

Communication

Nomenclatural comments on the authorship and orthography of Besser's *Seriphidium* (currently *Artemisia*, Asteraceae)

Ganna V. Boiko^{1*}, Bohan Jiao^{2,3}, Yifan Liu^{2,3}

¹ M.G. Kholodny Institute of Botany, National Academy of Sciences of Ukraine, Tereshchenkivska Str. 2, 01601 Kyiv, Ukraine

² State Key Laboratory of Plant Diversity and Specialty Crops, Institute of Botany, Chinese Academy of Sciences, 100093 Beijing, China

³ University of Chinese Academy of Sciences, 100049 Beijing, China

* Corresponding author. E-mail: bav22@ukr.net

Received: 5 June 2025. Accepted: 11 September 2025. Published online: 30 September 2025

Abstract

Boiko G.B., Jiao B.H., Liu Y.F., 2025: Nomenclatural comments on the authorship and orthography of Besser's *Seriphidium* (currently *Artemisia*, Asteraceae). – *Botanica*, 31(3): 104–108.
<https://doi.org/10.35513/Botlit.2025.3.2>

The proper authorship and accepted orthography of the name *Seriphidium* (now included in *Artemisia*, Asteraceae) introduced by Besser initially as “*Seriphida*” (“*Scriphida*”, sphalm.) are discussed. It is demonstrated that the names of plant groups published by Besser in 1829 (including “*Abrotana*” and “*Dracunculi*”) are, in fact, informal unranked names not directly associated with any genus name explicitly accepted by Besser in that publication. Thus, they have not been validly published. Consequently, the valid publications of the name as a ranked infrageneric taxon have been made by Lessing (as a subgenus) and Hooker (as a section). Nomenclatural citations are updated accordingly.

Keywords: *Artemisia*, Asteraceae, authorship, nomenclature, orthography, *Seriphidium*, taxonomy.

INTRODUCTION

Seriphidium is one of the most interesting groups within the genus *Artemisia* L. (Asteraceae or Compositae), the taxonomy of which is quite complicated and sometimes confusing for several objective and subjective reasons. The group was sometimes recognised as a segregate genus *Seriphidium* (Besser ex Less.) Fourreau (1869: 89; see further comments on the authorship below) related to but separated from *Artemisia* s. str. About 100–130 species have been recognised in it (Poljakov, 1961b; Ling et al., 2011; Jin et al., 2025). *Seriphidium* has been segregated from

(or within) the genus *Artemisia* mainly based on morphological characters of the capitula (Besser, 1834; de Candolle, 1837; Poljakov, 1961a, b; Bremer & Humphries, 1993; Ling et al., 2011; Jin et al., 2025, etc.). Despite being occasionally accepted as a segregate genus closely related to *Artemisia*, this group is now usually treated as an infrageneric entity of the latter (in a broad sense of Linnaeus, 1753: 845). That taxonomic decision has been supported by molecular phylogenetic and morphological evidence; thus, *Seriphidium* should definitely be included in *Artemisia*, in which it is phylogenetically deeply rooted (Malik et al., 2017; Jiao et al., 2023; Jin et al., 2023, 2025). Consequently,

most names of the taxa earlier placed in or described as *Seriphidium* have now been either transferred to *Artemisia* or synonymised with other names within *Artemisia*. Some recognisable species originally described in *Seriphidium* until recently had no corresponding names in *Artemisia*. However, recent taxonomic and nomenclatural studies have almost filled this gap; e.g. Jin et al. (2025), who, among other results, have published new combinations in *Artemisia* for two accepted species supposedly endemic to China that have been described initially in *Seriphidium* as *Seriphidium minchunense* Y.R. Ling (1985: 159) and *Seriphidium sawanense* Y.R. Ling & Humphries (1990: 49).

In the present nomenclatural note, we provide a brief clarification on the proper authorship citation and orthography of the (generic or infrageneric) name *Seriphidium*.

MATERIALS AND METHODS

Standard methods of herbarium taxonomy (de Vogel, 1987) and the rules of botanical nomenclature were employed, following the currently available *International Code of Nomenclature for algae, fungi, and plants* (*Madrid Code*), hereinafter cited as the *ICN* (Turland et al., 2025).

RESULTS AND DISCUSSION

On the proper authorship citation and orthography of the name *Seriphidium*

The authorship (see Art. 46 of the *ICN*) of the name *Seriphidium* (as applied to the genus or infrageneric entities) in various publications and online databases was cited differently and rather inconsistently, for example: “(Besser ex Less.) Poljakov”, “(Besser ex Hook.) Fourr.”, “(Besser ex Less.) Fourr.”, etc. for the genus, or “Besser ex Less.”, “(Besser) Rouy”, “(Besser) Peterm.”, etc. for a subgenus, and “Besser”, “(Besser) Besser”, “Besser ex Hook.”, etc. for a section of *Artemisia* (see, for example, citations in: Hooker, 1833; de Candolle, 1837; Pettermann, 1849; Rouy, 1903; Poljakov, 1961a, b; Ling, 1988; Bremer & Humphries, 1993; Watson et al., 2002; Filatova 2003; Ling et al., 2011; Jiao et al., 2023; Jin et al., 2023; POWO, 2025, and IPNI, 2024). Because of this, we decided to provide clarification and an update regarding the correct citation of authors of that name.

The name “*Seriphida*” (as “*Scriphida*”, sphalm., the intended spelling was almost certainly “*Seriphida*” or, less probably, “*Seriphidia*”) was first introduced by Besser in 1829 in his letter (“Lettre de Mr. le Dr. Besser au Directeur”), evidently (but not explicitly) addressed to Johann Gotthelf Fischer von Waldheim, who was then the Vice President of the Moscow Medical and Surgical Academy (“l’Académie Impériale Medico-Chirurgicale de Moscou”) and the Vice President and Director of the Moscow Society of Naturalists (“le Viceprésident et Directeur de la Société Impériale des Naturalistes de Moscou”), who provided to Besser some important herbarium specimens for his planned monograph of *Artemisia* s.l. (“*Monographie des Armoisies*”).

That letter was published as an introduction to Besser’s key to and conspectus of taxa of a group of *Artemisia* s.l., the group that he at that time accepted as a segregate genus “*Absinthium* [sensu] Gaertn.” (Besser, 1829: 225). It is also evident from the gender-indicating (masculine) endings of epithets of accepted species-rank taxa listed by Besser in that publication.

The spelling “*Scriphida*” is definitely a typographical error, when a typesetter mistook a handwritten letter “e” for “c”. The same type of typographical errors appeared in several other botanical publications of the 19th century. For example, Antoni Andrzejowski, a student and collaborator of Besser, described a new species, *Chenopodium betaceum* Andrzej., and compared it to plants of the genus *Beta* L., evidently because of its characteristic beet-red colour of stems and often reddish leaf margins (Andrzejowski, 1862: 132; see also Mosyakin, 2017). However, in the protologue, the species epithet was given as “*betaccum*” (for further details, see Mosyakin, 2017). Such evident typographic errors are automatically correctable: see Art. 60.1 of the *ICN*. In all his subsequent publications, Besser (1834, 1836) used the infrageneric names with the corrected spelling *Seriphidium* or *Seriphidia* and undoubtedly placed taxa of that group in *Artemisia* (not “*Absinthium*”! See above).

It is worth mentioning that Lessing (1832: 264) also used the erroneous spelling “*Scriphida*” when he accepted that group at the subgeneric rank, directly attributed that name to Besser, and cited his article as the source of that name: “Besser in Bull. soc. imp. natur. Moscou 1829”. Hooker (1833: 325) recognised the group as a section (*Artemisia* sect. *Seriphidium*) and also cited Besser as the author of the name. Hooker was probably

the first to directly indicate that the original publication by Besser contained a typographical error in the taxon name. Hooker was also the first to use the name *Seriphidium* in the singular, in contrast to the plural form originally used by Besser for his informal groups (like “Seriphid[i]a”, “Dracunculi”, “Abrotana”).

But should we consider the name “Seriphida” as validly published by Besser in 1829? He definitely outlined several (informal?) groups in the Linnaean *Artemisia* s.l. (in the sense of Linnaeus, 1753), gave their brief diagnoses in French (accompanied by Latin or Latinised names in parentheses), and provided their French and Latin or Latinised names: “...des aurones (Abrotana) <...> des Scriphidies (Scriphida) <...> des Estragons (Dracunculi)” (Besser, 1829: 222–223). These groups, in our opinion, should be considered as unranked. Definitely, they have not been mentioned directly as sections of the genus *Artemisia*, which is evident from the context of Besser’s letter and his temporary recognition of a segregate genus “*Absinthium* [sensu] Gaertn.” in the same publication (Besser, 1829). Also, these names are not directly associated in the protologue with the generic name *Artemisia* or any other accepted genus-rank name. It should be noted that in one case, indeed, Besser used in his letter the word “section”, when he mentioned that Cassini treated the group “Dracunculi” as a separate genus *Oligosporus* Cass., but, as seen from the context, in the French text this word was used in its common French meaning of a “part or division of something”. The name *Dracunculus* was explicitly accepted for a section of *Artemisia* and thus validated by Besser much later (Besser 1835: 8, as “*Dracunculi*”).

We also cannot regard the names introduced by Besser in 1829 as genus-rank names, in particular, because “the name of a genus is a noun in the nominative singular, or a word treated as such” (Art. 20.1 of the *ICN*), while the mentioned Besser’s names are evidently Latin or Latinised words in plural, indicating that Besser did not intend these names of groups as accepted or even provisional names of genera.

If we accept the names mentioned by Besser in 1829 as unranked but valid, then these names fall within the provisions of Art. 37.3 of the *ICN*: “A name published before 1 January 1953 without a clear indication of its rank is **validly published** [our **emphasis** added] provided that all other requirements for valid publication are fulfilled; it is, however, inoperative in questions of

priority except for homonymy”. They also “may serve as a basionym or replaced synonym for subsequent new combinations, names at new ranks, or replacement names at definite ranks”. In that case, Besser’s authorship should be accepted for the basionym of nomenclatural combinations of the ranks of section, subgenus, and genus using the name *Seriphidium*.

However, the issue of the possible validity of the mentioned Besser’s names should be critically tested against other relevant articles of the *ICN*, in the context of Besser’s letter. At the beginning of his published letter, Besser (1829: 219) mentioned his planned “*Monographie des Armoisies de Linné*”, meaning a monographic treatment of the genus *Artemisia* sensu Linnaeus, i.e. in the original, relatively broad circumscription outlined and accepted by Linnaeus (1753). However, the Latin generic name *Artemisia* was not used in the letter by Besser; he used instead the French word “armoisies” (sensu Linnaeus, see above). For various groups of *Artemisia*, he used other French words, sometimes accompanied by Latin or Latinised names (see above). Should we assume that the words “*Armoisies de Linné*” constitute an indirect reference to the Linnaean *Artemisia*? If so, the Latin or Latinised names introduced by Besser on pages 222–223 can be viewed as valid infrageneric unranked (or section-rank?) names in *Artemisia*. The simultaneous acceptance of the genus “*Absinthium* [sensu] Gaertn.” in the key and conspectus that follow the cited letter may thus constitute alternative generic concepts; please note that alternative names were allowed until the beginning of 1953 (Art. 36.3 of the *ICN*), but no alternative names were explicitly cited by Besser (1829).

In conclusion, after evaluating the facts and arguments provided above, we think that the name “Seriphida” (published as “Scriphida”, sphalm.) introduced by Besser (1829) should not be considered validly published for the reasons summarised below. In 1829 Besser did not explicitly accept these names as sections of *Artemisia* (sensu lato) because (1) he did not link the group names with the generic name *Artemisia* (despite his use of the French word “armoisies”, meaning “Artemisias”) and (2) in the same publication he explicitly accepted the genus “*Absinthium* [sensu] Gaertn.” and even included in it the Linnaean species *Artemisia absinthium* L. (1753: 848) (as “*Absinthium vulgare* Lam.”), which is at present the standing generic type of *Artemisia*.

Nomenclatural citation

In our opinion, the nomenclatural citation of *Artemisia* subgen. *Seriphidium* should look as follows:

***Artemisia* subgen. *Seriphidium* Besser ex Less.**,
Syn. Gen. Compos.: 264. 1832 (as “*Scriphida*”);
≡ *Artemisia* sect. *Seriphidium* (Besser ex Less.)
Hooker, Fl. Bor.-Amer. (Hooker), 1(6): 325.
1833; ≡ *Seriphidium* (Besser ex Less.) Fourr.,
Ann. Soc. Linn. Lyon ser. 2, 17: 89. 1869; [= *Seriphidium* (Besser ex Less.) Poljakov, Trudy
Inst. Bot. Akad. Nauk Kazakhsk. S. S. R., 11:
171. 1961, isonym].

Type: *Artemisia maritima* L., the only species explicitly mentioned in the protologue.

ACKNOWLEDGEMENTS

We are grateful to Sergei L. Mosyakin (M.G. Kholodny Institute of Botany, National Academy of Sciences of Ukraine, Kyiv, Ukraine) and Gao Tianguang (State Key Laboratory of Plant Diversity and Specialty Crops, Institute of Botany, Chinese Academy of Sciences, Beijing, China) for initiating this nomenclatural investigation and for their guidance and helpful advice. This research was partly supported by the Ministry of Education and Science of Ukraine joint project “Taxonomic assessment and digitisation of *Artemisia* type specimens in the globally important herbarium of Ukraine” (No. 0122U200473, No. 0123U103617), National Natural Science Foundation of China (No. 32270229), and China-Ukraine Governmental Science and Technology Exchange Project 2022–2023.

Author contributions. GVB, investigations, methodology, writing and editing, project administration; BHJ, editing and project management; YFL, writing and editing. All authors have read and approved the final version of the article.


REFERENCES


Andrzejowski A., 1862: Continuatio Enumerationis Plantarum sponte in Gubernio Podolico et locis adjacentibus crescentium. – *Universitetskie Izvestiya* (Kyiv), 1862(7): 94–142.

- Besser W., 1829: Lettre de Mr. le Dr. Besser au Directeur. *Absinthium* Gaertn. – *Bulletin de la Société Impériale des Naturalistes de Moscou*, 1(8): 219–265.
- Besser W., 1834: De Seriphidiis seu de sectione III-a Artemisiarum Linnæi, *Dissertatio Botanica*. – *Bulletin de la Société Impériale des Naturalistes de Moscou*, 7: 5–46.
- Besser W., 1835: Dracunculi seu de sectione IV-ta et ultima Artemisiarum Linnæi. – *Bulletin de la Société Impériale des Naturalistes de Moscou*, 8: 3–97.
- Besser W., 1836: Supplementum ad synopsis Absinthiorum, Tentamen de Abrotanis, dissertationem de Seriphidiis atque de Dracunculis. – *Bulletin de la Société Impériale des Naturalistes de Moscou*, 9: 3–116.
- Bremer K., Humphries C., 1993: Generic monograph of the Asteraceae–Anthemideae. – *Bulletin of the Natural History Museum. Botany series*. London, 23(2): 71–177.
- de Candolle A.P., 1837 [published January 1838]: *Prodromus systematis naturalis regni vegetabilis*. Volume 6. Parisiis [Paris].
- de Vogel E.F. (ed.), 1987: *Manual of herbarium taxonomy. Theory and practice*. UNESCO, Regional Office for Science and Technology for Southeast Asia, Jakarta.
- Filatova N.S., 2003: [*Artemisia*]. – In: Grubov V.I. (ed.), *Plantae Asiae Centralis* (secus materies Instituti botanici nomine V.L. Komarovii). Volume 14a. *Compositae* (Anthemideae): 55–132. St. Petersburg.
- Fourreau J.P., 1869: Catalogue des plantes du cours du Rhone. – *Annales de la Société Linnéenne de Lyon*, ser. 2, 17: 89–198.
- Hooker W.J., 1833: *Artemisia*. – In: Hooker W.J., *Flora Boreali-Americana, or, the botany of the northern parts of British America*, 1(6): 273–328. London.
- Jiao B., Chen C., Wei M., Niu G., Zheng J., Zhang G., Shen J., Vitales D., Valles J., Verloove F., Erst A.S., Soejima A., Mehregan I., Kokubugata G., Chung G.-Y., Ge X., Gao L., Yuan Y., Joly C., Jabbour F., Wang W., Shultz L.M., Gao T., 2023: Phylogenomics and morphological evolution of the mega-diverse genus *Artemisia* (Asteraceae: Anthemideae): implications for its circumscription and infrageneric taxonomy. – *Annals of Botany*, 131: 867–883. <https://doi.org/10.1093/aob/mcad051>
- Jin G., Li W., Song F., Yang L., Wen Z., Feng Y.,

- 2023: Comparative analysis of complete *Artemisia* subgenus *Seriphidium* (Asteraceae: Anthemideae) chloroplast genomes: insights into structural divergence and phylogenetic relationships. – BMC Plant Biology, 23: 136. <https://doi.org/10.1186/s12870-023-04113-1>
- Jin G.-Zh., Sheludyakova M., Abduraimov O., Feng Y., Ge X.-J., 2025: A taxonomic revision of *Artemisia* subgenus *Seriphidium* (Asteraceae – Anthemideae) in China. – Phytotaxa, 686(1): 1–103. <https://doi.org/10.11646/phytotaxa.686.1.1>
- IPNI, 2024: International Plant Names Index. – <http://www.ipni.org> [accessed 13 December 2024].
- Lessing C.F., 1832: Synopsis generum Compositarum, earumque dispositionis novae tentamen, monographis multarum Capensium interjectis. Berolini [Berlin]. <https://doi.org/10.5962/bhl.title.51470>
- Linnaeus C., 1753: Species Plantarum. Holmiae [Stockholm]. <https://doi.org/10.5962/bhl.title.37656>
- Ling Y.R., 1985: A new species of *Seriphidium* (Bess.) Poljak. from China. – Bulletin of Botanical Research, Harbin, 5(3): 159–161.
- Ling Y.R., 1988: The Chinese *Seriphidium* (Bess.) Poljak. The classification, distribution and application of *Seriphidium* (Bess.) Poljak. in China. – Bulletin of Botanical Research, Harbin, 8(3): 111–123.
- Ling Y.R., 1990: A new species of *Seriphidium* (Bess.) Poljak. from China. – Bulletin of Botanical Research, Harbin, 10(1): 49–51.
- Ling Y.R., Humphries C.J., Gilbert M.G., 2011: *Artemisia*. – In: Wu Z.Y., Raven P.H., Hong D.Y. (eds), Flora of China, 20: 1151–1259. St. Louis & Beijing.
- Malik S., Vitales D., Hayat M.Q., Korobkov A.A., Garnatje T., Vallès J., 2017: Phylogeny and biogeography of *Artemisia* subgenus *Seriphidium* (Asteraceae: Anthemideae). – Taxon, 66(4): 934–952. <https://doi.org/10.12705/664.8>
- Mosyakin S.L., 2017: Notes on taxonomy and nomenclature of *Chenopodium acerifolium* and *C. betaceum* (*C. strictum* auct.) (Chenopodiaceae). – Phytotaxa, 324(2): 139–154. <https://doi.org/10.11646/phytotaxa.324.2.3>
- Pettermann W.L., 1849: Deutschlands Flora mit Abbildungen sämtlicher Gattungen auf 100 Tafeln. Leipzig.
- Poljakov P.P., 1961a: [Materials for systematics of the genus *Artemisia* L.]. – Trudy Instituta Botaniki Akademii Nauk Kazakhskoi Sovetskoy Sotsialisticheskoy Respubliki, 11: 134–177.
- Poljakov P.P., 1961b: [*Artemisia*]. – In: Shishkin B.K., Bobrov E.G. (eds), Flora SSSR [*Flora of the USSR*], 26: 425–631. Moscow & Leningrad.
- POWO, 2025: Plants of the World Online. – <https://powo.science.kew.org/> [accessed 13 December 2024].
- Rouy G. [Rouy G., Foucaud J., Camus E.-G.], 1903: Flore de France ou Description des plantes qui croissent spontanément en France, en Corse et en Alsace-Lorraine. Volume 8. Paris.
- Turland N.J., Wiersema J.H., Barrie F.R., Gandhi K.N., Gravendyck J., Greuter W., Hawksworth D.L., Herendeen P.S., Klopffer R.R., Knapp S., Kusber W.-H., Li D.-Z., May T.W., Monro A.M., Prado J., Price M.J., Smith G.F., Zamora Señoret J.C., 2025: International Code of Nomenclature for algae, fungi, and plants (Madrid Code). Chicago, USA: University of Chicago Press. – Regnum Vegetabile, 162: 1–288. – https://www.iaptglobal.org/_functions/code/madrid [accessed 9 September 2025].
- Watson L.E., Bates P.L., Evans T.M., Unwin M.M., Estes J.R., 2002: Molecular phylogeny of subtribe Artemisiinae (Asteraceae), including *Artemisia* and its allied and segregate genera. – BMC Evolutionary Biology, 2: 17. <https://doi.org/10.1186/1471-2148-2-17>

GVB  <https://orcid.org/0000-0002-6327-1794>

BJ  <https://orcid.org/0000-0001-7621-3676>

YL  <https://orcid.org/0009-0008-1205-3560>