



A new species of *Bellardiochloa*, *B. doganiana* (Poaceae), from the Taurus Mountains of Turkey

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Abstract

Bellardiochloa doganiana, a new species from the Taurus Mountains of Turkey, is described and illustrated. It differs from the other four species of the genus in its basal tuft of short, stiff, terete, arched, pungent-tipped basal leaf-blades, conical panicles with numerous panicle branches and mostly 1 or 2 spikelets per branch, and pedicels as long as or longer than the spikelets.

Key Words: Grasses, Poaceae, Poinae, Poa, Festuca

Introduction

Bellardiochloa Chiovenda in Checchini (1929: 60), hitherto, was known as a genus of four alpine species, all of which occur in Turkey (Mill 1985, Flora of Turkey; Euro+Med, 2006; Cabi & Doğan 2012). The genus is centered in Turkey. Two species are endemic to Turkey: *Bellardiochloa carica* R.R. Mill in Davis (1985: 623) occurs in Muğla and southwest Antalya (this region was known as Caria in ancient times); *B. argaea* (Boissier & Balansa in Boissier 1859: 138) R.R. Mill in Davis (1985: 444) is endemic to Erciyes Dağı (mythological Mount Argaeus) in Kayseri. *Bellardiochloa polychroa* (Trautvetter 1873: 485) Roshevits in Komarov (1934: 426) extends from north central (Ordu) to eastern Turkey (Ağrı), occurring outside Turkey from the Transcaucasus republics of Georgia, Armenia, and Azerbaijan, adjacent Caucasus Mts. of Russia, to northwest Iran. *Bellardiochloa variegata* (Lamarck 1791: 182) Kerguelen (1983: 56) [syn. *B. violacea* (Bellardi 1792: 214) Chiovenda in Checchini (1929: 61)] occurs in southern Europe from Spain to Greece and the Balkan Republics in the Carpathian Mountains, extending into Turkey in Bursa and Bolu provinces.

The genus has intermediate features between *Poa* Linnaeus (1753a: 67) and *Festuca* Linnaeus (1753a: 73) but is readily distinguished from *Poa* and *Festuca*, by the hairy rachilla internodes with a crown of short stiff hairs at the apex and on the callus of each lemma, from *Festuca* by the short, ovate hilum, and from *Poa* by the rounded-backed lemma with a short apical awn. It differs from both these genera in having caryopses with soft to semi-soft endosperm, indicating high lipid content (Rosengurt et al., 1972), instead of hard endosperm (with lipid in *Poa*, without lipid in *Festuca*). Chiovenda (1929: 60) separated *Poa violacea* Bellardi (1792: 214) from the genus *Poa*, and included it into the new genus *Bellardiochloa*. It is phylogenetically isolated from both genera, but closer to *Poa* than *Festuca* (Gillespie et al, 2010).

No material of *Bellardiochloa* is recorded in the Flora of Turkey from Turkey's Taurus Mts. east of ca. 30.5° E. In 1991, R.Soreng identified a single specimen at ANK (herbarium acronyms follow Thiers, continually updated), mounted with an *Eremopoa* (Roshev. in Komarov 1934: 756) sp. [new det. *E. songarica* (Schrenk ex Fischer & C.A.Meyer 1841: 1) Roshevits (1934: 431) = *Poa diaphora* Trinius (1836: 69) s.l.], as “*Bellardiochloa* sp.”, from south of Bozkır, Konya (R.Çetik et al, 271). Upon revisiting ANK in 2014 with the co-authors we found the specimen still in the *Eremopoa* folders. Having greater experience with the genus, by now having collected the four previously

Etymology:—The new *Bellardiochloa* species is named in honor of the Turkish botanist Prof. Dr. Musa Doğan for his extensive contributions to the flora of Turkey and grasses in particular and teaching many students the joys of the botanical world. (In Turkish the letter “ğ” is silent and could be phonetically rendered as a soft h in Latin, but we decided to retain the ğ as g to more nearly match the spelling.)

Distribution:—Apparently endemic to the Palaz Dağları, a mountain range along the shared eastern Antalya and south–western Konya regional border in Turkey (Fig. 4).

Habitat:—High *Astragalus* Linnaeus (1753b: 755) steppe to low subalpine, on limestone and mixed sedimentary rocks, 2000–2300 m.

Additional specimens examined:—TURKEY. Konya: Bozkır, Kızılot Yayla, 1700 m, 12 June 1968, *R.Çetik, T.Ekim, G.Yurdakul* 271 (ANK 1140); Antalya: Gündoğmuş, Palaz Dağları, steep, slopes on east side of Geyik Dağı, ca. 2270 m, 36.88479° N, 32.19690° E, limestone, east facing slope with low shrub grass steppe community, with *Astragalus*, *Euphorbia* Linnaeus (1753a: 450), *Daphne* Linnaeus (1753a: 356), *Melica* Linnaeus (1753a: 66), *Bromus* Linnaeus (1753a: 76), *Festuca*, *Poa thessala* Boissier & Orphanides in Boissier (1859: 135), 25 July 2014, *R.Soreng* 8871, *E.Cabi* & *B.Çingay*.

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