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Floristic Analysis of Dogrose Species Spread in the Flora of Nakhchivan Autonomous Republic

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INTRODUCTION

Either cultivated or wild plant bio-diversity has undergone natural historical, ecological and anthropogenic impacts. The people don't always make use of these resources efficiently at all. So that the people cut the forests, destroy the habitat of the plants, graze more cattle than usual on the hayfields and pastures which are the main food basis of animal-husbandry, inhibit the natural re-growth vegetation by carrying out intensive mowing process on the meadows around the forest, in the clearing of the forest, foster the lands to fall out by becoming salty. Instead, greenery and natural re-growth measures are less focused on. Consequently, the process of erosion accelerates, the flora composition of forests, lawns, pastures is changing. Initial plant cover perishes; their space is occupied by less significant secondary plants. In such plant phytosenoses, nutritious, herbal, honey-giving, ether oily and other useful species are decreasing which are regarded valuable

for their farming significance. Harmful, poisonous and weedery plants prevail among them which are not eaten by the cattle.

For this reason, exploration of taxonymic composition, ecological groups, areal types and classes, their importance and the role of vegetation of dog-rose species spread in the flora of Nakhchivan AR are considered to be essential.

MATERIAL AND METHOD OF THE RESEARCH

The researches have been implemented since 2018. Different regions of Nakhchivan AR were chosen as the research territory while species with *Rosa* L. genus was selected as an object. In the specification of species, the works as "Сосудистые растения Росии и сопредельных государств (в переделах бывшего СССР)" by Cherepanov S.K (7), "Анализ флоры Кавказа" by Grossgame A.A (6), "Флора Азербайджана" (9), "Taxonomic spectrum of the Nakhchivan Autonomous Republic flora" by T.H.Talbov and A.S.Ibrahimov (3), methodical aid titled "In the territory of Nakhchivan Autonomous Republic the trees and shrubs of the *Rosaceae* family" by A.S. İbrahimov, M.Z. Piriyev, D.S.Ganbarov (2), "Заметки о происхождении видов *R.foetida* Herrm. и R.bicolor Jacq" by Isganderov A.T (5), "Розы. Филогении и систематика" by Krjanovskiy have been used (8).

EXPERIMENTAL PART

Dog-rose species are met in various growth environments of Nakhchivan AR. They are met from plains to sub-Alpine and Alpine zones – in the suburbs of the forests, in the shrubs, in the surrounding of the rivers, in rocky areas.

One of the leading families of in the plant cover of Nakhchivan AR is *Rosaceae* Adans. During the research that we carried out, 33 kinds of *Rosa* L. genus have spread in the area of research.

Table 1.

Taxonymic composition, ecological groups, areal classes of dog-rose species spread in the flora of Nakhchivan AR

S/№	The name of species	Ecological groups	Areal classes
1.	*Rosa canina* L.	Mesophyte	Western-palearctic
2.	*R.chinensis* Jacq.	Mesophyte	Caucausus
3.	*R.teberdensis* Chrshan.	Mesophyte	Caucausus
4.	*R.villosa* L. (R.pomifera Herrm.)	Mesophyte	Mediterranean
5.	*R.corymbifera*Borkh.	Mesophyte	Europe
6.	*R.orientalis* Dupont ex Ser. (*R. atropatenaa* Sosn.).	Mesophyte	Atropatena
7.	*R.tomentosa* Smith.	Mesophyte	Europe
8.	*R.damascena* Mill.	Mesophyte	Europe
9.	*R.multiflora* Thunb.	Xeromesophyte	Caucausus
10.	*R.chomutoviensis* Chrshan. et Laseb.	Mesophyte	Caucausus
11.	*R.floribunda* Stev. in Bess.	Mesoxerophyte	Europe
12.	*R.tuschetica* Boiss.	Xeromesophyte	Caucausus
13.	*R.pulverulenta* Bieb. (*R.azerbajdzhanica* Novopokr. et Rzazode).	Xerophyte	Atropatena
14.	*R.foetida* Herrm.	Mesophyte	Front Asia
15.	*R.nisami* Sosn.	Mesophyte	Atropatena
16.	*R.sachokiana* P. Jarosch.	Xerophyte	Alban
17.	*R.marschalliana* Sosn.	Mesophyte	Caucausus
18.	*R.karjaginii* Sosn.	Mesophyte	Atropatena
19.	*R.zangezura* P. Jarosch.	Mesophyte	Atropatena
20.	*R.iberica* Stev. ex Bieb.	Xerophyte	Small Asia - Caucausus
21.	*R.sosnovskyana Tamamsch.*	Mesophyte	Caucausus
22.	*R.buschiana Chrshan.*	Mesophyte	Caucausus
23.	*R.rapinii Boiss.*	Xerophyte	Front asia
24.	*R. haemisphaerica Herrm.*	Xeromesophyte	Front Asia
25.	*R.myriacantha DC. (ratschatyrdagı Chrshan.).*	Xerophyte	Atropatena
26.	*R. pimpinellifolia L. (R. spinosissima L.).*	Mesoxerophyte	South palearctic
27.	*R.kazarjanii Sosn.*	Mesophyte	Atropatena
28.	*R.hracziana Tamamsch.*	Xerophyte	Atropatena
29.	*R.subafzaliana Chrshan.*	Xeromesophyte	Front Asia
30.	*R.afzeliana Fries.*	Xeromesophyte	Atropatena
31.	*R.brotherorum Chrshan.*	Xeromesophyte	Atropatena
32.	*R.centifolia L.*	Mesophyte	Caucausus
33.	*R.boissieri Crep.*	Xerophyte	Atropatena

As species of *Rosa nizami, R.karjagini* noted in the table spread in minute amount in small areas and became endangered natural resources, they were included in "Red books" of Azerbaijan and Nakhchivan AR and *Rosa tuschetica, R.sosnovskyana, R.rapinii, R.pimpinellifolia, R.foetida* were included in the "Red book" of Nakhchivan AR for efficient and consistent usage (4.p. 385-405).

Also, *Rosa chinensis* species does not exist in the wilderness. They are sometimes grown in the gardens and parks. Its motherland is China. It occupies one of the first places among the ornamental roses for its beautiful and fragrant blossoms. The twining types are used in the decoration of wall and in the verdure of resorts. Particularly, numerous valuable hybrid types are extensively applied in the work of decoration-gardening.

Environmental factors are too various. Water is of great significance as an ecological factor in the spread of the plants to vast areas in different climatic conditions, in the distribution to various territories, in the formation of different classifications. According to the areas compatible to different humidity degrees, plants are distinguished from each other for various ecological groups (Table 1).

Mesophytes among *Rosa* genus are represented with 18 species, and it makes up 54,54% of total species present in the flora. Mesophytes include the species as *Rosa canina, R.centifolia, R.kazarjanii, R.sosnovskyana, R.tomentosa, R.orientalis* and so on.

Xerophytes are drought resisting plants. When water increases on the land, they make it vaporize. Xerophytes can absorb water from very wide areas thanks to strongly-evolved root system.

When there is potent drought period, height growth of the plant halts, its leaves come off gradually. Xerophytes with

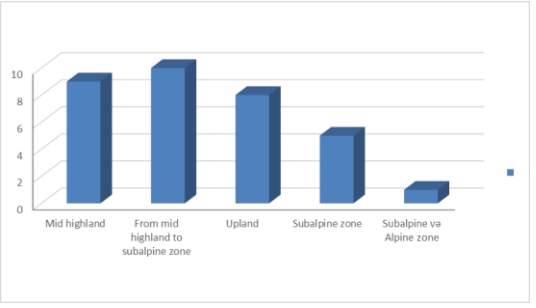
Rosa type are represented with 7 kinds and this constitutes 21.21% of total species in the flora.

Xeromesophytes include *Rosa brotherorum, R.afzeliana, R.subafzaliana, R. haemisphaerica, R.tuschetica, R.multiflora* while mesoxerophytes are R.pimpinellifolia and R.floribunda.

During the researches, geographical and areal classes have been ascertained on the basis of zonal and regional principles of species included in Rosa type spread in the territory of Nakhchivan AR. (Table 1).

Reflecting the bond between the flora of the region and the flora of big territories covering this region where the areal types of species are researched leads to the exploration of migration ways from historical point of view.

As seen from the table 1, Atropatena (11), Caucasus (10), Front Asia (4), Europe (4) areal classes are prevalent and this accounts for 87,87% of the total species. The rest areal classes include 4 species and this comprises 12,12% of the total species in the flora.



While defining the species pertaining to Rosa type according to altitudes, 5 vertical zones have been taken differing from each other with physical-geographical and ecological condition, their spread altitudes have been specified, its regularities have been explored. The diagram reflects the spread of species according to vertical altitudes (Diagram 1).

There appeared some hardships in exact determination of borders of species in noted zones. So that there are such

species that were met only in one zone while species belonging to Rosa genus are come across in some zones. For instance, Rosa hemispherical, *R.hracziana, R.sachokiana* and other species are met in the around-forest shrubs of mean mountains while *Rosa canina, R.orientalis, R.sachokiana, R.pimpinellifolia* and others are come across in the bushy slope from mean mountainous zone to sub-Alpine zone.

Undoubtedly, carried out researches do not reflect the species completely belonging to Rosa L genus spread in the territory of Nakhchivan AR. In our further researches, exploration of those species in detail is considered appropriate.

CONCLUSION

1. As a result of the research carried out, the concept of 33 species of Rosa L genus in the territory of Nakhchivan AR has been prepared and it has been ascertained that those species have spread in vertical altitudes.
2. According to ecological groups, mesophyte species are represented with 18 (54,54%) xerophytes 7 (21,21%), mesoxerophytes 2(6,06%), xeromesophytes 6 (18,18%) species respectively.
3. According to the analysis of the species for areal classes, Atropatena (11), Caucasus (10), Front Asia (4), Europe (4) areal classes are prevalent and this accounts for 87,87% of the total species. Western palearctic, Southern palearctic, Small Asia-Caucasus, Alban areal classes include only 4 species and this makes up 12,12% of the total species in the flora.

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