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The identity of *Damatris pudica* and typification of *Arctotis breviscapa* (Asteraceae, Arctotideae)

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The Arctotidinae, a subtribe of the Arctotideae, comprises approximately 90–100 species predominantly confined to southern and eastern Africa. The species are presently classified into five genera: *Arctotheca* Vaillant (1754: 604), *Arctotis* Linnaeus (1753: 922), *Cymbonotus* Cassini (1825: 397), *Dymondia* Compton (1953: 110) and *Haplocarpha* Lessing (1831: 90) (Karis *et al.* 2009). Cassini (1817) published the genus *Damatris* Cassini (1817: 139) and described a single species, *D. pudica* Cassini (1817: 140), for a species of Arctotidinae collected from 'le Cap de Bonne-Espérance' (Cape of Good Hope, South Africa). Cassini (1819) stated that *Damatris pudica* was described from material in the Herbier de Jussieu (P-JU). However, the identity of *Damatris pudica* has always been uncertain. Initially, most authors listed the genus as either poorly known or of dubious status (e.g. Lessing 1832, Candolle 1838b, Harvey 1865). Bentham (1873) tentatively considered that *Damatris* might be congeneric with *Haplocarpha* and subsequently Beauverd (1915) made the combination for *D. pudica* in *Haplocarpha* without comment on the species' identity (although marked with a question mark to indicate a degree of uncertainty). In the most recent monograph of Arctotidinae, Lewin (1922) followed Bentham in citing *Damatris* as a synonym of *Haplocarpha* but curiously did not cite *D. pudica*, either as an accepted species or in the synonymy of another species. *Damatris* has nomenclatural priority over *Haplocarpha*, therefore resolution of the identity of *D. pudica* may have nomenclatural implications for the generic taxonomy of Arctotidinae.

Cassini provided no explanation for his choice of the name *Damatris*. Orbigny (1861) stated that the name was derived from the Greek δαμάτηρ (Demeter or Damater), who in ancient Greek mythology was the goddess of the harvest and presided over the cultivation of grains, fertility of the earth, the seasons, and the cycle of life and death. The epithet *pudica* means 'modest, virtuous'.

Cassini's (1817, 1819, 1823) description of *Damatris pudica* as possessing an annual life history, very short stems, female ray florets, exclusively male disc florets, and a long, non-appressed, linear-subulate, leaf-like apical appendage on the outer involucral bracts collectively indicates the name *D. pudica* was applied to an annual *Arctotis* species. All species currently placed in *Haplocarpha*, including the generic type *H. lanata* Lessing (1831: 90), are perennial and have female ray florets and hermaphrodite disc florets, therefore previous suggestions that *Damatris* and *Haplocarpha* might be congeneric can be discounted. Cassini (1823) further stated that in *Arctotis* the outer disc florets were hermaphrodite and inner disc florets male, whereas all disc florets were male in *Damatris*. Cassini (1817) described the *clinanthe* (receptacle) as bearing a single row of circular *paléoles* or *fausses-squamelles*, equal in number to the female florets, that each form a concavity and partly surround the florets, are broad and trilobed, and separate the ray and disc florets. This description appears to refer to the long palea-like alveoles on the receptacle surrounding the ovary of the ray florets of *Arctotis breviscapa* Thunberg (1799: 12), which is a distinctive feature of that species. In all other annual *Arctotis* species the receptacle is only shortly alveolate, and the alveole margins are fimbriate and cannot be considered to form *paléoles*. Although the capitula of *Arctotis breviscapa* may contain only female ray and male disc florets, some of the outermost disc florets may be hermaphrodite.

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