



## About Our Cover

The cover features a dissection of the flowers of a species of *Cotyledon*, a member of the Crassulaceae. Species of *Cotyledon* are succulents and native to South Africa but have also been widely cultivated and have become naturalized in various parts of the world. The flowers are quite large and pendulous and are generally considered to be pollinated by sunbirds. The birds perch on the main axis of the inflorescence and probe upwards with their curved beaks for the nectar. The flowers exhibit several features usually associated with bird pollination – they are large and relatively robust, have red coloration, produce nectar, have no fragrance, and have a large distance between nectar and anthers.

The flowers exhibit several interesting structural features. The petals form a tube, the stamens are in two rings (shown in the cross section), and the five carpels are completely free from each other, with a cup-like nectary at the base of each carpel. Note the ring of hair tufts near the base of the corolla tube that probably reduces nectar “robbery.” This flower is featured in the Virtual Floral Formula, a web-based application designed to assist students in their understanding of flower structure and floral formula.

The name of this genus can cause some surprise because of the more widely known botanical usage of “cotyledon” for seed or embryo leaves. In this case, it is from the Greek for cup-shaped hollow, an allusion to the leaves of some related species.

This image was taken by Geoff Burrows using a Canon EOS 30D with a 100 mm f2.8 macro lens.

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