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# Re-evaluation of Generic Characters of *Blinkworthia* (Convolvulaceae) Based on Morphology and Reproductive Organ Development

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## Résumé

*Blinkworthia* Choisy, a tropical Asian genus, was first established in 1834. The type species, *Blinkworthia lycioides*, is an erect shrub with solitary flowers and indehiscent fruits enclosed by five leathery sepals and an enlarged nectariferous disc, diagnostic traits used to distinguish *Blinkworthia* from other related genera. There are now two species assigned to *Blinkworthia* and the genus is questionably distinct from *Argyreia* Lour. Therefore *Blinkworthia lycioides* Choisy was selected as a representative species for investigation of the morphology and ontogeny of the reproductive parts. Plant materials were prepared by the paraffin method. The results show that the solitary flower is initially enclosed by a leathery calyx in the early stage of fruit development. The corolla is gamopetalous, urceolate, with 5 midpetaline bands. The androecium consists of 5 epipetalous stamens with glandular trichomes at the filament insertion points on the tube. The syncarpous ovary has 2 cells, each biovulate, a single terminal style ending in a bi-globose stigma. The 5-angled nectariferous disc encircles the ovary base, bulging out between the androecium and the gynoecium. Initially this disc engulfs the ovary base but during fruit development the disc stops enlarging and does not enclose the entire fruit. Furthermore, the mature fruit is not enclosed by the leathery calyx, which, contrary to what the literature reports, reflexes away from the fruit. Although the erect shrubby habit and solitary, 4-bracteate flowers of *Blinkworthia lycioides* are distinctive, the fruit characters reported in the literature, that have been used to delimit *Blinkworthia* as a distinct genus, could not be demonstrated in this study. This calls into question the generic status of *Blinkworthia* as distinct from *Argyreia* and other members of tribe Ipomoeae.

**Mots-Clés:** *Blinkworthia lycioides*, floral development, fruit development, nectary disc, morphogenesis, taxonomic delimitation.

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