

BIOLOGICAL SCIENCES

BIOMORPHOLOGICAL FEATURES AND DISTRIBUTION ZONES OF THE GENUS *NARCISSUS* L. IN THE FLORA OF THE NAKHCIVAN AUTONOMOUS REPUBLIC

Leyla Mammadova

Master of Botany

Nakhchivan State University

БИОМОРФОЛОГИЧЕСКИЕ ОСОБЕННОСТИ И ЗОНЫ РАСПРОСТРАНЕНИЯ РОДА *NARCISSUS* L. ВО ФЛОРЕ НАХЧЫВАНСКОЙ АВТОНОМНОЙ РЕСПУБЛИКИ

Лейла Маммадова

Магистр ботаники

Нахчыванский Государственный Университет

Abstract

The flora of the Nakhchivan Autonomous Republic includes 4 species of the genus *Narcissus* L. (*Narcissus laticolor* (Haw.) Steud., *Narcissus poeticus* L., *Narcissus pseudonarcissus* L., *Narcissus tazetta* L.). These species are cultivated for rejuvenation purposes in new ornamental gardens. Subsequently, *Narcissus poeticus* L. and *Narcissus tazetta* L. were planted in the Nakhchivan State University Botanical Garden. The biomorphological characteristics and regions of the auxiliary species of the genus *Narcissus* L. in the flora of the Nakhchivan Autonomous Republic were studied. Renewed and artificial silk are widely used in the decoration of gardens and parks.

Аннотация

Четыре вида рода *Narcissus* L. (*Narcissus laticolor* (Haw.) Steud., *Narcissus poeticus* L., *Narcissus pseudonarcissus* L., *Narcissus tazetta* L.), входящие во флору Нахчыванской Автономной Республики, широко распространены. Эти виды в основном культивируются в ландшафтном дизайне в декоративном садоводстве. Кроме того, виды *Narcissus poeticus* L. и *Narcissus tazetta* L. высажены в Ботаническом саду Нахчыванского государственного университета. Изучены биоморфологические характеристики и зоны распространения видов рода *Narcissus* L., входящих во флору Нахчыванской Автономной Республики. Установлено, что эти виды широко используются в декорировании садов и парков, главным образом в городских и районных центрах.

Keywords: *Narcissus* L., genus, species, distribution area, biomorphological characteristics.

Ключевые слова: *Narcissus* L., род, вид, ареал распространения, биоморфологические характеристики.

Introduction. The territory of the Nakhchivan Autonomous Republic, with its unique nature and rich flora, is considered one of the oldest regions in terms of its formation and formation. When examining the geological past of the territory, it becomes clear that tropical forests existed here. However, later, as a result of sharp climate change, as well as the displacement of continents and other geological processes, a modern soil-climate and corresponding flora biodiversity emerged here. Therefore, the modern territory of the Nakhchivan Autonomous Republic occupies an important place in the South Caucasus with its genesis and geographical position.

The study of the biomorphological characteristics of *Narcissus* L. species, which are widespread in the territory of the autonomous republic and are of great importance in enriching the flora, as well as in medicinal and decorative aspects, is a topical issue.

More than 60 species of the genus *Narcissus* are distributed in the humid high mountain meadows and grassy slopes of the territories from Central Europe to North Africa, from Western Europe to Western Asia. Four species of the genus are distributed in the flora of the Republic of Azerbaijan, including the Nakhchivan Autonomous Republic, of which three are cultivated

and one species (*Narcissus laticolor*) is distributed in the wild.

Material and methods. The material for the study was taken from species belonging to the genus *Narcissus* L., distributed in the territory of the Nakhchivan Autonomous Republic. In determining the species, works such as A.A. Grossheim "Flora of the Caucasus", "Flora of Azerbaijan" [A.A. Grossheim, 1957, 1945], L.I. Prilipko [Prilipko L.I., 1970], S.K. Cherepanov [Cherepanov S.K., 1995], and the Summary of the "Flora of the Caucasus", etc. were used. The latest taxonomic changes were clarified using World Flora Online [8].

In specifying the names of plants distributed in the area, the works of E.M. Gurbanov "Systematics of Higher Plants", A.M. Askerov "Plant World of Azerbaijan", T.H. Talibov, A.Sh. Ibrahimov and A.M. Ibrahimov were used [A.M. Askerov, 2016; E.M. Gurbanov, 2009; T.H. Talibov, A.Sh. Ibrahimov, A.M. Ibrahimov, 2021].

Discussion of the results. The genus *Narcissus* L., which is included in the flora of the Nakhchivan Autonomous Republic, is represented by 4 species (*Narcissus laticolor* (Haw.) Steud., *Narcissus poeticus* L., *Narcissus pseudonarcissus* L., *Narcissus tazetta* L.).

The bulbs of the species *Narcissus laticolor* (Haw.) Steud. are 4 cm wide, spherical-ovate in shape, covered with dark brown scales. The leaves are 12 mm wide, linear in shape, equal to the corolla. The upper side of the leaf is connected to the umbel-shaped corolla at the base. The umbel consists of 5-7 flowers. The inflorescence is white, with ellipsoidal wide sections, tubular. The corolla is yellowish-golden in color, narrow, cup-shaped, with entire edges. The tube is relatively longer than the corolla.

Narcissus laticolor (Haw.) Steud. is distributed widely around the villages of Agbulag, Kuku, and Ashagi Qishlag in Shahbuz district, in the area of Mazra village in Ordubad district, and in the areas of Leketagh in Julfa district.

The plant is cultivated for decorative purposes in the cultural flora of Azerbaijan, mainly in the Agsu and Kurdamir districts and in the Nakhchivan Autonomous Republic, in the decoration of parks.

The stem of *Narcissus poeticus* L. is 20-40 cm high and bilateral. Its bulbs are 25-40 cm wide, spherical-ovate in shape, covered with dark brown scales. Its leaves are 5-9 mm wide, linear, lobed, smooth on the surface, light green in color, and approximately equal to the flower stalk. Its flowers are large and solitary. The inflorescence is tubular, whitish-green, obovate in shape, and pointed. The corolla is cup-shaped, orange-red in color, the edges of the petals are toothed, and the flowers are fragrant. The plant is an early spring plant, producing flowers and seeds in March-April.

Narcissus poeticus is widely used as an ornamental plant, in landscaping gardens and parks. Due to the amount of essential oil it contains, it is used in the perfume industry. The plant is mainly planted in parks and gardens in the Nakhchivan Autonomous Republic, mainly in Nakhchivan city, Sharur city, and Ordubad city.

The species *Narcissus poeticus* L. is cultivated in the Botanical Garden of Nakhchivan State University.

The stem of *Narcissus pseudonarcissus* L. is 40 cm high. Its bulbs are 2.5-4 cm wide, spherical-ovate in shape, covered with dark brown scales. The stem is flattened, single-flowered. Its leaves are 4-6 in number, linear, oblong, flat-topped, grayish green, located below or equal to the flower stalk. Its flowers are 5 cm long, located horizontally to the stem, the corolla is yellow. The perianth is broadly lanceolate, light yellow, with long tubular stamens. The pistil is broadly tubular, hairy on the surface, and the mouth is pubescent. The plant produces flowers and seeds in March - April.

Narcissus pseudonarcissus L. is cultivated as an ornamental plant in the cultural flora of the Nakhchivan Autonomous Republic. It is widely found in parks mainly in the Nakhchivan city area and in the Ordubad, Julfa, and Shahbuz districts.

Narcissus tazetta L. The stem is 30-50 cm high, flattened. The leaves are linear, grayish green, oblong, and equal to the peduncle. The bulbs are 3-5 cm wide, spherical to ovoid in shape. The corolla is included in the umbel flower group consisting of 3-15 flowers, cup-shaped, the flowers are entire, yellow in color. The perianth is white, obovate in shape.

The plant is native to the Mediterranean region. It is mainly cultivated as an ornamental plant in the cultural flora.

Narcissus tazetta L. species is cultivated for decorative purposes in gardens and parks in the areas of Qivrag village of Kangarli district, Heydarabad settlement of Sadarak district, Sharur district, and Shahbuz district in the Nakhchivan Autonomous Republic. It is also used to decorate flower bouquets.

Result. During the study, it was found that the genus *Narcissus* L. is represented by 4 species (*Narcissus laticolor* (Haw.) Steud., *Narcissus poeticus* L., *Narcissus pseudonarcissus* L., *Narcissus tazetta* L.) in the cultivated and wild flora of the Nakhchivan Autonomous Republic. The species *Narcissus laticolor* (Haw.) Steud. is found in the wild flora of the autonomous republic around the villages of Agbulag, Kuku, and Ashagi Qishlag of the Shahbuz region, in the area of the village of Mazra of the Ordubad region, and in the areas of Leketagh of the Julfa region. The species *Narcissus poeticus* L., *Narcissus pseudonarcissus* L., and *Narcissus tazetta* L. are cultivated for decorative purposes in the landscaping of gardens and parks. During the study, the bioecological characteristics and distribution zones of the species were studied.

References

1. Aydin Askerov. (2016). Plant world of Azerbaijan (Higher plants-Embryophyta). Baku, TEAS Press Publishing House, 444 p.
2. Gurbanov E.M. (2009). Systematics of higher plants. Textbook. Baku: "Baku University", 429 p.
3. Tariyel Talibov, Aliyar Ibrahimov, Anvar Ibrahimov. (2021). Taxonomic spectrum of the flora of the Nakhchivan Autonomous Republic (Hydrosporous, Gymnosporous and Angiospermous plants) (II edition). 426 p.
4. Grossgeim A.A. Flora of the Caucasus. (1945). Baku: Az.fil Publishing House. USSR Academy of Sciences, T. III, ed. 2, p. 328
5. Abstract of the flora of the Caucasus. (2012). Volume 3. Part 2. Moscow; St. Petersburg: KMK Scientific Publications Partnership. 623 p.
6. Prilipko L.I. (1970). Vegetation cover of Azerbaijan. Baku: Elm Publishing House, 1970, 170 p.
7. Cherepanov S.K. (1995). Vascular plants of Russia and adjacent states (within the former USSR). St. Petersburg: Mir i semya-95, 1995, 992 p.
8. <https://www.worldfloraonline.org>