

Three new nomenclatural combinations in *Agrostis* L. (Poaceae: Agrostidinae)

Carlos Romero-Zarco*¹ & Llorenç Sáez^{2,3}

¹Departamento de Biología Vegetal y Ecología, Universidad de Sevilla, Avenida Reina Mercedes nº 6, 41012 Sevilla, Spain.

²Systematics and Evolution of Vascular Plants (UAB), Associated unit to CSIC, Dept. BABVE, Faculty of Biosciences, Autonomous University of Barcelona. ES-08193, Bellaterra, Barcelona, Spain.

³Societat d'Història Natural de les Balears (SHNB), Margarida Xirgu, 16, ES-07003 Palma de Mallorca, Balearic Islands, Spain.

*Author for correspondence: zarco@us.es

Received: 16 December 2024. **Accepted:** 5 February 2025. **Published:** 13 February 2025

Edited by: Gloria Martínez Sagarra

Abstract

Three new nomenclatural combinations are proposed for taxa previously classified in the genera *Chaetopogon* and *Polypogon*, recently transferred to the genus *Agrostis*.

Key words: Grasses, Nomenclature, *Chaetopogon*, *Polypogon*.

Resumen

Tres nuevas combinaciones nomenclaturales en Agrostis L. (Poaceae: Agrostidinae)

Se proponen tres nuevas combinaciones nomenclaturales para taxones anteriormente clasificadas en los géneros *Chaetopogon* y *Polypogon*, recientemente transferidos al género *Agrostis*.

Palabras clave: Gramíneas, Nomenclatura, *Chaetopogon*, *Polypogon*.

Recent phylogenetic studies have raised the need to establish a broader criterion for the delimitation of the genus *Agrostis* L., including species previously classified in the genera *Chaetopogon* Janch., *Linkagrostis* Romero García *et al.* and *Neoschischkinia* Tzvelev (Soreng *et al.*, 2017; 2022). On the other hand, Peterson *et al.* (2020) described two new genera, which include species previously included in *Agrostis* L. or in *Neoschischkinia* Tzvelev: the monotypic genus *Agrostula* P.M. Peterson *et al.* (type species: *A. truncatula* (Parl.) P.M. Peterson *et al.*) and *Alpagrostis* P.M. Peterson *et al.*, which includes four species previously classified in *Agrostis*, all of them occurring in the Iberian Peninsula and the Balearic Islands. Finally (so far), the genus *Polypogon* Desf., which remained independent in previous studies, has been included in *Agrostis* for Röser & Tkach (2024), based on the studies of Tkach *et al.* (2020).

These taxonomic changes have been complemented by subsequent nomenclatural proposals. For the species previously known as *Chaetopogon fasciculatus* (Link) Hayek the name *Agrostis subspicata* (Willd.) Raspail has been rescued, since the existence of *Agrostis fasciculata* (Kunth) Roem. & Schult., a synonym of the American species *Agrostis perennans* (Walter) Tuck., prevented the use of the epithet *fasciculatus*.

However, Romero García (2021b) recognises a subspecies endemic to the NW Iberian Peninsula: *Chaetopogon fasciculatus* subsp. *prostratus* (Hack. & Lange) M. Laínz, which had been previously studied by Paunero. (1952, sub *Chaeturus*). For this subspecies we propose the following nomenclatural combination:

Agrostis subspicata* subsp. *prostrata (Hack. & Lange) Romero Zarco & Sáez, **comb. nova**

Basionym: *Chaeturus prostratus* in Vidensk. Meddel. Naturhist. Foren. Kjøbenhavn 1877-1878: 233 (1878)

On the other hand, for *Polypogon maritimus* Willd. the name *Agrostis mediterranea* Röser & Tkach should now be used, since *Agrostis maritima* Lam., a synonym of *A. stolonifera*, prevents maintaining the same specific epithet. In the taxonomic treatment of the genus *Polypogon* by Romero García (2021a) *P. maritimus* subsp. *subspathaceus* (Req.) K. Richt. is reported for the Balearic Islands, and the existence of intermediate forms between this taxon and the typical subspecies in the Iberian Peninsula is discussed. For the plant called *Polypogon subspathaceus* the name *Agrostis subspathacea* (Req.) Röser & Tkach has been proposed; however, the data and arguments of Romero García (l.c.) advise maintaining the subspecific category. We therefore propose the following nomenclatural combination:

Agrostis mediterranea* subsp. *subspathacea (Req.) Romero Zarco & L. Sáez, **comb. nova**

Basionym: *Polypogon subspathaceus* Req. in Ann. Sci. Nat. (Paris) 5: 386 (1825)

Finally, for the species hitherto known as *Polypogon monspeliensis* (L.) Desf. Röser & Tkach (2024) accept the name *Agrostis alopecuroides* Lam. However, Lamarck's name is clearly a superfluous name (Kerguelen, 1999). Lamarck (1791, 1: 160, n.º 812) expressly cites two names previously published by Linné: "*Alopec. monspeliensis* & *paniceus*, L.". The epithet "*paniceus*" (Linné, 1762, 1: 90) could not have been used in the genus *Agrostis*, since an *Agrostis panicea* Lam. had been published previously (Lamarck, 1783, 1: 58), a name also superfluous for *Milium lendigerum* L. But the epithet "*monspeliensis*" (Linné, 1753) was available.

Therefore, articles 52.1 and 52.2(e) of the Shenzhen Code (Turland *et al.* 2018) are applicable here and another legitimate name for *Polypogon monspeliensis* should be established in the genus *Agrostis*. There are several synonyms for this species, but they are also illegitimate: *Agrostis crinita* Moench and *A. triaristata* Knapp are superfluous, and *A. panicea* (L.) Aiton is a later homonym for *A. panicea* (L.) Lam. (= *Gastridium ventricosum* (Gouan) Schinz & Thell.). Accordingly, we propose the following nomenclatural combination:

Agrostis monspeliensis (L.) Romero Zarco & L. Sáez, **comb. nova**

Basionym: *Alopecurus monspeliensis* L. Sp. Pl.: 61 (1753)

CRedit authorship contribution statement

Conceptualization: CRZ, LS. Investigation: CRZ, LS. Writing - Original Draft Preparation: CRZ. Writing - Review & Editing: LS.

Conflict of interest

The authors declare that they have no conflicts of interest relevant to the content of this manuscript.

References

- Kerguélen, M. (1999). *Index Synonymique de la Flore de France*. Internet version: Institut National de la Recherche Agronomique (INRA), France.
<https://www2.dijon.inrae.fr/flore-france/> . Consulted on 1 February 2025.
- Lamarck, J.-B. P. A. Monnet de (1791-1823). *Tableau encyclopédique et méthodique. Botanique...* París: Panckoucke, Libraire.
- Lamarck, J.-B. P. A. Monnet de (1783-1817). *Encyclopédie méthodique. Botanique...* París: Panckoucke; Lieja: Plomteux.
- Linné, C. von (1753). *Species Plantarum...* Holmiae: Impensis Laurentii Salvii.
- Linné, C. von (1762). *Species Plantarum...* ed. 2. Holmiae: Impensis Laurentii Salvii.
- Paunero, E. (1952). Las Agrostideas españolas. *Anales del Instituto Botánico A. J. Cavanilles*, 11, 319-418.
- Peterson, P.M., Sylvester, S.P., Romaschenko, K., Soreng, R.J., Barberá, P., Quintanar, A. & Aedo, C. (2020). A phylogeny of species near *Agrostis* supporting the recognition of two new genera, *Agrostula* and *Alpagrostis* (Poaceae, Pooideae, Agrostidinae) from Europe. *PhytoKeys*, 167, 57–82. doi: 10.3897/phytokeys.167.55171
- Romero García, A.T. (2021a). *Polypogon* Desf. En C. Romero Zarco, E. Rico, M.B. Crespo, J.A. Devesa, A. Buira & C. Aedo (Eds.), *Flora iberica vol. XIX(II). Gramineae (partim)* (pp 950-957). Madrid: Real Jardín Botánico de Madrid, CSIC.
- Romero García, A.T. (2021b). *Chaetopogon* Janch. En C. Romero Zarco, E. Rico, M.B. Crespo, J.A. Devesa, A. Buira & C. Aedo (Eds.), *Flora iberica vol. XIX(II). Gramineae (partim)* (pp 976-979). Madrid: Real Jardín Botánico de Madrid, CSIC.
- Röser, M. & Tkach, N. (2024). Delimitation and nomenclature of *Agrostis*, *Polypogon* and related grasses (Poaceae subfamily Pooideae). *Schlechtendalia*, 41, 63-67.
- Soreng, R.J., Peterson, P.M., Romaschenko, K., Davidse, G., Teisher, J.K., Clark, L.G., Barberá, P., Gillespie, L.J. & Zuloaga, F.O. (2017). A worldwide phylogenetic classification of the Poaceae (Gramineae) II: An update and a comparison of two 2015 classifications. *Journal of Systematics and Evolution*, 55(4), 259–290.
- Soreng, R.J., Peterson, P.M., Zuloaga, F.O., Romaschenko, K., Clark, L. G., Teisher, J. K., Gillespie, L. J., Barberá, P., Welker, C.A.D., Kellogg, E.A., Li, D.-Z. & Davidse, G. (2022). A worldwide phylogenetic classification of the Poaceae (Gramineae) III: an update. *Journal of Systematics and Evolution* 60(3), 476–521. doi: 10.1111/jse.12847
- Tkach, N., Schneider, J., Döring, E., Wölk, A., Hochbach, A., Nissen, J., Winterfeld, G., Meyer, S., Gabriel, J., Hoffmann, M.H. & Röser, M. (2020). Phylogeny, morphology and the role of hybridization as driving force of evolution in grass tribes Aveneae and Poeae (Poaceae). *Taxon*, 69(2), 234–277. doi: 10.1002/tax.12204
- Turland, N.J., Wiersema, J.H., Barrie, F.R., Greuter, W., Hawksworth, D.L., Herendeen, P.S., Knapp, S., Kusber, W.H., Li, D.Z., Marhold, K., May, T.W., McNeill, J., Monro, A.M., Prado, J., Price, M.J. & Smith, G.F. (Eds.) (2018). *International Code of Nomenclature for algae, fungi, and plants (Shenzhen Code) adopted by the Nineteenth International Botanical Congress Shenzhen, China, July 2017*. Regnum Vegetabile 159. Glashütten: Koeltz Botanical Books. DOI <https://doi.org/10.12705/Code.2018>