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## CHOROLOGICAL ANALYSIS OF SPECIES OF *Sedum* L. GENUS DISTRIBUTED IN THE LESSER CAUCASUS

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## ХОРОЛОГИЧЕСКИЙ АНАЛИЗ ВИДОВ РОДА *Sedum* L., РАСПРОСТРАНЕННЫХ НА МАЛОМ КАВКАЗЕ

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**Abstract.** The *Sedum* L. genus is represented by 22 species in the Azerbaijan flora. According to the system of N. N. Portenier, 14 species distributed in the Lesser Caucasus were chorologically analyzed and their geographical elements were determined.

**Аннотация.** Род *Sedum* L. во флоре Азербайджана представлен 22 видами. По системе Н. Н. Портенья, проведен хорологический анализ 14 видов, распространенных на Малом Кавказе, и определены их географические элементы.

**Keywords:** geographical element, *Sedum*, chorological analysis.

**Ключевые слова:** географический элемент, очиток, хорологический анализ.

Conservation of biodiversity is one of the most important problems of our time. As we know, the plant world is important in human life. There are many important plants in the flora of Azerbaijan. Among them, ornamental plants occupy a special place. Thus, ornamental plants are of particular importance in the design of gardens and parks and pleasing people's tastes. One of such plants is the species of the genus *Sedum* L. Species of the genus are distributed mainly in the middle and subalpine zone on rocky places, rock outcrops, and gravel areas. The beauty of their appearance allows them to be used in landscape design. The genus was developed by I. I. Karyagin in the flora of Azerbaijan [4, 8].

60 years have passed since this study, there is a need to re-examine the systematics, bioecological characteristics and taxonomy of the genus. As a result of the conducted research, the basis for the study of geographical elements was created [1, 2, 6].

In terms of floristic richness, the territory of our Republic occupies a special place, and here Iran-Turan, the Mediterranean Sea, the Caucasus are very similar to each other in terms of the similarity of climatic characteristics. Azerbaijan is made up of 4 provinces (Atropatan, Caucasus, Hirkan and Turan) located in two floristic regions where the elements of the Mediterranean Sea and Iran-Turan meet. Of these, the Caucasus, consisting of 5 (Guba, Pre-Caspian, Gobustan, Shamakhi, Lesser Caucasus), Atropatene — 2 (Nakhchivan, Diabar) Hirkan — 1 (Talysh), Turan — 2 (Eastern Caucasus, Absheron) botanical-geographical regions are considered to be ancient ones which are constantly developing, and having a larger range [1, 3, 4].

The research showed that, 1 species (*Sedum acre* L.) are distributed only in the Lesser Caucasus, 2 species (*Sedum hirsutum* All., *S. pentapetalum* Boriss.) everywhere in Azerbaijan,

6 species (*Sedum pilosum* M. Bieb., *Sedum oppositifolium* (Ledeb.) Raym.-Hamet, *S. gracile* C. A. Mey., *S. pallidum* M. Bieb., *S. annuum* L., *S. subulatum* (C.A. Mey.) Boiss.) in Gobustan, Lesser Caucasus, Nakhchivan, Diabar, Lank. area, 1 species (*Sedum stoloniferum* S.G. Gmel.) in Gobustan, Lesser Caucasus, Lankaran, 1 species (*Sedum tenellum* M. Bieb.) in Gobustan, Lesser Caucasus, Nakhchivan, 1 species (*Sedum album* L.) in Lesser Caucasus, Nakhchivan, 1 species (*Sedum sempervivoides* Fisch. ex M. Bieb.) in Nakhchivan, Lesser Caucasus, Lankaran areas [3, 4].

We have conducted chorological analysis of the species of the genus *Sedum* L. with different geographical ranges and determined their geographical elements based on N. N. Portnier's system [5, 7, 9, 10].

### Research Results and Discussion

#### Widespread species

##### 1. Circumboreal element.

The natural range of most of the species included in this element covers more of the Old and New world.

*Sedum album* L. It is widespread in 1000-1800 m height, middle and upper mountain belt, stony and rocky places.

#### Boreal species

##### 2. Caucasus-European Element.

Its natural range includes the Caucasian-European sub-region of the Circumboreal region. The species distributed here are not distributed in other provinces.

*Sedum acre* L. It is found in 1300 m height, in the middle mountain belt, on sandy gravelly dry slopes.

3. Caucasian element. These species are Boreal species. It includes not only elements of Caucasian flora, but also plants of nearby provinces. Especially the Euxin province, the Main Caucasus Mountain range, the Eucaucasus, real endemics.

*Sedum gracile* C.A. Mey. — found scattered on gravel slopes and rocks in the upper forests of the Alpine and subalpine zone at an altitude of 1200-2500 m. Hemicryptophyte.

*S. oppositifolium* (Ledeb.) Raym.-Hamet. Distributed in the subalpine and alpine zone at an altitude of 1200-3000 m, on stony and gravelly open slopes, in juniper dense forests.

*S. tenellum* M. Bieb. It grows on stony and gravelly slopes in alpine and subalpine zones at an altitude of 1600-3000 m.

##### 4. Euxin element.

*Sedum annuum* L. Common in the middle and upper mountain belt above 700 m, on stony rocks and rock outcrops.

Ancient Mediterranean species.

5. Mediterranean element. The species included here are distributed in 2 or more provinces and vegetation formations.

*Sedum hispanicum* L. It is distributed in the subalpine zone at an altitude of 2400 m, in dry, open, gravelly and rocky areas.

##### 6. Iran-Turanian element.

These species are Ancient Mediterranean species. The species belonging to the Iran-Turan province are distributed in 2 or more provinces of this region.

*Sedum subulatum* (C. A. Mey.) Boiss. It is found in the middle and upper mountain belt at an altitude of 1000-1800 m, on stony and gravelly slopes, rocks, phrygana-type vegetation, sometimes in forests.

*Sedum pilosum* M. Bieb. It is common on rocks in the middle and upper mountain belt at an altitude of 1000-1800 m.

*Sedum stoloniferum* S. G. Gmel. It is distributed in the lower and middle mountain belt, in forests and bushwoods, at an altitude of up to 1500 m.

*Sedum pallidum* M. Bieb. Widespread from the plain to the high mountain belt at an altitude of 500-2500 meters, on stony rocky slopes, forests, riverbeds.

*Sedum sempervivoides* Fisch. ex M. Bieb. It is widespread in the middle and upper mountain belt above 700 m, on stony and gravelly slopes.

*Sedum pentapetalum* Boriss. It is common in clayey, stony, rocky places in the lower mountain belt at an altitude of 500-800 m.

Geographical elements	Number of species	Amount, %	Species
WIDESPREAD SPECIES=1 species			
1. Circumboreal	1	7.7	<i>Sedum album</i> L.
BOREAL SPECIES=5 species			
2. Caucasus-European	1	7.7	<i>Sedum acre</i> L.
3. Caucasian	3	23.1	<i>Sedum gracile</i> C. A. Mey. <i>S. oppositifolium</i> (Ledeb.) Raym.-Hamet <i>S. tenellum</i> M. Bieb.
4. Euxin	1	7.7	<i>Sedum annuum</i> L.
ANCIENT MEDITERRANEAN SPECIES=7 species			
5. Mediterranean	1	7.7	<i>Sedum hispanicum</i> L.
6. Iran-Turanian	6	46.1	<i>Sedum subulatum</i> (C. A. Mey.) Boiss. <i>S. pilosum</i> M. Bieb. <i>S. stoloniferum</i> S. G. Gmel. <i>S. pallidum</i> M. Bieb. <i>S. sempervivoides</i> Fisch. ex M. Bieb. <i>S. pentapetalum</i> Boriss.
TOTAL	13	100	

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