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# SYSTEMATIC COMPOSITION AND ECOLOGY OF SPECIES OF THE GENUS Nepeta L. FLORA OF THE NAKHCHIVAN AUTONOMOUS REPUBLIC

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## СИСТЕМАТИЧЕСКИЙ СОСТАВ И ЭКОЛОГИЯ ВИДОВ РОДА КОТОВНИК (Nepeta L.) ФЛОРЫ НАХЧЫВАНСКОЙ АВТОНОМНОЙ РЕСПУБЛИКИ

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Abstract. The systematic composition of the genus Nepeta L. of the flora of the Nakhchivan Autonomous Republic is presented. This is one of the most widespread genera of the flora of the Nakhchivan Autonomous Republic. The genus Nepeta is a perennial herbaceous plant cultivated in many regions of the world, especially in mountainous and semi-desert zones. The section is represented by 31 genera and 135 species. In Azerbaijan, 26 species of this genus are found. Nepeta L. is common on rocky-stony and roadside roadsides of the region. The species included in the genus are used in medical, ecological, decorative and cosmetic practice. As a result of the studies, it was established that 15 species of this genus were found in the flora of the Nakhchivan Republic. The species belonging to the genus are used in medical, ecological, decorative and cosmetic fields.

Аннотация. Представлен систематический состав рода Nepeta L. флоры Нахчыванской автономной Республики. Это один из наиболее распространенных родов флоры Нахчыванской автономной Республики. Род Nepeta — многолетнее травянистое растение, возделываемое во многих регионах мира, особенно в горных и полупустынных зонах. Раздел представлен 31 родом и 135 видами. В Азербайджане встречается 26 видов этого рода. Nepeta L. распространен на каменисто-каменистых и придорожных обочинах дорог региона. Виды, входящие в род, используются в медицинской, экологической, декоративной и косметической практике. В результате проведенных исследований установлено, что во флоре Нахчыванской Республики обнаружено 15 видов этого рода. Виды используются в медицинской, декоративной и косметической сферах.

Keywords: Nepeta L., taxonomic composition, plants.

Ключевые слова: Nepeta L., таксономический состав, растения.

The flora of the Nakhchivan Autonomous Republic is quite rich due to its geographical location and various climatic conditions. Nakhchivan is one of the regions with the most diverse vegetation in Azerbaijan, with different ecosystems: highlands, plains and steppes. These diverse conditions provide the presence of more than 2,000 plant species in the region. The protection of natural resources and the maintenance of ecological balance are the main factors for the sustainable development of Nakhchivan.

Nepeta is one of the common plant species in the flora of the Nakhchivan Autonomous Republic. The genus Nepeta is a perennial herbaceous plant cultivated in many regions of the world, especially in mountainous and semi-desert areas. The chapter is represented by 31 genera and 135 species. There are 26 species of this genus in Azerbaijan, and 15 species in the Nakhchivan region. Nepeta L. — species of the genus atnipare found on rocky-rocky and roadside roadsides of the region. Species included in the genus are used in the medical, ecological, decorative and cosmetic fields. Taking all this into account, the study of the taxonomic composition of the genus Nepeta L. — Catnip and the directions of use is recognized as a relevant topic.

## *Material and methodology of the study*

The studies were conducted in various areas of the Nakhchivan MR in 2023-2024. The object of the study was stony-rocky and roadside roadsides of the region, and the material was the species of the genus Nepeta L. The definition and clarification of the names of species belonging to the genus Nepeta L. are given on the basis of the books of A. Aserov "Plants of Azerbaijan" [2], "Flora of Azerbaijan" [12] and other works. Recent taxonomic changes were verified using World Flora Online (https://www.worldfloraonline.org/).

## Discussion and conclusions of the study

In the Nakhchivan Autonomous Republic, the genus Nepeta is one of the important plant species included in the rich flora of the region. There are 26 species of this genus in Azerbaijan, and 15 species in the flora of the Nakhchivan MR. The systematic composition of species included in the genus, ecological groups, areal class, altitudinal zone, flowering and fruiting phases are given in the table below (Table).

TAXONOMIC COMPOSITION OF SPECIES OF THE GENUS Nepeta L.

**Ecological** Areal class Altitudinal zone Flowering Species name groups and fruiting phase Nepeta amoena (N. micrantha) Stapf. Xerophyte Eastern Mid-mountain and V-VIII Caucasus subalpine belt Nepeta betonicifolia C.A. Mey. Xerophyte Northern Subalpine and alpine V-VIII Iran belt Nepeta buschii Sosn. & Manden. Subalpine and alpine VII, VIII Xerophyte Atropaten belt Nepeta cataria L. Xerophyte Western Middle mountain belt VI-X Palearctic Xerophyte Subalpine and alpine VI, VIII-Nepeta cyanea Stev. Dagestan belt IX Subalpine and alpine V-VIII Nepeta erivanensis Grossh. Xerophyte Atropaten belt

Table

Species name	Ecological groups	Areal class	Altitudinal zone	Flowering and fruiting phase
Nepeta grandiflora Bieb.	Mesophyte	Caucasus	Mid-mountain and subalpine belt	VI-IX
Nepeta meyeri Benth.	Mesophyte	Caucasus	Middle and subalpine zone	VI-IX
Nepeta mussinii Spreng.	Xerophyte	Iberia	Middle mountain belt	VI-IX
Nepeta noraschenica Grossh.	Xerophyte	Atropaten	Middle mountain belt	VI-IX
Nepeta schischkinii Pojark.	Xerophyte	Albania	Middle mountain belt	V-VIII
Nepeta strictifolia Pojark.	Mesophyte	Atropaten	Mid-mountain and subalpine belt	V-VII
Nepeta sulphurea C.Koch	Mesoxerophyte	Asia Minor	Middle mountain belt	VI-VIII
Nepeta trautvetteri Boiss. & Buhse.	Mesophyte	Atropaten	Mid-mountain and subalpine belt	VI-VIII
Nepeta zangezura Grossh.	Mesophyte	Atropatan- Qaradagh	Middle mountain belt	VII

When analyzing the ecological groups of species included in the genus, it was found that the xerophytic ecological group is widespread in the study area and is represented by 9 species, which makes up 60% of the entire flora, the mesophytic ecological group with 5 species — 33%, the mesoxerophytic ecological group — 7%.

Based on the literature sources obtained and our own field studies, it was established that the species of the genus belong to different range classes, which allows us to determine the migration routes of the species to the region. According to the zonal and regional principle, it was known that the species included in the genus are grouped into 10 range classes. As can be seen from the table, the range classes Atropatene 5, Asia Minor 2, Caucasus 2, Atropatene- Karadag, Eastern Caucasus, Northern Iran, Western Palearctic, Albania, Dagestan, Iberian ranges are represented by 1 species each (Figure 1).

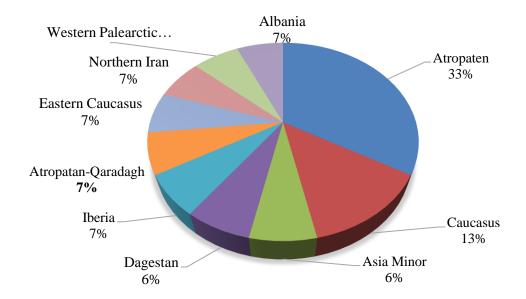


Figure 1. Distribution of studied species by range classes

Nepeta L. — Calyx 15-veined, straight or slightly curved, obliquely or straight 5-toothed. The crown is more or less long-tubular, with two lips, the upper lip is slightly curved and grooved, the lower lip is 3-segmented, the middle feather is serrated, flat, curved, larger than the lateral ones. The stamens are located close to the upper lip, and the middle ones are longer than the lateral ones. There are 26 species of this genus in Azerbaijan, and 15 species in the Nakhchivan region.

The *N.buschii* species is common in rocky areas of the subalpine and alpine belt. The plant has a wide range of uses: from gardening to medical and cosmetic use. The decorative features and environmental benefits of this species are limitless. Catnip tea is used to relieve stomach and digestive problems, headaches and stress.

The N. cyanea species is common in rocky and stony areas of the subalpine and alpine belt. The plant is grown for both medicinal and ornamental purposes. In addition to being an ornamental plant in gardens and parks, this species is used in traditional medicine to treat anxiety and insomnia. In addition to these properties, the plant is used in perfumery and cosmetics due to the essential oil it contains.

The N. stricitifolia species is common in meadow and forest areas of the mid-alpine and subalpine zones. This species is used as a multipurpose plant for decorative, ecological, and some traditional medicinal purposes.

The N. sulfurea species is common in grassy and stony areas of the mid-mountain zone. This species is used to increase biodiversity.

The N. meyeri species is common in coastal and mountain meadows of the mid- and subalpine zones. The species is used in garden and park landscapes, as well as for medicinal purposes. It is also used in the perfume industry.

The N. trautvetteri species is common in rocky and stony areas of the middle and subalpine zones. The plant is a multifunctional plant, widely used in various fields. The species is known for its ornamental, ecological, aromatic, natural pesticide properties, and also has a stimulating effect on cats. At the same time, it plays an important role in traditional medicine and increasing biodiversity. It has a wide range of applications in gardening due to its unpretentiousness in care, drought resistance and soil conservation properties.

The N. zangezura species is common in forests and along river banks in the mid-mountain zone. Its beautiful and attractive flowers are used for ornamental purposes in gardening. It plays an important role in pollination, attracting bees and beneficial insects. In medicine, it is used as an important plant in the prevention of erosion and in the treatment of various diseases.

The N. grandiflora species is common in riverine and mountain meadows of the mid-alpine and subalpine belts. The species is cultivated as an ornamental plant in gardens and parks due to its beautiful and attractive flowers. It is used in traditional medicine and some cosmetic areas due to the essential compounds it contains. In addition to these properties, the plant has a pesticidal effect and plays an important role in repelling some insects and bugs (Figure 2).

The N. amoena species is common in high-mountain and rocky areas of the mid-alpine and subalpine zones. The species is one of the universal plants used for decorative, ecological and some medicinal purposes, in garden and park landscapes, as well as in folk medicine.

The N. betonicifolia species is common in the foothills and rocky areas of the subalpine and alpine belts. The species is known as a multifunctional and versatile plant species. The plant is widely used not only in gardening, but also in ecology, cosmetics and natural medicine.

The N. cataria species is common in the meadows of the mid-mountain belt. The drug is included in the composition of capsules and tablets based on various properties, such as sleep problems and stress reduction, fighting inflammation and infections.

The N. erivanensis species is common in the high-mountain and rocky areas of the subalpine and alpine belt. The plant has a wide range of applications in gardening and ecosystem protection due to its decorative, ecological, natural peptidic and medicinal properties. In traditional medicine, it is used as a medicinal plant for a number of problems such as stress, insomnia, intestinal discomfort, muscle pain, headache and digestive disorders.

The N. mussini species is common in rocky and stony areas of the mid-mountain zone. This species has antibacterial and antiseptic properties, preventing soil erosion, and also has attractive aromatic and aromatic compounds (Figure 3).





Figure 2. Nepeta grandiflora

Figure 3. Nepeta mussinii

The N. noraschenica species is common in the mountainous and rocky areas of the midmountain belt. This species is used in the treatment of a number of diseases, such as colds, inflammations, skin diseases, heart and circulatory diseases.

The N. schischkinii species is common in the foothills and rocky areas of the mid-mountain belt. The species is used in the cosmetic industry as an ecological and ornamental plant. It is used as a medicinal plant for general cleansing of the body and strengthening the immune system.

Xerophytic vegetation of the Nakhchivan MR research area creates an ecosystem that ensures sustainability of life in the dry climate of the region. These plants contribute to the stability of the ecosystem. Xerophytic plants play an important role in protecting the environment in drought conditions and ensuring sustainable agricultural development. The xerophytic ecosystem of Nakhchivan is an important resource that forms the basis of both natural life and economic development (Figure 4) [13, 22].

The herbs in the flora of Nakhchivan have created unique groups in various ecosystems in close connection with the climatic and geographical conditions of the region. In the desert, semidesert and mountainous areas of the region, herbaceous plants are widespread and form various plant groups adapted to climatic conditions. The main function of these plants is to cover the soil, prevent erosion, support local fauna and create a favorable environment for local agricultural activities [1, 8, 10, 20-24].

Regardless of the studied area, herbaceous plants in all territories closely interact with species of a number of families and form different groups [9, 11, 15, 25].

One of the special biotic groups of the Nakhchivan flora is the forest-shrub complex herbaceous ecosystems. This complex grows in mountainous and foothill areas, covering ecosystems consisting of a mixture of forest and shrub cover. The cultivated complex is formed as a result of the interaction of different plant species. In addition to forest and shrub plants, herbaceous plants are widespread in these territories, forming a complex ecosystem. These ecosystems provide important support to the local flora and fauna and at the same time play a key role in maintaining the ecological balance. Thus, in the forming phytocenoses, the dominant species are plants belonging to Fabaceae, Malvaceae, Rosaceae and many other families [3-7, 14, 16-19].

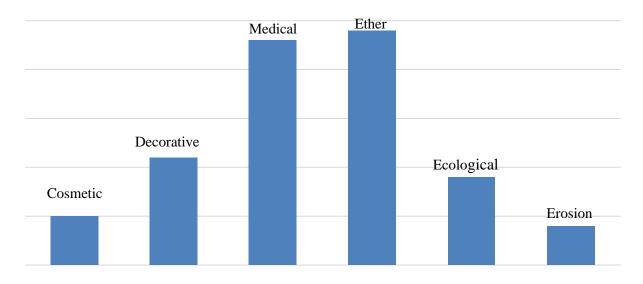


Figure 4. Directions for use of Nepeta L.

Thus, it does not fully reflect the directions of use of the above-mentioned species of the genus Nepeta L. In our fu rther research, we consider it appropriate to comprehensively study all the features of the studied breed.

#### Conclusion

- 1. The conducted research showed that there are 15 species of the genus *Nepeta* L. in the flora of the Nakhchivan Autonomous Republic. It was found that all species belonging to the genus are decorative, medicinal and ecological. Also important are 3 types of pesticides and cosmetics. Some species included in the genus are also used in erosion and perfumery.
- 2. When analyzing the ecological groups of species included in the genus, it was found that 9 species of the genus are xerophytic, 5 species are mesophytic and 1 species is mesoxerophytic. According to the analysis of the classes of the geographical range, the genus is monotypic: 5 species from Atropatene, 2 species from the Caucasus, 1 species from Atropatene-Karadag, 1 species from Eastern Caucasus, 1 species from Northern Iran, 1 species from Western Palearctic, 1 species from Albania 1 species from Asia Minor, 1 species from Iberia and 1 species from Dagestan.

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#### References:

- 1. A Abbasov, N., Ganbarov, D., & Seyidov, M. (2024). A New Find for the Flora of Azerbaijan - Dracocephalum thymiflorum L. Bulletin of Science and Practice, 10(1), 52-57. (in Russian). https://doi.org/10.33619/2414-2948/98/06
  - 2. Askerov, A. M. (2016). Flora Azerbaidzhana. Baku. (in Russian).
- 3. Babayeva, S. (2022). Contemporary Situation of the Rosaceae Family Tree Crops in the Nakhchivan Flora. Bulletin of Science and Practice, 8(12), 104-110. https://doi.org/10.33619/2414-2948/85/13
- 4. Babayeva, S. (2023). Phytocenological Characteristics of the Woody Species of the Rosaceae Family in the Steppe Vegetation of the Flora of Nakhchivan. Bulletin of Science and Practice, 9(5), 57-63. https://doi.org/10.33619/2414-2948/90/06
- 5. Babayeva, S. (2024). Distribution Regularities of Tree Species of the Rosaceae Family in Shrubs in River Valleys and a Streak in the Flora of the Nakhchivan Autonomous Republic. Bulletin of Science and Practice, 10(1), 69-79. (in Russian). https://doi.org/10.33619/2414-2948/98/09
- 6. Babayeva, S. (2024). Flora Current State of Rosaceae Woody Species in Mountain Xerophytic and Steppe Vegetation of Ordubad District. Bulletin of Science and Practice, 10(7), 41-48. https://doi.org/10.33619/2414-2948/104/05
- 7. Babayeva S. (2024). Special Protection of Nakhchivan Autonomous Republic Natural Areas // Бюллетень науки и практики. Т. 10. №11. С. 81-88. https://doi.org/10.33619/2414-2948/108/10
- 8. Babayeva, S. (2024). Taxonomic Spectrum of the Species Belonging to the *Potentilla* L. Genus of the Rosaceae Family in the Nakhchivan Flora. Bulletin of Science and Practice, 10(8), 51-58. https://doi.org/10.33619/2414-2948/105/06
- 9. Ganbarov, D. S., & Ibragimov, A. S. (2015). New species and their bioecological features of Astragalus spread in the area of Nakhchivan Autonomous Republic. International Journal *Multidisciplinary Research and Development, 2*(4), 696-697.
- 10. Ganbarov, D. S., & Ibrahimov, A. S. (2015). Astragalus dasyanthus L.(Fabaceae), a new species to the flora of Azerbaijan. International Journal of Multidisciplinary Research and Development, 2(1), 426-427.
- 11. Ganbarov, D. S., Aslanova, Y. A., & Matsyura, A. V. (2024). Astragalus cephalotes Banks & Sol. – a new species for the Republic of Azerbaijan. Acta Biologica Sibirica, 10, 465–470. https://doi.org/10.5281/zenodo.11216116
- 12. Askerova, R. K., Akhundov, G. F., & Isaev, Ya. M. (1961). Flora Azerbaidzhana. Baku. (in Russian).
- 13. Gambarov, D., İbrahimov, A., & Nabiyeva, F. (2011). Geographical areal types of Astragalus species spread in Nakhchivan Autonomous Republic. Kafkas Üniversitesi Fen Bilimleri *Enstitüsü Dergisi*, 4(1), 58-64.
- 14. Ganbarov, D. (2024). Rosaceae in the Mountain-Xerophyte and Steppe Vegetation of Shahbuz District, Current Status of the Woody Species. Bulletin of Science and Practice, 10(11), 37-44. https://doi.org/10.33619/2414-2948/108/04
- 15. Ganbarov, D. (2014). Spreading of Astracantha and Astragalus species of wild vegetation in the Nakhchivan Autonomous Republic flora. *International Multidisciplinary e-Journal*, 50-55.
- 16. Ganbarov, D., Aslanova, E., & Abbasov, N. (2023). New Location of the Species Astragalus mollis M. Bieb. (Fabaceae) in the Flora of Nakhchivan (Azerbaijan). Bulletin of Science and Practice, 9(11), 75-79. (in Russian). https://doi.org/10.33619/2414-2948/96/08

- 17. Ganbarov, D., & Babayeva, S. (2020). Systematical Structure, Geographical Areal Classes and Ecological Groups of Rosa L. Genus Spreading in the Flora of Nakhchivan Autonomous Republic. Bulletin of Science and Practice, 6(6), 55-60. https://doi.org/10.33619/2414-2948/55/07
- 18. Ganbarov, D., & Babayeva, S. (2022). Floristic Analysis of the Distribution of the Crataegus L. Genus in the Mountain Xerophyte and Steppe Vegetation of Nakhchivan. Bulletin of Science and Practice, 8(10), 27-33. https://doi.org/10.33619/2414-2948/83/02
- 19. Ganbarov, D., Babayeva, S., Seyidov, M., & Jafarova, F. (2024). Phytocoenological Analysis of Species Malvaceae and Their Distribution in the Flora of Nakhchivan Autonomous Republic. Bulletin of Science and Practice, 10(5), 55-60. https://doi.org/10.33619/2414-2948/102/07
- 20. Gambarov, D., & Babayeva, S. (2022). Ecobiological features of the Crataegus L. Species spreading in the mountainious-xerophit and flora of the nakhchivan autonomous republic. Estestvennye i tekhnicheskie nauki, (10), 51-55.
- 21. Ibragimov, A., Nabieva, F., & Ganbarov, D. (2024). Berberis aquifolium Pursh New Species for the Flora of Nakhchivan Autonomous Republic of Azerbaijan. Bulletin of Science and Practice, 10(1), 58-64. (in Russian). https://doi.org/10.33619/2414-2948/98/07
- 22. 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
- 23. Mammadli, T., & Ganbarov, D. (2024). Study of Populations of Urtica dioica L. in the Mountain Areas of Nakhchivan Autonomous Republic. Bulletin of Science and Practice, 10(4), 53-58. https://doi.org/10.33619/2414-2948/101/07
- 24. Mammadli, T., Ganbarov, D., Babayeva, S. & Bayramov, B. (2024). Productivity of SpringAutumn Pastures in Mountainous Areas in Nakhchivan. Bulletin of Science and Practice, 10(8), 153-160. https://doi.org/10.33619/2414-2948/105/17
- 25. Mammadli, T., Ganbarov, D., & Bayramov, B. (2024). Regularities of Distribution of Feed Plants in the Vegetation of Gunnut-Kapychik Physical-Geographical Region. Bulletin of Science and Practice, 10(6), 131-137. https://doi.org/10.33619/2414-2948/103/19

#### Список литературы:

- 1. Аббасов Н. К., Ганбаров Д. Ш., Сейидов М. М. Новая находка для флоры Азербайджана - Dracocephalum thymiflorum L. // Бюллетень науки и практики. 2024. Т. 10. №1. C. 52-57. https://doi.org/10.33619/2414-2948/98/06
  - 2. Аскеров А. М. Флора Азербайджана. Баку, 2016.
- 3. Бабаева С. Р. Современное положение древесных культур семейства Rosaceae во флоре Нахичевани // Бюллетень науки и практики. 2022. Т. 8. №12. С. 104-110. https://doi.org/10.33619/2414-2948/85/13
- 4. Бабаева С. Фитоценологическая характеристика древесных пород семейства Rosaceae в степной растительности флоры Нахичевани // Бюллетень науки и практики. 2023. Т. 9. №5. C. 57-63. https://doi.org/10.33619/2414-2948/90/06
- 5. Бабаева С. Р. Закономерности распределения древесных видов растений семейства Rosaceae кустарниковой растительности по долинам рек и склонам ущелий в Нахчыванской Автономной Республике // Бюллетень науки и практики. 2024. Т. 10. №1. С. 69-79. https://doi.org/10.33619/2414-2948/98/09
- 6. Бабаева С. Современное состояние флоры древесных видов Rosaceae в горноксерофитной и степной растительности Ордубадского района // Бюллетень науки и практики. 2024. T. 10. №7. C. 41-48. https://doi.org/10.33619/2414-2948/104/05

- 7. Бабаева С. Особая охрана природных территорий Нахичеванской Автономной 2024. Республики // Бюллетень науки и практики. T. 10. **№**11. https://doi.org/10.33619/2414-2948/108/10
- 8. Бабаева С. Таксономический спектр видов рода Potentilla L. семейства Rosaceae во флоре Нахичевани // Бюллетень науки и практики. 2024. Т. 10. №8. С. 51-58. https://doi.org/10.33619/2414-2948/105/06
- 9. Ganbarov D. S., Ibragimov A. S. New species and their bioecological features of Astragalus spread in the area of Nakhchivan Autonomous Republic // International Journal Multidisciplinary Research and Development. 2015. V. 2. №4. P. 696-697.
- 10. Ganbarov D. S., Ibrahimov A. S. Astragalus dasyanthus L.(Fabaceae), a new species to the flora of Azerbaijan // International Journal of Multidisciplinary Research and Development. 2015. V. 2. №1. P. 426-427.
- 11. Ganbarov D. S., Aslanova Y. A., Matsyura A. V. Astragalus cephalotes Banks & Sol. a new species for the Republic of Azerbaijan // Acta Biologica Sibirica. 2024. №10. P. 465–470. https://doi.org/10.5281/zenodo.11216116
- 12. Аскерова Р. К., Ахундов Г. Ф., Исаев Я. М. Флора Азербайджана. Т. VIII. Баку, 1961, C. 499-512.
- 13. Gambarov D., İbrahimov A., Nabiyeva F. Geographical areal types of Astragalus species spread in Nakhchivan Autonomous Republic // Kafkas Üniversitesi Fen Bilimleri Enstitüsü Dergisi. 2011. V. 4. №1. P. 58-64.
- 14. Ганбаров Д. Rosaceae в горно-ксерофитной и степной растительности Шахбузского района, современное состояние древесных видов // Бюллетень науки и практики. Т. 10. №11. C. 37-44. https://doi.org/10.33619/2414-2948/108/04
- 15. Ганбаров Д., Алиева С. Распространение видов дикой растительности Astracantha и Astragalus Нахчыванской Автономной Республики. Международный флоре междисциплинарный электронный журнал, 2014. стр.-50-55
- 16. Ганбаров Д. Ш., Асланова Е. А., Аббасов Н. К. Новое местонахождение вида Astragalus mollis M. Bieb. (Fabaceae) во флоре Нахичевани (Азербайджан) // Бюллетень науки и практики. 2023. Т. 9. №11. Р. 75-79. https://doi.org/10.33619/2414-2948/96/08
- 17. Ганбаров Д., Бабаева С. Систематическая, флористическая и экологическая характеристика видов рода Rosa L., распространенных в Нахичеванской автономной республике // Бюллетень науки и практики. Бюллетень науки и практики. 2020. Т. 6. №6. С. 55-60. https://doi.org/10.33619/2414-2948/55/07
- 18. Ганбаров Д. Ш., Бабаева С. Р. Флористический анализ распространения рода Crataegus L. в горной ксерофитной и степной растительности Нахичевани // Бюллетень науки и практики. 2022. Т. 8. №10. С. 27-33. https://doi.org/10.33619/2414-2948/83/02
- 19. Ганбаров Д. Ш., Бабаева С., Сеидов М., Джафарова Ф. Фитоценологический анализ видов Malvaceae и их распространение во флоре Нахчиванской автономной Республики // Бюллетень науки и практики. 2024. Т. 10. №5. С. 55-60. https://doi.org/10.33619/2414-2948/102/07
- 20. Ганбаров Д. Ш., Бабаева С. Р. Ecobiological features of the Crataegus L. Species spreading in the mountainious-xerophit and flora of the nakhchivan autonomous republic // Естественные и технические науки. 2022. №10. С. 51-55.
- 21. Ибрагимов А. Ш., Набиева Ф. Х., Ганбаров Д. Ш. Berberis aquifolium Pursh новый вид для флоры Нахчыванской Автономной Республики Азербайджана // Бюллетень науки и практики. Т. 10. № 1. 2024. С. 58-64. https://doi.org/10.33619/2414-2948/98/07

- 22. Маммадли Т. Б., Бабаева С. Р., Байрамов Б. С. Научные основы использования некоторых кормовых растений, распространенных в высокогорных районах Нахичевани // Бюллетень науки и практики. 2024. Т. 10. №8. С. 108-114. https://doi.org/10.33619/2414-2948/105/12
- 23. Мамедли Т. Б., Ганбаров Д. Ш. Изучение популяций Urtica dioica L. в горной местности Нахчиванской Автономной Республики // Бюллетень науки и практики. 2024. Т. 10. №4. C. 53-58. https://doi.org/10.33619/2414-2948/101/07
- 24. Mammadli T., Ganbarov D., Babayeva S., Bayramov B. Productivity of Spring-Autumn Pastures in Mountainous Areas in Nakhchivan // Бюллетень науки и практики. 2024. Т. 10. №8. C. 153-160. https://doi.org/10.33619/2414-2948/105/17
- 25. Mammadli T., Ganbarov D., Bayramov B. Regularities of Distribution of Feed Plants in the Vegetation of Gunnut-Kapychik Physical-Geographical Region // Бюллетень науки и практики. 2024. Т. 10. №6. С. 131-137. https://doi.org/10.33619/2414-2948/103/19

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