



## Typification and nomenclatural clarifications of *Mesembryanthemum purpurocroceum* and *M. insititium* (Ruschioideae, Aizoaceae)

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### Abstract

The typification of the names *Mesembryanthemum purpurocroceum* and *M. insititium* are discussed. A neotype (illustration by Duncanson) and a lectotype (a specimen at B in Willdenow's Herbarium) are designated. Epitypes (deposited at BOL) are also selected for both names. Nomenclatural issues about the specific epithet “*purpurocroceum*” are discussed. The two names are accepted here in *Malephora* as heterotypic synonyms, with *M. purpurocroceum* having nomenclatural priority.

**Keywords:** epitypification, lectotypification, *Malephora*, neotypification, nomenclature, Ruschieae

### Introduction

As part of the ongoing floristic and taxonomic studies of Aizoaceae Martinov in Argentina (see e.g., Jocou *et al.* 2019, Jocou & Minué 2020, Minué & Jocou in prep.), the untypified names *Mesembryanthemum purpurocroceum* Haworth (1795: 257, as “*purpuro-croceum*”) and *M. insititium* Willdenow (1809: 536), which are currently recognized in *Malephora* Brown (1927: 12) (see e.g., Hartmann 2017, Jocou *et al.* 2019), have been studied.

*Malephora* is known from a single locality in the Rehoboth district in Namibia and it is widespread in South Africa, with 16 species (Hartmann 2017, Jocou *et al.* 2019). *Malephora* is the only weedy genus within subfamily Ruschioideae Schwantes ex Bittrich & H.E.K. Hartmann and many of its members are used as ornamentals (Hartmann 2017, Jocou *et al.* 2019). In particular, *Ma. purpurocrocea* (Haworth) Schwantes (1928a: 69) has become naturalized in various parts of the world, and threatens the native flora (see e.g., Jocou *et al.* 2019). This species was listed in several publications, where it has been referred to in different ways taxonomically and nomenclaturally (Hartmann 2017, Jocou *et al.* 2019). The identification of material referred to as *Ma. purpurocrocea* has been unreliable as no types have so far been designated (Hartmann 2017, Jocou *et al.* 2019).

The name *Mesembryanthemum insititium* was placed by Haworth (1821: 155) in the synonymy of *M. purpurocroceum*. Seven years later, Candolle (1828: 438) proposed the taxon *purpurocroceum* as a variety under *M. croceum* Jacquin (1809: 17). Schwantes (1928a: 69) moved *M. purpurocroceum* to *Malephora*, which still lacks a taxonomic revision. Here we discuss the identity of *Mesembryanthemum insititium* and *M. purpurocroceum* and designate types for these names.

### Materials and methods

This research is based on the analysis of relevant literature (protologues are included) and the search for type specimens in herbaria where Willdenow's and Haworth's collections were deposited [see Stafleu & Cowans (1979: 105), Stafleu & Cowans (1988: 298), Harvard University Herbaria & Libraries (2020)], *i.e.* B, BP, C, FI, G, H, HAL, K, LD, LE,