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**Title: Floral card specimens for the study of Australian terrestrial orchids**

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**Abstract**

**Premise**—Australia boasts a rich orchid flora, with close to 2000 species, predominantly terrestrial. During a significant period of taxonomic activity in Australian terrestrial orchids (1985—2006), the focus for diagnostic features became increasingly minute. For the *Caladenia R.Br.* genus, the character states of tepaline osmophore cell configuration and number require microscope aid for determination. Unfortunately, sub-optimal collection and preservation practices prevailed during this time, including inadequate pressing methods. As a result, many specimens were poorly presented on sheets, even affecting some type specimens intended for naming purposes. Consequently, numerous diagnostic characters are not visible on these sheets.

**Methods**—I adopted of a method involving dissection and preservation of orchid flowers on cards, initially proposed during the aforementioned taxonomic period. In this approach, the collection process starts by documenting the plant's location and capturing digital photographs of it in its natural habitat. The flower stem is then tagged with an identification marker before being cut and placed in a cool container. In the laboratory, detailed drawings and micrographs are produced, and the flower is dissected. The dissected segments are then affixed to sections of transparent acid-free archival tape, which are in turn attached to A5-sized acid-free rag-linen cards for preservation.

**Results**—Utilizing this method in our review of *Caladenia patersonii* R.Br. species complex in South Australia, along with digital photography, ensured preservation and measurement of diagnostic characters. I extended this method to other selected monocotyledonous geophytes, including *Arthropodium* R.Br., *Thysanotus* R.Br., and *Calostemma* R.Br., spp.

**Conclusions**—The adopted method successfully preserves floral segments, with colours and diagnostic characters well-maintained and visible on the cards, facilitating easy microscopic examination. This technique ensures accurate and comprehensive documentation of orchid species and other unrelated monocotyledonous geophytes.

**Key words:** Orchid, specimen