

## ASTERACEAE

*SENECIO PSEUDOLONGIFOLIUS*, A NEW NAME FOR THE MISAPPLIED *S. LINIFOLIUS*

*Senecio linifolius* L. (1759) was based on a South African collection in the herbarium of J. Burman (Wijnands 1983). Linnaeus (1763) later published the replacement name *S. longifolius* L. for the species to avoid homonymy with his new combination *S. linifolius* (L.) L. (1763) for a Mediterranean species based on *Solidago linifolia* L. (1753). These two nomenclatural steps transgress two articles in the International Code of Nomenclature (McNeill *et al.* 2012): the replacement *S. longifolius* L. (1763) is superfluous and illegitimate (Art. 52), and the combination *Senecio linifolius* (L.) L. (1763) is a heterotypic later homonym of *S. linifolius* L. (1759) and therefore nomenclaturally illegitimate (Art. 53). The name *S. linifolius* L. (1759) is therefore correctly applied to the South African species. For the Mediterranean species, the earliest available name appears to be *Senecio malacitanus* Huter (1905).

The illegitimate *Senecio longifolius* L. (1763) has, however, been widely taken up and used in the taxonomic literature (e.g. Bergius 1767; Willdenow 1803; Candolle 1838; Schultz 1844; Harvey 1865; Juel 1918; Bond & Goldblatt 1984) and has also made the transition to the popular literature (Batten & Bokelman 1966). It is only recently that the name *S. linifolius* has been applied to the South African taxon (Manning & Goldblatt 2012). As currently understood, *S. linifolius* is a small shrub from the Eastern Cape, with the leaves clustered apically on basally leafless stems and abruptly differentiated from the inflorescence bracts. The terminal synflorescences are distinctly pedunculate, loose cymes with the capitula subtended by four or five supplementary bracts (bracteoles) and containing five ligulate florets each.

*Senecio linifolius* L. (1759) was lectotypified by Wijnands (1983) against a specimen in the Burman Herbarium at the Conservatoire et Jardin botaniques de la Ville de Genève (G) (Figure 1). This specimen comprises a single flowering branch. The leaves are scattered along the entire length of the stem and grade gradually into the inflorescence bracts. The capitula are subtended by numerous supplementary bracts (bracteoles) and each contains more than five ligulate florets. In none of these



FIGURE 1.—Lectotype of *Senecio linifolius* L. (G00360056).

respects does it match the current usage of *S. linifolius* L., which appears to have been established by Harvey (1865), and whose description for the *Flora capensis* matches the current concept exactly. Harvey (1865) also included the name *Cineraria filifolia* Thunb. (1800) as a synonym of *S. longifolius* L. The collection under this

name in Thunberg's herbarium (UPS-THUNB19915) is consistent with this interpretation of the name (Figure 2).

It is evident, therefore, that the name *S. linifolius* L. has been incorrectly applied since Harvey's (1865) time. From the Burman lectotype, it appears to us to closely resemble *S. burchellii* DC., *S. inaequidens* DC. or an allied species, but this group is in need of a comprehensive taxonomic revision and its precise identity remains to be established.

As an aside, the name *S. odontophyllus* Wallich ex C. Jeffrey (1992), published by Jeffrey (1992) as a replacement name for the Indian species until then known under the illegitimate later homonym *S. linifolius* (Wallich ex DC.) C.B. Clarke (1876) [non *S. linifolius* L. (1759)], was mistakenly applied to *S. linifolius* L. by Goldblatt & Manning (2000) but later corrected (Goldblatt & Manning 2010).

What, then, is the correct name for the Eastern Cape taxon currently treated as *S. linifolius*? The transfer to *Senecio* of the only available name, *Cineraria filifolia* Thunb. (1800), is unfortunately blocked by the existence of *S. filifolius* P.J. Bergius (1767). C.H. Schultz (1844) included the manuscript name *S. pseudolongifolius* as a synonym of *S. longifolius* in his *Compositae Kraussianae*, and this name remains invalidly published (MacNeill *et al.* 2012: Art. 34.1). The relevant material to which this name applies is a collection made by C.F. Krauss during April and June 1839 near Uitenhage in Eastern Cape under the number 552. We have located two duplicates of this collection, one at TUB, comprising four fragments, and the other at MO comprising a single fragment. Krauss's collection is consistent with the current interpretation of *S. linifolius* in both morphology and locality, making it clear that Schultz interpreted the species as currently understood. We therefore validate the name *S. pseudolongifolius* as a replacement name for *Cineraria filifolia* Thunb. (1800).

***Senecio linifolius*** [as '*linifolia*'] L., *Systema naturae*, ed. 10, 2: 1215 (1759). *S. longifolius* L.: 1222 (1763), nom. illegit. superfl. Type: 'Habitat ad Cap. b. spei.', herb. Burmann [G00360056, lecto., designated by Wijnands: 83 (1983)].

***Senecio malacitanus*** Huter in *Oesterreichische botanische Zeitschrift; gemeinütziges Organ für Botanik* 55: 402 (1905). Type: Herb. Huter.

*Solidago linifolia* L.: 881 (1753). *Senecio linifolius* (L.) L.: 1220 (1763), hom. illegit. [non *Senecio linifolius* L. (1759)]. Type: '*Jacobaea Linifolio Hispanica et Ital.*', illustration in Boccone: t. 49 (1697) [lecto., designated by Wijnands: 83 (1983)].

***Senecio odontophyllus*** Wallich [*Aster odontophyllus* Wallich, nom. nud. in Cat. no. 3285 comp. no. 395] ex C. Jeffrey in *Kew Bulletin* 47(1): 95 (1992), as a replacement name for *S. linifolius* (Wallich ex DC.) C.B. Clarke: 202 (1876), non *S. linifolius* L. (1759). *Doronicum linifolius* Wallich [*Aster linifolius* Wallich, nom. nud. in herb.] ex DC.: 322 (1838). Type: India, 'Khasia', Herb. Wallich.



FIGURE 2.—Lectotype of *Cineraria filifolia* [*Senecio pseudolongifolius*] (Thunberg s.n. UPS-THUNB19915).

***Senecio pseudolongifolius*** Sch. Bip. ex J. Calvo, nom. nov. pro *Cineraria filifolia* Thunb., *Prodr. Pl. Cap.*: 154 (1800) [non *Senecio filifolius* P.J. Bergius (1767)]. Type: South Africa, *Cap. bonae Spei*, without precise locality or date, C.P. Thunberg s.n. (UPS-THUNB19915, lecto., designated here).

*Senecio pseudolongifolius* Sch. Bip. in *Flora* 27(2): 699 (1844), nom. inval. pro syn. *S. longifolius* L.

*Senecio longifolius* sensu Harv. (1865), non L. (1759).

*Senecio odontophyllus* sensu Goldblatt & Manning (2000), non [Wallich ex] C. Jeffrey (1992).

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## REFERENCES

- BATTEN, A. & BOKELMANN, H. 1966. *Wild flowers of the Eastern Cape Province*. Books of Africa, Cape Town.
- BERGIUS, P.J. 1767. *Descriptiones plantarum ex Capite Bonae Spei*. Salvius, Stockholm.
- BOCCONE, P. 1697. *Museo di piante rare della Sicilia, Malta, Corsica, Italia, Piemonte, e Germania*. Per Io: Baptista Zuccato, Venetia.
- BOND, P. & GOLDBLATT, P. 1984. Plants of the Cape Flora: a descriptive catalogue. *Journal of South African Botany Supplementary Volume 13*. National Botanic Gardens of South Africa, Kirstenbosch.
- CANDOLLE, de, A.P. 1838. *Prodromus systematis naturalis regni vegetabilis* 6. Sumptibus Sociorum Treuttel et Würtz, Paris.
- CLARKE, C.B. 1876. *Compositae indica*. Thacker, Spink & Co., Calcutta; Thacker, Viking & Co., Bombay; W. Thacker & Co., London.
- GOLDBLATT, P. & MANNING, J.C. 2000. Cape plants: a conspectus of the Cape flora of South Africa. *Strelitzia* 9. National Botanical Institute, Cape Town & Missouri Botanical Garden, St. Louis.
- GOLDBLATT, P. & MANNING, J.C. 2010. New synonyms and a new name in Asteraceae: Senecioneae from the southern African winter rainfall region. *Bothalia* 40,1: 37–46.
- HARVEY, W.H. 1865. Compositae. In W.H. Harvey & O.W. Sonder (eds.), *Flora capensis* 3: 44–530. Hodges, Smith & Co., Dublin; I.C. Juta, Cape Town.
- HUTER, R. 1905. Herbar-Studien. *Oesterreichische botanische Zeitschrift: gemeinütziges Organ für Botanik* 55,10: 400–406.
- JUEL, H.O. 1918. *Plantae Thunbergianae*. Akademiska bokhandeln, Uppsala & Otto Harrassowitz, Leipzig.
- JEFFREY, C. 1992. The tribe Senecioneae (Compositae) in the Mascarene Islands with an annotated world check-list of the genera of the tribe. *Kew Bulletin* 47,1: 95.
- LINNAEUS, C. 1753. *Species plantarum*. Salvius, Stockholm.
- LINNAEUS, C. 1759. *Systema naturae*, ed. 10. Salvius, Stockholm.
- LINNAEUS, C. 1763. *Species plantarum*, ed. 2. Salvius, Stockholm.
- MANNING, J.C. & GOLDBLATT, P. 2012. Plants of the Greater Cape Floristic Region 1: the Core Cape Flora. *Strelitzia* 29. South African National Biodiversity Institute, Pretoria.
- MCNEILL, J., BARRIE, F.R., BUCK, W.R., DEMOULIN, H.M., GREUTER, W., HAWKSWORTH, D.L., HERENDEEN, P.S., KNAPP, S., MARHOLD, K., PRADO, J., PRUD'HOMME van REINE, W.F., SMITH, G.F., WIERSEMA, J.H. & TURLAND, N.J. 2012. International Code of Nomenclature for algae, fungi, and plants (Melbourne Code). *Regnum Vegetabile* 154. Koeltz Scientific Books, Königstein.
- SCHULTZ, C.H. 1844. Compositae Kraussianae. *Flora* 27,2: 667–702.
- THUNBERG, C.P. 1800. *Prodromus plantarum capensium*, pars posterior. J.F. Edman, Uppsala.
- WIJNANDS, O. 1983. *The botany of the Commelins*. A.A. Balkema, Rotterdam.
- WILLDENOW. 1803. *Species plantarum*, ed. 4. 3(3). G.C. Nauk, Berlin.

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