

UDC 502/504+576.7
AGRIS F40

https://doi.org/10.33619/2414-2948/68/02

RARE TYPES INCLUDING IRIDACEAE JUSS. OF THE GARAGUSH MOUNTAIN

©Novruzi N., Nakhchivan Teachers Institute, Nakhchivan, Azerbaijan, nnurlana91@mail.ru

РЕДКИЕ ВИДЫ IRIDACEAE JUSS. ГОРЫ ГАРАГУШ

©Новрузи Н. А., Нахичеванский педагогический институт,
г. Нахичевань, Азербайджан, nnurlana91@mail.ru

Abstract. The genus *Iris* Tourn. ex L. of the family Iridaceae Juss. there are 200 different species in the Northern Hemisphere. There are more than 30 species of this genus in the territory of the Republic of Azerbaijan, some of which are endemic to Azerbaijan or the Caucasus. All irises are decorative and used in ornamental gardening. *Iris caucasica* Stev. (*Iris caucasica* Hoffm.) and *I. lycotis* Woronow (*Iris iberica* subsp. *lycotis* (Woronow) Takht.) grows on rocky and grassy slopes of The Garagush Mountain. *Iris caucasica* Stev. is included in the Red Data Book of Nakhchivan AR as an important subcategory of protection with the status of Lower Risk — LR (a — Conservation Dependent — CD). *Iris lycotis* Woronow has been to its activity and other abiotic factors, its range is reduced its biology is poorly studied and it is included as an endangered species in the Red Data Book of Nakhchivan AR with the status of Near Threatened — NT. Species included in this category should be enshrined in special protected areas and their biological characteristics should be studied.

Аннотация. Род *Iris* Tourn. ex L. из семейства Iridaceae Juss. насчитывает 200 различных видов в Северном полушарии. На территории Азербайджана встречается более 30 видов этого рода, некоторые из которых являются эндемиками Азербайджана или Кавказа. Все ирисы используются в декоративном садоводстве. *Iris caucasica* Stev. (*Iris caucasica* Hoffm.) и *I. lycotis* Woronow (*Iris iberica* subsp. *lycotis* (Woronow) Takht.) растут на каменистых и травянистых склонах горы Гарагуш. *Iris caucasica* Stev. внесен в Красную книгу Нахичеванской АР как важная подкатегория охраны со статусом «низкий риск» — LR (а — Conservation Dependent — CD). *Iris lycotis* Woronow более подвержен воздействию абиотических факторов, его ареал сокращается, биология плохо изучена, и он включен как исчезающий вид в Красную книгу Нахичеванской АР со статусом находящегося под угрозой исчезновения — NT. Виды, включенные в эту категорию, должны быть сохранены на особо охраняемых территориях, а их биологические характеристики должны быть изучены.

Keywords: Iridaceae Juss., *Iris* Tourn. ex L., Red Book, Garagush Mountain.

Ключевые слова: Iridaceae Juss., *Iris* Tourn. ex L., Красная книга, гора Гарагуш.

Iris — Iridaceae Juss. 2315 species belonging to 80 genera have been found in all regions of the world except cold countries. One of the most widespread areas is South Africa, where about 1,500 species of 70 genera are found (<http://www.theplantlist.org/1.1/browse/A/>).

Iridaceae Juss. have 33 species of belonging to 3 genera in the Republic of Azerbaijan (*Iris* Tourn. ex L. — 22 species; *Gladiolus* Tourn. ex L. — 6 species; *Crocus* L. — 5 species) [2, p. 78–

81], and in the territory of the Nakhchivan Autonomous Republic 23 species belonging to 3 genera (*Iris* L. — 13 species, *Gladiolus* Tourn. ex L. — 6 species, *Crocus* L. — 4 species) [4; 5, p. 49–50] were noted. In subsequent studies, *Crocus polyanthus* Grossh. of the genus *Crocus* L. and *I. persica* L. species were added to the genus *Iris* L. by T. Talybov. Thus, there are 25 species of the genus belonging to 3 genera, which of the *Iris caucasica* Stev. and *I. lycotis* Woronow growing in the territory of Garagush Mountain are included in the Red Book of Nakhchivan AR [6, p. 124–153].

However, as a result of our research, *Crocus speciosus* Bieb. and *Iris paradox* Steve. which is included in the Red Book of Nakhchivan AR, in the territory of Garagush Mountain new distribution zones of have been identified.

In subsequent studies conducted in the territory of the Nakhchivan Autonomous Republic *Crocus* L. genus *Crocus polyanthus* Grossh. and sesame *Iris* L. genus *I. persica* L. was added. Thus, there are 25 species of the genus belonging to 3 genera, of which 4 species ending in the territory of Garagush Mountain are included in the Red Book of Nakhchivan AR with the following statuses.

Familia: Iridaceae Juss.

1. Genus: *Crocus* L.

1. *Crocus speciosus* Bieb. (Vulnerable — VU B2bc (II, V))

2. Genus: *Iris* L.

2.1. *Iris caucasica* Stev. (Lower Risk — LR (Conservation Dependent — CD))

2.2. *I. lycotis* Woronow (Near Threatened — NT)

2.3. *I. paradoxa* Stev. (Vulnerable — VU A3cd; B1b (III) c (IV))

Representatives of the genus *Iris* are root and bulbous perennial grasses. They have sessile, linear, sword-shaped leaves arranged in two rows. The flowers are bisexual, actinomorphic or zygomorphic, often large and brightly colored, clustered in different groups of flowers. Inflorescence double, 6-lobed, lose or deciduous, arranged in two circles. There are 3 stamens. The ovary has a bottom, a large number of 2 integumentary ovaries and 3 nests. The column is branched from the top. It is trilocular or three-parted, sometimes the slices of the column (for example, iris) widen to form a petal. The flower has a formula $P_{3+3} A_3 \underline{G}_{(3)}$.

The fruit is a multi-seeded box with lids. The seeds are endospermic. Rooted, tuberous root and onions with root are very common among them. It is a specialized entomophile family (both tropical and ornithophilic). This family is characterized by a mouthpiece that differs from all covered seeds. All species of the genus *Iris* L. are decorative and are successfully used in floriculture [3, p. 361–364].

Iris caucasica Stev. and *I. lycotis* Woronow in “Rams” and Khanbulagi of Garagush Mountain (2600 m), *Iris paradoxa* Stev in Khanbulagi and “Aiy sesi”, *Crocus speciosus* Bieb. in Salakhan and Kecheltepe (2744 m) is collected from rocky and grassy slopes.

Iris caucasica Stev. is spread in the lower and middle mountain belts of Nakhchivan AR around Ardij and Garagush mountains of Sharur region, Batabat of Shahbuz region, Gizilja village of Julfa region. Grows on rocky and grassy slopes. Due to its limited distribution, the species has limited natural resources. Propagated by seeds and onions. It is a perennial herb. The bulb is ovoid or oblong, 2.0–2.5 (3.5) cm wide, covered with dark brown-gray curtain. It has rope roots running from the root collar. Body height is 7–15 cm, sometimes 20 cm. Leaves up to the top. The leaves are grayish-green or blue, sword-shaped, gradually pointed, sickle-shaped, usually jagged along the veins, the edges are bordered with white lines, six short lashes. The tube of the inflorescence is 4–5 times longer than the ovary. It has large yellow flowers. Examination of a trunk are found in 1–3 pieces. Belongs to the type of Iran geographical area. Vegetation period is April-May. During this

time, it blooms and bears seeds. It is a mesoxerophyte plant. Used as an ornamental plant. The reasons for the inclusion in the Red Book are the small number of species, population, environmental and anthropogenic factors. It is cultivated in the collection of rare plants of the Botanical Garden of the Institute of Bioresources of the Nakhchivan Branch of Azerbaijan NAS. As populations are relatively threatened, it is to protect them areas in the Hasan Aliyev Zangazur National Park and Arpachay State Nature Reserve have been taken under control as an important species. It is included in the Red Books of Azerbaijan and Nakhchivan AR [1, p.154–155; 6, p. 127–129].

Iris lycotis Woronow is widespread in Azerbaijan, but in the plains, low and middle mountain belts of Nakhchivan AR. It is described on the basis of materials collected in Daridagh areas of Julfa region of Nakhchivan AR. Grows on low-yielding dry clay, gravel slopes and wormwood semi-deserts. Although it is widespread, it has little natural resources as it is found in small groups everywhere. Propagated by seeds and rhizomes. It is a perennial polymorphic herb. Flowering comes in different colors. The rhizome is dense, short and creeping, with a stem 10–20 cm, sometimes 25 cm, ending with a single large flower. The leaves are grayish, dull, narrow-linear, 2–4 mm wide, often sickle-shaped, usually shorter than the trunk. It flowers in April-May and forms seeds. It is an ornamental plant. It is a mesoxerophyte. Atropatan is a type of geographical area.

Natural reserves have been altered by human activity and some abiotic factors. *Iris lycotis* Woronow is included in the Red Data Book of Nakhchivan Autonomous Republic under the status of Near Threatened - NT as a species whose habitat is reduced due to human activity and other abiotic factors, its biology is poorly studied, and close to danger [6, p. 142–144]. It is cultivated in the collection of rare plants of the Botanical Garden of the Institute of Bioresources of the Nakhchivan Branch of ANSA. It is included in the Red Book of Azerbaijan and the former USSR for its effective and sustainable use [1, p. 164-165]. Its area is gradually shrinking, its biology is poorly studied, and it is endemic to the Arpachay.

Ordubad and Arazboyu State Nature Reserves



Iris caucasica (Hoffm.) Klatt



Iris lycotis Woronow

Iris paradox Stev. is found in the Republic of Azerbaijan, but only in the territory of Nakhchivan AR, in the territory of Validag, Dahna and Khangulag of Garagush mountain and

“Voice of the bear”. Described from the South Caucasus. It is a perennial plant. The rootstock is dense and creeping. The stem is 7–18 (23) cm high, with a large flower at the end of the stem. The leaves are grayish-blue, oblong-linear, 3–5 mm wide. The upper leaves are grass-shaped, the edges are curtain-shaped, pointed with a scalpel. The fallopian tube is slightly shorter than the ovary. External inflorescences are horizontally arranged, very short, with wide nails. It is linear-spherical, short semicircular, 3–4 cm long, 10–12 mm wide, almost black-purple, relatively light on the surface, with opposite stripes, such as black-purple stripes, but also on the nails. The inner parts are wide, directed upwards, broadly ovate or rounded, the nail is narrowed, 5–7 (8) cm long, 3.0–4.5 cm wide, purple and dark-veined. The parts of the tooth are 2 times shorter than the parts of the inflorescence, the toothed section is numerous, with numerous brown dots and stripes. The dust is blue. The box is oval or elliptical, trilingual, with a short protrusion, 5 cm long. Geophyte is an ornamental plant. It is a xeromesophyte. Iran is a geographical area of the South Caucasus. It is included in the Red Books of the Republic of Azerbaijan and Nakhchivan AR [1, p. 172-173; 6, p. 145-147].

Crocus L. there are 12 species in the Caucasus and 6 species in Azerbaijan of the 75 species of distributed in Europe, the Mediterranean countries, Front and Central Asia. There are 5 species in the territory of Nakhchivan AR, one of which is cultivate. *Crocus speciosus* Bieb. is included in the Red Book of Nakhchivan AR with the status of Vulnerable — VU B2bc (II, V) as a susceptible species, distributed in limited areas and exposed to adverse effects [6, p. 124–126].

The main distribution zones in Nakhchivan AR are found in the forest steppes and meadows of the middle and upper mountain ranges in Batabat of Shahbuz region and Arajik mountain of Julfa region, Salakhan and Kecheltepe of Garagush mountain. It is included in the Red books of the Republic of Azerbaijan [1, p. 140–141].



Iris paradoxa Steven



Crocus speciosus M. Bieb.

The rhizome is spherical or pressed — spherical, 1–2 cm in diameter, the rule is auxiliary rhizome, separated from the rule of a thin curtain-shaped cover in the form of a ring. The leaves are linear, 3 mm wide, and develop after flowering in the spring of next year. The height of the plant reaches 10 to 40 cm. Inflorescence 3–6 cm long, bright purple, the throat is pale, bare, the parts are oblong or elliptical scales, 3 elongated reddish stripes. The outer petals are reddish from the lower part. It is dusty in color. The mouth is linearly divided and thickened at the tip. It is a beautiful ornamental and spice plant. Research in the field of cultivation has shown that it does not lag behind

the famous saffron planted in Absheron. It is a food and ornamental plant. It is a mesoxerophyte. Asia Minor-Caucasus is a geographical area.

References:

1. (2013). Red Book of the Republic of Azerbaijan. Baku. (in Azerbaijani).
2. Askerov, A. M. (2016). Flora of Azerbaijan (Higher Plants - Embryophyta). Baku. (in Azerbaijani).
3. Gurbanov, E. M. (2009). Systematics of higher plants. Baku. (in Azerbaijani).
4. Talybov, T. Kh. (2008). Systematic review and teaching methods of plants of the subclass Liliidae (based on materials from the Nakhchivan Autonomous Republic). Baku. (in Azerbaijani).
5. Talybov, T. Kh., & Ibragimov, E. (2008). Taxonomic spectrum of the flora of the Nakhchivan Autonomous Republic (Higher spore, gymnosperms and angiosperms). Nakhchivan. (in Azerbaijani).
6. Talybov, T. Kh., & Ibragimov, E. (2010). Red Book of Flora of the Nakhchivan Autonomous Republic (Higher spore, gymnosperms and angiosperms). Nakhchivan. (in Azerbaijani).

Список литературы:

1. Красная книга Азербайджанской Республики. Баку: Восток-Запад, 2013. 676 с.
2. Аскеров А. М. Флора Азербайджана (Высшие растения - Embryophyta). Баку: TEAS Press, 2016. 443 с.
3. Гурбанов Е. М. Систематика высших растений. Баку, 2009. 430 с.
4. Талыбов Т. Х. Систематический обзор и методика обучения растений подкласса Liliidae (на материалах Нахичеванской АР). Баку: МБМ, 2008. 40 с.
5. Талыбов Т. Х., Ибрагимов Э. Таксономический спектр флоры Нахичеванской Автономной Республики (Высшие споровые, голосемянные и покрытосеменные растения). Нахичевань, 2008. 364 с.
6. Талыбов Т. Х., Ибрагимов Э. Ш. Красная книга флоры Нахичеванской Автономной Республики (Высшие споровые, голосемянные и покрытосеменные растения). Нахичевань, 2010. 674 с.

*Работа поступила
в редакцию 30.05.2021 г.*

*Принята к публикации
03.06.2021 г.*

Ссылка для цитирования:

Novruzli N. Rare Types Including Iridaceae Juss. of the Garagush Mountain // Бюллетень науки и практики. 2021. Т. 7. №7. С. 19-23. <https://doi.org/10.33619/2414-2948/68/02>

Cite as (APA):

Novruzli, N. (2021). Rare Types Including Iridaceae Juss. of the Garagush Mountain. *Bulletin of Science and Practice*, 7(7), 19-23. <https://doi.org/10.33619/2414-2948/68/02>