

Lichens from Arsuk and Paamiut – Frederikshåb, South West Greenland

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Abstract: A total of 263 taxa of lichens are reported from two localities in South West Greenland. *Peltigera britannica* and *Porpidia thomsonii* are reported as new to West Greenland. 4 lichens are new to South West Greenland, viz. *Bacidia bagliettoana*, *Baeomyces carneus*, *Caloplaca psoricida* and *Rhizocarpon subareolatum*. A new taxon, *Lecanora swartzii* ssp. *soralifera*, is described. Geology, climate and vegetation of the localities are briefly treated.

Kokkuvõte: Arsuki ja Paamiuti (Edela-Gröönimaa) samblikud.

Teatatakse 263 samblikutaksoni leidmisest Edela-Gröönimaalt. *Peltigera britannica* ja *Porpidia thomsonii* on uued läänepoolse Gröönimale. *Bacidia bagliettoana*, *Baeomyces carneus*, *Caloplaca psoricida* ja *Rhizocarpon subareolatum* on uued Edela-Gröönimaale. Kirjeldatakse uus alamliik *Lecanora swartzii* ssp. *soralifera*. Lühidalt tutvustatakse leiukohtade geoloogiat, kliimat ja taimestikku.

INTRODUCTION

Owing to comprehensive contributions from many botanists, in particular during the latest 60 years, knowledge of the occurrence and distribution of the lichens in South West Greenland has increased considerably. However, precise information about the composition of the local lichen floras is often lacking. Repeated investigations of specific localities with focus on a part of the flora, for example a particular taxonomic group, might well indicate a possible influence of environmental changes, but they do not allow more thorough comparative studies of, for example, the different effects on the ongoing climatic changes. Investigations of this type are already carried out at Zackenberg in North East Greenland (Hansen, 2006a) and will be commenced in South West Greenland in the summer of 2008. The purpose of the present study of the lichen flora of Arsuk and Paamiut is, together with previous similar studies, to establish a basis for investigations of floristic changes caused by different environmental, especially climatic, changes. Before the present study the available lichen material in the herbarium C from these areas consisted of about 100 collections of more or less common species. The mineralogists, F. R. Johnstrup and A. N. Kornerup, and the botanists, N. Hartz, L. K. Rosenvinge and J. Vahl, collected lichens near Arsuk and Paamiut in the eighteenth century (Branth & Grønlund,

1888; Branth, 1892). M. S. Christiansen collected some epiphytic lichens at Grønnedal in 1946 (Alstrup, 1982). E. Dahl (1950) and K. Hansen (1971) carried out many collections of macrolichens in these areas in 1937 and 1965, respectively. Surveys of the previous investigations of the lichen flora of the southernmost part of South West Greenland have been given by the two last-mentioned authors and Hansen & Lund (2003) and Hansen (2006b).

Localities and geology

The following two localities were investigated by the author (Fig. 1).

1. Arsuk. 61°11'N, 48°28'W. Alt. 0–150 m. 8–20 July 1993. Archaean gneiss with amphibolite horizons and scattered occurrences of dolerite (Escher & Stuartt Watt, 1976). – The settlement, Arsuk, has c. 350 inhabitants. It is located in a small valley at the south side of Arsuk Fjord a few kilometres from the outer coast and just south of the 1418 m high mountain, Kuungnaat. The basal part of the mountain facing Arsuk and the coastal lowland strip around the mountain (Fig. 2) were studied by the author.
2. Paamiut/Frederikshåb. 62°00'N, 49°41'W. Alt. 0–300 m. 22–29 July 1993. Archaean gneiss with layers of amphibolite. The gneissic rocks are intersected by dykes composed

of dolerite. – The town, Paamiut, has 2300 inhabitants and is situated in an inlet just north of the entrance to Kvanefjord. Like Arsuk the town is located close to the outer coast. The distance between Paamiut and Arsuk is 134 km. The author studied the surroundings of Paamiut including the low mountains, “De rådne Fjelde”(max. alt. 210 m) south of the town.

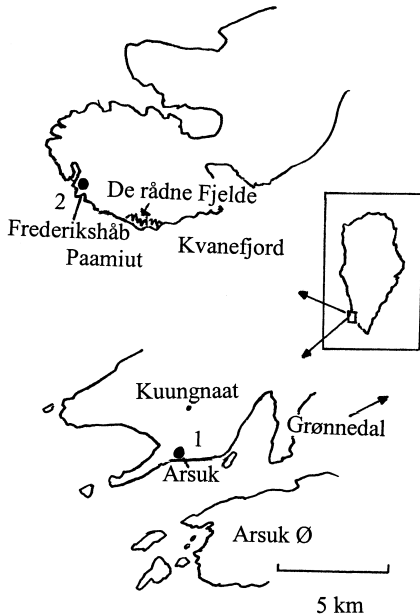


Fig. 1. Location of the two investigation areas in South West Greenland. 1 – Arsuk. 2 – Paamiut/Frederiksdal.

Climate

The Paamiut area has a low arctic and hyper-oceanic climate. The mean temperature of the warmest month, July, is 5°C at Paamiut, while the mean temperature of the coldest month, February, is -6°C according to measurements made by Asiaq/Grønlands Forundersøgelser. The annual precipitation is c. 875mm (1996). The climatic conditions at Arsuk are presumably comparable with those of Paamiut, although the annual precipitation is somewhat smaller.

MATERIAL AND METHODS

Lichens were collected at numerous sample plots at the two localities situated in South West Greenland. The collected material, a total of 690 specimens of lichens, was studied with Zeiss

light microscopes. Selected specimens of *Stereocaulon* and *Leparia* were identified by means of HPTLC. The material is deposited at the Botanical Museum, University of Copenhagen (C).

RESULTS AND DISCUSSION

Presence of willow copses is an important parameter in the subdivision of South and South West Greenland in vegetational zones (Feilberg, 1984; Hansen, 2006b). The climate in the hyper-oceanic, low arctic zone, in which Paamiut is located, does not allow development of willow scrubs and accordingly is very poor in lichen epiphytes. Willow copses occur, however, more or less abundantly in the oceanic, low arctic zone, where Arsuk is situated. Although the epiphytic lichen flora of Arsuk consists of comparatively many species, this group of lichens is still better represented in the subcontinental, subarctic inland zone characterized by extensive birch- and willow scrubs (Dahl, 1950; Hansen, 1978; Alstrup, 1982). The lichen flora of Arsuk is also similar to that of the subarctic region in its rich occurrences of lichens restricted to neutral and slightly alkaline soil such as, for example, *Catapyrenium daedaleum*, *Diploschistes muscorum*, *Lecanora geophila*, *Placidium lachneum* and *Psora decipiens* (Hansen, 2000, 2001). A few lichens, viz. *Cladonia floerkeana*, *C. pyxidata*, *Miriquidica atrofulva*, *Porpidia flavocaerulescens*, *Rhizocarpon copelandii*, *R. inarense* and *R. jemtlandicum*, were collected on a boat trip to the naval station, Grønnedal (61°14'N, 48°05'W), near Ivigtut in Arsuk Fjord. – Mostly rare species of particular interest reported from the present investigation areas, but not during the trip in 1993, are listed together with the references in the following.

- Bryoria fuscescens* (Gyeln.) Brodo & D. Hawksw. (Alstrup, 1982)
- Caloplaca borealis* (Vain.) Poelt (Hansen et al., 1987)
- Cladonia decorticata* (Flörke) Spreng. (Dahl, 1950)
- C. scabriuscula* (Delise) Nyl. (Dahl, 1950; Thomson, 1984)
- C. turgida* Hoffm. (Dahl, 1950)
- Lecidea lithophila* (Ach.) Ach. (Branth, 1892)
- L. praenubila* Nyl. (Branth & Grønlund, 1888)
- Melanelia stygia* (L.) Essl. (Dahl, 1950)
- Nephroma expallidum* (Nyl.) Nyl. (K. Hansen, 1971)

Phaeocalicium compressulum (Nyl. Ex Vain.) A. Schmidt (Alstrup, 1982; Thomson, 1997)
Schaereria fuscocinerea (Nyl.) Clauzade & Roux (Branth & Grønlund, 1888)
Solorina octospora Arnold (Dahl, 1950)
Staurothele fuscocuprea (Nyl.) Zschacke (Branth & Grønlund, 1888)
Thelignya lignyota (Wahlenb.) P. M Jørg. & Henssen (Dahl, 1950)

General remarks on the lichen vegetation

The most striking feature as regards the terricolous lichen flora of Arsuk is its rich contents of eutrophic species, i. e. lichens restricted to neutral or slightly alkaline soil. *Catapyrenium daedaleum*, *Cladonia pocillum*, *Diploschistes muscorum*, *Peltigera venosa*, *Physconia muscigena*, *Placidium lachneum*, *Psora decipiens*, *P. globifera*, *Solorina bispora*, *Toninia sedifolia* and *T. squalida* all belong to this group of lichens (Gelting, 1955; Hansen, 1978). They grow on mineral soil originating from weathered basaltic rocks and among mosses on a thin layer of soil on such rocks, which cut through Kuungnaat as almost black dykes. Like

the rocks composed of amphibolite they are more resistant than the surrounding gneiss. Saxicolous lichens such as *Dimelaena oreina*, *Hypogymnia austerodes*, *Lecanora argopholis*, *Lobaria scrobiculata*, *Nephroma parile*, *Umbilicaria polyphylla*, *Xanthoparmelia conspersa* and *Xanthoria elegans* have a distinct preference for such protruding, south-facing rocks, which are often influenced by guano from ravens and other bird species. The scattered boulders around Arsuk and blocks in screes also hold a nitrophilous lichen flora composed of species such as *Acarospora peliscypha*, *Candelariella vitellina*, *Physcia dubia*, *Protoparmelia badia*, *Rhizoplaca melanophthalma*, *Umbilicaria arctica* and *Xanthoria candelaria*. *Brodoa oroarctica*, *Ochrolechia tartarea*, *Parmelia saxatilis*, *P. sulcata*, *Platismatia glauca*, *Pseudephebe pubescens*, *Sphaerophorus fragilis* and *Umbilicaria hyperborea* are additional lichens on boulders in the screes. *Caloplaca alcarum*, *C. scopularis*, *C. verruculifera*, *Lecanora contractula* and *L. straminea* occur just above the *Verrucaria ceuthocarpa*-zone on gneissic seashore rocks manured by different sea



Fig. 2. The western part of Kuungnaat, “Vestre Bjergryg” and to the left the bay, “Paatussoq” and the lowland area with rare plants, for example, the small saprophytic orchid, *Corallorhiza trifida*. The rocks are rich in epilithic lichens.

birds. Rust-stained lichens such as, for example, *Miriquidica atrofulva*, *Porpidia flavocaeulescens*, *P. melinodes* and *Tremolecia atrata* grow more or less abundantly on somewhat moist, north-facing basaltic and gneissic rocks near Arsuk. Species such as *Amygdalaria panaeola*, *Caloplaca nivalis*, *Miriquidica nigroleprosa*, *Rhizocarpon bolanderi* and *Vestergrenopsis isidiata* also prefer this type of habitat.

Mixed dwarf shrub heaths dominated by *Betula glandulosa*, *Empetrum hermaphroditum* and species of *Ledum* occur in somewhat protected places among rocks around Arsuk. This community is rich in macrolichens such as *Cladonia mitis*, *C. stellaris*, *C. stygia*, *Nephroma arcticum*, *Stereocaulon alpinum* and *S. paschale*. *Ochrolechia frigida* and *O. lapuënsis* are the dominant microlichens in these heaths. *Alectoria nigricans*, *A. ochroleuca*, *Bryoria chalybeiformis*, *Flavocetraria cucullata*, *F. nivalis*, *Hypogymnia physodes*, *Sphaerophorus globosus* and other fell-field lichens are restricted to places exposed to strong winds such as the top of hills. Epiphytic lichens such as *Lecanora boligera*, *L. fuscescens*, *Nephroma parile*, *Parmeliopsis ambigua*, *P. hyperopta*, *Pertusaria carneopallida*, *Tuckermannopsis chlorophylla* and *Varicellaria rhodocarpa* occur more or less abundantly on twigs of, for example, *Salix glauca* and *Juniperus communis*. The fairly rich occurrence of epiphytic lichens is the most pronounced difference from the lichen flora of Paamiut.

Empetrum heaths with *Cladonia bellidiflora*, *C. crispata*, *C. cyanipes*, *C. mitis*, *C. stygia*, *C. subfurcata*, *C. squamosa*, *C. uncialis*, *Nephroma arcticum*, *Stereocaulon alpinum* and *S. paschale* form a characteristic community in the coastal area near Paamiut. An *Empetrum-Salix herbacea* community with *Cetrariella delisei*, *Cladonia ecmocyna*, *C. trassii* and *Pertusaria oculata* is common in this area. *Arctoparmelia andrejevii*, *Cetrariella delisei* and *Cladonia trassii* are also typical components of the flora bordering the marshes and fens. Snow-patches dominated by *Salix herbacea* and *Solorina crocea* occur preferably on north-facing slopes. Mixed dwarf shrub heaths dominated by *Empetrum*, *Vaccinium uliginosum*, *Betula glandulosa* and *Ledum groenlandicum* replace the pure *Empetrum* heaths at some distance from the coast. They are in many ways comparable with the mixed dwarf shrub heaths at Arsuk as regards their contents of lichens, although they are richer in, for example, *Cladonia stellaris* and *Flavocetraria*

nivalis. Typical fell-field lichens such as *Alectoria sarmentosa* ssp. *vexillifera*, *Bryocaulon divergens*, *Bryoria chalybeiformis*, *Cladonia amaurocraea*, *Hypogymnia physodes* and *Thamnotia vermicularis* occur on gravelly soil on the top of hills and on plains exposed to winds.

“Bella Vista” is the name of a small mountain top in Paamiut. It holds a very characteristic saxicolous vegetation of the following nitrophilous lichen species: *Caloplaca alcarum*, *Candelariella arctica*, *Lecanora straminea*, *Physcia caesia*, *P. dubia*, *Polysporina simplex*, *Rhizocarpon grande* and *Xanthoria candelaria*. A somewhat richer nitrophilous community with *Candelariella vitellina*, *Dimelaena oreina*, *Melanelia disjuncta*, *M. infumata*, *Parmelia saxatilis*, *P. sulcata*, *Phaeophyscia endococcina*, *P. orbicularis*, *P. sciastra*, *Physcia tenella* (var. *marina*), *Physcia detersa*, *Placynthium asperellum*, *Rhizocarpon geminatum*, *Sporastatia testudinea* and the three *Xanthoria* species listed below occurs on the uppermost part of “De rådne Fjelde”, which apparently is influenced both by guano from sea birds and sea salt. “De rådne fjelde” are a number of comparatively low and strongly weathered mountains just southeast of the town. The widely distributed saxicolous community dominated by lichens with a black or brown thallus, for example, *Allantoparmelia alpicola*, *Brodoa oroarctica*, *Melanelia hepatizon*, *Orphniospora moriopsis*, *Pseudephebe minuscula*, *Umbilicaria havaasii*, *U. hyperborea*, *U. proboscidea* and *U. torrefacta* covers the lower parts of “De rådne Fjelde” and is just as common here as on the gneissic rocks at Arsuk. *Verrucaria degelii* grows at sea level on such rocks. The basaltic dykes support a saxicolous flora of rust-stained lichens similar to that described from Arsuk, and in addition the less conspicuous species, *Acarospora sinopica* and *A. smaragdula*.

Annotated list of lichens

The following list of lichens is based on the author’s collections, which include totally 263 taxa. The list cannot be considered representative as regards a number of lecideoid and leprose, crustose lichens, which have been neglected during the present investigation. Nomenclature follows Santesson et al. (2004) with some exceptions. Numbers 1 and 2 indicate the two localities listed above. Annotations are given as regards the substrate of the lichens, the plant communities in which they occur and presence of apothecia (ap.) or perithecia (pe.); “st.” means

that the specimen is sterile. The frequency is mentioned, where it was possible to estimate it. The following estimation classes are used: rare, common, locally abundant. Collections which have been distributed previously from the herbarium (C) as part of "Lichenes Groenlandici Exsiccati" (LGE) are stated by their numbers. These numbers can also be found in Index of Lichenes Groenlandici Exsiccati fascicle I-XXX (Hansen, 2006c). Selected references are cited.

- ACAROSPORA BADIOFUSCA (Nyl.) Th. Fr. - 1, 2. On gneissic rocks manured by birds, together with, for example, *Arctoparmelia centrifuga*, *Candelariella arctica* and *Rhizocarpon grande*; ap.
- A. MOLYBDINA (Wahlenb.) A. Massal. - 2. On gneissic seashore rocks, together with *Caloplaca alcarum*, *Lecanora straminea*, *Physcia dubia* and *Xanthoria candelaria*; ap.
- A. PELISCYPHA (Th. Fr.) Arn. - 1, 2. On gneissic rocks manured by birds; ap.
- A. SINOPICA (Wahlenb.) Körb. - 2. On siliceous rocks coated with limonite; ap.; rare.
- A. SMARAGDULA (Wahlenb.) A. Massal. - 2. On basaltic rocks; ap.
- ALECTORIA NIGRICANS (Ach.) Nyl. - 1, 2. On soil in dwarf shrub heaths and fell-fields; st.; common.
- A. OCHROLEUCA (Hoffm.) A. Massal. - 1, 2. On soil in dwarf shrub heaths and fell-fields; st.; common.
- A. SARMENTOSA (Ach.) Ach. ssp. VEXILLIFERA (Nyl.) D. Hawksw. - 1, 2. On soil in fell-fields, together with, for example, *Cetraria muricata*, *Flavocetraria nivalis* and *Sphaerophorus globosus*; st.; locally abundant. LGE 542.
- ALLANTOPARMELIA ALPICOLA (Vain.) Essl. - 1, 2. On gneissic rocks, together with, for example, *Calvitimela armeniaca*, *Ochrolechia tartarea* and *Rhizocarpon inarense*; ap.
- AMANDINEA CACUMIUM (Th. Fr.) H. Mayrhofer & Sheard - 1. On siliceous rocks manured by birds, together with *Dimelaena oreina* and *Xanthoria elegans*; ap.
- A. PUNCTATA (Hoffm.) Coppins & Scheid. - 1. On gneissic rocks, together with *Lecanora swartzii*; ap.
- AMYGDALARIA PANAEOLA (Ach.) Hertel & Brodo - 1, 2. On moist gneissic and basaltic rocks, together with, for example, *Caloplaca nivalis*, *Miriquidica nigroleprosa* and *Rhizocarpon bolanderi*; st.
- ARCTOCETRARIA ANDREJEVII (Oksner) Kärnefelt & A. Thell - 1, 2. On moist soil in dwarf shrub heaths, together with *Cetrariella delisei*; st.; locally abundant.
- A. SIMMONSII (Krog) E.S. Hansen - 2. On moist soil in dwarf shrub heaths; st.; locally abundant.
- ARCTOPARMELIA CENTRIFUGA (L.) Hale - 1, 2. On gneissic rocks; ap.
- A. INCURVA (Pers.) Hale - 1, 2. On gneissic rocks; st.
- ARTHRORHAPHIS CITRINELLA (Ach.) Poelt - 1, 2. On mineral soil, together with *Candelariella placodizans*; ap.
- ASPICILLA CAESIOCINEREA (Nyl. ex Malbr.) Arnold - 1. On gneissic rocks manured by birds; ap.
- A. CINEREA (L.) Körb. - 1. On gneissic and other siliceous rocks; ap.
- A. MASTOIDEA (Lynge) Thomson - 1, 2. On gneissic rocks; ap.
- A. MASTRUCATA (Wahlenb.) Th. Fr. - 1. On gneissic rocks manured by birds, together with *Xanthoria elegans*; ap.
- BACIDIA BAGLIETTOANA (A. Massal. & De Not.) Jatta - 1. On mosses on soil; ap.; rare. New to South West Greenland. Previously reported from a few localities in Central West Greenland and North East Greenland (Lynge, 1937, 1940).
- BAEOMYCES CARNEUS Flörke - 2. On mineral soil; st. New to South West Greenland.
- B. RUFUS (Huds.) Rebert. - 2. On clayey soil, mosses and plant remains; st.
- BELLEMEREA CINEREORUFESCENS (Ach.) Clauzade & Cl. Roux - 1. On gneissic rocks; ap.; rare.
- BIATORA VERNALIS (L.) Fr. - 2. On soil rich in humus; ap.
- BRODOA OROARCTICA (Krog) Goward - 1, 2. On gneissic rocks manured by birds; ap.
- BRYOCAULON DIVERGENS (Ach.) Kärnefelt - 1, 2. On soil in dwarf shrub heaths, together with *Alectoria ochroleuca* and *Sphaerophorus globosus*; st.
- BRYORIA CHALYBEIFORMIS (L.) Brodo & D. Hawksw. - 1, 2. On soil in dwarf shrub heaths, together with, for example, *Cetraria muricata* and *Sphaerophorus globosus*; st. LGE 543.
- BUELLIA DISCIFORMIS (Fr.) Mudd - 1. On mosses; ap.
- B. PAPILLATA (Sommerf.) Tuck. - 1. On dead twig of *Salix*, together with *Lecanora fuscescens* and *Rinodina archaea*; ap.
- B. PULVERULENTA (Anzi) Jatta - 1, 2. On *Physconia muscigena*; ap.
- CALOPLACA ALCARUM Poelt - 1, 2. On gneissic seashore rocks manured by birds, together

- with *Lecanora contractula*, *L. straminea* and *Xanthoria elegans*; ap.
- C. CERINA (Ehrh. ex Hedw.) Th. Fr. – 1. On mosses; ap.
- C. FRAUDANS (Th. Fr.) H. Olivier – 1, 2. On weathered gneissic rocks, together with *Candelariella vitellina*; ap.
- C. JUNGERMANNIAE (Vahl) Th. Fr. – 1. On mosses and plant remains, together with *Cladonia pocillum*; ap.
- C. NIVALIS (Körb.) Th. Fr. – 1, 2. On *Andreaea*; ap.
- C. PSORICIDA E.S. Hansen, Poelt & Søchting – 1. On *Psora rubiformis* on soil; ap.; rare. New to South West Greenland. Also known from Central and North West Greenland and Central and North East Greenland (Hansen et al., 1987).
- C. SCOPULARIS (Nyl.) Lettau – 1. On gneissic seashore rocks manured by birds, together with *Lecanora contractula* and *Xanthoria elegans*; ap.; rare.
- C. TETRASPORA (Nyl.) H. Olivier – 1. On mosses; ap.
- C. TIROLIENSIS Zahlbr. – 1, 2. On mosses and plant remains, together with, for example, *Physconia muscigena*; ap.
- C. VERRUCULIFERA (Vain.) Zahlbr. – 1. On gneissic seashore rocks manured by birds, together with *Lecanora contractula* and *Verrucaria ceuthocarpa*; st.; rare. Probably neglected in East Greenland, from where no reports are available so far (Hansen et al., 1987; Thomson, 1997).
- CALVITIMELA AGLAEA (Sommerf.) Hafellner – 1, 2. On gneissic rocks; ap.
- C. ARMENIACA (DC.) Hafellner – 1, 2. On gneissic rocks, together with *Orphniospora moriopsis*; ap.
- CANDELARIELLA ARCTICA (Körb.) R. Sant. – 2. On gneissic rocks manured by birds, together with *Acarospora badiofusca*, *Lecanora polytropa* and *Rhizocarpon grande*; ap.; rare.
- C. DISPERSA (Räsänen) Hakul. – 1. On *Placynthium asperellum* on gneissic rocks; st.; rare.
- C. PLACODIZANS (Nyl.) H. Magn. – 1, 2. On mineral soil, together with *Placidium lachneum*; ap. LGE 535.
- C. VITELLINA (Hoffm.) Müll. Arg. – 1, 2. On weathered rocks; ap.
- CATAPYRENIUM DAEDALEUM (Kremp.) Stein – 1. On mineral soil, together with *Placidium lachneum*; pe.
- CETRARIA ERICETORUM Opiz – 1, 2. On soil in dwarf shrub heaths; st.
- C. ISLANDICA (L.) Ach. – 1, 2. On soil in dwarf shrub heaths, together with, for example, *Cladonia mitis* and *Stereocaulon alpinum*; st.; common.
- C. MURICATA (Ach.) Eckfeldt – 1, 2. On soil in dwarf shrub heaths and fell-fields, together with *Alectoria sarmentosa* ssp. *vexillifera*, *Sphaerophorus globosus* and *Thamnotia vermicularis*; st.; common.
- C. NIGRICANS Nyl. – 2. On soil rich in humus, together with *Sphaerophorus globosus*; st.
- C. SEPINCOLA (Ehrh.) Ach. – 1. On twigs of *Juniperus*, together with, for example, *Parmelia septentrionalis*, *Parmeliopsis ambigua* and *Tuckermanopsis chlorophylla*; ap.; rare.
- CETRARIELLA DELISEI (Bory ex Schaer.) Kärnefelt & A. Thell – 1, 2. On soil in moist places in dwarf shrub heaths, together with, for example, *Arctocetraria andrejevii* and *Cladonia crispata*; ap.; common.
- CHAENOTHECA FURFURACEA (L.) Tibell – 1. On peat; ap.; rare.
- CLADONIA AMAUROCRAEA (Flörke) Schaer. – 1, 2. On soil in dwarf shrub heaths; ap.
- C. ARBUSCULA (Wallr.) Flot. – 2. On soil in dwarf shrub heaths and fell-fields; st.; rare.
- C. BELLIDIFLORA (Ach.) Schaer. – 1, 2. On soil in moist places in dwarf shrub heaths; ap.
- C. BOREALIS S. Stenroos – 1, 2. On soil in dwarf shrub heaths, together with, for example, *Cladonia bellidiflora*; ap. LGE 538.
- C. CARNEOLA (Fr.) Fr. – 1, 2. On soil rich in humus in dwarf shrub heaths; ap.
- C. CHLOROPHAEA (Flörke ex Sommerf.) Spreng. – 1, 2. On soil in dwarf shrub heaths; ap.
- C. CORNUTA (L.) Hoffm. – 1, 2. On soil in dwarf shrub heath, together with, for example, *Cladonia carneola*; ap.
- C. CRISPATA (Ach.) Flot. – 1, 2. On soil in moist dwarf shrub heaths; ap.
- C. CYANIPES (Sommerf.) Nyl. – 1, 2. On soil rich in humus in dwarf shrub heaths, together with, for example, *Cladonia cornuta*; st.
- C. DEFORMIS (L.) Hoffm. – 1, 2. On soil in dwarf shrub heaths; st.; rare.
- C. ECMOCYNA Leight. – 1, 2. On soil in moist dwarf shrub heaths and near snow-patches; ap. LGE 540.
- C. FIMBRIATA (L.) Fr. – 1. On soil rich in humus in dwarf shrub heaths; st.; rare.
- C. FLOERKEANA (Fr.) Flörke – 2. On soil rich in humus in dwarf shrub heaths, together with *Cladonia bellidiflora*, *C. borealis* and *C. cornuta*; ap.; rare.

- C. GRACILIS (L.) Willd. – 1, 2. On soil in dwarf shrub heaths; ap.
- C. LUTEOALBA Wheldon & A. Wilson – 1, 2. On soil rich in humus in dwarf shrub heaths; st.; rare.
- C. MACROPHYLLA (Schaer.) Stenh. – 1, 2. On soil rich in humus in dwarf shrub heaths; st.
- C. MACROPHYLLODES Nyl. – 1, 2. On soil rich in humus in dwarf shrub heaths; ap.
- C. MITIS Sandst. – 1, 2. On soil in dwarf shrub heaths and fell-fields; st.; rare.
- C. PHYLLOPHORA Hoffm. – 1, 2. On soil in moist places in dwarf shrub heaths; st.
- C. PLEUROTA (Flörke) Schaer. – 1, 2. On soil in moist places in dwarf shrub heaths, together with, for example, *Cladonia bellidiflora*; ap.
- C. POCILLUM (Ach.) O.J. Rich. – 1, 2. On mineral soil and mosses; st.
- C. PYXIDATA (L.) Hoffm. – 1, 2. On soil rich in mosses; st.
- C. SQUAMOSA Hoffm. – 1, 2. On soil and plant remains in moist places in dwarf shrub heaths; ap.
- C. STELLARIS (Opiz) Pouzar & Vězda – 1, 2. On soil in dwarf shrub heaths, together with, for example, *Cladonia mitis*, *C. stygia* and *C. uncialis*; st.
- C. STYGIA (Fr.) Ruoss – 1, 2. On soil in moist dwarf shrub heaths; st.; locally abundant.
- C. SUBFURCATA (Nyl.) Arnold – 2. On soil in moist dwarf shrub heaths, together with, for example, *Cetraria islandica*, *Cladonia phyllophora* and *C. uncialis*; ap.; rare.
- C. SULPHURINA (Michx.) Fr. – 1, 2. On soil rich in humus, together with *Ochrolechia frigida* and *Pertusaria oculata*; st.
- C. TRASSII Ahti – 1, 2. On soil in moist places in dwarf shrub heaths, together with, for example, *Cladonia crispata*; st.
- C. UNCIALIS (L.) F.H. Wigg. – 1, 2. On soil in dwarf shrub heaths, together with *Cladonia stellaris*; st. LGE 534.
- COLLEMA BACHMANIANUM (Fink) Degel. var. MILLEGRAMMUM Degel. – 1, 2. On mosses on soil; st.
- DERMATOCARPON MINIATUM (L.) W. Mann – 1. On moist siliceous rocks; pe.; rare.
- DIMELAENA OREINA (Ach.) Norman – 1, 2. On gneissic rocks manured by birds, together with, for example, *Candelariella vitellina*, *Melanelia disjuncta* and *Sporastatia testudinea*; ap.
- DIPLOSCHISTES MUSCORUM (Scop.) R. Sant. – 1. On neutral to slightly alkaline soil in dwarf shrub heath; ap.; rare.
- EPHEBE HISPIDULA (Ach.) Horw. – 1, 2. On moist gneissic rocks; st.
- FLAVOCETRARIA CUCULLATA (Bellardi) Kärnefelt & A. Thell – 1, 2. On soil in dwarf shrub heaths and fell-fields, together with, for example, *Alectoria nigricans*, *A. ochroleuca* and *Cetraria muricata*; st.
- F. NIVALIS (L.) Kärnefelt & A. Thell – 1, 2. On soil in dwarf shrub heaths and fell-fields, together with, for example, *Cetraria islandica*, *Cladonia amaurocraea* and *Sphaerophorus globosus*; ap.
- FRUTIDELLA CAESIOATRA (Schaer.) Kalb. – 1, 2. On mosses in snow-patches, together with *Leptraria frigida*, *Pertusaria oculata* and *Solorina crocea*; ap.
- FUSCOPANNARIA PRAETERMISSA (Nyl.) P.M. Jørg. – 1. On mosses and alkaline soil, together with *Physconia muscigena*; st.
- GYALECTA FOVEOLARIS (Ach.) Schaer. – 1. On alkaline soil; ap.; rare.
- HYPOGYMNA AUSTERODES (Nyl.) Räsänen – 1. On soil in dwarf shrub heaths; also on twig of *Salix glauca*, together with *Rinodina turfacea*, and on mosses on basaltic rock; st.
- H. PHYSODES (L.) Nyl. – 1, 2. On soil in fell-fields, together with, for example, *Alectoria sarmen-tosa* ssp. *vexillifera*, *Cetraria muricata* and *Sphaerophorus globosus*; st.
- H. SUBOBSCURA (Vain.) Poelt – 1. On neutral to alkaline soil in dwarf shrub heath; st.; rare.
- IONASPIS LACUSTRIS (With.) Lutzoni – 1. On moist siliceous rock in depression in heath, together with *Rhizocarpon lavatum* and *Vestergrenopsis isidiata*; ap.
- I. SUAVEOLENS (Fr.) Th. Fr. ex Stein – 1. On almost pure quartz, together with *Staurothele fissa*, *Tremolecia atrata* and *Vestergrenopsis isidiata*; ap.
- LECANORA ARGOPHOLIS (Ach.) Ach. – 1. On gneissic rocks, together with *Lecidea atrobrunnea*; ap.
- L. ATROMARGINATA (H. Magn.) Hertel & Rambold – 1, 2. On different siliceous rocks, together with *Rhizocarpon geminatum* and *Xanthoria elegans*; ap.
- L. BOLIGERA (Norman ex Th. Fr.) Hedl. – 1. On bark of *Salix glauca*, together with *Naetrocymbe punctiformis* and *Parmeliopsis hyperopta*; ap.; rare.
- L. CENISIA Ach. – 1. On basaltic rock, together with *Rhizocarpon geographicum*; ap.
- L. CHLOROLEPROSA (Vain.) H. Magn. – 1. On moist gneissic rocks; ap.

- L. *CONTRACTULA* Nyl. – 1, 2. On gneissic seashore rocks manured by birds, together with, for example, *Xanthoria elegans*; ap.
- L. *FUSCESCENS* (Sommerf.) Nyl. – 1. On twigs of *Juniperus communis*, together with, for example, *Parmeliopsis ambigua* and *Rinodina archaea*; ap.
- L. *GEOPHILA* (Th. Fr.) Poelt – 1. On mineral soil; st.; rare.
- L. *INTRICATA* (Ach.) Ach. – 1, 2. On gneissic rocks, together with, for example, *Allantoparmelia alpicola* and *Rhizocarpon inarense*; ap.
- L. *LEPTACINA* Sommerf. – 2. On soil; ap.
- L. *MARGINATA* (Schaer.) Hertel & Rambold – 1, 2. On gneissic rocks; ap.
- L. *POLYTROPA* (Ehrh. ex Hoffm.) Rabenh. – 1, 2. On gneissic rocks, together with, for example, *Lecanora straminea* and *Umbilicaria hyperborea*; ap.; common.
- L. *STRAMINEA* Wahlenb. ex Ach. – 1, 2. On gneissic seashore rocks manured by birds, together with, for example, *Lecanora contractula* and *Xanthoria candelaria*; st.
- L. *SWARTZII* (Ach.) Ach. ssp. *SWARTZII* – 1. On overhanging gneissic rock; ap.; rare.
- L. SWARTZII ssp. SORALIFERA E.S. Hansen subsp. nov.** *Valde affinis L. swartzii ssp. swartzii*, sed *sorediis crassis in soraliiis plus minusve confluentibus in facie thalli formantibus difert. Soralia ejusdem coloris quam thallus sed paulo clariora.* – *Lecanora swartzii* ssp. *soralifera* is similar to *L. swartzii* ssp. *swartzii*, but has granulose soredia produced in more or less confluent soralia on the surface of the thallus. The soredia have almost the same colour as the thallus, but is somewhat paler. Holotype: S.W. Greenland, Arsuk, 61°11'N, 48°28'W; overhanging gneissic rock; 10 July 1993, E. S. Hansen ESH 93.434 (C; no.: C-L-19096; Mycobank: MB511984). – 1. On gneissic overhanging rock; st.
- L. *LECIDEA ATROBRUNNEA* (Ramond ex Lam. & DC.) Schaer. – 1, 2. On gneissic rocks manured by birds; ap.
- L. *AURICULATA* Th. Fr. – 1, 2. On strongly weathered siliceous rocks, together with, for example, *Lecanora polytropa* and *Umbilicaria torrefacta*; ap.
- L. *LAPICIDA* (Ach.) Ach. var. *LAPICIDA* – 1, 2. On gneissic rocks, together with, for example, *Lecanora intricata* and *Umbilicaria hyperborea*; ap.
- L. *LAPICIDA* (Ach.) Ach. var. *PANTHERINA* Ach. – 1, 2. On gneissic rocks, together with, for example, *Bellemeria cinereorufescens* and *Rhizocarpon geographicum*; ap.
- L. *TESSELLATA* Flörke – 1. On gneissic rocks; ap.
- L. *LECIDEA EUPHOREA* (Flörke) Hertel – 2. On dead twig of *Salix glauca*, together with *Caloplaca tirolensis* and *Rinodina archaea*; ap.
- L. *STIGMATEA* (Ach.) Hertel & Leuckert – 1. On strongly weathered siliceous rock, together with *Candelariella vitellina* and *Lecanora polytropa*; ap.; rare.
- L. *LECIDOMA DEMISSUM* (Rutstr.) Gotth. Schneid. & Hertel – 1, 2. On mineral soil; ap.
- L. *LEPRARIA EBURNEA* J.R. Laundon – 1, 2. On soil and mosses in snow-patches, together with, for example, *Frutidella caesiopatra* and *Perusaria oculata*.
- L. *NEGLECTA* (Nyl.) Erichsen – 1, 2. On mosses and gneissic rocks.
- L. *VOUAUXII* (Hue) R.C. Harris – 1, 2. On mosses, together with, for example, *Rinodina mniaraea*. Thallus contains pannaric acid and atranorin (HPTLC).
- L. *LEPROCAULON SUBALBICANS* (I.M. Lamb) I.M. Lamb & A.M. Ward – 1, 2. On mosses. LGE 544.
- L. *LEPTOGIUM LICHENOIDES* (L.) Zahlbr. – 1, 2. On soil and mosses; st.
- L. *LICHENOMPHALIA ALPINA* (Britzelm.) Redhead, Lutzoni, Moncalvo & Vilgalys – 1, 2. On mineral soil and peat.
- L. *HUDSONIANA* (H.S. Jenn.) Redhead et al. – 1, 2. On mosses and peat. LGE 537.
- L. *LOBARIA SCROBICULATA* (Scop.) DC. – 1, 2. On siliceous and basaltic rocks; st. The species belongs to the distinctly continental element in the lichen flora of South West Greenland (K. Hansen, 1971; Thomson, 1984).
- L. *LOPADIUM CORALLOIDEUM* (Nyl.) Lynge – 1. On soil; st.
- L. *MASSALONGIA CARNOSA* (Dicks.) Körb. – 2. On mosses on soil, together with *Leprocaulon subalbicans*; st.
- L. *MEGASPORA VERRUCOSA* (Ach.) Hafellner & V. Wirth – 1. On plant remains; ap.; rare.
- L. *MELANELIA COMMIXTA* (Nyl.) A. Thell – 1, 2. On siliceous rocks; ap.
- L. *DISJUNCTA* (Erichsen) Essl. – 1, 2. On gneissic rocks, together with, for example, *Dimelaena oreina*, *Rhizocarpon bolanderi* and *R. geographicum*; st.
- L. *HEPATIZON* (Ach.) A. Thell – 1, 2. On gneissic rocks, together with, for example, *Brodoa oroarctica* and *Parmelia saxatilis*; ap.; common.
- L. *INFUMATA* (Nyl.) Essl. – 1, 2. On gneissic rocks manured by birds, together with, for exam-

- ple, *Parmelia sulcata*, *Physcia dubia* and *Xanthoria candelaria*; st.
- M. SEPTENTRIONALIS (Lynge) Essl. – 1. On twigs of *Juniperus communis*, together with, for example, *Tuckermanopsis chlorophylla*; ap.; rare.
- M. SOREDIATA (Ach.) Goward & Ahti – 1. On gneissic rock, together with *Aspicilia caesiocinerea* and *Rhizocarpon bolanderi*; st.; rare.
- MICAREA DENIGRATA (Fr.) Hedl. – 2. On bark of *Salix glauca*; ap.; rare.
- MIRIQUIDICA ATROFULVA (Sommerf.) A.J. Schwab & Rambold – 1, 2. On gneissic rocks rich in iron minerals, together with, for example, *Porpidia flavocaerulescens*; st.
- M. NIGROLEPROSA (Vain.) Hertel & Rambold – 1, 2. On gneissic and basaltic rocks; st.
- MYXOBILIMBIA LOBULATA (Sommerf.) Hafellner – 1. On mosses on soil; ap.
- NAETROCYMBE PUNCTIFORMIS (Pers.) R.C. Harris – 1. On bark of *Salix glauca*; ap.; rare. The species is so far known only from South West Greenland, but should be searched for on bark substrates in other parts of Greenland (Branth & Grønlund, 1888; Alstrup, 1982; Thomson, 1997).
- NEPHROMA ARCTICUM (L.) Torss. – 1, 2. On mosses in dwarf shrub heaths; st.
- N. BELLUM (Spreng.) Tuck. – 1. On mosses; ap.; rare.
- N. PARILE (Ach.) Ach. – 1. On mosses and twigs of *Salix glauca*, together with, for example, *Pertusaria carneopallida*; st.
- OCHROLECHIA FRIGIDA (Sw.) Lynge – 1, 2. On mosses, soil and plant remains in dwarf shrub heaths; ap.; common.
- O. GRIMMIAE Lynge – 1, 2. On *Racomitrium lanuginosum*; ap.
- O. LAPUËNSIS (Räsänen) Räsänen – 1, 2. On soil rich in humus and plant remains, together with, for example, *Sphaerophorus globosus*; ap.
- O. TARTAREA (L.) A. Massal. – 1, 2. On gneissic rocks; ap. LGE 500.
- O. UPSALIENSIS (L.) A. Massal. – 1. On mosses, soil and plant remains in dwarf shrub heaths; ap.
- OPHIOPARMA VENTOSA (L.) Norman – 1, 2. On gneissic rocks, together with *Brodoa oroarctica* and *Ochrolechia tartarea*; ap.
- ORPHNIOSTOMA MORIOPSIS (A. Massal.) D. Hawksw. – 1, 2. On gneissic rocks; ap.; common.
- PANNARIA HOOKERI (Borrer ex Sm.) Nyl. – 1, 2. On moist siliceous rocks, together with, for example, *Tremolecia atrata*; ap.; rare.
- PARMELIA OMPHALODES (L.) Ach. – 1. On gneissic rocks; st.
- P. SAXATILIS (L.) Ach. – 1, 2. On gneissic rocks; rarely on twigs of *Salix glauca*; ap.; common.
- P. SULCATA Taylor – 1, 2. On gneissic rocks manured by birds; st.
- PARMELIOPSIS AMBIGUA (Wulfen) Nyl. – 1. On twigs of *Salix glauca* and *Juniperus communis*; st.; rare.
- P. HYPEROPTA (Ach.) Arnold – 1. On branch of *Salix glauca*, together with *Parmeliopsis ambigua*; st.; rare.
- PELTIGERA APHTHOSA (L.) Willd. – 2. On mosses in moist habitats; st.
- P. BRITANNICA (Gyeln.) Holt.-Hartw. & Tønsberg – 2. On mosses in moist habitats; st. New to West Greenland. Previously reported from North East Greenland and also known from, for example, Iceland and the Faeroe Islands (Alstrup et al., 1994, 2000; Orange, 1990; Vitikainen, 1994).
- P. CANINA (L.) Willd. – 1, 2. On mosses; st. LGE 545.
- P. DIDACTYLA (With.) J.R. Laundon – 1, 2. On mosses; st.
- P. KRISTINSSONII Vitik. – 1. On mosses; ap.
- P. LEUCOPHLEBIA (Nyl.) Gyeln. – 1. On mosses in moist habitats; ap.
- P. MALACEA (Ach.) Funck – 1, 2. On mosses in moist habitats; st.
- P. RUFESCENS (Weiss) Humb. – 1. On soil; st.
- P. SCABROSA Th. Fr. – 1, 2. On mosses; st.
- P. VENOSA (L.) Baumg. – 1. On moist soil; ap.; rare.
- PERTUSARIA BRYONTHA (Ach.) Nyl. – 1. On *Racomitrium lanuginosum*; ap.; rare.
- P. CARNEOPALLIDA (Nyl.) Anzi – 1. On twigs of *Salix glauca*, together with, for example, *Nephroma parile*; ap.; rare.
- P. CORIACEA (Th. Fr.) Th. Fr. – 1. On soil in dwarf shrub heath, together with *Alectoria ochroleuca* and *Sphaerophorus globosus*; ap. LGE 539.
- P. DACTYLINA (Ach.) Nyl. – 2. On plant remains, together with *Cetraria muricata* and *Rinodina turfacea*; st.
- P. GEMINIPARA (Th. Fr.) C. Knight ex Brodo – 1, 2. On soil and mosses; st.
- P. OCLATA (Dicks.) Th. Fr. – 1, 2. On soil and mosses in snow-patches; st.
- P. PANYRGA (Ach.) A. Massal. – 1, 2. On mosses; ap.
- PHAEOPHYSCIA ENDOCOCINA (Körb.) Moberg – 1, 2. On gneissic rocks manured by birds,

- together with, for example, *Xanthoria elegans*; ap.
- P. ORBICULARIS (Neck.) Moberg – 2. On gneissic rocks manured by birds, together with, for example, *Melanelia infumata*, *Physcia dubia* and *Xanthoria candelaria*; st.; rare. Previously reported from a few localities in West Greenland (Moberg & Hansen, 1986).
- P. SCIASTRA (Ach.) Moberg – 1. On gneissic rocks manured by birds, together with *Rhizocarpon geminatum* and *Xanthoria elegans*; st.
- PHYLLISCUM DEMANGEONII (Moug. & Mont.) Nyl. – 1, 2. On gneissic rocks, together with, for example, *Calvitimela aglaea*; ap.
- PHYSCIA CAESIA (Hoffm.) Fűrnr. – 1, 2. On gneissic and basaltic rocks manured by birds; st.
- P. DUBIA (Hoffm.) Lettau – 1, 2. On gneissic rocks manured by birds, together with, for example, *Xanthoria candelaria* and *X. soredata*; st.
- P. PHAEA (Tuck.) J.W. Thomson – 1. On gneissic rocks manured by birds, together with *Xanthoria elegans*; ap.; rare.
- P. TENELLA (Scop.) DC. – 2. On gneissic rocks; st.; rare.
- PHYSCONIA DETERSA (Nyl.) Poelt – 2. On siliceous rock manured by birds; st.; rare.
- P. MUSCIGENA (Ach.) Poelt – 1, 2. On mosses, together with, for example, *Caloplaca tirolensis* and *Leptogium lichenoides*; st.
- PLACIDIUM LACHNEUM (Ach.) de Lesd. – 1. On mineral soil; pe.; rare.
- PLACOPSIS GELIDA (L.) Linds. – 1, 2. On basaltic rock and strongly weathered siliceous rocks; st.
- PLACYNTHIUM ASPERELLUM (Ach.) Trevis. – 1. On siliceous rocks manured by birds, together with, for example, *Lecanora argopholis* and *L. intricata*; st.
- P. PANNARIELLUM (Nyl.) H. Magn. – 1. On moist gneissic rocks, together with *Rhizocarpon lavatum*; st.
- PLATISMATIA GLAUCA (L.) W.L. Culb. & C.F. Culb. – 1. On soil in fell-fields and on gneissic rocks, together with, for example, *Alectoria nigricans* and *Sphaerophorus fragilis*; st.; rare.
- POLYCHIDIUM MUSCICOLA (Sw.) Gray – 1. On plant remains; ap.
- POLYSPORINA SIMPLEX (Davies) Vězda – 2. On gneissic rock manured by birds, together with, for example, *Xanthoria elegans*; ap.
- PORPIDIA FLAVOCOERULESCENS (Hornem.) Hertel & A.J. Schwab – 1, 2. On gneissic and basaltic rocks with patches of limonite, together with, for example, *Miriquidica atrofulva*, *Rhizocarpon grande* and *R. polycarpum*; ap.
- P. MELINODES (Körb.) Gowan & Ahti – 1. On gneissic and basaltic rocks, together with, for example, *Porpidea flavocaerulescens*; st.
- P. THOMSONII Gowan – 1. On gneissic rock; ap. New to West Greenland.
- PROTOPANNARIA PEZIZOIDES (Weber) P.M. Jørg. & S. Ekman – 1. On mosses, together with *Perpusaria geminipara*; ap.
- PROTOPARMELIA BADIA (Hoffm.) Hafellner – 1, 2. On gneissic rocks manured by birds; ap.
- PSEUDEPHEBE MINUSCULA (Nyl. ex Arnold) Brodo & D. Hawksw. – 1, 2. On gneissic rocks, together with, for example, *Calvitimela armeniaca* and *Orphniospora moriopsis*; ap.; common.
- P. PUBESCENS (L.) M. Choisy – 1, 2. On gneissic rocks, together with, for example, *Parmelia omphalodes*; ap. LGE 541.
- PSORA DECIPIENS (Hedw.) Hoffm. – 1. On mineral soil, together with *Catapyrenium daedaleum* and *Placidium lachneum*; ap.; rare.
- P. GLOBIFERA (Ach.) A. Massal. – 1. On mineral soil; ap.; rare.
- P. RUBIFORMIS (Ach.) Hook. – 1, 2. On mineral soil and strongly weathered rock; ap.
- PSOROMA HYPNORUM (Vahl) Gray – 1, 2. On mosses in dwarf shrub heaths; ap.; common.
- P. TENUE Henssen var. BOREALE Henssen – 2. On soil in dwarf shrub heath, together with *Cladonia bellidiflora*; ap.; rare.
- RHIZOCARPON BOLANDERI (Tuck.) Herre – 1, 2. On siliceous and basaltic rocks manured by birds; ap.
- R. GEMINATUM Körb. – 1, 2. On siliceous rocks manured by birds; ap.; common.
- R. GEOGRAPHICUM (L.) DC. – 1, 2. On different siliceous rocks; ap.; common.
- R. GRANDE (Flörke) Arnold – 1, 2. On siliceous rocks manured by birds; ap.
- R. HOCHSTETTERI (Körb.) Vain. – 1. On siliceous rock, together with *Umbilicaria torrefacta*; ap.; rare.
- R. INARENSE (Vain.) Vain. – 1, 2. On gneissic rocks; ap.; common.
- R. JEMTLANDICUM (Malme) Malme – 2. On gneissic and basaltic rocks with a thin layer of limonite, together with, for example, *Miriquidica nigroleprosa*; ap.
- R. LAVATUM (Fr.) Hazsl. – 1. On moist gneissic rock; ap.
- R. MACROSPORUM Räsänen – 1. On gneissic rock; ap.; rare. Known so far only from a few localities in South West and North East Greenland (Thomson, 1997).

- R. POLYCARPUM (Hepp) Th. Fr. – 2. On gneissic rocks, together with *Lecanora polytropa*, *Pseudophebe minuscula* and *Rhizocarpon geographicum*; ap.; rare.
- R. PRAEBADIUM (Nyl.) Zahlbr. – 2. On gneissic and basaltic rocks; ap.
- R. RITTOKENSE (Hellb.) Th. Fr. – 1, 2. On gneissic rocks, together with, for example, *Allantoparmelia alpicola*; ap.
- R. SUBAREOLATUM E.S. Hansen – 2. On *Rhizocarpon grande* on gneissic rock; ap.; rare. New to South West Greenland. Recently described from Upernavik Ø in North West Greenland and Danmarks Ø in North East Greenland (Hansen, 2007).
- RHIZOPLACA MELANOPHTHALMA (DC.) Leuckert & Poelt – 1. On siliceous rocks manured by birds; ap.; rare.
- RINODINA ARCHAEA (Ach.) Arnold – 1, 2. On twigs of *Salix glauca* and *Juniperus communis*; ap.
- R. MNIARAEA (Ach.) Körb. – 1. On mosses, together with *Lepraria vouaxii*; ap.
- R. OLIVACEOBRUNNEA C.W. Dodge & G.E. Baker – 2. On *Lobaria scrobiculata* on gneissic rocks; ap.; rare.
- R. TURFACEA (Wahlenb.) Körb. – 1, 2. On plant remains in dwarf shrub heaths, together with, for example, *Ochrolechia frigida*; ap.
- SOLORINA BISPORA Nyl. – 1. On mineral soil; ap.; rare.
- S. CROCEA (L.) Ach. – 1, 2. On soil near snow-patches; ap.; common.
- SPHAEROPHORUS FRAGILIS (L.) Pers. – 1, 2. On gneissic rocks and on soil; ap.; common.
- S. GLOBOSUS (Huds.) Vain. – 1, 2. On soil in dwarf shrub heaths and fell-fields; ap.; common. LGE 536.
- SPORASTATIA POLYSPORA (Nyl.) Grummann – 1. On siliceous rocks, together with *Rhizocarpon geographicum* and *Umbilicaria torrefacta*; ap.
- S. TESTUDINEA (Ach.) A. Massal. – 1, 2. On gneissic rocks, together with, for example, *Calvitimela armeniaca* and *Dimelaena oreina*; ap.
- STAUROTHELE AREOLATA (Ach.) Lettau – 1. On gneissic rock; pe.
- S. FISSA (Taylor) Zwackh – 1. On moist gneissic rocks; pe.
- STEREOCAULON ALPINUM Laurer – 1, 2. On soil in dwarf shrub heaths and near snow-patches; st.; common.
- S. ARENARIUM (L.I. Savicz) I.M. Lamb – 1, 2. On mineral soil; st. Thallus contains atranorin and porphyritic acid (HPTLC).
- S. BOTRYOSUM Ach. – 2. On gneissic rocks; st.; rare.
- S. GLAREOSUM (L.I. Savicz) H. Magn. – 1, 2. On mineral soil and gravel; st.; common. Thallus contains atranorin and lobaric acid (HPTLC).
- S. PASCHALE (L.) Hoffm. – 1, 2. On soil in dwarf shrub heaths; st.; common.
- S. RIVULORUM H. Magn. – 1. On soil; st. Thallus contains atranorin (HPTLC).
- S. VESUVIANUM Pers. – 1, 2. On gneissic rocks; st.; common. Thallus contains atranorin and stictic acid (HPTLC).
- THAMNOLIA VERMICULARIS (Sw.) Schaer. var. SUBULIFORMIS (Ehrh.) Schaer. – 1, 2. On soil and mosses in dwarf shrub heaths and fell-fields; common.
- TONINIA SEDIFOLIA (Scop.) Timdal – 1. On mineral soil, together with *Placidium lachneum* and *Psora decipiens*; ap.
- T. SQUALIDA (Ach.) A. Massal. – 1. On mineral soil, together with *Polychidium muscicola*; ap.; rare.
- TRAPELOPSIS GRANULOSA (Hoffm.) Lumbsch – 1. On soil; ap.
- TREMOLECIA ATRATA (Ach.) Hertel – 1, 2. On moist gneissic rocks with patches of limonite; ap.
- TUCKERMANNOPSIS CHLOROPHYLLA (Willd.) Hale – 1. On twigs of *Juniperus communis*; st.; rare. Belongs to the group of continental lichens in the lichen flora of South West Greenland (Alstrup, 1982; K. Hansen, 1971).
- UMBILICARIA ARCTICA (Ach.) Nyl. – 1, 2. On gneissic rocks manured by birds; ap.; common.
- U. DEUSTA (L.) Baumg. – 1. On moist gneissic rocks; st.
- U. HAVAASII Llano – 1, 2. On gneissic rocks; st.
- U. HYPERBOREA (Ach.) Hoffm. – 1, 2. On gneissic rocks; ap.; common.
- U. POLYPHYLLA (L.) Baumg. – 1. On gneissic rock; ap.
- U. PROBOSCIDEA (L.) Schrad. – 1, 2. On gneissic rocks; ap.; common.
- U. RIGIDA (Du Rietz) Frey – 1, 2. On gneissic rocks; ap.
- U. TORREFACTA (Lightf.) Schrad. – 1, 2. On gneissic rocks; ap.; common.
- U. VELLEA (L.) Hoffm. – 1, 2. On moist gneissic rocks; st.
- U. VIRGINIS Schaer. – 1, 2. On gneissic rocks; ap.; common.
- VARICELLARIA RHODOCARPA (Körb.) Th. Fr. – 1. On twigs of *Juniperus communis*, together

with, for example, *Lecanora fuscescens*; st.; rare.

- VERRUCARIA CEUTHOCARPA Wahlenb. – 1. On gneissic seashore rocks, together with *Lecanora contractula*; pe.; common.
- V. DEGELII R. Sant. – 1, 2. On gneissic seashore rocks; pe.; common.
- VESTERGRENOPSIS ISIDIATA (Degel.) Å.E. Dahl – 1. On siliceous rocks, together with, for example, *Staurothele fissa* and *Tremolecia atrata*; st.
- XANTHOPARMELIA CONSPERSA (Ach.) Hale – 1. On gneissic rocks; st.; rare.
- XANTHORIA CANDELARIA (L.) Th. Fr. – 1, 2. On gneissic rocks manured by birds; ap.; common.
- X. ELEGANS (Link) Th. Fr. – 1, 2. On siliceous rocks manured by birds; ap.; common.
- X. SOREDIATA (Vain.) Poelt – 1, 2. On vertical faces of gneissic rocks manured by birds; st.

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