

Features of Geographical Distribution of the Mountains of Uzbekistan on the Fitogene Laws

Asror Nizomov¹ and Akmal Matnazarov²

¹Associate Professor of the Department of “Geography and its Teaching Methodology” of Tashkent State Pedagogical University Named After Nizami

²PhD Student of the “Geography and Methodology its Teaching Department” of Tashkent State Pedagogical University Named After Nizami
Tashkent, Uzbekistan



Abstract – *This article analyzes the geographical distribution of mountain glaciers in Uzbekistan, indicative of the importance of juniper forests.*

Keywords – *Tianshan, Tekesh, Zarafshan, Turkiston, Ancient Mountain Glaciers, Juniper Forests, Phytoareal, Snow Line, Indicator.*

I. INTRODUCTION

The importance of the climatic factor in the formation of mountain glaciers cannot be directly observed by its reflection in cyclical stages. The process of studying and applying meteorological data directly to science can cover the history of the next 200 years.

This is a small amount compared to geological reality. Geological processes, including the glaciers, evolve over thousands of years and even millions of years. Science has not been sufficiently accurate about the climatic parameters that exist in a long geological history. We can only achieve certain results by comparing these methods. In particular, the evolution of mountain glaciers is strongly related to the flora of the region and the changing nature of the phytoareal boundaries.

Because plants represent direct meteorological conditions of a given area as direct indicators of climate elements. In turn, the degree of geographical location, air temperature, amount of solar radiation, seasonal and yearly

distribution of atmospheric precipitation are also reflected in the development and geographical distribution of flora [10, 14; p.24-51].

However, this problem has not been sufficiently explored, especially in the case of glaciers in Uzbekistan.

As you know, in mountainous areas there are two types of visible borders. The first is the border representing the snow line, and the second is the border of vegetation that forms the mountain forests. The most notable feature in this regard is the boundary forests, which are typical for the mountains in Uzbekistan. Three species of juniper, Zarafshan (apricot) juniper, semi-hemisphere (Turkic spruce) and Turkestan (black juniper) juniper grows throughout Uzbekistan. The Zarafshan juniper grows at an altitude of 1,200-2,200m, the hemisphere is at an altitude of 1,800-2,700 m, and the Turkestan arch is at an altitude of 2600 – 3000 m [2; p.115].

The upper bound of the archazor forests is higher in some literature. In particular, the Akhangaran river valley is

3800 to 3900 meters above this index (G.L. Glazyrin 1985, p.39). In both cases, the upper boundary of the juniper forests is close to areas with favorable natural geographic conditions for glacier formation. Because the slopes of the glaciers of Uzbekistan sometimes fall to 3,200 m. This is because the natural geographical conditions for glaciation are not the same in all regions. However, the upper boundary of the juniper forests corresponds to the curve forming the isotherms of June and July. This ratio equals to 100C [1, 16; p.3-20].

Some researchers, however, argue that the upper bound of the juniper forests goes along the heights of the firn fields. [3; p.67-74 , 17; p.16-23].

Analyzing these points, we can see that the range of juniper forests and their high altitude points serve as clear indicators of mountain glaciers.

Using these natural indicator features of mountain juniper forests, it also gives us some insight into how the formation of cryogenic zones occurred over two millennia of history. Because, as an indication of local climate, the Turkestan arch may in some cases live 2000 years or even longer [12].

We have investigated juniper trees covering 1,000 or 2,000 years of history in Uzbekistan, especially in the southwestern latitudes (table 1). We can learn about them as relict images of evergreen forests. As shown in Table 1, the juniper tree, preserved (but unfortunately dried up in our day) on the southern slopes of Tim, is 500 m. height. If we assume that it is the lowest boundary of the oldest evergreens (now not available) that surrounds the Tim Mountains, these conclusions indicate that the average annual temperatures were very low at the beginning of the A.D., which coincides with historical data. and heavy snowfall [3; p.3-23].

Later, for example, in the eighth century when the Arab invaders came to our country, mosquitoes (apricot species)

covered not only the slopes of the walnut, apricot, wild apple, pistachio, but almond trees. Even one hundred years ago, in the 1800's, 450 m from the sea around Namangan. There are also similar forests at high altitudes [11; p.45].

Based on the data of Arab tourists geographers traveling through the territory of Uzbekistan in the Middle Ages, these fires were given by VI Masalsky [4; p.25], M. E. Masson [9; p.145], and even in the late 19th and early 20th centuries, the lower boundary of mountain forests consisting of juniper, hawthorn, pistachio, almond, walnut, wild apple trees increased the irrigated areas of the valleys (altitudes 400 to 450 m. above sea level). gives. In particular, the lower boundary of the mountain juniper forests is only 800 m above sea level along the Gissar ridge. passing along the [4; p.25].

They are compelled to "move" their range to the upper parts of the mountains, partly because of anthropogenic impacts and mainly climatic changes. Thus, we can assume that the mountainous forests, which are the closest companions of the cryogenic regions, go through lower temperatures, especially during winter temperatures, 500-1,000 years ago, and even more so. Therefore, some remnants of the evergreen forests (1000-2000 years ago) are still preserved today. A summary of the natural geographic characteristics of these relict fir tree species is shown in Table 1.

If the average distance between the lower and upper boundaries of the juniper forests is about 1000-1300 m. The mountain ranges of the present-day Uzbekistan range between 1600 and 1800 m. we can assume that the height around the lower Paleocriogenic Therefore, these ideas were acknowledges that there may also be glaciers in the highlands. This idea was also briefly emphasized by N.K. Korjenevsky in the 1940s, when the tongue of the Central Asian mountain glacier reached 2000m above sea level during the fourth quarter. it was pushed up to the heights [7; p.51].

Table 1. Natural geographical description of relict trees in Uzbekistan

№	Name of the point where the juniper is located	Type of juniper	Height of juniper point (m)	Juni per age	Number of juniper	The current height of the range of juniper territory (m)
1	Tim. Zirabuloq – Ziyovuddin Mount	Turkiston Juniperus Turkistanika	500	1500	1	2600-3000
2	Thre junipers. North	Turkiston	1000	1000	3	2600-3000

	Nurata Range	Juniperus Turkistanika				
3	Mojurum. North Nurata Range	Turkiston Juniperus Turkistanika	720	2000	1	2600-3000
4	Shorilloq. South Nurata Range	Turkiston Juniperus Turkistanika	800	1000	1	2600-3000
5	Piskom. Hujakent. West Tyanshan	Juniperus Serafshanika	870	600		1200-2500
6	Langar. Зарафшон тизмаси	Juniperus Serafshanika	750	1000	1	1200-2500
7	Taragay. Zarafshan ridge	Juniperus Serafshanika	780	1000	1	1200-2500

Data collected from our field observations also show that the lower Paleomudes, particularly in the Piskom Valley, have moved up to 1800-2000 m and even lower. All of these points are 1600-1800 m above sea level across the country. This suggests that glaciers were also These areas are also within our understanding of the existence of mountain glaciers in the lower Hirtinides, such as the Nurata ridge. Most glaciologists tend to view glaciinides as low glacial (around 2000 m.) and not glaciologically promising areas, arguing that glaciations do not occur even in the mountain range to the north of Central Asia such as the Ural.

However, careful fieldwork results show that in some southern areas of the Ural Mountains, such as the Zigalka Range, traces of the fourth-century glacier are only 1200 m above sea level. They say that they have a clear view of the altitudes, that they form carling, deaf, trog valleys, and moraine heaps [6; p.87-107]. True, the Ural as a hercinide is located to the north of the Nurata, but the traces of the paleomuscus formed in it are only 1,200 m. the altitude is in perfect agreement with our thoughts.

The Nurata ridge is covered with thick and tall forests in the 1200s, which, due to the cooler climatic conditions of the present time. The composition of these forests consists of juniper, willow, poplar, walnut, hawthorn, pistachio, almond trees.

V. Pelts [13], K.Z.Zakirov [5] Given the low Nurata ridge (the highest peak of life - 2169 m) and the proximity of the Kyzyl Kum Desert, the spores do not grow naturally, but the biota is man-made. samples. A.D. Li and P.Q. Zokirov [8] later elaborated on this point by pointing out the existence of a single spruce tree Uhum - soy in the Nurata range. V.Drobov [4] writes that in the Gissar, Zarafshan, and Nurata ridges, the species of pistachio (Juniperus

Zerafshanika) naturally grows. Contrary to V. Drobov's opinion, we can say that the forests covered Nurata ridge even in the Middle Ages.

As the Mongol invaders surrounded Nurata Castle, they cut down tall trees from the slopes of Mount Nurata and made many stairs and prepared to invade the fort. There are a number of scientific studies that prove that the evergreens, which act as an indicator of the presence of mountain glaciers, have existed in recent periods [14]. These authors strongly acknowledge the presence of juniper forests along the Nurata range and testify to the fact that there are favorable natural geographical conditions for juniper growth in the area.

Indeed, the results of our natural field observations also show that the Nurata ridge was once a dense juniper tree, walnut, almond, pistachio. Their remains are still preserved, although only a few (sometimes 1-3) in the mid-Kuksaray River, west of Langar Peak, Three Juniper, Mojurum and Uhumsoy. There are even phytonymes such as Pistalitov and Burganli, indicating the historical botanical status of the area.

As a result of such comparative analysis, not only the areas of western glaciers, such as Western Tien Shan, have been preserved, but also the Molguzar, Turkiston, Zarafshan, Boysun and Kuhitang ranges are estimated at 1600-1800 m. It is worth noting that the Paleocriogenic mountain geological conditions also existed at high altitudes. Some geographical points of the aforementioned areas still show traces of extinction, such as debris, carling, trog, valleys, moraine lakes with glacial origin.

REFERENCES

- [1] Abolin R.A. Osnovy estestvenno-istoricheskogo rayonirovaniya Sovetskoy Sredney Azii.-Toshkent: Izd-vo SAGU. 1929-p.75.
- [2] Baratov P.Ozbekiston tabiiy geografiyasi. T.: "Oqituvchi" 1996.
- [3] Doluhanov A.G. K voprosu o zavisimosti verhnih predelov razvitiya drevesno-nustarinnoy rastitelnosti ot stepeni kontinentalnosti klimata.-Vkn.: Rastitelniy mir vysokogorno SSSR i voprosi ego ispolzovaniya. Frunze. Ilim, 1967. p.67-74.
- [4] Drobov V.P. Lesa Uzbekistana. Izdatel'stvo A.N. UzSSR. T., 1950. p.165.
- [5] Zokirov K.Z. O nekotoryh rastitelnyh reliktah Nuratinskogo hrebta. Bot. jurn. № 9, 1956.
- [6] Kolokolov A.A., K.A.Lvov. O sledah oledineniya na jujnomo Urale. (Geomorfologicheskij ocherk hrebta Zichal'ka). Izvestija V.G.O. 1945. № 1-2. p. 87-107.
- [7] Korzhenevskiy N.L. Voprosy oledineniya Sredney Azii, dokl. na jubilejnyj nauchi. sessii Sr-az. chas. Univ. 27/XI. 1940 p.51.
- [8] Li A.D., Zakirov P.K. Nahodka archi Jiniperis. Bot. zh. SSSR. T. XIX. 1959 j.
- [9] Masson M.E. O kolebanii klimata Sredney Azii v svjazi s voprosom ob izmenenii rezhima vod za istoricheskij period. Trudy Uzbekistanskogo geograficheskogo obshchestva tom II (XXI), T, 1948. p.3-23.
- [10] Maksimov E.V. Problemy oledeneniya Zemli i ritmy v prirode. Leningrad. Izd. "Nauka" 1972. p.295.
- [11] Masal'skiy V.I. Turkistskiy kray. Rossiya-Stpb. T. XIX.1913, p.45.
- [12] Muhamedshin K.D. Archevniki Tyan-Shanya i ih lesahozjaystvennoye znachenije Frunze 1977. p.145.
- [13] Pel'ts V. Vekoviye tui v Samarkandskoy oblasti lesnoy jurnal. T. 47. № 1-3. Pg. 1917.
- [14] Rahmatullaev A., Jumaboyev T. Uzbekiston SSR Botanika jurnali tom 57. T.: 1972.
- [15] Turmanina V.I. Puti vosstovneniya prirodnyh usloviy poslednego tysjacheletiya i osnovniye rezultaty. Vkn. Ritmi gljatsialnyh protsessov. Izd. MGU. 1979 p.24-51.
- [16] Tronov M.V., Lupina N.H., Tronova L.B. O sovmestnih issledovaniyah snegovoj linii i granitsy lesa v gorno lednikovyh bassejnah-V kn.: Problemy gljatsiologii Altaja: Materialy nauchi. konf. vyp. 2. Tomsk. Izd-vo TGU, 1974. p.3-20.
- [17] Schukina O.E. O klimaticheskikh faktorah formirovaniya landshaftnoj pojasnosti v gornyh stranah. – Izd. VGI. 1960, T. 92. № 1, p.16-23.