

Distribution and Taxonomic Composition of Rosacea Family Genus and Species in Azerbaijan Dendroflora in Natural and Cultural Conditions

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Abstract – Rosaceae Juss. In the flora of Azerbaijan as a result of perennial studies, including scientific expeditions. Tree-bushes plants of 25 genus and 285 species, 155 of natural and 130 of cultivated conditions, has been described systematic, spreading, botanical description, ecology.

Keywords – Azerbaijani Dendroflora, Rosaceae Family, Systematics, Propagation Key, Spreading Areas.

I. STATEMENT OF THE PROBLEM

Azerbaijan has very valuable and sturdy vegetation. As a result of the comprehensive monitoring of our natural and cultural dendroflora surrounded by the Greater Caucasus from the North Caucasus, the Lesser Caucasus in the south-west, and the Talish Mountains in the south, 92 families, 266 genus, and 1116 species of trees and bushes were found. One of the families in flora, which is rich in family, is *Rosaceae*. The *Rosaceae* family was encountered over 120 genus and 3150 species. There were 128 species of this family in Azerbaijan dendroflora in the 60-70 s. (Tree and bushes of Azerbaijan. Vol. III, 1970). There were three genus in the Caucasus excavation flora: *Pyrus* L., *Sorbus* L. and *Crataegus* L. The *Rosaceae* family in the flora of Azerbaijan has been studied by many authors, but modern state and classification have not been thoroughly investigated in recent years.

Purpose of this Study:

Numerous expeditions were organized in the study of Azerbaijan dendroflora, monitoring was carried out, as the result of expansion of introductory researches significantly increased the content of the species in cultural dendroflora. Comparative analysis of the distribution areas, botanical description, ecology and use of *in situ* and *ex situ* conditions of the species included in this family. As a result of the monitoring, it was revealed that at our dermatologist there are 25 genus and 285 species belonging to the *Rosaceae* family. Of these, 155 species are found in natural conditions, and 130 species are introduced [1, 2, 3, 4].

Material and Methodology:

The taxonomic composition of the 25 genus and 285 species belonging to the *Rosaceae* family is based on the Engler and APG III-IV systems (*Angiosperm Phylogeny Group*).

Findings:

The bioecological features of intruded genus have been thoroughly studied, most promising and sustainable species have been selected and proposed for use in greenery. Herbs and seeds collected during expeditions were submitted to the laboratory of Herbarium and Seeding at the Dendrology

Institute [5].

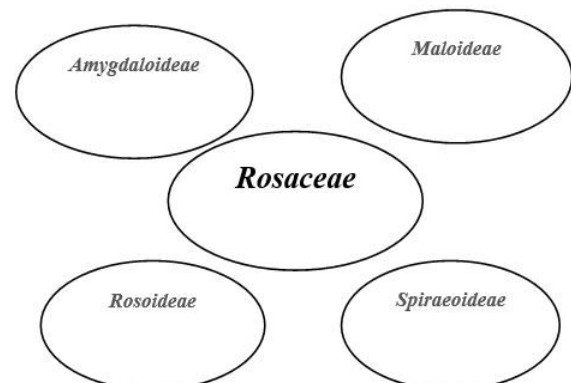
Conclusion & Significance:

This family refers to the flower, tree, bushes, and semicolons. It is one of the largest family according to the number of genus and species. Since some of these breeds are still in the formulation, their younger species are less distinct and form transitional forms (*Rosa*, *Malus*, *Rubus* etc.). Genus and species belonging to this family are not of great importance in the formation of natural forests, but they are mainly the second floor. Here, the apple and pear sorts are social, as they sometimes occupy higher floors. This family includes the most important nutritional plants for human beings. Fruit plants are mainly representatives of this family. Many plants of the family are of great importance in ornamental gardens. Life forms and botanical signs differ from each other in terms of the family of the egg in the flower, the shape and size of the fruits.

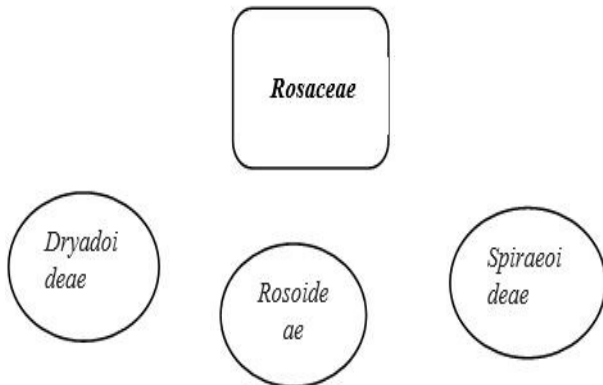
According to the modern classification morphology of fruit and the number of chromosomes *Rosaceae* is divided into 4 sub-sections (P.L. Bogdanova, 1974):



Diag. 1. Species ending in natural conditions; 2. Introduced species.



In 2007, Botanical scholars divided this family into three sub-sections based on comprehensive research:



Rosa L. (19.3%) and *Crataegus* L. (16.8%) are the most numerous genus in the *Rosaceae* age group. Below is a brief description of the genus belonging to *Rosaceae*.

There are 700 genus of *Crataegus* L. in Azerbaijan, 9 species are naturally covered in mountain ranges of the Greater and Lesser Caucasus, in open forests and forest fronts, rocky slopes, in shrubs, in jungles, sometimes in open places, and individually. 39 Species have been introduced.

Cydonia Mill. genus includes a mono species – *Cydonia oblonga* Mill. naturally, most of the species in Azerbaijan are found in the Lankaran lowland, sometimes in the middle zone of the Lankaran mountain chain.

Exochorda Lindl. - There are 5 species of naturally occurring in Asia and Korea. Two species of Azerbaijan have been introduced: *Exochorda albertii* Regel.



Crataegus monogyna



Laurocerasus officinalis

and *Exochorda giraldii* Hesse. It is coincidental in green houses, parks and gardens in Azerbaijan.

Eriobotrya Lindl. There are 1 species of genus, Central China. Used in Azerbaijan (*Eriobotrya japonica* Lindl.) in parks and gardens, in greenhouses in many areas.

Laurocerasus Roem. There are up to 25 species spread throughout Asia, the Mediterranean, and America. Some species are also found in the Antilis Islands. Only one species of wildlife in Azerbaijan – *Laurocerasus officinalis* Roem. It is found in the Greater Caucasus and Talish, in the Balakan region.

Mespilus L. in Southern and Southeastern Europe, in the Caucasus and 1 species *Mespilus germanica* L. is also spread in the Middle Asia. It is found in Guba region,

Gobustan, East and West Great Caucasus, Alaz-Agriyay, Kur-Araz lowland, Kura plain in Azerbaijan.



Mespilus germanica



Malus orientalis



Padus aviu



Photinia serrulata

Malus Mill. It includes 50 varieties spread in the moderately climatic zone of Europe, Asia and North America. There are two species of wildfires in the Caucasus and Azerbaijan: *Malus orientalis* Uglitzk. Ex Juz. and *Malus niedzwetzkyana* Dieck. In the Greater and Lesser Caucasus, in Nakhchivan, spread over low and low forest gorges.

Persica Hill. There are 5 species in North and Central China. In Azerbaijan, cultivated one species: *Persica vulgaris* Mill. It is cultivated in individual gardens in all regions of Azerbaijan, especially in plain and foothold areas.

Padus Mill. It includes 20 species ending in Europe, Asia Minor and India in natural conditions. There are only two species in the Caucasus and Azerbaijan: *Padus avium* Mill. and *Padus racemosa* (Lam.). Found in middle and upper mountain ranges, forests and jungles. 5 Species have been introduced.

Pyrus L. has 60 species in the Caucasus. Of course, in Azerbaijan, there are 26 species large and Small Caucasus, Talish and forested areas. 2 Species have been introduced.

Prunus Mill. It includes 250 species spread across the globe, mainly in temperate climates - South-Western Australia, North and South Africa, East Asia, North-West India and North America. In the Caucasus and Azerbaijan, 6 species are widely spread in many regions, plains, middle and low mountain ranges. 2 Species have been introduced. Many varieties are cultivated.

Photinia Lindl. There are up to 40 species spread throughout South and East Asia. In Azerbaijan, one species has been introduced: *Photinia serrulata* Lindl. It is very decorative in all seasons, due to the color, the bright fruits

of the leaves and the large white floral groups. It is very effective in the summer with plenty of blooming, bright red fruits in the autumn and winter dark green background.



Rosa sosnovskyi



Pyracantha coccinea

Physocarpus Maheim. There are 10 species in East Asia and North America. Two species have been introduced in Azerbaijan: *Physocarpus opulifolius* (L.) Maxim. And *Physocarpus amurensis* Maxim. The orange ribbon is a decorative swan with white orange flowers located in a floral bouquet. Used in greenhouses.

Pyracantha M. Roem. There are 7 species spread throughout the Caucasus, Western Europe, China and the Himalayas. It is widely used in greenery (*Pyracantha coccinea* M. Roem.), 4 species introduced in wild in Azerbaijan. It ends on the edge of the forests of the Greater Caucasus and the Lesser Caucasus, on the sunny slopes, between the shrubs. A large amount of white flowers, red or orange fruit on the plant for a long time in the autumn and winter, it gives the plant a pretty decorative look. It is widely used in greenery.

Rosa L. has over 150 species. It spread in Europe, Mediterranean countries, Asia. The *Rose* are commonly seen in lighted, corrugated marshes, plains, marshes, riverbeds, roads, and so on end up in the highways.

In Azerbaijan 49 species of *Rose* are naturally grown and 6 are cultivated in conditions. *Rose* are precious plants and are used in different areas of the national economy. Most of the natural *Rose* are used to make live hawthorn in the garden of gardening and to strengthen the mountain slopes and to prevent the washing of the soil. The ingredient contains a large amount of vitamin C and B, P, PP vitamins and A provitamin. All hips are plants with fine honey and vaccine content. From roots brown dye is taken. Itching plant is also of great importance in greenery and the formation of protective clay strips.

Rubus L. there are up to 600 species in Europe, Asia, Africa and America, as well as in the bland zone of Eurasia. 16 species of naturally spread in Azerbaijan, and 3 species were introduced. Fruits are made of jam, juice, lemonade, dried and fresh. The stony slopes are used for the greenery of the slopes, for the production of live fences.

Spiraea L. genus has 90 species in the temperate climatic conditions of the northern hemisphere. There are 4 species of natural spread in Azerbaijan. Large and Small Caucasus, in mountainous areas of Nakhchivan, to the subalpine mountain range. 8 species have been introduced. Desiccants are used in designing various compositions in decoration.



Spiraea arguta



Sorbus aucuparia

Sorbus L. genus extends in the North's mild zones of 35 species to 20 in the Caucasus and 11 species in Azerbaijan. In the composition of herbs are organic acids, and in the shell of vitamins there are up to 7% vaccine substances, most of which are used as medicinal herbs. The pupil's wood is red-brown, strong, heavy and bright. The species is used in ornamental gardening and greenery.

Sorbaria A. Br. It includes 10 species. Naturally ends in Asia. One species has been introduced to Azerbaijan – *Sorbaria sorbifolia* (L.) A. Braun. It is possible to use ornamental gardening.

Amelanchier Medik. The genus includes 25 species. It is spread mainly in North America, China, Japan, North America, China, Japan, North Africa and the Caucasus. There are 1 species in Azerbaijan naturally ending. East of the Greater Caucasus, in the north of the Lesser Caucasus and in the mountainous part of Nakhchivan. 4 species have been introduced. It is beautifully decorated as a decorative plant with lots of flowering and is used in greenery.

Amygdalus L. includes about 40 species in the genus, ends in Mediterranean coastal countries, Central Asia, North America. It is a dense tree that shed its leaves in the winter. 2 species are natural and 4 end in introduction. In Azerbaijan, mainly in the Alazan-Eyrichay valley, in the Kur-Araz plain, in the Greater and Lesser Caucasus, in Nakhchivan, in Talish. Almond grows in dry subtropical climate. Vitamin B contains vitamin C in their leaves. Almond oil is used in perfumery and soap bottling. During the flowering period, it is recommended to use a strawberry grease as it is distinguished by its decoction. Sweet, delicious ingredients are prepared from oil and fat products.

Armeniaca Hill. There are 8 species in the genus. It spreads in northern China, in mountainous areas of Central Asia. Naturally ends in the Caucasus. There are 1 species of natural and 2 cultivated in Azerbaijan. Fruits are both fresh and dried in the canned and confectionery industry.



Amygdalus fenzliana



Cerasus besseyi



Chaenomeles japonica

Cerasus Hill. The genus includes 127 species. There are 9 species in the Greater and Lesser Caucasus, Kur-Araz lowland, Talysh and Nakhichevan Autonomous Republic. 2 species are cultivated in condition. The meals are fresh and dried, as well as konserrv, jam and compote. It is cultivated in gardens. The appearance of flowering and fruiting appears to be very decorative.

Chaenomeles Lindl. There are 4 species in the genus. It is naturally spread in East Asia, Japan, China and Korea. 3 species have been introduced. In Azerbaijan, a species is used extensively in greenery. The orchard its leaves in the winter or decorate it with evergreen, barbed stems. The leaves are darkgreen, the flowers are colored, mostly brick-red, sometimes white or white. It is recommended to plant alone and in groups in greenhouses.



Cotoneaster glaucophyllus



Armeniaca manshurica

Cotoneaster Medical. up to 60 species in the temperate climatic zone of Eurasia, North Africa, Europe, Asia and northern America. There are five species of widespread in Azerbaijan. 21 species have been introduced. *Cotoneaster* are drought - resistant and winter - resistant, and most species end up in fertile soils. It is a cultivated plant, grown in groups and individually in parks and gardens.

Thus, it was found out that 155 of this species were spread in natural conditions and 130 species were introduced in the dendroflora of Azerbaijan. The biological characteristics of these plants, the study of the relationships based with the environment and the application of the species to landscape architecture have a great theoretical and practical significance.

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