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Supplements to the flora of the Canary Islands, Spain: *Poaceae***Abstract**

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First records of taxa of *Poaceae* from the Canary Islands are listed: 11 species and subspecies from La Palma, 4 from Fuerteventura and 2 each from Fuerteventura + La Palma and La Palma + Tenerife. Included in the list are also first records of some species and subspecies from the individual islands of La Palma, Fuerteventura and Tenerife. *Polypogon viridis* subsp. *pauciflorus* is described as a subspecies new to science and the new combination *Agrostis stolonifera* subsp. *filifolia* is validated.

Additional key words: grasses, *Gramineae*, species inventory, taxonomy

Introduction

An inventory of grasses (*Poaceae*) on the Canary Islands, Spain, was first published by Eriksson & al. (1974) in the frame of their checklist of vascular plants of Macaronesia and later updated several times. Under changed authorship, with a broader organisms spectrum and restricted to the Canary Islands, the last revision appeared thirty years later (Acebes Ginovés & al. 2004; forerunner editions here not cited). The records from the individual islands of the archipelago, Fuerteventura, La Gomera, Gran Canaria, El Hierro, Lanzarote, La Palma and Tenerife, are always separately listed.

Since the inventory by Acebes Ginovés & al. (2004) the following additional records of Canarian *Poaceae* have been published:

Scholz & al. (2004): new to the Canary Islands, Fuerteventura: *Brachypodium phoenicoides* (L.) Roem. & Schult., *Catapodium hemipoa* subsp. *occidentale* (Paunero) H. Scholz & S. Scholz; new to Fuerteventura: *Eleusine indica* (L.) Gaertn., *Melica canariensis* Hempel, *Ochlopoa infirma* (Kunth) H. Scholz (“*Poa infirma* Kunth”), *Schedonorus arundinaceus* (Schreb.) Dumort. s.l., *Vulpia muralis* (Kunth) Nees
Scholz & Scholz (2005): new to the Canary Islands, Fuerteventura and Lanzarote: *Lolium saxatile* H. Scholz & S. Scholz

- Marrero (2006): new to the Canary Islands, Gran Canaria: *Oropetium capense* subsp. *hesperidum* (Maire) Marrero-Rodr.
- Scholz & al. (2006): new to Fuerteventura: *Aira cupaniana* Guss., *Imperata cylindrica* (L.) Räscher, *Kikuyuochloa clandestina* (Hochst. ex Chiov.) H. Scholz (“*Pennisetum clandestinum*”)
- Stierstorfer & Gaisberg (2006): new to El Hierro: *Agrostis castellana* Boiss. & Reut., *Anisantha* (“*Bromus*”) *rubens* subsp. *kunkelii* (H. Scholz) H. Scholz, *Cortaderia selloana* (Schult. & Schult.f.) Asch. & Graebn., *Dactylis glomerata* L. s.l., *Digitaria sanguinalis* (L.) Scop., *Gastridium phleoides* (Nees & Meyen) C. E. Hubb., *Hordeum vulgare* L., *Lolium parabolicae* Senn. ex Samp., *Piptatherum caerulescens* (Desf.) P. Beauv., *Polypogon fugax* Nees ex Steud., *Polypogon monspeliensis* (L.) Desf., *Setaria adhaerens* (Forssk.) Chiov., *Sorghum halepense* (L.) Pers., *Vulpia ciliata* Dumort., *Zea mays* L.
- Padrón Mederos & al. (2007): new to the Canary Islands, La Palma: *Poa flaccidula* Boiss. & Reut.

New records

Additional unpublished records from the Canary Islands are listed below. Included are true wild plants (natives and aliens), plants escaped from cultivation and running wild (often ephemers), and impurities of imported commercial seeds sown for lawn. The specimens of Rainer Otto are in his privat herbarium unless otherwise stated; the collections (or one set of them, respectively) of H. Scholz and S. Scholz are deposited in the herbarium of the BGBM Berlin-Dahlem (B).

Agrostis stolonifera L. subsp. *stolonifera* – new to La Palma, alien: Garafia, fallow land, 20.8.2002, *Otto* 7857; Fuencaliente, public green on LP 130, 26.8.2006, *Otto* 1204; Laguna de Barlovento, roadside, 20.8.2002, *Otto* 7859; *ibid.*, 13.8.2006, *Otto* 12048.

subsp. *filifolia* (Link) H. Scholz, **comb. nov.** (= *Agrostis filifolia* Link in J. Bot. (Schrader) 2: 313. 1799 ≡ *Agrostis alba* subsp. *filifolia* (Link) Henriq. in Bol. Soc. Brot. 20: 43. 1905; described from Portugal). – New to the Canary Islands, probably native: La Palma: roadside on LP 22, near turn off Montaña Tagoja, 950 m, 18.8.2007, *Otto* 13222; Fuente de Olen, 1600 m, pinar, 22.8.2007, *Otto* 13079; roadside on LP 22, pinar, about 1800 m, 22.8.2007, *Otto* 13081.

Aira caryophyllea subsp. *plesiantha* (Jord.) K. Richt. (= subsp. *multiculmis* (Dumort.) Bonnier & Layens) – new to the Canary Islands, unintentionally introduced: La Palma: San Isidro, wall, 18.8.2006, *Otto* 11999; Mirca, roadside on LP 22, near the entrance to Galeria Fuente Barbutano, 22.8.2007, *Otto* 13095.

Aira cupaniana Guss. – new to Tenerife: El Palmar, 2.4.1970, *Otto* 5493.

Alopecurus myosuroides Huds. – new to the Canary Islands, lawn weed: Fuerteventura: Corralejo, in urban lawn, 1.10.2006, *S. Scholz s.n.*; *ibid.*, 4.4.2007, *S. Scholz s.n.* – La Palma: Breña Baja, Los Cancajos, in urban lawn, 3.9.2007, *Otto* 13110.

Anisantha rubens (L.) Nevski (≡ *Bromus rubens* L.) subsp. *rubens* – new to the Canary Islands: Fuerteventura: Morro del Jable, fallow land, 10.4.1970, *Otto* 4853; Barranco Mal Nombre, about 100 m, 24.3.2002, *S. Scholz s.n.*; Valle de Santa Inés, dry barranco, 300 m, 9.6.2002, *S. Scholz s.n.* – All records of *Bromus rubens* subsp. *rubens* from the other Canary Islands (e.g., Acebes Ginovés & al. 2004 and earlier editions) may refer to subsp. *kunkelii* (Scholz & Böcker 1996)

subsp. *kunkelii* (H. Scholz) H. Scholz – new to Fuerteventura: N of Gran Tarajal, 100 m, 3.3.2003, *S. Scholz s.n.*; NW of La Oliva, 150 m, 16.2.2003, *S. Scholz s.n.*; N of Betancuria on FV 30 near the car park at the mountain pass, 1.4.2006, *H. Scholz s.n.*; Caldereta, 3.4.2006, *H. Scholz s.n.* – Not endemic to the Canary Islands (as formerly believed), also known from the Cape Verde Islands, Morocco, Algeria, Spain and other Mediterranean countries.

Anisantha sterilis (L.) Nevski (≡ *Bromus sterilis* L.) – new to the Canary Islands, lawn weed: La Palma: St Cruz, roundabout in front of the tunnel at Avenida El Puente, 10.8.2007, *Otto* 13060; *ibid.*, Avenida Bajamar, lawn sowing near the entrance to the harbour, 1.9.2007, *Otto* 13106; Breña Baja, Los Cancajos, fresh lawn sowing, 3.9.2007, *Otto* 13113.

Aristida adscensionis L. subsp. *adscensionis* – new to Fuerteventura, native: Solana del Ciervo, Jandía, about 300 m, rocky slope, 30.5.2002, *S. Scholz s.n.* – The specimens agree very well with plants of this subspecies collected in Lanzarote and deposited in B (*Duvigneaud 76 Can. 126*), even in the height of the culms. In Fuerteventura, this subspecies seems to be much scarcer than the widespread subsp. *coerulescens* (Desf.) Auquier & Duvig.

Avena sterilis L. subsp. *sterilis* – new to La Palma, probably native: Municipio Tijarafe, Lomo de las Breveras, Finca about 1100 m, 23.8.2007, *Otto 13082*; Breña Baja, Los Cancajos, fresh lawn sowing, 3.9.2007, *Otto 13108*.

subsp. *ludoviciana* (Durieu) Gillet & Magne – new to Fuerteventura, probably native: Puerto del Rosario, fallow land, 27.3.2006, *H. Scholz s.n.*; near Betancuria on FV 30, 1.4.2006, *H. Scholz s.n.*; Morro del Jable, Jandía, roadside, *S. Scholz obs.*

Bromus hordeaceus L. subsp. *hordeaceus* – new to La Palma, alien: Breña Baja, Los Cancajos, fresh lawn sowing, 3.9.2007, *Otto 13111*.

subsp. *pseudothominei* (P. M. Sm.) H. Scholz – new to the Canary Islands, Fuerteventura: Las Gaviotas, Jandía, 30 m, lawn weed, 9. 2007, *S. Scholz s.n.*

Bromus parvispiculatus H. Scholz – new to the Canary Islands, unintentionally introduced: La Palma: roadside of LP 22 near the entrance to Galeria Fuente Barbuzano, 22.8.2007, *Otto 13062*; Breña Alta, old airport near San Pedro, 31.8.2007, *Otto 13105*.

Cortaderia selloana (Schult. & Schult. f.) Asch. & Graebn. – new to La Palma, escaped from cultivation: San Isidro, fallow land, 25.8.2004, *Otto obs.* – New to Fuerteventura: Costa Calma, Jandía, garden escape in a small ravine near the beach, 10.10.2007, *S. Scholz obs.*

Cutandia dichotoma (Forssk.) Trabut (?= *C. memphitica* auct. p.p.) – Fuerteventura, native: isthmus of Jandía, sandy plain, 3.2.2004, *S. Scholz s.n.*; sandy places in the surrounding of the hotel Riu Palace Tres Islas S of Corralejo, 24.3.-25.3.2006, *H. Scholz s.n.* – The *Cutandia* specimens from the Canary Islands need revision!

Dactylis glomerata L. subsp. *glomerata* – new to La Palma, lawn weed probably unintentionally introduced with lawn seeds: Breña Baja, Los Cancajos, 26.8.2005, *Otto 11130*.

subsp. *hispanica* (Roth) Nyman – new to the Canary Islands: La Palma, lawn weed probably unintentionally introduced with lawn seeds: Breña Alta, new hospital, lawn, 15.8.2001, *Otto 6727*.

subsp. indet. – new to Fuerteventura: specimens of yet undetermined subspecies as a lawn weed in Morro Jable, Jandía (*S. Scholz obs.*), and without localities reported by Brandes (2006).

Digitaria ciliaris (Retz.) Koeler – new to Fuerteventura: Jandía, Esquinzo, weed in garden, 6. 2005, *S. Scholz s.n.*

Digitaria sanguinalis (L.) Scop. – new to La Palma, invasive: Breña Baja, Los Cancajos, garden weed, 15.8.1999, *Otto 4780*; Breña Baja, LP 2, roadside, 15.8.2003, *Otto 8606*; Villa de Mazo, airport, roadside, 19.8.2005, *Otto 11244*; St Isidro, LP 203, roadside, 25.8.2005, *Otto 11271*.

Echinochloa colonum (L.) Link – new to La Palma, casual or established alien(?): La Galga, roadside, 15.8.1998, *Otto 4658*; St. Pedro, roadside, 26.8.2000, *Otto 4665*; *ibid.*, 15.8.2001, *Otto 6673*; Los Sauces, roadside, 15.8.2003, *Otto 8627*; Puerto Espindola, garden weed, 26.8.2005, *Otto 11125*; Argual, garden weed, 17.8.2006, *Otto 11990*.

Echinochloa crusgalli subsp. *spiralis* (Vasing.) Tzvelev – new to the Canary Islands, probably introduced: La Palma: Los Galguitos, LP 1, roadside, 15.8.1998, *Otto 4656*; Breña Baja, Los Cancajos, garden weed, 21.8.2006, *Otto 12020*.

Eragrostis virescens J. Presl – new to the Canary Islands, alien: La Palma: Argual, Casa Massieu, roadside and in public green, 15.8.2001, *Otto 6731*; Los Llanos de Aridane, roadside, 13.8.2004, *Otto 10150*; Argual, many plants in a banana plantation, 17.8.2007, *Otto 13098*.

Festuca rubra L. (subsp.?) – new to La Palma, weed(?) in lawns and on roadsides, escaped from cultivation and running wild(?): Breña Baja, Los Cancajos, 19.8.2005, *Otto 11247*; LP 122 between Argual and Tzacorte, 15.8.2007, *Otto 13072*; Barlovento, roadside, 27.8.2007, *Otto 13071*.

Hordeum murinum subsp. *glaucum* (Steud.) Tzvelev – new to Fuerteventura, native: Morro de Jable, 14.4.1970, *Otto 5561*; SE coast of Jandía, 3.2003, *S. Scholz s.n.*; Barranco de Pecenescal, Jandía, 2.3.2005, *S. Scholz TFC 46182*; near Corralejo, 24.3.2006, *H. Scholz s.n.*; Puerto del Rosario, 27.3.2006, *H. Scholz s.n.* – This subspecies is widespread in the lower zones while subsp. *leporinum* (Link) Arcang. is more often found in higher, moister parts of the island.

Kikuyuochloa clandestina (Hochst. ex Chiov.) H. Scholz (\equiv *Pennisetum clandestinum* Hochst. ex Chiov.) – invasive species new to La Palma: Las Indias, lawn grass spreading from the lawn of a hotel into the surrounding (roadside etc.), 13.8.2007, *Otto 13096*. – The species escapes very easily from cultivation; in Fuerteventura it has been found as an invader at disturbed places of coastal salt marshes (Scholz & al. 2006).

Lolium parabolicum Sennen ex Samp. – new to Tenerife, native: Buenavista, 27.3.1970, *Otto 5501*.

Lolium perenne L. – new to La Palma, alien: San Pedro, public green, 30.8.2006, *Otto 9199*. Tijarafe, public green, 2.9.2006, *Otto 11922*; El Paso, public green, 11.8.2007, *Otto 13073*.

Ochlopoa annua subsp. *raniglumis* (Fröhner) H. Scholz & Valdés (\equiv *Poa annua* var. *raniglumis* Fröhner) – La Palma: Puerto Naos, way side, 17.3.1993, *H. Scholz s.n.* (as var. in Willdenowia 25: 580. 1996).

Panicum miliaceum L. subsp. *miliaceum* – new to Fuerteventura and La Palma, cultigenic taxon, casual from bird seed. – Fuerteventura: Puerto del Rosario, ruderal site, 8.2006, *S. Scholz s.n.* – La Palma: Mirca, roadside, 15.8.2001, *Otto 6699*; Tzacorte, roadside, 15.8. 2001, *Otto 6700*.

subsp. *agricolum* H. Scholz & Mikoláš – new to the Canary Islands, weedy subspecies: Fuerteventura, Puerto del Rosario, 8.2006, *S. Scholz s.n.*

Parapholis incurva (L.) C. E. Hubb. – new to Fuerteventura, native: near Villaverde, grassy places, 31.3.2006, *H. Scholz s.n.*; near Caldereta, wet depression, 3.4.2006, *H. Scholz s.n.*; near Jablito, Playa del Chinchorro, 4.4.2006, *H. Scholz s.n.*; Llanos de Santa Catalina, near Betancuria, depression seasonally flooded, 29.5.2006, *S. Scholz s.n.* – Probably previously mistaken for *Parapholis pycnantha* (Hack.) C. E. Hubb.

Phalaris paradoxa L. – new to La Palma, native: Barlovento, La Fajana, frequent on an overgrown field-path, 27.8.2007, *Otto 13100*.

Poa leptoclada Hochst. ex A. Rich. – new to the Canary Islands, probably native, also on high mountains of tropical and S Africa as well as in the Arabian Peninsula. – Tenerife: Teide National Park, Carretera dorsal prope Ayosa, 1980 m, 8.6.2005, *Wildpret de la Torre 44979*. – La Palma: slope on LP 22 below Fuente Nueva, about 2300 m, 22.8.2007, *Otto 13067, 13068, 13069*.

Polypogon viridis subsp. *pauciflorus* H. Scholz & R. Otto, **subsp. nov.**

Holotypus: Insulae Canarienses, La Palma, Villa de Mazo, LP 138 along the air field, roadside, around base of palm trunk, 29.8.2006, *Otto 11952* (B).

A subsp. *viridi* partibus omnibus minoribus distat: laminae foliorum 0.5-5 (vs. 2-10) mm latae; paniculae plus minusve anguste lineares in diametro usque ad 8(-15) (vs. 18-30) mm attingentes, saepe interruptae; spiculae 1.1-1.7 (vs. 1.7-2.5) mm longae.

New to the Canary Islands: La Palma, Tenerife, introduced.

Selected additional specimens. – La Palma: Breña Baja, LP 138, roadside, in flower bed, 15.8.2005, *Otto 11311*; ibid., LP 138, parking place, around base of palm trunk, 17.9.2006, *Otto 11949*; ibid.,

19.8.2006, *Otto 12045*; Villa de Mazo, LP 138 along the airfield, roadside, around base of palm trunk, 29.8.2006, *Otto 11947, 11951, 11953*; Breña Alta, Miranda, garden, 21.8.2006, *Otto 12044*; Breña Baja, Los Cancajos, garden hotel Hacienda San Jorge, 15.8.2006, *Otto 11944*; *ibid.*, garden Las Salinas 1, 17.08.2006, *Otto 11945*; LP 122 between Argual and Tazacorte, lawn at the Bco. de Tenisque, 17.8.2007, *Otto 13198*. – Tenerife: near Buenavista, weed, 1967, *Eberle s.n.*

In contrast to subsp. *viridis*, which is commonly described as a perennial or annual with long trailing stolons rooting from the nodes (Hubbard 1984), subsp. *pauciflorus* is usually a delicate plant (rarely up to 30 cm high) with single or tufted culms, and is reproducing constantly in cultivation on hortisol experimental plots (*Otto 11311*, daughter flowering plants reared by H. Scholz in 2006, private garden, Berlin, Germany, 6-7 cm high, single-stemmed). Regularly it has a short life cycle of about 3-4 months. On the Canary Islands subsp. *pauciflorus*, predominantly flourishing at irrigated soil of parks and gardens, is an alien. It is probably indigenous in Morocco and the Cape Verde Islands on habitats in water leaking crevices and ditches (several specimens in B), and elsewhere in Africa.

Schedonorus arundinaceus subsp. ***atlantigenus*** (St.-Yves) H. Scholz (\equiv *Festuca arundinacea* subsp. *atlantigena* (St.-Yves) Auquier) – new to the Canary Islands, unintentionally introduced: La Palma: LP 122 between Argual and Tazacorte, lawn weed on the edge of Bco. de Tenisque, 15.8.2007, *Otto 13088*; Argual, fresh lawn sowing on the crossroad of Casa Massieu, 17.8.2007, *Otto 13089*.

subsp. ***fenas*** (Lag.) H. Scholz (\equiv *Festuca arundinacea* subsp. *fenas* (Lag.) Arcang.) – new to the Canary Islands, weed in hotel and public lawns, street border; unintentionally introduced: La Palma: Santa Cruz, 15.8.2000, *Otto 4663*; 1.9.2007, *Otto 13189*, with subsp. *uechtritzius*(?); Los Cancajos, 15.8.1999, *Otto 4713*; San Pedro, 15.8.2001, *Otto 11308*; Los Sauces, 15.8.2003, *Otto 8628*; Puntagorda, 20.8.2005, *Otto 11162*. – Fuerteventura: Puerto del Rosario, 27.3.2006, *H. Scholz s.n.*

subsp. ***mediterraneus*** (Hack.) H. Scholz & Valdés – new to the Canary Islands, unintentionally introduced: La Palma: Argual, street cross near Casa Massieu, lawn, 17.8.2007, *Otto 13212*; St. Cruz, Calle Carias, public green, 18.8.2007, *Otto 13207*; Breña Alta, hospital, lawn, 28.8.2007, *Otto 13418*. – Some of the above cited specimens may be commercially produced hybrids. Acebes Ginovés & al. (2004) quoting *Festuca arundinacea* do not discern any subspecies.

Sporobolus indicus (L.) R. Br. – new to La Palma, introduced: Breña Baja, Los Cancajos, Las Salinas 1 & 2, lawn, 15.6.2001, *Otto 4668, 6801*.

Trisetaria lapalmae H. Scholz – new to Tenerife, native: El Medano, 15.4.1970, *Otto 5714*, together with *Rostraria pumila* and *Schismus barbatus*. – Endemic to the Canary Islands.

Triticum aestivum subsp. ***hadropyrum*** (Flaksb.) Tzvelev (det. by Hammer & Filatenko in 2007) – new to the Canary Islands, introduced: Fuerteventura: Párraja, fallow land, together with *T. durum*, 1.4.2006, *H. Scholz s.n.* – The subspecies is cultivated as a food plant in SW and C Asia and “found mixed in fields of other wheats” (Tzvelev 1976: 168).

Triticum durum Desf. (det. by Hammer & Filatenko in 2007, with question mark) – new to the Canary Islands, introduced. – Fuerteventura: Párraja, fallow land (formerly cultivated, ergasio-lipophyte), together with *T. aestivum* subsp. *hadropyrum*, 1.4.2006, *H. Scholz s.n.*

Vulpia muralis (Kunth) Nees – new to La Palma and Tenerife, probably native: La Palma: Laguna de Barlovento, roadside, 20.8.2002, *Otto 7861*; *ibid.*, fallow land, 27.8.2007, *Otto 13219*. – Tenerife: El Palmar, 28.3.1970, *Otto 5497*.

Vulpia unilateralis (L.) Stace (\equiv *Nardurus martinus* (L.) Murb.) – new to the Canary Islands: La Palma, Breña Baja, LP 138, parking place, 19.8.2006, *Otto 12119*; slope on LP 22 near Mirador de los Andenes, about 2300 m, 26.8.2006, *Otto 12121*.

Zoysia matrella (L.) Merr. – new to the Canary Islands, introduced and cultivated as lawn grass, rarely escaping: La Palma: Tijarafe, roadside and parking place near public green, 18.8.2006, *Otto 11305*.

References

- Acebes Ginovés, J. R., Arco Aguilar, M. del, García Gallo, A., León Arencibia, M. C., Pérez de Paz, P. L., Rodríguez Delgado, O., Wildpret de la Torre, W., Martín Osorio, V. E., Marrero Gómez, M. C. & Rodríguez Navarro, M. L. 2004: *Pteridophyta, Spermatophyta*. – Pp. 96-143 in: Izquierdo, I., Martín, J. L., Zurita, N. & Arechavaleta, M. (ed.), Lista de especies silvestres de Canarias (hongos, plantas y animales terrestres). – La Laguna.
- Brandes, D. 2006: Urbanizaciones: Die Entstehung städtischer Lebensräume aus der Halbwüste. – *Geobot. Kolloq.* **20**: 13-20.
- Eriksson, O., Hansen, A. & Sunding, P. 1974: Flora of Macaronesia. Check-list of vascular plants. – Oslo.
- Hubbard, C. E. 1984: Grasses: a guide to their structure, identification, uses and distribution in the British Isles, ed. 3. – Harmondsworth.
- Marrero, A. 2006: *Oropetium capense* Stapf subsp. *hesperidum* (Maire) stat. nov. (*Poaceae*) un raro endemismo Sahariano del sur del Antiatlas presente en Gran Canaria (Islas Canarias). – *Bot. Macaronés.* **26**: 77-84.
- Padrón Mederos, M. A., Reyes-Betancort, J. A., González González, R., León Arencibia, M. C. & Pérez de Paz, P. L. 2007: Adiciones y comentarios a la flora vascular de Canarias. – *Vieraea* **35**: 43-50.
- Scholz, H. & Böcker, R. 1996: Ergänzungen und Anmerkungen zur Grasflora (*Poaceae*) der Kanaren. – *Willdenowia* **25**: 571-582.
- Scholz, S. & Scholz, H. 2005: A new species of *Lolium* (*Gramineae*) from Fuerteventura and Lanzarote (Canary Islands, Spain). – *Willdenowia* **35**: 281-186. [[CrossRef](#)]
- , Reyes-Betancort, J. A. & Wildpret de la Torre, W. 2006: Adiciones a la flora vascular de Fuerteventura (Islas Canarias) II. – *Bot. Macaronés.* **26**: 165-174.
- , Reyes-Betancort, J. A., Scholz, H. & Wildpret de la Torre, W. 2004: Adiciones a la flora vascular de Fuerteventura (Islas Canarias). – *Bot. Macaronés.* **25**: 165-174.
- Stierstorfer, C. & Gaisberg, M. von 2006: Annotated checklist and distribution of the vascular plants of El Hierro, Canary Islands, Spain. – *Englera* **27**.
- Tzvelev, N. N. 1976: *Zlaki SSSR* (Grasses of the URSS). – Leningrad (English edition 1983, New Delhi).

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