

УДК 581.9 (470.22)

LICHENS NEW FOR THE MURMANSK REGION AT THE NORTHERN LIMIT OF DISTRIBUTION

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Three lichen species previously unknown for the Murmansk Region are reported at the northern limit of their distribution and away from areas with their concentrated populations: *Lecania naegelii*, *Porina lectissima*, and *Psora testacea*. *Porina lectissima* was found in the northeast of the region, and the other two in the Khibiny Mountains. All the species are common in southern regions of the world.

Keywords: lichens; new records; calcicolous species; Murmansk Region; northern distribution limit

For citation: Melekhin A. Lichens new for the Murmansk Region at the northern limit of distribution. *Trudy Karel'skogo nauchnogo tsentra RAN = Transactions of the Karelian Research Centre RAS*. 2026. No. 3. P. 142–145. doi: 10.17076/bg1920

Funding. The activities were funded under RSF grant No. 24-14-20006 (<https://rscf.ru/project/24-14-20006/>), and within state-ordered research theme FUUM-2025-0003, ID 1022040700267-1-1.6.20.

А. В. Мелехин. НОВЫЕ ДЛЯ МУРМАНСКОЙ ОБЛАСТИ ВИДЫ НА СЕВЕРНОЙ ГРАНИЦЕ РАСПРОСТРАНЕНИЯ

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Приводятся три вида лишайников, новых для Мурманской области, произрастающих на северной границе ареала и в отдалении от районов массового произрастания: *Lecania naegelii*, *Porina lectissima* и *Psora testacea*. Вид *Porina lectissima* найден на северо-востоке региона, остальные – в Хибинском горном массиве. Все обнаруженные виды являются обычными в более южных районах мира.

Ключевые слова: лишайники; кальцефилы; новые находки; северная граница ареала; Мурманская область

Для цитирования: Melekhin A. Lichens new for the Murmansk Region at the northern limit of distribution // Труды Карельского научного центра РАН. 2026. № 3. С. 142–145. doi: 10.17076/bg1920

Финансирование. Работа выполнена за счет гранта РФФИ № 24-14-20006 (<https://rscf.ru/project/24-14-20006/>), а также темы НИР FUUM-2025-0003, рег. номер НИОКТР 1022040700267-1-1.6.20.

Introduction

Throughout the history of lichenological studies in the Murmansk Region (since the 19th century), species have been found here outside of their known “southern” distributions. Such findings are primarily due to scarcity of species distribution data – the “southern” species are primarily microlichens that cannot be identified or even noticed in situ. For example, *Pyrenopsis pleiobola* Nyl. and *Pyrenopsis subareolata* Nyl. [Melekhin, 2025] were found in samples accidentally, only in the laboratory. Some “southern” species are so rare that their range cannot be determined. For example, *Cryptothele laatokkaensis* (Vainio) Henssen was found in just two locations worldwide, more than 70 years apart [Melekhin, 2017]. There are a few species whose range is well known (e.g., *Graphis scripta* (L.) Ach. and *Leptogium rivulare* (Ach.) Mont. [Konstantinova, 2014], *Gyalecta ulmi* (Sw.) Zahlbr. and *Heterodermia speciosa* (Wulfen) Trevis [Vainio, 1881]), and the Murmansk Region is the northern or north-eastern distribution periphery for these species – they are rarely found farther north, since their centers of abundance lie in the south-boreal or nemoral zones.

Surveys during a field trip for studying the lichen flora of the Khibiny Range and Magasin-Musur Upland in 2024 and 2025 yielded records of the alpine species *Lecania naegeliai*, *Psora testacea* and *Porina lectissima*.

Lecania naegeliai (Hepp) Diederich & van den Boom is a nitrophilous crustose epiphyte widespread around the world [Smith et al., 2009]. The northernmost record was made in Norway (67.0593°N, 14.0458°E) in 2022 by Håkon Holien [Admin, 2025]. This small lichen is easily overlooked during sampling; it differs from the similar *Micarea peliocarpa* in having negative reaction to C and unbranched paraphyses.

Porina lectissima (Fr.) Zahlbr. is widespread and locally abundant in the southern regions of Europe and America, where it inhabits shaded and damp habitats [Smith et al., 2009]. A very small crustose lichen almost invisible in situ and

difficult to locate as it grows in hidden habitats. It is recognized by elongated perithecia, which are orange when wet.

Psora testacea Hoffm. is a calcicolous squamulose species rare in Fennoscandia, where it is found only in southern Sweden [Westberg et al., 2021]. In southern regions of Europe it is widespread [Smith et al., 2009]. The species occurs also in North Africa, Asia and North America [Golubkova, 2008]. Throughout its range, the species is associated with limestone and other carbonate rocks. This bright-colored, easily identifiable species differs from other *Psora* species in having orange or orange-brown apothecia.

Two of the species were found far away from the previous southerner records: about 100 km for *Lecania naegeliai* and over 800 km for *Psora testacea*. *Porina lectissima* has a few northerner records from Norway [Westberg et al., 2021], but our record is much further east and it can still be considered to lie at the limit of the species distribution, with no known occurrences to the northeast.

Specimens were deposited in the KPABG herbarium. The nomenclature follows Westberg et al. [2021] for all the species reported here.

Species checklist

Lecania naegeliai (Hepp) Diederich & van den Boom – The Khibiny Massif, N–W slope of Mt. Mannepakhk; 67.85326°N, 33.35446°E, elev. 280 m; on the bank of a small stream in a young forest; on alder bark. 20.09.2024 (KPABG (lichens)-21461); (Fig. 1).

Porina lectissima (Fr.) Zahlbr. – Magasin-Musur Upland; 67.75249°N, 37.71018°E, elev. 254 m; rock mire in tundra; on periodically inundated rock in the shade. 23.07.2025 (KPABG (lichens)21617); (Fig. 2).

Psora testacea Hoffm. – The Khibiny Massif, bank of River Vuonnemjok; 67.6624°N, 33.87458°E, elev. 514 m; south-facing cliff; on mosses over calcium-rich soil. 20.07.2024 (KPABG(lichens) 21328); (Fig. 3).

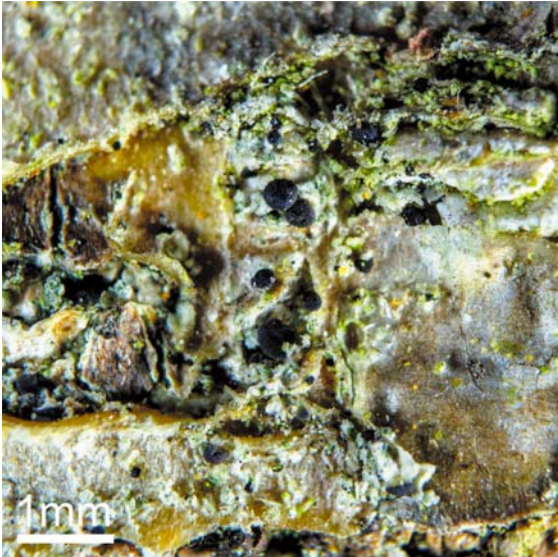


Fig. 1. *Lecania naegelii* from the Khibiny Massif

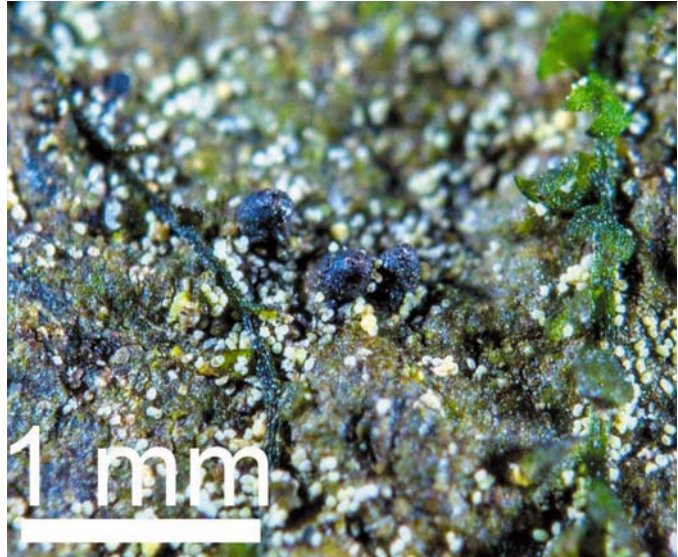


Fig. 2. *Porina lectissima* from the Magasin-Musur Upland



Fig. 3. *Psora testacea* from the Khibiny Massif

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*Поступила в редакцию / received: 22.10.2025; принята к публикации / accepted: 09.12.2025.
Автор заявляет об отсутствии конфликта интересов / The author declares no conflict of interest.*

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