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The Euro+Med treatment of *Festuca* (Gramineae) – new names and new combinations in *Festuca* and allied genera**Abstract**

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As a consequence of the recognition of *Drymochloa*, *Leucopoa*, *Schedonorus* and *Parafestuca*, and of the reassessment of accepted specific and subspecific taxa, some new names and combinations are required in *Drymochloa*, *Festuca*, *Leucopoa* and *Schedonorus*, which are validated here.

The genus *Festuca* L., considered in its wide sense (but excluding *Vulpia* C. C. Gmel.), includes a series of taxonomic groups that are but rather remotely related among each other and to its core. Some are extra-European, such as *Austrofestuca* (Tzvelev) E. B. Alexeev of Australia and palaeotropical areas, *Helleria* Fourn. of Central and South America, *Pseudobromus* K. Schum. of SE Africa and Madagascar and *Tzvelevia* E. B. Alexeev of the Kerguelen Island; whereas others are well represented in the Euro+Med area.

In her treatment for Flora Europaea (5: 125-153. 1980), Markgraf-Dannenberg recognised *Festuca* s.l. as including 170 species, and she followed the same conservative concept in Davis's Flora of Turkey (9: 400-442. 1985). Since then, a large number of contributions on *Festuca* s.l. were published that have considerably increased the number of recognised taxa, both for Europe and the extra-European territories covered by the Euro+Med project. At the same time, some monophyletic groups were segregated generically from *Festuca* s.str. Whereas Clayton & Renvoize (Gen. Gram. 1986) still recognised *Festuca* in its wide sense, Watson & Dallwitz (Grass Gen. World 1992) treated *Leucopoa* Griseb. as a distinct genus on the basis of its peculiar morphological and biological characters (see Scholz & Strid in Willdenowia 22: 87. 1992); Holub (in Folia Geobot. Phytotax. 19: 95-99. 1984) separated *F.* sect. *Montanae* Hack. as *Drymochloa* Holub, a group of nemoral species with a series of relatively primitive features. *Schedonorus* P. Beauv., characterised by broad leaf blades with basal auricles and a flat or subconcave caryopsis free from the palea, is becoming widely accepted as a separate genus rather than a mere subgenus

of *Festuca*. Alexeev (in Bjull. Moskovsk. Obšč. Isp. Prir., Otd. Biol. 90: 102-109. 1985) separated *F. albida* Lowe, an endemic of the Madeira Islands, as *Parafestuca* E. B. Alexeev.

Festuca L. is being considered for the Euro+Med treatment in a restricted sense that excludes *Drymochloa*, *Leucopoa*, *Schedonorus* and *Parafestuca*. The recognition of these segregate genera, together with the taxonomic and nomenclatural reassessment of several taxa in *Festuca* s.str. make necessary the establishment of some new combinations and new names, as follows:

Drymochloa donax (Lowe) H. Scholz & Foggi, **comb. nov.** \equiv *Festuca donax* Lowe in Trans. Cambridge Philos. Soc. 4: 9. 1831.

Drymochloa drymeja subsp. *exaltata* (C. Presl) Foggi & Signorini, **comb. nov.** \equiv *Festuca exaltata* C. Presl, Fl. Sicul.: 45. 1826 \equiv *Festuca montana* subsp. *exaltata* (C. Presl) K. Richt., Pl. Eur. 1: 106. 1890 \equiv *Schedonorus exaltatus* (C. Presl) Schult. & Schult. f., Mantissa 3: 644. 1817 [“*Festuca sylvatica*” sensu C. Presl, Cyper. Gramin. Sicul.: 37. 1820 (non Huds., Fl. Angl. 38. 1762)].

Festuca gautieri subsp. *lutea* (Hack.) Foggi & Signorini, **comb. nov.** \equiv *Festuca varia* var. *lutea* Hack., Monogr. Festuc. Eur.: 181. 1882 \equiv *Festuca lutea* (Hack.) K. Richt., Pl. Eur. 1: 105. 1890 \equiv *Festuca scoparia* subsp. *lutea* (Hack.) Beldie in Sävulescu, Fl. Rep. Soc. Rom. 12: 496. 1972.

Festuca kozanensis Foggi & J. Müller, **nom. nov.** \equiv *Festuca rechingeri* Markgr.-Dann. in Veröff. Geobot. Inst. ETH Stiftung Rübel Zürich 56: 166. 1976 [non E. B. Alexeev in Bjull. Moskovsk. Obšč. Isp. Prir., Otd. Biol. 80(2): 122. 1975].

Festuca nitida subsp. *macrathera* (Hack.) Foggi & Signorini, **comb. nov.** \equiv *Festuca violacea* var. *macrathera* Hack. in Ann. K. K. Naturhist. Hofmus. 2: 45. 1887 \equiv *Festuca violacea* subsp. *macrathera* (Hack.) Markgr.-Dann. in Bot. J. Linn. Soc. 76: 326. 1978.

Festuca ovina subsp. *molineri* (Litard.) Foggi & J. Müller, **comb. nov.** \equiv *Festuca ovina* var. *molineri* Litard. in Bull. Soc. Bot. France 8(a): 101. 1937.

Festuca plonkae Foggi & Signorini, **nom. nov.** \equiv *Festuca halleri* subsp. *yvesii* Kerguélen & Plonka in Bull. Soc. Bot. Centre-Ouest, ser. 2, 19: 18. 1988 [non *Festuca yvesii* Sennen & Pau in Treb. Inst. Catalana Hist. Nat. 3: 196. 1917].

Festuca polita subsp. *cretica* (Markgr.-Dann.) Foggi & H. Scholz, **comb. nov.** \equiv *Festuca polita* var. *cretica* Markgr.-Dann. in Veröff. Geobot. Inst. ETH Stiftung Rübel Zürich 56: 106. 1976.

Festuca pseudovaria subsp. *winnebachensis* (Wallosek) J. Müller, **comb. nov.** \equiv *Festuca varia* var. *winnebachensis* Wallosek in Folia Geobot. Phytotax. 34: 73. 1999.

Festuca romoi Foggi & Valdés, **nom. nov.** \equiv *Festuca trabutii* Romo in Collect. Bot. (Barcelona) 16: 339. 1986 [non E. B. Alexeev in Novosti Sist. Vysš. Rast. 14: 39. 1977].

Festuca stojanovii (Acht.) [Kožuharov in Phytol. Balcan. 3: 71. 1997, **comb. inval.**, ex] Foggi & Petrova, **comb. nov.** \equiv *Festuca dalmatica* subsp. *stojanovii* Acht. in Izv. Bot. Inst. (Sofija) 3: 17. 1953.

Festuca stricta subsp. *saxatilis* (Schur) Foggi & Signorini, **comb. nov.** \equiv *Festuca saxatilis* Schur, Enum. Pl. Transsilv.: 791. 1866 \equiv *Festuca rupicola* subsp. *saxatilis* (Schur) Rauschert in Feddes Repert. 63: 276. 1960 \equiv *Festuca valesiaca* subsp. *saxatilis* (Schur) E. B. Alexeev in Vestn. Moskovsk. Univ., Ser. 6, Biol. 27(5): 49. 1972.

Leucopoa calabrica (Hack.) H. Scholz & Foggi, **comb. nov.** \equiv *Festuca calabrica* Huter & al. ex Hack., Monogr. Festuc. Eur.: 190. 1882 \equiv *Festuca spectabilis* subsp. *calabrica* (Hack.) Arcang., Comp. Fl. Ital., ed. 2: 61. 1894.

Leucopoa carpatica (F. Dietr.) H. Scholz, **comb. nov.** \equiv *Festuca carpatica* F. Dietr., Nachtr. Vollst. Lex. Gärtn. 3: 333. 1817.

Leucopoa dimorpha (Guss.) H. Scholz & Foggi, **comb. nov.** \equiv *Festuca dimorpha* Guss., Pl. Rar. 34. 1826 \equiv *Festuca laxa* subsp. *dimorpha* (Guss.) St.-Yves in Bull. Soc. Bot. France 71: 132. 1924.

Leucopoa laxa (Host) H. Scholz & Foggi, **comb. nov.** \equiv *Festuca laxa* Host, Icon. Descr. Gram. Austriac. 2: 58. 1802 [= *Festuca canescens* Host, Fl. Austriac. 1: 155. 1827].

Leucopoa pulchella (Schrad.) H. Scholz & Foggi, **comb. nov.** \equiv *Festuca pulchella* Schrad., Fl. Germ.: 336. 1806 \equiv *Schedonorus pulchellus* (Schrad.) P. Beauv., Ess. Agrostogr.: 177. 1812.

Leucopoa pulchella subsp. *jurana* (Gren.) H. Scholz & Foggi, **comb. nov.** \equiv *Festuca pulchella* var. *jurana* Gren. in Mém. Soc. Emul. Doubs, ser. 3, 10: 925. 1864.

Leucopoa spectabilis (Bertol.) H. Scholz & Foggi, **comb. nov.** \equiv *Festuca spectabilis* Bertol., Fl. Ital. 1: 612. 1834 [= *Festuca nemorosa* Dalla Torre & Sarnth., Fl. Tirol 6(2): 272. 1906 = *F. sieberi* Tausch in Flora 20: 127. 1837].

Leucopoa spectabilis subsp. *affinis* (Hack.) H. Scholz & Foggi, **comb. nov.** \equiv *Festuca affinis* Hack. in Heldreich Fl. Graec. Exsicc.: [in schedis] No. 2776. 1852 \equiv *Festuca spectabilis* subsp. *affinis* (Hack.) Hack. in Bot. Centralbl. 8: 408. 1881 [= *Festuca croatica* Pichl. in Kerner, Sched. Fl. Exs. Austro-Hung. 1: 105. 1881].

Leucopoa spectabilis subsp. *carniolica* (Hack.) H. Scholz & Foggi, **comb. nov.** \equiv *Festuca spectabilis* var. *carniolica* Hack., Monogr. Festuc. Eur.: 189. 1882 \equiv *Festuca carniolica* (Hack.) K. Richt., Pl. Eur. 1: 106. 1890 \equiv *Festuca siebieri* subsp. *carniolica* (Hack.) Hegi, Ill. Fl. Mitt.-Eur. 1: 351. 1908.

Leucopoa stygia (H. Scholz & Strid) H. Scholz & Foggi, **comb. nov.** \equiv *Festuca stygia* H. Scholz & Strid in Willdenowia 22: 85. 1992.

Schedonorus arundinaceus subsp. *cirtensis* (St.-Yves) H. Scholz & Valdés, **comb. nov.** \equiv *Festuca arundinacea* var. *cirtensis* St.-Yves in Candollea 1: 36. 1922 \equiv *Festuca arundinacea* subsp. *cirtensis* (St.-Yves) Gamisans, Cat. Pl. Vasc. Corse: 63. 1985.

Schedonorus arundinaceus subsp. *corsicus* Foggi & Signorini, **comb. nov.** \equiv *Festuca elatior* subvar. *corsica* Hack., Monogr. Festuc. Eur.: 157. 1882 \equiv *Festuca arundinacea* subsp. *corsica* (Hack.) Kerguélen in Bull. Soc. Bot. France 123: 320. 1976 \equiv *Festuca fenas* subsp. *corsica* (Hack.) K. Richt., Pl. Eur. 1: 102. 1890.

Schedonorus arundinaceus subsp. *mediterraneus* (Hack.) H. Scholz & Valdés, **comb. nov.** \equiv *Festuca elatior* subvar. *mediterranea* Hack., Monogr. Festuc. Eur.: 154. 1882 \equiv *Festuca arundinacea* subsp. *mediterranea* (Hack.) K. Richt., Pl. Eur. 1: 102. 1890 \equiv *Lolium arundinaceum* subsp. *mediterraneum* (Hack.) Banfi & al. in Mem. Soc. Ital. Sci. Nat. Mus. Civico Storia Nat. Milano 33(2): 8. 2005.

Schedonorus arundinaceus subsp. *orientalis* (Hack.) H. Scholz & B. Valdés, **comb. nov.** \equiv *Festuca elatior* subvar. *orientalis* Hack., Monogr. Festuc. Eur.: 154. 1882 \equiv *Festuca arundinacea* subsp. *orientalis* (Hack.) Tzvelev in Spisok Rast. Gerb. Fl. SSSR Bot. Inst. Vsesojuzn. Akad. Nauk 18: 17. 1970.

Schedonorus fontqueri (St.-Yves) H. Scholz & Valdés, **comb. nov.** \equiv *Festuca fontqueri* St.-Yves in Cavanillesia 3: 5. 1930 = *Festuca yvesii* Litard. in Bull. Soc. Hist. Nat. Afrique N. 14: 337. 1923 [non Sennen & Pau in Treb. Inst. Catalana Hist. Nat. 3: 196. 1917].

Schedonorus pauneroi (Cebolla & al.) H. Scholz, **comb. nov.** \equiv *Festuca pauneroi* Cebolla & al. in Candollea 58: 195. 2003.

Schedonorus pratensis subsp. *apenninus* (De Not.) H. Scholz & Valdés, **comb. nov.** \equiv *Festuca apennina* De Not., Repert. Fl. Ligust.: 468. 1844 \equiv *Festuca pratensis* var. *apennina* (De Not.)

Hegi, Ill. Fl. Mitt.-Eur. 1: 343.1908 \equiv *Schedonorus apenninus* (De Not.) Tzvelev in Novosti Sist. Vysš. Rast. 31: 259. 1998 \equiv *Lolium pratense* subsp. *apenninum* (De Not.) Banfi & al. in Mem. Soc. Ital. Sci. Nat. Mus. Civico Storia Nat. Milano 33(2): 8. 2005.

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