

ABSTRACT

Among the objectives of the study are to survey and document the diversity and richness of the *Zingiber* species for the purpose of conservation. A total of 144 accessions from 32 *Zingiber* species including 8 varieties have been recorded throughout Peninsular Malaysia. These represent 20% out of the 150 species in the Zingiberaceae family, known to exist in Malaysia. Nine new species and two new varieties have been described.

An anatomical study was conducted on 15 *Zingiber* species based on observation of anatomical structures of the leaves and petioles. The anatomy of the leaves and petioles shows some variation of characters which can be used for the identification and classification of species. Results showed that there are slight variations in the shape of midribs, petioles and lamina, the subsidiary vascular bundles, presence of hypodermis and the shape of the leaf margin. Characters that are common in all species are the presence of lacuna in the petioles and midribs, simple and unicellular trichomes and straight epidermal anticlinal cell walls.

Distribution study shows that the diversity and density of *Zingiber* species are relatively high in Peninsular Malaysia. They are found mostly in the hill-forest and lowlands. Few are found on high mountain ridges. The predominant species is *Zingiber puberulum* var. *puberulum* (25%) and six species are endemic.

Ethnobotanical research was carried out on seven Orang Asli villages. Results show that many *Zingiber* species are of potential economic value as condiments, spices, ornamentals and most important as medicine among village folks.