Brunei's flora via targeted seed and seedling collection programmes in Brunei's forests. Between 2020 and 2022, UBD BRC conducted monthly seed collection activities across three distinct forest types: beach forest, coastal peat swamp forest, and inland peat swamp forest. A total of 1963 native tree seeds were collected and grown in the nursery. Notably, *Heritiera littoralis* exhibited the highest survival rate at 56.7%, followed by *Dryobalanops rappa* at 32.9%, and *Heritiera globosa* at 23.1%. In the period spanning 2021 to 2023, Brunei Darussalam experienced four localized Dipterocarp mast fruiting events, occurring in May 2021, May 2023, August 2023, and December 2023. During these events, a total of 1062 seeds and 852 seedlings of selected Dipterocarps were collected from heath, mixed dipterocarp, and peat swamp forests within Brunei. High seed survival rates in the nursery were observed, particularly for *Shorea albida* at 97.2% and *Dryobalanops rappa* at 24.0%. Among seedlings, *Dryobalanops rappa* recorded 100% survival rate, followed by *Shorea leprosula* at 92.0%, and *Cotylelobium burckii* at 42.5%. These collections represent a significant contribution to *ex-situ* conservation of native species by the UBD BRC. They serve as a vital resource for larger-scale ecological restoration programs in the future, facilitating the preservation and restoration of Brunei Darussalam's unique biodiversity.