UDC 581.527.7
AGRIS F70
https://doi.org/10.33619/2414-2948/116/07

# PHYTOCOENOSİS İNVOLVİNG REPRESENTATİVES OF THE *Brassicaceae* Burnett. FAMİLY İN THE SPRİNG FLORA OF THE LOWLAND AREAS OF THE NAKHCHİVAN AUTONOMOUS REPUBLİC

*©**Alieva A.**, ORCID: 0009-0009-8075-9490, Ph.D., Nakhchivan State University, Nakhchivan, Azerbaijan, afagaliyeva100@gmail.com*

# ФИТОЦЕНОЗЫ С УЧАСТИЕМ ПРЕДСТАВИТЕЛЕЙ СЕМЕЙСТВА *Brassicaceae* Burnett. В ВЕСЕННЕЙ ФЛОРЕ РАВНИННЫХ РАЙОНОВ НАХЧЫВАНСКОЙ АВТОНОМНОЙ РЕСПУБЛИКИ

*©**Алиева А. М.**, ORCID: 0009-0009-8075-9490, канд. биол. наук, Нахчыванский государственный университет, г. Нахчыван, Азербайджан, afagaliyeva100@gmail.com*

*Аннотация.* Рассматривается участие представителей семейства Brassicaceae Burnett. в весенней флоре равнинных районов Нахичеванской Автономной Республики на примере дороги, ведущей в Джульфинский район. В исследовании приводится информация о видах, относящихся к родам *Arabidopsis* (DC.) Heynh. и *Camelina* Crantz из данного семейства. В частности, вдоль дороги на Джульфу были выявлены виды *Arabidopsis thaliana* (L.) Heynh. и *Camelina sativa* (L.) Crantz. Данные о фитоценозе, сформированном этими видами, и его видовом составе представлены. В исследовании рассматриваются семейство, род, жизненная форма и экологическая группа видов, формирующих фитоценоз.

*Abstract.* Discusses the participation of representatives of the Brassicaceae Burnett. family in the spring flora of the lowland areas of the Nakhchivan Autonomous Republic, using the road leading to the Julfa district as an example. The study provides information on species belonging to the genera *Arabidopsis* (DC.) Heynh. and *Camelina* Crantz within this family. Specifically, the species *Arabidopsis thaliana* (L.) Heynh. and *Camelina sativa* (L.) Crantz were identified along the road to Julfa. Data on the phytocoenosis formed by these species and its species composition are presented in tabular form. The study investigates the family, genus, life form, and ecological group of the species forming the phytocoenosis.

*Ключевые слова:* Brassicaceae Burnett., семейство, род, вид, фитоценоз, весенняя флора.

*Keywords: Brassicaceae* Burnett., family, genus, species, phytocoenosis, spring flora.

Julfa, one of the administrative districts of the Nakhchivan Autonomous Republic, is located on the left bank of the Araz River, to the east of the city. The district borders Armenia to the northeast, the Islamic Republic of Iran to the south, Babek to the west, Shahbuz to the northwest, and Ordubad to the east [7].

The territory of Julfa district is situated at an elevation of 1290 meters above sea level. Most of the area lies within a mountainous zone and, based on its relief characteristics, is divided into foothill, low-mountain, mid-mountain, and high-mountain zones. Along the road from the city of Nakhchivan to Julfa, the massive dome-shaped formations of the Julfa Mountains are visible. The predominant soil types include mountain-meadow, mountain-forest, mountain-chestnut, brown,

Т. 11. №7 2025
https://doi.org/10.33619/2414-2948/116

gray, and meadow-gray soils. Vegetation types such as mountain-steppe, forest plants, subalpine and alpine meadows are widespread in the region [1, 2].

Along the roads leading to Julfa, representatives of the *Brassicaceae* Burnett. family are also present among the plant species forming the spring flora. During the field studies, we investigated a phytocoenosis involving species from the genera *Arabidopsis* (DC.) Heynh. and *Camelina* Crantz within this family. In the flora of the Nakhchivan Autonomous Republic, three species of the genus *Arabidopsis* (DC.) Heynh. are present: *Arabidopsis parvula* (Schrenk) O.E. Schulz, *Arabidopsis pumila* (Steph.) N. Busch, and *Arabidopsis Thaliana* (L.) Heynh. Similarly, three species of the genus *Camelina* Crantz are distributed: *Camelina laxa* C.A. Mey., *Camelina rumelica* Velen. (syn. *Camelina albiflora* (Boiss.) N. Busch), and *Camelina sativa* (L.) Crantz [5, 6].

During the studies, a phytocoenosis involving *Arabidopsis Thaliana* (L.) Heynh. and *Camelina sativa* (L.) Crantz species was encountered in the lowland areas. The coordinates of the study area were determined using GPS:

39º4'21.90648" N, 45º34'28.10388" E, 926 m a.s.l.

39º4'49.73952" N, 45º33'56.19276" E, 926 m a.s.l.

In the phytocoenosis involving the aforementioned species, other representatives of the family also participate, as expected. Data on the species composition of this phytocoenosis are presented in the Table below.

Table

SPECIES COMPOSITION OF THE PHYTOCOENOSIS INVOLVING *Arabidopsis Thaliana* (L.) Heynh. and *Camelina sativa* (L.) CRANTZ ALONG THE ROAD LEADING TO JULFA

| *Familia* | *Genus* | *Species* | *Life form* | *Ecological group* |
|---|---|---|---|---|
| *Poaceae* Barnhart | *Avena* L. | *Avena fatua* L. | Annual | Mesophytes |
| | *Aegilops* L. | *Aegilops Tauschii* Coss. | Annual or biennial | Mesophytes |
| *Lythraceae* J.St.-Hil. | *Lythrum* L. | *Lythrum hyssopifolia* L. | Annual | Hydromesophyte |
| *Boraginaceae* Juss. | *Echium* L. | *Echium vulgare* L. | Biennial | Mesophytes |
| | *Buglossoides* Moench | *Buglossoides arvensis* (L.) Johnst. | Annual | Mesophytes |
| *Caryophyllaceae* Juss. | *Arenaria* L. | *Arenaria serpyllifolia* L. | Annual | Xerophytes |
| *Euphorbiaceae* Juss. | *Euphorbia* L. | *Euphorbia helioscopia* L. | Annual | Mesophytes |
| *Asteraceae* Bercht. & J. Presl | *Cirsium* Hill | *Cirsium vulgare* (Savi) Ten. | Biennial | Xerophytes |
| | *Bellis* L. | *Bellis perennis* L. | Perennial | Mesophytes |
| | *Artemisia* L. | *Artemisia vulgaris* L. | Perennial | Mesoxerophytes |
| | *Senecio* L. | *Senecio vernalis* Waldst. & Kit. | Annual | Xeromesophytes |
| | | *S. racemosus* (Bieb.) DC. | Perennial | Mesophytes |
| | | *S. Lipskyi* Lomak. | Perennial | Xerophytes |
| | *Bidens* L. | *Bidens, tripartita* L. | Annual | Hydrophyte |
| | *Matricaria* L. | *Matricaria recutita* L. | Annual | Mesophytes |
| | *Anthemis* L. | *Anthemis cretica* L. | Perennial | Mesoxerophytes |
| | *Cirsium* Hill | *Cisrium arvense* (L.) Scop. | Perennial | Mesophytes |
| | *Ambrosia* L. | *Ambrosia confertiflora* DC. | Perennial | Xerophytes |
| *Apiaceae* Lindl. | *Daucus* L. | *Daucus carota* L. | Biennial | Mesophytes |
| | *Pseudorlaya* Maire | *Pseudorlaya pumila* (L.) Grande (syn. *Daucus pumilus* (L.) Hoffm. & Link) | Annual | Xerophytes |

| *Familia* | *Genus* | *Species* | *Life form* | *Ecological group* |
|---|---|---|---|---|
| *Geraniaceae* Juss. | *Erodium* L'Her. | *Erodium cicutarium* (L.) L'Her. | Annual | Xeromezophytes |
| *Convolvulaceae* Juss. | *Convolvulus* L. | *Convolvulus arvensis* L. | Perennial | Xerophytes |
| *Amaryllidaceae* J.St.-Hil. | *Allium* L. | *Allium schoenoprasum* L. | Perennial | Xerophytes |
| *Fabaceae* Lindl. | *Medicago* L. | *Medicago littoralis* Lois. | Annual | Xerophytes |
| | *Tylosema* (Schweinf.) Torre & Hillc. | *Tylosema esculentum* (Burch.) A. Schreib. | Perennial | Xerophytes |
| | *Hedysarum* L. | *Hedysarum caucasicum* Bieb. | Perennial | Mesophytes |
| *Papaveraceae* Juss. | *Papaver* L. | *Papaver rhoeas* L. | Annual | Xeromesophytes |
| *Polygonaceae* Juss. | *Rumex* L. | *Rumex crispus* L. | Perennial | Mesophytes |
| *Zygophyllaceae* R.Br. | *Tribulus* L. | *Tribulus terrestris* L. | Annual | Xerophytes |

According to the data presented in the table, the phytocoenosis involving *Arabidopsis Thaliana* (L.) Heynh. and *Camelina sativa* (L.) Crantz along the road leading to Julfa includes 13 annual species (44.82%), 12 perennial species (41.37%), 3 biennial species (10.34%), and one species with an annual or biennial life form (3.44%). Among these, annual plants dominate and hold a leading position. Among the families forming the phytocoenosis, *Asteraceae* Bercht. & J. Presl has the highest number of species, with 11 species (37.93%). There are also significant representatives among the species that make up the phytocoenosis [3, 4].

*Camelina sativa* (L.) Crantz (The road leading to Julfa district, 05.04.2025)

The phytocenosis involving the species *Arabidopsis Thaliana* (L.) Heynh. and *Camelina sativa* (L.) Crantz (The road leading to Julfa district, 05.04.2025)

*References:*

1. Askerov, A. M. (2016), Flora Azerbaidzhana. Baku. (in Azerbaijani).
2. Gurbanov, E. M. (2009). Sistematika vysshikh rastenii. Baku. (in Azerbaijani).
3. Mammadli, T., Babayeva, S., & Bayramov, B. (2024). Scientific Bases for the Use of Some Fodder Plants Disseminated in High Mountainous Areas in Nakhchivan. *Bulletin of Science and Practice, 10*(8), 108-114. https://doi.org/10.33619/2414-2948/105/12
4. Seidov, M., Ibadullaeva, S., Gasymov, Kh., & Salaeva, Z. (2014). Flora i rastitel'nost' Shakhbuzskogo gosudarstvennogo prirodnogo zapovednika, Nakhchyvan. (in Azerbaijani).
5. Talybov, T. Kh., Ibragimov, A. Sh., & Ibragimov, A. M. (2021). Taksonomicheskii spektr flory Nakhchyvanskoi Avtonomnoi Respubliki. Nakhchyvan. (in Azerbaijani).
6. Aytaç, Z., Ocak, A., & Kaptaner İğci, B. (2020). Türkiye Bitkileri Doğa Rehberi.

*Список литературы:*

1. Əsgərov A. M. Azərbaycan Florası. Bakı: TEAS Press, 2016. 444 s.
2. Qurbanov E. M. Ali bitkilərin sistematikası. Bakı, 2009. 420 s.
3. Mammadli T., Babayeva S., Bayramov B. Scientific Bases for the Use of Some Fodder Plants Disseminated in High Mountainous Areas in Nakhchivan // Бюллетень науки и практики. 2024. Т. 10. №8. С. 108-114. https://doi.org/10.33619/2414-2948/105/12
4. Seyidov M., İbadullayeva S., Qasımov H., Salayeva Z. Şahbuz Dövlət Təbiət Qoruğunun flora və bitki örtüyü, Naxçıvan, 2014. 524 p.
5. Talıbov T. H., İbrahimov A. Ş., İbrahimov A. M. Naxçıvan Muxtar Respublikası florasının taksonomik spektri. Naxçıvan: Əcəmi, 2021. 425 s.
6. Aytaç Z., Ocak A., Kaptaner Iğci B. Türkiye Bitkileri Doğa Rehberi. 2020.

*Работа поступила*
*в редакцию 24.04.2025 г.*

*Принята к публикации*
*30.04.2025 г.*

---

*Ссылка для цитирования:*

Alieva A. Phytocoenosis Involving Representatives of the Brassicaceae Burnett. Family in the Spring Flora of the Lowland Areas of the Nakhchivan Autonomous Republic // Бюллетень науки и практики. 2025. Т. 11. №7. С. 66-69. https://doi.org/10.33619/2414-2948/116/07

*Cite as (APA):*

Alieva, A. (2025). Phytocoenosis Involving Representatives of the Brassicaceae Burnett. Family in the Spring Flora of the Lowland Areas of the Nakhchivan Autonomous Republic. *Bulletin of Science and Practice, 11*(7), 66-69. https://doi.org/10.33619/2414-2948/116/07