



A preliminary conspectus of Scorzoneroideae (Compositae, Cichorieae) with validation of the required new names

Authors: Greuter, Werner, Gutermann, Walter, and Talavera, Salvador

Source: Willdenowia, 36(2) : 689-692

Published By: Botanic Garden and Botanical Museum Berlin (BGBM)

URL: <https://doi.org/10.3372/wi.36.36204>

BioOne Complete (complete.BioOne.org) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/terms-of-use.

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

WERNER GREUTER, WALTER GUTERMANN & SALVADOR TALAVERA

A preliminary conspectus of *Scorzoneroides* (*Compositae*, *Cichorieae*) with validation of the required new names

Abstract

Greuter, W., Gutermann, W. & Talavera, S.: A preliminary conspectus of *Scorzoneroides* (*Compositae*, *Cichorieae*) with validation of the required new names. – Willdenowia 36: 689-692. – ISSN 0511-9618; © 2006 BGBM Berlin-Dahlem.
doi:10.3372/wi.36.36204 (available via <http://dx.doi.org/>)

The distinctness of the two subgenera recognised by Widder within *Leontodon* on morphological grounds gains strong support from recent molecular systematic studies. The new results make it mandatory to recognise these two taxa as separate genera, because *Leontodon* as traditionally defined, comprising them both but excluding *Picris*, *Hypochaeris* and related smaller genera, would be diphyletic. By consequence, a fair number of former *Leontodon* taxa must now be placed in the genus *Scorzoneroides*. In order to draw the attention of practising botanists to this need and to enable them to use the names believed to be correct, a preliminary nomenclatural synopsis is given here, limited to the species and subspecies known to occur in the Euro-Mediterranean area. Required combinations that do not yet exist are validated.

Key words: *Asteraceae*, *Leontodon*, taxonomy, nomenclature, Europe, Mediterranean.

The genus *Leontodon* L. had undergone a bewildering history until Bentham (1873) gave it a fairly wide definition by including in it *Kalbfussia* Sch. Bip., *Oporinia* D. Don, *Thrinchia* Roth and other groups formerly separated generically. Widder (1931) accepted that circumscription for his *Leontodon* studies but demonstrated that the species fall into two morphologically sharply differentiated groups, defined i.a. by trichome morphology. While members of his “*L.* subg. *Euleontodon*” possess exclusively simple hairs on leaves and involucre bracts, those of “*L.* subg. *Apargia*” are characterised by apically furcate or 3- to many-fid hairs like those that occur in the related genera *Picris* L. and *Helminthotheca* Vaill. Widder noted that the latter subgenus might be transitional (“vermittelt ... in mancher Hinsicht den Übergang”) to *Picris*, and that the two subgenera could also be treated as separate genera (“könnten ohne weiteres als eigene Gattungen

betrachtet werden”). He thought, however, that they are most akin to each other and continued to treat them within one genus up to his last survey (Widder 1975), while adapting infrageneric nomenclature to the provisions of the Seattle Code (Stafleu & al. 1972): “*L. subg. Euleontodon*” was named *L. subg. Oporinia* (D. Don) Claph., and “*L. subg. Apargia*” now became *L. subg. Leontodon* (of which *L. hispidus* L. had been accepted as the conserved type).

Recent molecular investigations by a research group in Vienna (Samuel & al. 2006) have confirmed the monophyly of each of Widder’s subgenera. However, their phylogenetic analysis bear out the evident need to separate generically *L. subg. Oporinia* and subg. *Leontodon*. The latter, in all phylogenetic trees based on DNA sequences of both nuclear and plastid markers (ITS, *matK*, *trnL/F*), groups with *Picris* and *Helminthotheca*; whereas *L. subg. Oporinia* forms a highly supported clade that is sister to a clade consisting of the former group plus *Hypochaeris* L. In other words, *Leontodon* as traditionally defined, comprising both of Widder’s subgenera but excluding *Picris*, *Hypochaeris* and related smaller genera, would be diphyletic.

The correct generic name for *Leontodon* subg. *Oporinia* is *Scorzoneroides* Vaill., with *S. autumnalis* (L.) Moench as type (Greuter & al. 2005). Therefore, all taxa belonging here need names under *Scorzoneroides*. For nearly all species of Widder’s *L. sect. Oporinia* (D. Don) W. D. J. Koch, Holub (1977a, b) has already validated the necessary combinations, but he refrained to do so for *L. sect. Kalbfussia* (Sch. Bip.) Benth. & Hook. f., which he (Holub 1977a) considered a candidate for a further generic split. However, “*Kalbfussia*” species turn out to be closely related to *S. autumnalis* and should definitely be treated under *Scorzoneroides*. For those species the required combinations do not yet exist.

If, as we expect, practising botanists will wish to adapt their classifications to the firm, new molecular evidence, they need to know which names they are supposed to use. To fulfil this need, we here provide a synopsis of the names we believe to be correct, limited to the species and subspecies known to occur in the Euro-Mediterranean area. As our taxonomic knowledge of some critical groups, especially the *Scorzoneroides autumnalis* complex, is still inadequate, we consider this list as preliminary. Even if not all of the new combinations here proposed will stand the test of time, we still feel that they are presently needed, be it only to serve as a key to potentially valuable information that is attached to their basionyms.

For brevity, the list that follows is limited to accepted names and their basionyms. Full synonymies and distribution data are available for online consultation under Euro+Med PlantBase (<http://ww2.bgbm.org/EuroPlusMed/query.asp>).

Scorzoneroides atlantica (Ball) Holub in Folia Geobot. Phytotax. 12: 429. 1977 ≡ *Leontodon autumnalis* var. *atlanticus* Ball in J. Linn. Soc., Bot. 16: 543. 1878.

Scorzoneroides autumnalis (L.) Moench, Methodus: 549. 1794 ≡ *Leontodon autumnalis* L., Sp. Pl.: 798. 1753.

Scorzoneroides autumnalis subsp. *borealis* (Ball) Greuter, **comb. nov.** ≡ *Leontodon autumnalis* subsp. *borealis* Ball in Ann. Mag. Nat. Hist., ser. 2, 6: 6. 1850.

Scorzoneroides cantabrica (Widder) Holub in Folia Geobot. Phytotax. 12: 306. 1977 ≡ *Leontodon cantabricus* Widder in Phytotax. (Horn) 12: 204. 1967.

Scorzoneroides carpetana (Lange) Greuter, **comb. nov.** ≡ *Leontodon carpetanus* Lange in Vidensk. Meddel. Dansk Naturhist. Foren. Kjøbenhavn, ser. 2, 3: 96. 1861.

Scorzoneroides cichoriacea (Ten.) Greuter, **comb. nov.** ≡ *Apargia cichoriacea* Ten., Prodr. Fl. Napol. 1: xlvi. 1811.

Scorzoneroides crocea (Haenke) Holub in Folia Geobot. Phytotax. 12: 306. 1977 ≡ *Leontodon croceus* Haenke in Collect. Bot. Spectantia (Wien) 2: 16. 1789.

Scorzoneroides duboisii (Sennen) Greuter, **comb. nov.** ≡ *Leontodon duboisii* Sennen, Diagn. Nouv.: 19. 1936.

Scorzoneroides garnironii (Emb. & Maire) Greuter & Talavera, **comb. nov.** ≡ *Leontodon garnironii* Emb. & Maire in Bull. Soc. Hist. Nat. Afrique N. 27: 66. 1936.

- Scorzonerooides helvetica* (Mérat) Holub in Folia Geobot. Phytotax. 12: 306. 1977 ≡ *Leontodon helveticus* Mérat in Ann. Sci. Nat. (Paris) 22: 108. 1831.
- Scorzonerooides hispidula* (Delile) Greuter & Talavera, **comb. nov.** ≡ *Crepis hispidula* Delile in anon., Descr. Egypte, Hist. Nat. 2: 261. 1813.
- Scorzonerooides keretina* (F. Nyl.) Greuter, **comb. nov.** ≡ *Leontodon keretinus* F. Nyl., Spic. Pl. Fenn., Cent. 1: 24. 1843.
- Scorzonerooides kralikii* (Pomel) Greuter & Talavera, **comb. nov.** ≡ *Kalbfussia kralikii* Pomel in Bull. Soc. Sci. Phys. Algérie 11: 11. 1874.
- Scorzonerooides laciniata* (Bertol.) Greuter, **comb. nov.** ≡ *Oporinia laciniata* Bertol. in Novi Comment. Acad. Sci. Inst. Bononiensis 6: 235. 1843.
- Scorzonerooides microcephala* (DC.) Holub in Folia Geobot. Phytotax. 12: 429. 1977 ≡ *Oporinia microcephala* DC., Prodr. 7: 109. 1838.
- Scorzonerooides montana* (Lam.) Holub in Folia Geobot. Phytotax. 12: 307. 1977 ≡ *Leontodon montanus* Lam., Fl. Franç. 3: 640. 1779.
- Scorzonerooides montana* subsp. *breviscapa* (DC.) Greuter, **comb. nov.** ≡ *Leontodon croceus* var. *breviscapus* DC., Prodr. 7: 102. 1838.
- Scorzonerooides montaniformis* (Widder) Gutermann in Phytion (Horn) 46: 65. 2006 ≡ *Leontodon montaniformis* Widder in Phytion (Horn) 2: 226. 1950.
- Scorzonerooides muelleri* (Sch. Bip.) Greuter & Talavera, **comb. nov.** ≡ *Kalbfussia muelleri* Sch. Bip. in Flora 16: 725. 1833.
- Scorzonerooides muelleri* subsp. *austromaroccana* (Maire) Greuter, **comb. nov.** ≡ *Leontodon hispidulus* var. *austromaroccanus* Maire in Bull. Soc. Hist. Nat. Afrique N. 30: 353. 1939.
- Scorzonerooides muelleri* subsp. *reboudiana* (Pomel) Greuter, **comb. nov.** ≡ *Fidelia reboudiana* Pomel, Nouv. Mat. Fl. Atl.: 269. 1875.
- Scorzonerooides nevadensis* (Lange) Greuter, **comb. nov.** ≡ *Leontodon nevadensis* Lange in Vidensk. Meddel. Dansk Naturhist. Foren. Kjøbenhavn, ser. 3, 9-10: 230. 1878.
- Scorzonerooides oraria* (Maire) Greuter & Talavera, **comb. nov.** ≡ *Leontodon orarius* Maire in Bull. Soc. Hist. Nat. Afrique N. 23: 197. 1932.
- Scorzonerooides palisiae* (Izuzq.) Greuter & Talavera, **comb. nov.** ≡ *Leontodon palisiae* Izuzq. in Nordic J. Bot. 11: 35. 1991.
- Scorzonerooides pseudotaraxaci* (Schur) Holub in Folia Geobot. Phytotax. 12: 307. 1977 ≡ *Leontodon pseudotaraxaci* Schur, Enum. Pl. Transsilv.: 357. 1866.
- Scorzonerooides pyrenaica* (Gouan) Holub in Folia Geobot. Phytotax. 12: 307. 1977 ≡ *Leontodon pyrenaicus* Gouan, Ill. Observ. Bot.: 55. 1773.
- Scorzonerooides rilaensis* (Hayek) Holub in Folia Geobot. Phytotax. 12: 307. 1977 ≡ *Leontodon rilaensis* Hayek in Kaiserl. Akad. Wiss. Wien, Math.-Naturwiss. Kl., Denkschr. 94: 198. 1918.
- Scorzonerooides salzmännii* (Sch. Bip.) Greuter & Talavera, **comb. nov.** ≡ *Kalbfussia salzmännii* Sch. Bip. in Flora 16: 724. 1833.
- Scorzonerooides simplex* (Viv.) Greuter & Talavera, **comb. nov.** ≡ *Hieracium simplex* Viv., Fl. Libyc. Spec.: 50. 1824.

References

- Bentham, G. 1873: *Compositae*. – Pp. 163-553 in: Bentham, G. & Hooker, J. D., *Genera plantarum* 2: 163-553. – London.
- Greuter, W., Aghababian, M. & Wagenitz, G. 2005: Vaillant on *Compositae* – systematic concepts and nomenclatural impact. – *Taxon* 54: 149-174.

- Holub, J. 1977a: New names in *Phanerogamae* 5. – Folia Geobot. Phytotax. **12**: 293-311.
- 1977b: New names in *Phanerogamae* 6. – Folia Geobot. Phytotax. **12**: 417-432.
- Samuel, R., Gutermann, W., Stuessy, T. F., Ruas, C. F., Lack, H.-W., Tremetsberger, K., Talavera, S., Hermanowski, B. & Ehrendorfer, F. 2006: Molecular phylogenetics reveals *Leontodon* (*Asteraceae*, *Cichorieae*) to be diphyletic. – Amer. J. Bot. **93**: 1193-1205.
- Stafleu, F. A., Bonner, C. E. B., McVaugh, R., Meikle, R. D., Rollins, R. C., Ross, R., Schopf, J. M., Schulze, G. M., Vilmorin, R. de & Voss, E. G. (ed.) 1972: International code of botanical nomenclature adopted by the Eleventh International Botanical Congress Seattle, August 1969. – *Regnum Veg.* **82**.
- Widder, F. J. 1931: Beiträge zur Kenntnis der Gattung *Leontodon* II. Die “nickenden Knospen” einiger *Leontodon*-Arten in ihrer Bedeutung für das System der Gattung. – *Österr. Bot. Z.* **80**: 136-148.
- 1975: Die Gliederung der Gattung *Leontodon*. – *Phyton* (Horn) **17**: 23-29.

Addresses of the authors:

Prof. Dr W. Greuter, Botanischer Garten und Botanisches Museum Berlin-Dahlem, Freie Universität Berlin, Königin-Luise-Str. 6-8, D-14195 Berlin; e-mail: w.greuter@bgbm.org

Dr Walter Gutermann, Department of Biogeography, University of Vienna, Rennweg 14, A-1030 Wien, Austria; e-mail: walter.gutermann@univie.ac.at

Dr Salvador Talavera, Departamento de Biología Vegetal y Ecología, Universidad de Sevilla, Apartado de Correos 1095, E-41080 Sevilla, Spain; e-mail: stalavera@lebero5.us.es