

Poa greuteri (Poaceae), a new species from Armenia

Author: Gabrielian, Eleonora

Source: Willdenowia, 36(1) : 437-440

Published By: Botanic Garden and Botanical Museum Berlin (BGBM)

URL: <https://doi.org/10.3372/wi.36.36140>

The BioOne Digital Library (<https://bioone.org/>) provides worldwide distribution for more than 580 journals and eBooks from BioOne's community of over 150 nonprofit societies, research institutions, and university presses in the biological, ecological, and environmental sciences. The BioOne Digital Library encompasses the flagship aggregation BioOne Complete (<https://bioone.org/subscribe>), the BioOne Complete Archive (<https://bioone.org/archive>), and the BioOne eBooks program offerings ESA eBook Collection (<https://bioone.org/esa-ebooks>) and CSIRO Publishing BioSelect Collection (<https://bioone.org/csiro-ebooks>).

Your use of this PDF, the BioOne Digital Library, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/terms-of-use.

Usage of BioOne Digital Library content is strictly limited to personal, educational, and non-commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne is an innovative nonprofit that sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

ELEONORA GABRIELIAN

Poa greuteri* (Poaceae), a new species from Armenia*Abstract**

Gabrielian, E.: *Poa greuteri* (Poaceae), a new species from Armenia. – Willdenowia 36 (Special Issue): 437-440. – ISSN 0511-9618; © 2006 BGBM Berlin-Dahlem.
doi:10.3372/wi.36.36140 (available via <http://dx.doi.org/>)

Poa greuteri, a small, tufted high mountain perennial, is described as a species new to science and illustrated. It is known only from a single population in the central Armenian Gegham Mts, where it grows on volcanic screes above Lake Aknalicz, at 3300 m altitude.

Key words: Caucasus, Gegham Mts, grasses, *Poa* sect. *Macropoa*, taxonomy.

The genus *Poa* L. comprises about 32 species in the Caucasus (Grossheim 1939, Tzvelev 1976), about 20 of which occur in Armenia (Gabrielian 1961, 1972, unpubl.). The specialized *P.* sect. *Macropoa* F. Herm. ex Tzvelev is represented in the Caucasus by *P. iberica* Fisch. & C. A. Mey., *P. longifolia* Trin., *P. meyeri* Trin. ex Roshev. and *P. primae* Tzvelev; the first three species occur in Armenia, one of these, *P. longifolia*, is also known from Giresun, Rize, Kars, Erzurum and Mt Ararat in NE Anatolia (Edmondson 1985) and from a single locality on Algurd Dag, Arbil, in Iraq (Bor 1968, 1970).

While revising the grasses for the 11th and last volume of “Flora of Armenia”, a species new to science of *Poa* sect. *Macropoa* was discovered among the material collected from the central Armenian Gegham Mts and is described here. I am happy to name this species after my colleague and good friend Werner Greuter.

***Poa greuteri* Gabrielian, sp. nov.**

Holotypus: Armenia, jugum Geghamicum, in viciniis boreali-occidentalibus lac. Aknalicz, in declivitatibus abruptis schistosis, 3300 m, 4.8.1960, E. Gabrielian (ERE; isotypus: B) – Fig. 1-2.

Species admodum singularis, positionem solitarium in *Poa* sectione *Macropoa* obtinens. Planta perennis, caespitosa, breviter rhizomatosa, stolonifera, 13-15 cm alta, ad basin innovationibus vegetativis multis. Culmi erecti, glabri et laeves. Vaginae a basi $1/2$ - $2/3$ integrae; ligulae membranaceae, 0.5-1 mm longae, truncatae, plus minusve laceratae; laminae 15-25(-30) × 2 mm, laxae complicatae, glabrae. Paniculae 12-18(-23) × 5-12 mm, violaceae, densae, ellipsoideales, ramulis brevissimis, scabriusculis. Spiculae 3-4 × 2 mm. Glumae subaequilongae, 1.5-2.5 mm longae, ovatae-lanceolatae, acutae, trinerves. Lemmata 3-3.5 mm longa, 5-nervia, glabra, carinata, secus

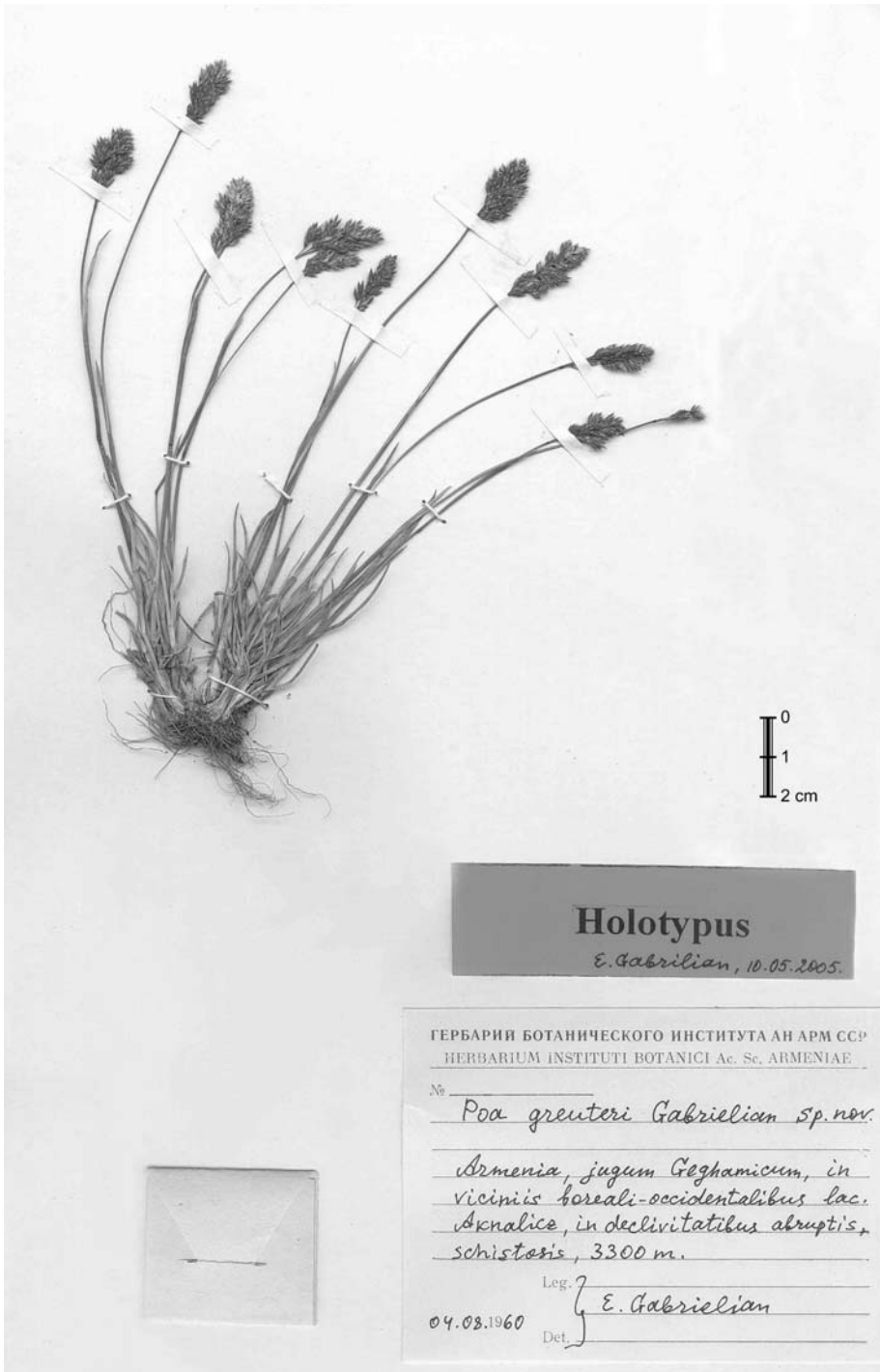


Fig. 1. *Poa greuteri* – holotype specimen at ERE.



Fig. 2. *Poa greuteri* – A: extravaginal innovation shoot; B: short rhizome with stolon. – Photographs taken from the type collection.

carina scabra, in parte superiore membranacea, fuscuscentia, paulo nitida; callus glaber; paleae 3-3.5 mm longae, secus carina in parte superiore scabrae. Antherae 0.5-1 mm longae, flavae.

Small, tufted perennial, 13-15 cm high, with short, oblique, simple rhizome with stolons and many extravaginal innovations near the base (Fig. 2A-B). *Culms* erect, glabrous, smooth. *Leaves* with *sheaths* distinctly keeled, entire over $\frac{1}{2}$ - $\frac{2}{3}$ of their length in the uppermost cauline leaves; *ligules* membranous, 0.5-1 mm long, truncate, bluntly dentate, lacerate; *blades* 15-25(-30) × 2 mm, glabrous, loosely folded, gradually tapering to an abruptly mucronate apex. *Panicles* 12-18(-23) × 5-12 mm, ellipsoid or oblong, very dense, violet; branches very short, sparsely scabrous, distinctly angular and with hooks confined to the angles. *Spikelets* 3-4 × 2 mm. *Glumes* almost equal, 1.5-2.5 mm long, ovate-lanceolate, acute, 3-veined, with prominent lateral veins, rachillas smooth. *Lemmas* 3-3.5 mm long, 5-veined, glabrous, strongly keeled, on keels scabrous, in upper part membranous, brownish, slightly shiny; callus glabrous. *Paleas* 3-3.5 mm long, between keels smooth, on keels in upper part scabrous. *Anthers* 0.5-1 mm long, oblong, yellow.

Relationship. – *Poa greuteri* is a very characteristic species and holds an isolated position in *P. sect. Macropoa*. The type of *P. sect. Macropoa*, *P. longifolia*, is in comparison with the new species a tall perennial of 60-150 cm height, which forms large, compact tussocks with stramineous leaf sheath remains from previous years at the base; its leaves are 45 cm long, its panicles are 7-16(-25) cm long and densely scabrous, its spikelets are 7-8 mm long, its glumes 3.5-4 mm, its long-acuminate lemmas 5.5-6 mm and its anthers are 2.5-3.5 mm long. In spite of these differences to *P. longifolia*, several diagnostic features, such as the structure of the ligules, spikelets, glumes, lemmas and paleas, the number of veins, the prominence of lateral veins, the glabrous callus and the smooth rachillas as well as the absence of vivipary, provide strong support for the placement of *P. greuteri* in *P. sect. Macropoa*.

Acknowledgements

I am very grateful to Nikolai Tzvelev for his kind assistance and to Ivan Gabrielyan for the illustrations. The research was carried out within the framework of the projects NFSAT BO 063-02 (National Foundation of Science and Advanced Technologies) and CRDF 12013 (U.S. Civilian Research and Development Foundation).

References

- Bor, N. L. 1968: *Gramineae*. – In: Townsend, C. C. & Guest, E. (ed.), *Flora of Iraq* **9**. – Glasgow.
 — 1970: *Gramineae*. – In: Rechinger, K. H. (ed.), *Flora iranica* **70**. – Graz.
 Edmondson, J. K. 1985: *Poa* L. – Pp. 470-486 in: Davis, P. H. (ed.), *Flora of Turkey and the East Aegean Islands* **9**. – Edinburgh.
 Gabrielian, E. T. 1961: Kritičeskie zamečanija o nekotoryh kavkazskih vidah roda *Poa* L. [Critical observation on several Caucasian species of the genus *Poa* L.] – *Izvestija Acad. Nauk Armjanskoj SSR* **14(8)**: 71-76.
 — 1972: *Poaceae*. – Pp. 342-371 in: Takhtajan, A. L. & Fedorov, A. A. (ed.), *Flora erevana*. – Leningrad.
 Grossheim A. A. 1939: *Flora kavkaza*, ed. 2, **1**. – Baku.
 Tzvelev, N. N. 1976: *Zlaki SSSR [Grasses of the USSR]*. – Leningrad.

Address of the author:

Eleonora Gabrielian, Department of Plant Taxonomy and Geography, Institute of Botany, Armenian National Academy of Sciences, 375063 Yerevan, Armenia; e-mail: botany@web.am