

Species delimitation of *Crinum latifolium* and *Crinum zeylanicum* (Goda Manel)

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The genus *Crinum* is an eye-catching group of tropical & sub tropical Lilies distributed almost in every part of the world but only four are native to Sri Lanka; *Crinum asiaticum* L., *C. defixum* Ker- Gawl., *C. latifolium* L. and *C. zeylanicum* L. The species delimitation of *C. latifolium* and *C. zeylanicum* is not satisfactory. The latest revision of Flora of Ceylon recognizes them as two species. The separation is simply based on the undulation and the size of the leaves, which are not strong and stable characters. Therefore, this research was carried out to solve the taxonomic ambiguity between *C. latifolium* and *C. zeylanicum* and, if they appear to be two distinct species, to build up a suitable key to identify them.

Specimens were collected from sixteen different geographical locations. All the possible morphological characteristics, including colour, size and texture of bulbs, leaves and flowers were studied at both macroscopic and microscopic level. Out of fifty-four characters that were coded, thirty-eight characters with distinct variation were selected to obtain character states. Subsequently those characters were placed in a data matrix and cluster analysis for the pooled population was carried out to obtain clusters of individuals having similar characters.

The cluster analysis clearly recognizes two groups corresponding to the characters of *Crinum latifolium* L. and *Crinum zeylanicum* L. The cluster corresponding to *Crinum zeylanicum* could be further divided into two groups. Thus present study supports the recognition of the two species *Crinum latifolium* and *Crinum zeylanicum*. Moreover it identifies two distinct growth forms within *C. zeylanicum*. Further investigations are necessary for the determination of their taxonomic rank.

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