



UDC: 58.581.9

<https://doi.org/10.59849/2409-4838.2026.1.178>

RESEARCH ON PLEUROCARPOUS MOSS SPECIES DISTRIBUTED IN THE TERRITORY OF LERIK DISTRICT

Aynur Mohubbat Hasanova 

Institute of Botany, Baku, Azerbaijan

aynurhesenli99@mail.ru

*The article provides information about the floristic composition of pleurocarpous (leafy-stemmed) mosses distributed in the territory of the Lerik district of the Republic of Azerbaijan. Information was provided on the morphology and distribution of taxa, and species were analyzed based on substrate and other bioecological characteristics. A total of 60 herbarium specimens of this group of mosses were collected during the expeditions conducted during 2022-2024. According to research conducted in the Lerik district, 20 species of pleurocarpous moss belonging to 7 families and 13 genera have been discovered in the district. In the territory of the Lerik district, species belonging to monotypic families that sometimes play a dominant and edificator role in various natural floristic complexes have also been found. They play an important role in the formation of vegetation cover by creating synusiae (*Hypnum pallescens* - *Homomallium incurvatum*, *Hypnum imponens* - *Plagiomnium rostratum*). Among the identified species, *Calliergonella cuspidata* (Hedw.) Loeske. and *Stereodon plicatulus* Lindb, belonging to 1 family and 2 genera, were evaluated as rare species.*

Keywords: bryophyte, genus, species, mesophyte, mesohygrophyte, mesoxerophyte.

INTRODUCTION

The territory of Lerik district is surrounded by the Talysh mountain range-the Peshtasar, Bur-sut, and Galabin ridges. It borders Yardimli in the south and southwest, Lankaran in the northeast, Masalli in the northwest, and Astara in the southeast. The Talysh range runs along the border with the Islamic Republic of Iran, and the Burovar range stretches across the north of the district. The Zuvand depression exists between the Talysh and Peshtasar ranges [12]. The influence of physical and geographical conditions plays an important role in the formation of vegetation types. Therefore, climate and relief manifest themselves most as direct influencing factors [7]. The decrease in the average annual temperature depends on the elevation above sea level. In the mountain-forest zone at 500–1100 m a.s.l., the average annual temperature is 8.7–11.1°C, while in the mountain-meadow area at altitudes of 2100–2600 m, it is around 7°C [7]. Due to the richness of its flora, Lerik differs greatly from other districts. The forested area covers 31,517 hectares, which constitutes 14.4% of the total territory. Its productive forests are rich in oriental beech (*Fagus orientalis*), Caucasian hornbeam (*Carpinus caucasica*), chestnut-leaved oak (*Quercus castaneifolia*), ironwood (*Parrotia persica*), Caucasian zelkova (*Zelkova carpinifolia*), and their mixed stands [5].

Bryophytes are an integral part of the biosphere and play an important role in the formation of the plant gene pool. Recent studies have shown that bryophytes play an indicator role in environmental pollution [3, 4].

The pleurocarpous mosses that play an indicator role in the study area include *Brachythecium rivulare* Schimp., *Hypnum cupressiforme* Hedw [10].

The main goal of the study is to identify pleurocarpous moss species, study their bioecological characteristics and distribution.

Bryological samples were collected from the surrounding areas of the villages of Hamarmesha, Ashaghi Chayrud, Nuvedi, Babagil, Osnaghakucha, Rvarud, and Siyov in Lerik district, inclu-



ding forest, meadow, riverside, spring-side, and roadside territories. According to bio-ecological groups, the widespread occurrence of epiphytic mosses was observed.

MATERIAL AND METHODS

The object of the study was pleurocarpous mosses distributed in the Lerik district. The collected bryological samples were identified using hand-held magnifiers, MBS-1; MBI-3 light microscopes and through identification books [9, 10]. The main methods used include route and stationary, as well as ecological-geographical, morphological, areological, and geographical-systematic methods. The species were identified according to Ignatov's system [9].

The Latin names of the identified species were based on the International Code of Botanical Nomenclature (ICB) and the website [12].

RESULTS AND DISCUSSION

During the conducted studies, more than 60 specimens of pleurocarpous moss were collected for the study area. As a result, 20 species of leafy-stemmed mosses belonging to 13 genera were identified for the Lerik district. A brief morphological description and taxonomy of the species are given below [1, 6].

Family: *Mniaceae* Schwaegr.

Genus: *Plagiomnium* T.Kop

Plagiomnium undulatum (Hedw) T.Kop

Lerik district, Hamarmesha village, over a tree, N 38°45'25.17", E 48°35'47.42", 314 m a.s.l.

Dark green or yellow-green, 10 cm tall, large-sized, erect leafy - stemmed moss species. Leaves up to 10 mm long, transversely undulate, with acute tips and serrated margins. Capsule 3 mm long, elongated and cylindrical.

Biotope: Shaded and moist places in forests, on tree trunks, riversides, spring banks, and moist soil.

Ecological group: mesophyte.

Distribution in Azerbaijan: GC (Greater Caucasus): Zagatala, Sheki, Oghuz; LC (Lesser Caucasus): Ganja, Qarayazi reserve; Talysh: Astara, Masalli, Lerik

Global distribution: Europe, China, Russia, Turkey.

Plagiomnium rostratum (Schrad.) T.Kop.

Lerik district, Hamarmesha village, over a tree, N 38°45'25.17", E 48°35'47.42", 314 m a.s.l.

It is a dark green, 5 cm long, sparsely branched moss with a petiole. The leaflets are slightly wavy, 2.8 mm in size, ovate in shape, with serrated edges. The light green capsule is 2.6 mm in size and 3 cm high, and is located in a bent position on a green sporogon.

Biotope: Tree trunks in various forest areas, in shady-moist places, river banks, on the ground.

Ecological group: mesophyte.

Distribution in Azerbaijan: GC: Zagatala, Sheki; LC: Tovuz, Goygol National Park; Talysh: Lankaran, Lerik.

General distribution: Europe, North America, South America, Turkey, Iran.

Family: *Leucodontaceae* Schimp.

Genus: *Leucodon* Schwaegr.

Leucodon immersus Lindb.

Lerik district, Osnagakuche village, over the tree, N 38°46'09.66", E 48°24'14.60", 1204 m a.s.l.

Dark green, large - 10 cm long, irregularly branched, double-stemmed, with a second stem 4 cm long. The leaves are sharp-pointed, the size is 2.5 mm. The length of the capsule is 1.5 mm, located in a bent position on the sporogony. The leg of the capsule is 4 mm. Biotope: on tree trunks and soil.



Ecological group: mesoxerophyte.

Distribution in Azerbaijan: GC: Zagatala, Sheki, Oghuz, Gabala, Shamakhi, Guba; LC: Goygol; Ganja, Hajikend, Agdam; Talysh: Lankaran, Masalli, Lerik.

General distribution: Taiwan, Africa, Central Asia, Russia.

Leucodon sciuroides (Hedw) Schwaegr.

Lerik district, Osnagakuche village, over the tree, N 38°40'08.51", E 48°24'15.20", 1211 m a.s.l.

It is a yellowish-green, 5 cm high, large, arched, soft-stemmed, sparsely branched leafy - stemmed moss species. The second stem is 4 cm long. The leaflets are 3 mm in size, ovate in shape, with serrated edges. The lower part is wide ear-shaped, extending upwards to form a pointed cone-shaped shape. The brown, cylindrical, capsule is 4 mm in size, and 3 cm long, located vertically on a red sporogon.

Biotope: in areas from the plain to the high mountain belt, in mixed forests on rotten stumps, trees, soil, stones and rocks.

Ecological group: mesoxerophyte.

Distribution in Azerbaijan: GC: Zagatala, Sheki, Oguz, Gabala, Shamakhi, Guba; LC: Qarayazi reserve, Goygol, Ganja, Hajikend, Agdam; Talysh: Lankaran, Masalli, Lerik, Astara.

General distribution: North America, South America, North Africa, South Africa, New Zealand.

Family: *Hypnaceae* Schimp.

Genus: *Hypnum* Hedw.

Hypnum pallescens (Hedw.) P.Beauv

Lerik district, Rvarud village, from above the tree, N 38°41'48.10", E 48°29'23.15", 1558 m a.s.l.

It is a whitish or brownish green, large, 5 cm long, irregularly branched leafy - stemmed moss. The size of the branches is 5 mm. The leaves are 1.4 mm long, ovate-lanceolate, with serrated edges, gradually narrowing towards the apex. The capsule is 1.5 mm, and the leg of the capsule is 1.2 cm in size, and is pale brown in color.

Biotope: Tree trunks in mixed forests, on rotten stumps.

Ecological group: mesophyte.

Distribution in Azerbaijan: GC: Zagatala, Oguz, Gabala, Shamakhi; LC: Qarayazi reserve, Goygol reserve; Talysh: Astara, Lerik.

General distribution: Europe, Caucasus, Siberia, Far East, North America, South America, Iran.

Hypnum imponens Hedw.

Lerik district, Babagil village, over a stump, N 38°47'58.24", E 48°47'58.24", 501 m a.s.l.

It is a yellowish-green, large-sized moss with a height of 10 cm, irregularly branched, with branches 1.2 cm high. The leaves are 1.8 mm in size, slightly folded and toothed at the edges, triangular-ovate in shape, gradually narrowing towards the apex. The capsule is red-brown in color, cylindrical in shape, 3 mm in size.

Biotope: soil, rotten stumps, stones and rocks in the forest.

Ecological group: mesophyte.

Distribution in Azerbaijan: GC: Zagatala, Gabala; LC: Goygol, Nakhchivan MR; Talysh: Lankaran, Lerik.

General distribution: China, Europe, Russia, Turkey.

Hypnum vaucheri Lesq.

Lerik district, Hamarmesha village, over the stone, N 38°45'24.63", E 48°35'46.74", 315 m a.s.l.

This is a golden-green, 6 cm high, creeping, thin-stemmed moss with branches 1.5 cm high. The leaves are 1.5 mm in size, ovate and broadly oblong-lanceolate, tapering towards the tip. The capsule is brown, 2.2 mm in size, oblong-cylindrical.



Biotope: tree trunks, rocks.

Ecological group: xerophyte.

Distribution in Azerbaijan: GC: Zagatala, Oghuz, Ismayilli; LC: Qarayazi reserve; Talysh: Lerik.

General distribution: Europe, Caucasus, Siberia, Far East, North America, South America, Africa.

Hypnum cupressiforme Hedw.

Lerik district, Hamarmesha village, over the stone, N 38°45'25.17", E 48°35'47.42", 314 m a.s.l.

It is a species of moss with a yellowish-green color, 10 cm high, branches 12 mm long. The leaves are ovate-oblong lanceolate, gradually or sharply narrowing to the apex. The size of the leaves is 2 mm. The capsule is 2 mm long. The leg of the capsule is 2 cm in size, red in color.

Biotope: tree trunk, rotten stump, on rocks.

Ecological group: mesoxerophyte.

Distribution in Azerbaijan: GC: Zagatala, Gakh, Gabala, Guba, Khachmaz; LC: Maralgol area, Tovuz, Shamkir; Talysh: Lankaran, Masalli, Lerik.

General distribution: Europe, Caucasus, Far East, North America, South America, China.

Genus: ***Calliergonella***

Calliergonella cuspidata (Hedw.) Loeske

Lerik district, Siyov village, over a stone, N 38°40'15.09", E 48°36'05.76", 987 m a.s.l.

It is a yellowish-green, 7 cm long, erect, but curved leafy - stemmed moss. The size of the twig is 10 mm. The leaves are ovate in shape, between 0.7-1 mm long. The twig leaves are smaller and narrower. The capsule is 3 mm long, oblong-cylindrical in shape, located bent over the sporogon. The leg of the capsule is 4.5 cm long.

Biotope: moist, peaty soils in humid forests, swamps, stagnant waters, on the banks of lakes, on stones at the edges of ditches and springs.

Ecological group: hygrophyte.

Distribution in Azerbaijan: GC: Zagatala, Guba, Khachmaz; LC: Kalbajar; Nakhchivan AR; Talysh: Lerik.

General distribution: Turkey, China, Iran.

Genus: ***Stereodon*** (Brid.) Brid.

Stereodon pliculatus Lindb.

Lerik district, Nuvedi village, on soil, N 38°49'33.23", E 48°27'57.13", 576 m a.s.l.

A yellowish-green, densely branched, 1.5 cm high, lanceolate pseudoparaphyletic, leafy - stemmed moss species with 4 mm long branches. The leaves are ovate-lanceolate, 0.7 mm in size. The capsule is 1.5 mm, and the leg of the capsule is 2 cm long.

Biotope: on tree trunks in the forest.

Ecological group: xerophyte.

Distribution in Azerbaijan: GC: Khachmaz; Talysh: Lerik.

General distribution: Europe, Caucasus, Far East, Turkey, South America.

Genus: ***Homomallium*** (Schimp.) Loeske.

Homomallium incurvatum (Schrad.ex Brid.) Loeske

Lerik district, Hamarmesha village, on a tree, N 38°45'25.66", E 48°35'45.47", 316 m a.s.l.

A dark-green, irregularly branched leafy - stemmed moss with a stem 2 cm high, branches 4 mm high. The leaves are sharp-pointed, slightly toothed at the tip, 1 mm in size, ovate-lanceolate. The capsule is 2 mm long, located bent over the sporogon. The leg of the capsule is red, 2 cm in size.

Biotope: on rotten tree trunks and stones.

Ecological group: mesoxerophyte.



Distribution in Azerbaijan: GC: Oguz, Gabala, Zagatala, Sheki, Ismayilli, Guba, Khachmaz; KG: Goygol; Talysh: Lankaran, Masalli, Lerik.

General distribution: Turkey, Europe, Russia, Taiwan.

Family: *Neckeraceae* Schimp.

Genus: *Thamnobryum* Nieuwl.

Thamnobryum alopecurum (Hedw.) Vang

Lerik district, Ashagi Chayrud village, on a stump, N 38°42'48.60", E 48°29'51.67", 1394 m a.s.l.

Large-sized-15 cm long, double (cross-shaped) soft stem, the second stem is 4 cm high, dark green leafy - stemmed. The leaflets are ovate in shape, 1.8 mm in size. The capsule is conical, 1.5 cm long.

Biotope: moist soil, on stones, rocks, rotten wood and stumps.

Ecological group: mesohygrophyte.

Distribution in Azerbaijan: GC: Zagatala, Guba; LC: Goygol; Talysh: Astara, Lankaran, Lerik.

General distribution: Iran, Russia, China.

Family: *Hylomiaceae* Fleisch.

Genus: *Hylocomium* Schimp.

Hylocomium splendens (Hedw.) Schimp

Lerik district, Hamarmesha village, on a stone, N 38°45'24.61", E 48°35'46.74", 315 m a.s.l.

A yellow or brown-green, large-sized - 15 cm high, double-branched, first-order branches 20 mm long, leafy - stemmed moss species. The size of the leaves is 2.7 mm. The size of the capsule is 2.5 mm, the length of the branch is 2 cm.

Biotope: rotten stumps in mixed forests, rocks and moist soil.

Ecological group: mesophyte.

Distribution in Azerbaijan: GC: Zagatala, Balaken, Gusar; LC: Goygol reserve, Gedebey; Talysh: Astara, Lerik.

General distribution: South America, East Africa, New Zealand.

Family: *Brachytheciaceae* Schimp.

Genus: *Palamocladium* Muell.Hal.

Palamocladium euchloron (Bruch ex Müell. Hal wiyk&marg)

Lerik district, Babagil village, on a tree, N 38°45'00.27", E 48°30'41.97", 483 m a.s.l.

A dark brown-green, densely branched, leafy - stemmed moss species with a stem 10 cm high. The height of the branches is 15 mm. The leaves are 3.5 mm in size. The capsule is 3 mm, and the leg of the capsule is 3 cm long.

Biotope: on tree trunks and stones.

Ecological group: mesoxerophyte.

Distribution in Azerbaijan: GC: Zagatala, Sheki, Guba, Khachmaz; Talysh: Masalli, Lerik, Lankaran.

General distribution: Caucasus, Turkey, Greece.

Genus: *Eurhynchium* Schimp.

Eurhynchium striatum (Hedw) Schimp.

Lerik district, Osnagakuche village, on a stump, N 38°46'26.48", E 48°24'46.22", 1093 m a.s.l.

A green, irregularly branched, 10 cm high leafy - stemmed moss. The leaves are 2 mm in size, gradually changing from a broad ovate shape to a broad triangular shape. At the tip, they take the shape of a heart, the edges are toothed. The length of the capsule is 3 mm.

Biotope: tree trunks in broad-leaved forests, on wet stones at the edge of springs

Ecological group: mesophyte.



Distribution in Azerbaijan: GC: Khachmaz, Guba; LC: Goygol; Talysh: Masalli, Lerik.

General distribution: Russia, East Africa, China.

Eurhynchium hians (Hedw.) Sande Lac.

Lerik district, Rvarud village, over a rock, N 38°41'50.06", E 48°29'23.22", 1558 m a.s.l.

It is a yellowish-green, densely branched, 10 cm high, 12 mm long leafy - stemmed moss. The leaves are ovate, with toothed edges, 1.5 mm in size. The capsule is 3 mm long, oblong, and located in a curved position on the sporogon.

Biotope: in damp places in the forest, on rocks and stones, and tree trunks.

Ecological group: mesohygrophyte.

Distribution in Azerbaijan: GC: Zagatala, Sheki, Shamakhi, Ismayilli; Talysh: Lankaran, Lerik.

General distribution: Europe, Greece, South America.

Genus: ***Rhynchostegielle*** (Schimp) Limpr.

Rhynchostegielle teesdalei (Schimp) Limpr.

Lerik district, Hamarmesha village, on soil, N 38°45'21.51", E 48°35'56.30", 343 m a.s.l.

A dark-green moss with a 3 cm long petiole. The leaflets are oblong-ovate, 1 mm in size, with a narrow sharp tip. The capsule is 2 mm long, asymmetrical, but has an egg-like shape. The peduncle is 1.5 cm high.

Biotope: in moist forest, on wet stones.

Ecological group: mesophyte.

Distribution in Azerbaijan: Talysh: Astara, Lerik.

General distribution: South Africa, Greece, Russia, Caucasus, China, Iran, Turkey.

Genus: ***Brachythecium*** Shimp.

Brachythecium salebrosum (Hottm ex Web. & Mohr) Schimp.

Lerik district, Siyov village, on a stone, N 38°40'15.26", E 48°36'05.32", 988 m a.s.l.

A light green, 7 cm high, large, densely branched, feathery-like, leafy - stemmed moss with a 6 mm branchlet size. The structure of the leaflets is wavy-wrinkled, the size is 1.9 mm, the edge is saw-toothed, the lower part is ovate, gradually narrowing upwards, turning into a narrow lanceolate shape, sharp-pointed. The brownish, elongated oval-shaped capsule with a bent head is 2 mm in size, and is located bent on a 2 cm high dark red sporogon.

Biotope: tree trunks, tree roots protruding into the upper layer of the soil, on rotten stumps.

Ecological group: mesophyte.

Distribution in Azerbaijan: GC: Balakan, Zagatala, Sheki, Oghuz, Gabala, Ismayilli, Shamakhi, Guba, Gusar, Khachmaz; LC: Goygol, Tovuz, Dashkesan; Qarayazi reserve; Ganjachay area; Talysh: Astara, Lankaran, Lerik, Masalli.

General distribution: North Africa, South Africa, Australia, Middle East, Caucasus, New Zealand, China, Russia.

Brachythecium rivulare Schimp.

Lerik district, Hamarmesha village, on soil, N 38°45'28.53", E 48°35'38.80", 323 m a.s.l.

A large, generally cushion-shaped leafy - stemmed moss species, green in color. The stem is 10 cm high, densely branched. The size of the branches on it is 15 mm. The leaves are 1.8 mm in size, have a wavy structure, are ovate in shape, the edges are saw-toothed, and extend very much upwards, taking a pointed beveled shape. The size of the brown, cylindrical capsule is 2.5 mm, and it is located vertically on a 3 cm high red sporogon.

Biotope: high mountainous area, on a swamp.

Ecological group: hydrophyte.

Distribution in Azerbaijan: GC: Zagatala, Sheki, Oguz, Gabala, Shamakhi, Guba, Gusar, Khachmaz; LC: Goygol, Tovuz, Garayazi reserve; Talysh: Lankaran, Lerik.

General distribution: Caucasus, Siberia, South America, Australia.

Family: ***Thuidiaceae*** Schimp.

Genus: *Anomodon* Hook.et.Tayl

Anomodon attenuatus (Hedw.) Hueb

Lerik district, Babagil village, on a tree, N 38°48'00.32", E 48°30'42.01", 483 m a.s.l.

Brown, medium-sized - 6 cm long, with a double (cross) soft stem, the second stem is 4 cm long. The leaflets are 1.3 mm long. The lower part is wide-eared, gradually narrowing upwards, and the upper part takes on a tongue-shaped shape. The tip is slightly toothed and slightly pointed. The light-brown, oblong, narrow capsule is 3 mm long, and sits flat on a 1.5 cm high yellow sporogon (Figure 1, 2).

Biotope: In mixed forests, on tree trunks and rotten stumps in damp places, on the soil

Ecological group: mesoxerophyte.

Distribution in Azerbaijan: GC: Zagatala, Sheki, Ismayilli, Gusar, Guba, Khachmaz; LC: Qarayazi reserve, Goygol, Tovuz; Talysh: Masalli, Lerik.

General distribution: Europe, Turkey, Iran, Caucasus, Central Asia, Altai, Himalayas, Kashmir.

Analysis by substrate

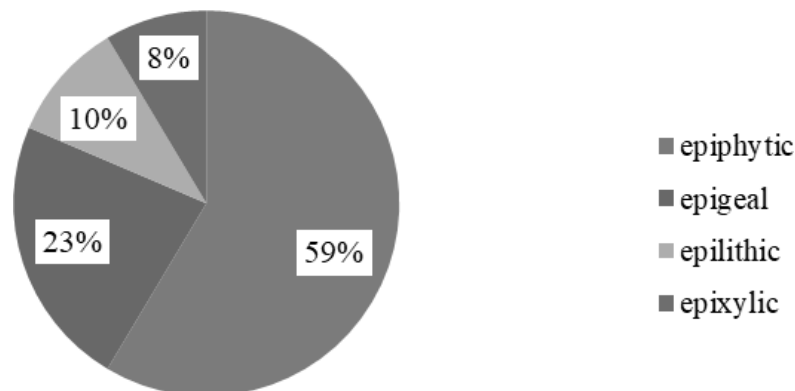


Fig. 1. Analysis of pleurocarpous moss species in the Lerik district by substrate

Analysis by bio-ecological groups

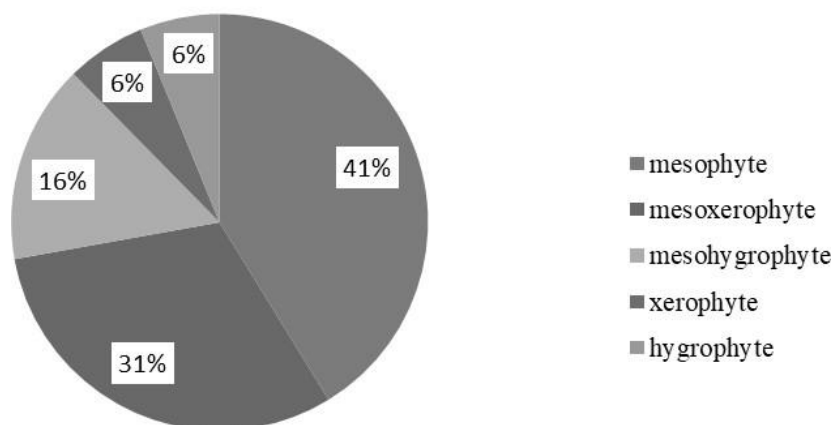


Fig. 2. Analysis of pleurocarpous moss species distributed in Lerik district according to bio-ecological groups



CONCLUSION

For the first time, the floristic composition of the bryoflora, which includes 20 species belonging to 7 families and 13 genera, has been studied for the Lerik region. The floristic spectrum of pleurocarp-fohate mosses in the Lerik region is dominated by the families *Hypnaceae* (7), *Brachytheciaceae* (6). These families make up 72% of the area's moss flora. The families *Mniaceae* (2), *Leucodontaceae* (2), *Neckeraceae* (1), *Hylomiaceae* (1), Thuidiaceae are represented by 1-2 species. A bio-ecological analysis was conducted in the study area and it was found that pleurocarp-fohaceous mosses in the Lerik region consist of 8 species of epiphytes, 3 species of epigeous, 5 species of epicylic and 4 species of epilithic mosses. As a result of the determination of herbarium specimens, the following rare pleurocarp - leaf-stem moss species belonging to the Azerbaijani flora were identified: *Calliergonella cuspidata* (Hedw.) Loeske, *Steretodon plicatulus* Lindb. Populations of the rare species *Calliergonella cuspidata* (Hedw.) Loeske, *Steretodon plicatulus* Lindb. found in the area should be constantly monitored and their biotopes should be protected [2].

REFERENCES

1. Babayeva, Ş.A., Məmmədova, A.V. Mamırların bioekoloji xüsusiyyətləri və simbiot göbələkləri / Ş.A.Babayeva, A.V.Məmmədova. – Bakı:- 2019 – s.227-229.
2. Əliyev, H.Ə, Xəlilov, M.Y. Yaşıl sərvətin keşiyində / H.Ə.Əliyev, M.Y.Xəlilov. – Bakı: Gənclik. – 1982. – 98 s.
3. Hacıyev, V.C. Azərbaycanın bitki örtüyü xəritəsi / V.C.Hacıyev. – Bakı: Elm. – 1992. – 98 s.
4. Hacıyev, V.C. Azərbaycan florasının ali bitkilərinin müxtəlifliyinə dair / V.C.Hacıyev, S.H. Musayev, Z.İ. Əkbərov, S.C. İbadullayeva. AMEA Botanika İnstitutunun Elmi Əsərləri. – 2004. – s. 88-94.
5. Məmmədov, Q.S. Azərbaycan: Ekoturizm potensialı / Q.S.Məmmədov, E.F. Yusifov, M.Y. Xəlilov [et al.]. Bakı: Şərq-Qərb. – 2012. – 420 s.
6. Məmmədova, A.V. Azərbaycan mamırları / A.V.Məmmədova. Bakı: Elm və təhsil. – 2022. – 180 s.
7. Səfərov, H.M., Fərzəliyev, V.S. Hirkan Milli Parkının florası və bitki örtüyü / H.M.Səfərov, V.S. Fərzəliyev. – Bakı: Elm. – 2019. – 296 s.
8. Абрамова, А.А, Абрамова, И.И. Конспект флоры мхов МНР / А.А. Абрамова, И.И. Абрамова. Ленинград: – Наука. – 1983. – 221 с.
9. Игнатов, М.С., Игнатова, Е.А. Флора мхов средней части Европейской России / М.С. Игнатов, Е.А. Игнатова. – Москва. – 2004. т.2. – с.613 – 960.
10. Шевченко, В. П., Политава, Н.В., Айбулатов, Н.А. Элементарный состав мхов и лишайников о ва Вайгач как индикатор выпадения веществ из атмосферы / В. П. Шевченко, Н.В. Политава, Н.А. Айбулатов. (Арктика и Антарктида) // М. 2004, вып. – 3, с. 228 – 238.
11. <https://tropicos.org>
12. <https://gsaz.az/articles/view/185/LERIK-TABIATIN-HORMONIYASI>

LERİK RAYONU ƏRAZISİNDƏ YAYILAN PLEVROKARP MAMIR NÖVLƏRİNİN TƏDQIQI

A.M. Həsənova

Məqalədə Azərbaycan Respublikasının Lerik rayonu ərazisində yayılan yarpaqgövdəli (Pleurocarp) mamırların floristik tərkibi haqqında məlumat verilir. Taksonların morfoloqiyası və yayılması haqqında məlumat verilmiş, həmçinin növlərin substrata və digər bio-ekoloji xüsusiyyətlərə görə analizləri aparılmışdır. 2022-2024-cü illər ərzində aparılan ekspedisiyalar zamanı ümumi olaraq bu qrup mamırlar üzrə 60 herbari nüsxəsi toplanılmışdır. Lerik rayonunda aparılan tədqiqat işlə-



ri əsasında rayon ərazisində 7 fəsilə və 13 cinsə daxil olan 20 növ plevrokarp mamır növləri müəyyən edilmişdir. Lerik rayonu ərazisində müxtəlif təbii floristik komplekslərində bəzən dominant və edifikator rolunu oynayan mono fəsilələlərə aid növlərə də rast gəlinmişdir. Onlar sinuziyalar (1. *Hypnum pallescens*- *Homomallium incurvatum* 2. *Hypnum imponens* - *Plagiomnium rostratum*) əmələ gətirərək bitki örtüyünün formalaşmasında mühüm rol oynayırlar. Təyin edilmiş növlər içərisində 1 fəsilə 2 cinsə aid *Calliergonella cuspidata* (Hedw.) Loeske., *Stereodon plicatulus* Lindb, nadir növlər kimi qiymətləndirilmişdir.

Açar sözlər: briofit, yarpaqgövdəli, cins, növ, mezofit, mezohiqrofit, mezokserofit

ИССЛЕДОВАНИЯ ВИДОВ ПЛЕВРОКАРПОВЫХ МХОВ, РАСПРОСТРАНЕННЫХ НА ТЕРРИТОРИИ ЛЕРИКСКОГО РАЙОНА

А.М. Гасанова

В статье представлена информация о флористическом составе плеврокарпных (листо-стебельных) мхов, распространенных на территории Лерикского района Азербайджанской Республики. Была предоставлена информация о морфологии и распространении таксонов, а также проведен анализ видов на основе субстрата и других биоэкологических характеристик. Всего в ходе экспедиций 2022-2024 гг. было собрано 60 гербарных образцов этой группы мхов. Согласно исследованиям, проведенным в Лерикском районе, в регионе было обнаружено 20 видов плеврокарпных мхов, относящихся к 7 семействам и 13 родам. В различных природных флористических комплексах Лерикского района встречены также виды, относящиеся к монофилетическим семействам, которые иногда играют доминирующую и эдифицирующую роль. Они играют важную роль в формировании растительности, образуя синусы (*Hypnum pallescens* – *Homomallium incurvatum*; *Hypnum imponens* – *Plagiomnium rostratum*). Среди выявленных видов редкими считаются *Calliergonella cuspidata* (Hedw.) Loeske. и *Stereodon plicatulus* Lindb, относящиеся к 1 семейству и 2 родам.

Ключевые слова: бриофит, облиственный стебель, род, вид, мезофит, мезогигрофит, мезоксерофит