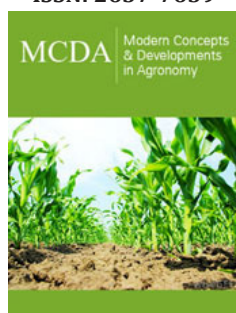


# Distribution and Certain Environmental Features of Species of the Genus *Lycium L*

ISSN: 2637-7659



**\*Corresponding author:** Nurullayeva Nodira Sayfullayevna, Department of Botany, Samarkand State University, Samarkand, 140163, Uzbekistan

**Submission:**  March 27, 2023

**Published:**  May 18, 2023

Volume 13 - Issue 1

**How to cite this article:** Nurullayeva Nodira Sayfullayevna. Distribution and Certain Environmental Features of Species of the Genus *Lycium L*. Mod Concep Dev Agrono. 13(1). MCDA. 000802. 2023. DOI: [10.31031/MCDA.2023.13.000802](https://doi.org/10.31031/MCDA.2023.13.000802)

**Copyright@** Nurullayeva Nodira Sayfullayevna. This article is distributed under the terms of the Creative Commons Attribution 4.0 International License, which permits unrestricted use and redistribution provided that the original author and source are credited.

**Nurullayeva Nodira Sayfullayevna\***

Department of Botany, Uzbekistan

## Abstract

*Lycium L.* is a genus of flowering plants in the nightshade family, Solanaceae. There are 100 species of plants in this category. The genus *Lycium* widely grows in arid to semi-arid environments of the temperate zones. Six species grow in Central Asia. Three species occurs in Uzbekistan.

**Keywords:** *Lycium L.*; Central asia; Medicinal plants

## Introduction

The genus includes more than 100 species naturally growing in the Mediterranean regions, Central Asia, China and the northern United States. Often settles in dry places, some species on the floor of saline buds. Red-fruited representatives of this genus, according to LI Poyarkova, are associated through *L. turcomanicum* with Western Middle-earth; on the other hand, endemic *L. flexicaulis* has closest relatives in China, Japan, and Mongolia.

For the first time, the genus *Lycium* was included in the botanical nomenclature in the middle of the 18<sup>th</sup> century by Carl Linnaeus. K. Linney gives information about three species of this genus (*L. europaeum*, *L. barbarum*, *L. afrum*). Later, the American florist-botanist Charles Leo Hitchcock provides systematic morphological data on the distribution of 43 species of the genus [1].

Most species of the genus *Lycium* are poisonous. The composition of the species of this genus contains ascorbic acid, betaine, vitamin A, vitamins B1 and B2, as well as nicotinic acid. In addition, zeaxanthin, fizalein, steroids: solasodine,  $\beta$ -sitosterol, polysaccharide, p-coumaric acid, amino acids and proteins. From the roots, bark, leaves, young shoots and fruits of various species of this genus, various medicines are made.

Representatives of the genus *Lycium* are mainly used to prevent diseases such as liver and kidney diseases, improve vision, diabetes and hypertension. Some species, due to their antioxidant properties, are widely used as an anti-aging agent to prevent aging. Due to its healing properties, *L. barbarum* is especially popular [2,3].

Species of the genus *Lycium* grow mainly in dry and arid areas. Several species of this genus have adapted to growing in saline soils. Widely distributed, especially in South and North America, Africa and Eurasia. 32 species grow in South America, 24 species in North America, 24 species in Africa and 12 species of this genus in Eurasia. In Australia, *Lycium australia* is found as an endemic species. In the European part of Russia there are 3 species of this genus.

According to them, from the genus *Lycium* there are species *L. barbarum*, *L. depressum* and *L. ruthenicum*. First published by RF Mayevsky about the distribution of these species in the middle part of Russia (on the territory of Belgorod, Voronezh, Kursk, Volgograd) [2,4,5].

Six species of this genus are found in Central Asia, such as *L. turkomanicum* Turcz., *L. ruthenicum* Murr., *L. dasystemum* Pojark., *L. flexicaule* Pojark., *L. halimofolium* L., *L. depressum* Stock [1,4].

From the genus *Lycium*, in the natural conditions of Uzbekistan, there are three species (*L. depressum* Stocks. (syn. *L. turkomanicum* Turcz.), *L. ruthenicum* Murr., *L. dasystemum* Pojark.). The most common of them is black dereza [6]. In small tugai thickets, the coasts of the Amu Darya and Syr Darya, there are mainly species of *L. ruthenicum* and *L. turkomanicum*.

## Conclusion

Species of the genus *Lycium* L. are xerohalophytic plants, especially widespread in South and North America, Africa and Eurasia. On the territory of Uzbekistan, they are mainly found in sandy deserts and in small riparian forests on the coast of rivers. Due to the many useful substances contained in the root, leaves, young shoots, bark and fruits, representatives of this kind of gum are used in medicine for the treatment and prevention of various diseases.

## References

1. Hitchcock, Charles Leo (1932) A Monographic study of the Genus *Lycium* of the Western hemisphere. Annals of the Missouri botanical garden. California, USA, pp. 184-187.
2. Potterat O (2010) Goji (*Lycium barbarum* and *L. chinense*): Phytochemistry, pharmacology and safety in the perspective of traditional uses and recent popularity. *Planta Med* 76(1): 7-19.
3. Yao R, Heinrich M, Weckerle CS (2018) The genus *Lycium* as food and medicine: A botanical, ethnobotanical and historical review. *Journal of Ethnopharmacology* 212: 50-66.
4. Korovin EP (1961) Vegetation of Central Asia and South Kazakhstan. T. I. Tashkent. Academy of Sciences of the Uzbek SSR, Russia, p. 68.
5. Rodionenko GI (1962) Sem. Solanaceae - Solanaceae Pers. Trees and shrubs of the USSR. T. VI. M., L.: Publishing House of the Academy of Sciences of the USSR, Russia, pp. 87-110.
6. (1961) Flora of Uzbekistan. TV Tashkent. AN Ruz. SSR, Russia, pp. S.429-434.