

**TAXONOMIC STATUS AND EFFECTIVE
GROWTH MEDIUM FOR *Rhipsalis baccifera*
(J.S. MULLER) STEARN**

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ABSTRACT

The study was carried out to evaluate the taxonomic status of the native species *Rhipsalis baccifera* (J.S Muller) Stearn. The latest revision in Flora of Ceylon recognized two sub species of *R. baccifera* as sub species *baccifera* and sub species *mauritiana* in Sri Lanka. The available informations are not strong to distinguish these two sub species. The herbarium specimens at the National Herbarium, Peradeniya are also not providing evidences or strong support to separate these two. The personal communication with taxonomic experts in the family cactaceae explained that there are no evidence to occurrence of *R. baccifera* subsp. *baccifera* in Sri Lanka and all the available specimens reassemble to *R. baccifera* subsp. *mauritiana*. Identification of potting media for rapid propagation of *R. baccifera* in export quality is part of this study. For the taxonomic study specimens were collected from all the different locations within Sri Lanka. A total of 53 characters were coded and data were analyzed using cluster analysis. In experiment two, four treatment combinations used as rooting media; Royal botanic gardens cactus medium, 100% coir dust, coir dust+ sand, coir dust+ sand+ stone chips. Stem cuttings were established in the Royal botanic Gardens cactus house under 50% Shade, RH 60%-90%, Temp 20-25 °C. Two months after establishment observations on growth parameters such as number of shoots, shoot length, number of roots, root length and fresh weight were made with six replicates. Each replicate contained three plants. The resulting two clusters were in experiment one evaluated through characters and identified that two clusters were obtained because of the vegetative characters. Morphological data of present study were compared with defined data such as stem width, fruit length, fruit width, seed number per fruit with *R. baccifera* and compared differences with each other. Comparison of the defined data of seed length, width and scanning electron photomicrographs by Cota and Bomfim (2010) with data of present study. Light and dissecting photographs of present study were closely resembled to sub species *mauritiana*. The Gondwanan relict provides evidences for further confirmation. There were interaction effects between number of shoots, length of shoots, and fresh weight increase of shoots with the media developed by the Royal botanic gardens for cactus. All the measuring characters were shown maximum mean values with the Royal botanic gardens cactus medium and identified it as the effective growth medium for the rapid propagation of *R. baccifera*.

Key Words: Cactaceae, *Rhipsalis baccifera*, *mauritiana*, morphological data, species limits, rooting medium