

UDC 582.571.2
AGRIS F70

<https://doi.org/10.33619/2414-2948/117/07>

TAXONOMIC REVISION OF *Luzula* L. IN FLORA OF AZERBAIJAN

©*Babayeva Z.*, Institute of Botany Ministry of Science and Education
of the Republic of Azerbaijan, Baku, Azerbaijan zarnigarb@yahoo.com

©*Fatdayeva A.*, Institute of Botany Ministry of Science and Education
of the Republic of Azerbaijan, Baku, Azerbaijan

ТАКСОНОМИЧЕСКИЙ СОСТАВ РОДА *Luzula* L. ФЛОРЫ АЗЕРБАЙДЖАНА

©*Бабаева З. Б.*, Институт ботаники Министерства науки и образования Азербайджанской
Республики, г. Баку, Азербайджан, zarnigarb@yahoo.com

©*Фатдаева А. Х.*, Институт ботаники Министерства науки и образования
Азербайджанской Республики, г. Баку, Азербайджан

Abstract. The aim of the work is to revise the taxonomic composition of the genus *Luzula* L. in the flora of Azerbaijan. Floristic-systematic, ecological and other methods were used. The materials of the Herbarium Fund of the Botanical Institute of the Ministry of Science and Education of the Republic of Azerbaijan were studied. 11 species of the genus *Luzula* L. were established. All species are widespread in the flora of Azerbaijan. A brief description of the biology and ecology of the species is presented.

Аннотация. Цель работы - ревизия таксономического состава рода *Luzula* L. во флоре Азербайджана. Были использованы флористико-систематические, экологические и другие методы. Изучены материалы Гербарного фонда Ботанического института Министерства науки и образования Азербайджанской Республики. Установлено 11 видов рода *Luzula* L. Все виды широко распространены во флоре Азербайджана. Представлено краткое описание биологии, экологии видов.

Keywords: *Luzula*, genus, species, floristic-systematic analysis, flora.

Ключевые слова: *Luzula*, род, вид, флористико-систематический анализ, флора.

Juncaceae Juss. represented by 7 genera and 400 species in the temperate zones of the Northern Hemisphere. In Azerbaijan flora this family represented by 2 genera (*Juncus*, *Luzula*) and 31 species [4].

Representatives of the family are annual or perennial rhizomatous plants. The stems are simple, covered in leaves or leafless in the lower part. The leaves are flat or cylindrical, forming a sheath at the base. The flowers are small, collected in corymbose or paniculate inflorescences.

The genus *Luzula* includes 80 species distributed in the temperate countries of the Northern Hemisphere [7]. In Azerbaijan, there are 10 species of this genus [1].

These species are found in the East and west of the Greater Caucasus, in the north and center of the Lesser Caucasus, in Nakhchivan, Lankaran, Diabar, Talysh, in the lower and upper mountain belts, in dry swamps, grassy slopes, in forests, alpine meadows, along river banks and roadsides. The fruits are capsules with three seeds.

Lectotype: *L. campestris* (L.).

In flora of Azerbaijan the genus of *Luzula* is commonly known as the ‘fireweed’. The species of this genus grow in different regions of the country and contain several geographical populations with great morphological variability.

It is a perennial, rarely annual rhizomatous plant. The leaves are linear, with ciliate-hairy edges. The flowers of the genus are collected in various floral groups, from simple to complex panicles, at the base of the peduncles are white [7].

The petals of the peduncle are thin-skinned, without membranous or with a membranous edge. Flowers with three-lobed stamens. Ovaries 1-3-lobed. The column is cylindrical, sometimes very short and noticeable. The mouth is covered with three long proboscis. The fruit is a capsule, oblong and elliptical, tail, veil-shaped.

Material and methods

The present study is based on the materials from the herbarium specimens stored in the Herbarium fond of the Institute of Botany, Ministry of Science and Education Republic of Azerbaijan, as well as herbarium samples which was collected from Quba and Lerik.

Result and discussion

In flora of Azerbaijan this genus represented by 10 species (*L. spicata* (L.) DC., *L. pilosa* (L.) Willd., *L. forsteri* (Smith) DC., *L. multiflora* (Ehrh.) Lej., *L. sudetica* (Willd.) Schult., *L. stenophylla* Steud, *L. campestris* (L.) DC., *L. taurica* (V. Krech.) V. S. Novikov, *L. abchasica* V. S. Novikov, *L. pallescens* Sw.).

L. spicata (L.) DC. 1805 [1-6].

Bas.: *Juncus spicatus* L., Spec. Plant., 330 (1753).

Syn: *Luzula compacta* Desf. Table. School. Bot. ed. 25.1815.

Described from Scandinavia.

Type: in Lapponiae Alpibus.

Flowering: VI -VIII.

Distribution in Azerbaijan: GC (Guba), LC (north and center) mountain part of Nakhchivan, in the high-mountain zone, on rocky and gravelly slopes.

Geographical type: Holarctic, arctic, alpine [3].

General distribution: Atlantic, Northern, Central, Southern, Eastern. Europe Middle; Central, Eastern Asia; North. America.

L. pilosa (L.) Willd. 1809 [1-6].

Syn: *Juncus pilosus* L. 1753, Sp. Pl.: 329.

Described from England.

Type: in Europae sylvis.

Flowering: IV-VIII.

Distribution in Azerbaijan: GC (Guba), GC (east, west), LC (north, center), in the middle mountain zone, in the forest.

Geographical type: Euro-Siberian.

General distribution: Atlantic, Central, Southern, Western. Europe, Northern Asia, Northern America.

L. forsteri (Smith) DC. 1806. [1-6].

Bas.: *Juncus Forsteri* Smith, Fl. Br. 1395 (1804).

Described from England.

Type: Between Hoghill and Collier..., Essex.

Flowering: IV-VIII.

Distribution in Azerbaijan: GC (Guba), GC (east, west), LC (center), Lankaran (mountain part), from plains to mid-mountain zones, in the forest.

Geographical type: Ancient Mediterranean.

General distribution: Gar., Jan. Europe, Kich. Asia, Syria, Algeria.

L. multiflora (Ehrh.) Lej. 1811 [1-6].

Bas.: *Juncus campestris* var. *multiflorus* Ehrh.Ehrh. Beitr, Naturk.5: 14.1790

Described from Scandinavia.

Type: Calam., Gram et Trip.Exs.no.127, Ehrhardt..

Calam., Gram and Trip. Former no. 127, Ehrhardt.

Flowering: V-VII.

Distribution in Azerbaijan: GC (Guba), GC (east, west), LC (west, north, center), Diabar, Lankaran, from plains to the upper mountain belt, in meadows, grassy slopes, along streams, in bushes.

Geographical type: Western Palearctic.

General distribution: Atlantic, North (Altai), Southwest. Asia; North. America.

L. sudetica (Willd.) Schult. 1814 [1-6].

Bas.: *Juncus sudeticus* Willd.1799, Sp.Pl. 2:221.

Described from Central Europe.

Type: Central Europe, Silesia (in Sudetis Silesiae summis humidis).

Flowering: VII.

Distribution in Azerbaijan: GC, Alazan Ayrichay Valley, alpine meadows.

Geographical type: Asia Minor.

General distribution: Northern, Central, Eastern Europe; Southwest. Asia.

L. stenophylla Steud, 1855 [1-6].

Described from Turkey.

Type: Vontes pontici.

Syn.: *L. pseudosudetica* V. Krech. 1935, Florida. USSR, 3: 571.

L. multiflora subsp. *pseudosudetica* V. Krech. 1928, Zhurn. Rus. Botanical Society, 12:490

Flowering: VI.

Distribution in Azerbaijan: GC (Guba), GC (east, west), LC (north, center), in the upper mountain belt, on alpine meadows.

Geographical type: Asia Minor.

General distribution: Jan. West. Asia.

L. campestris (L.) DC. 1805 [1-4].

Bas. : *Juncus campestris* L. Sp. pl.: 329.1753.

Type: in Europae pascuis siccioribus.

Flowering: V-VI.

Distribution in Azerbaijan: GC (Guba), GC (west), LC(center), up to the middle mountain zone, in coniferous forests, on grassy slopes and in shrubs.

Geographical type: Europe.

General distribution: Caucasus, Western and Eastern Siberia, Central Asia, Central Europe, Mediterranean, Mongolia, Japan - China.

L. taurica (V. Krech.) [1-5]..

Syn.: *L. multiflora* (Ehrh.) Lej. subsp.*taurica* (V. Krech.) [1, 4].

L. campestris (L.) DC. subsp. *taurica* V. Krech.1928, Zhurn. Rus. bot. ob-va, 12, 4: 490.

Type: Crimea. Crimean Yayla.

Flowering: V-VII.

Distribution in Azerbaijan: GC (Guba), Alazan Ayrichay Valley, Talysh, alpine meadows and grassy areas.

Geographical type: Caucasus region.

General distribution: Jan. - East. (Crimea) Europe; Jan. - West. Asia (Turkey)

L. abchasica [2-5].

Type: Abkhazia, Gudauta district, Ritsinsky reserve, Avadhara river, 20.V.III.1975, E. Gogina (M.V.!) [5].

Flowering: VII.

Distribution in Azerbaijan: Greater Caucasus, endemic, along river banks and on gravelly pastures.

Geographical type: Caucasus region.

L. pallescens Sw. 1814 [1-6].

Syn.: *Juncus pallescens* Wahl. 1812, Fl. Lapp.: 87.

Described from Sweden.

Type: Scandinavia (Lapponia).

Flowering: V-VIII.

Distribution in Azerbaijan: In all botanical-geographical regions of the Caucasus, in grassy areas, meadows and in forests.

Geographical type: Palearctic

General distribution: Western Europe, Asia Minor, Alaska.

When checking herbarium specimens in the Herbarium Fund of the Institute of Botany, Ministry of Science and Education Republic of Azerbaijan, it was established that there are 28 herbarium samples of 2 species (*L. forsteri* (Smith) DC., *L. multiflora* (Ehrh.) Lej.) which was collected between 1928-1946 from Shamakhi, Guba, Gabala, Zagatala, Sheki (Nukha), Lerik (Zuvand), Lankaran, Ganja, Dashkesan, Goygol, Karabakh (Lachin, Khojavend).

Some of these species, described in the 2nd volume of the work "Flora of Azerbaijan", have now been synonymized based on the results of modern research (www.worldfloraonline.org, www.emplantbase.org):

Luzula campestris (L.) DC. (= *L. subpilosa* GiHb.).

Luzula stenophylla Steud (= *L. pseudosudetica* (V. Krecz.) V. Krecz.).

References:

1. Karyagin, I. I. (1952). Flora Azerbaidzhana. Baku. (in Russian).
2. Komarov, V. L. (1935). Flora SSSR. 3. Leningrad. (in Russian).
3. Grosskhaim, A. A. (1940). Flora Kavkaza. Baku. (in Russian).
4. Askerov, A. M. (2016). Flora Azerbaidzhana. Baku. (in Russian).
5. Takhtadzhyan, A. L. (2006). Konspekt flory Kavkaza. Baku. (in Russian).
6. Závěská Drábková, L. (2013). A survey of karyological phenomena in the Juncaceae with emphasis on chromosome number variation and evolution. *The Botanical Review*, 79(3), 401-446. <https://doi.org/10.1007/s12229-013-9127-6>
7. Bačič, T., Koce, J. D., & Jogan, N. (2007). *Luzula* sect. *Luzula* (Juncaceae) in the South-Eastern Alps: morphology, determination and geographic distribution. *Botanica Helvetica*, 117(1), 75-88. <https://doi.org/10.1007/s00035-007-0783-1>

Список литературы:

1. Карягин И. И. Флора Азербайджана. Баку, 1952. 102 с.
2. Комаров В. Л. Флора СССР. Т. 3. Л., 1935.

3. Гроссхайм А. А. Флора Кавказа. Баку, 1940.
4. Аскеров А. М. Флора Азербайджана. Баку, 2016.
5. Тахтаджян А. Л. Конспект флоры Кавказа. Баку, 2006.
6. Závěská Drábková L. A survey of karyological phenomena in the Juncaceae with emphasis on chromosome number variation and evolution // The Botanical Review. 2013. V. 79. №3. P. 401-446. <https://doi.org/10.1007/s12229-013-9127-6>
7. Bačič T., Koce J. D., Jogan N. Luzula sect. Luzula (Juncaceae) in the South-Eastern Alps: morphology, determination and geographic distribution // Botanica Helvetica. 2007. V. 117. №1. P. 75-88. <https://doi.org/10.1007/s00035-007-0783-1>

Работа поступила
в редакцию 26.05.2025 г.

Принята к публикации
05.06.2025 г.

Ссылка для цитирования:

Babayeva Z., Fatdayeva A. Taxonomic Revision of *Luzula* L. in Flora of Azerbaijan // Бюллетень науки и практики. 2025. Т. 11. №8. С. 54-58. <https://doi.org/10.33619/2414-2948/117/07>

Cite as (APA):

Babayeva, Z., & Fatdayeva, A. (2025). Taxonomic Revision of *Luzula* L. in Flora of Azerbaijan. *Bulletin of Science and Practice*, 11(8), 54-58. <https://doi.org/10.33619/2414-2948/117/07>