Lichens from the Admiralty Bay region, King George Island (South Shetland Islands, Antarctica)

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Abstract

61 Species new to the Admiralty Bay region are reported. Among them 51 are new to King George Island, 35 to the South Shetland archipelago, 15 to the Antarctic zone, and 6 to the Southern Hemisphere. A further 49 species were found at new localities.

Key words: Antarctica, Admiralty Bay, King George Island, Lichens

INTRODUCTION

The material reported here was collected by the author during the XIth Antarctic Expedition, Polish Academy of Sciences, to the Arctowski Station on King George Island (South Shetland Islands, Antarctica) from December 1986 to February 1988. The main aim of the investigation was to study the lichen flora of the Admiralty Bay region and other parts of King George Island. The greatest attention was given to the vertical and horizontal distribution of the lichen species, and also the ecology of individual species.

Hitherto very little has been known about the lichen flora and its distribution over the area, no regular lichenological studies having been carried out there. The existing data were collected during the short exploration visits of various research groups (Lindsay 1971b, Lindsay and Ochyra 1982, Jacobsen and Kappen 1988).

During floristic investigations on the South Shetland Islands the present author collected about 10 000 specimens of lichens, most of which are in preparation. Here only preliminary data about species new to the Admiralty Bay region as new localities of species are reported.

LIST OF SPECIES

Acarospora macrocyclos Vain.

On rocks and stones manured by birds.

Llano Point 5 m; Ubocz 70 m; Ambona 85 m, Pond Hill 180 m.

Very common in the area.

Arthopyrenia maritima Øvst.

On andezite rock.

Kasprowy Hill, above Ezcurra Inlet, 5 m.

New to the flora of King George Island. Also known from Livingston Island and Bouvetøya (Øvstedal 1986).

Arthrorhaphis citrinella (Ach.) Poelt

On soil and mosses among rocks.

Ullman Spur NE 100 m; Jersak Hills N 180 m.

New to the Antarctic. Reported from the Subantarctic from Marion Island (Lindsay 1976); this is the second record in the Southern Hemisphere.

Austrolecia antarctica Hertel

On andezite rock.

Jersak Hills N 180 m.

This is the second known collection; described and reported from Sphinx Hill by Hertel (1984).

Bacidia stipata Lamb

On rocks often visited by birds.

Point Thomas 5 m; Dufayel Island 5 m; Krzesanica W 50 m; Skua Cliff 100 m.

New to the lichen flora of King George Island. Also known from Deception Island and Nelson Island (Dodge 1973), South Orkney Islands, the Antarctic Peninsula (Redon 1985, Smith and Corner 1973), and Dronning Maud Land (Øvstedal 1986).

Biatorrella antarctica Murray

On rocks.

Uchatka Point 15 m; Smok 40 m; Ubocz SE 80 m.

New to the South Shetland Islands. Reported from continental Antarctica (Filson 1966, 1974, Lindsay 1971a, 1974) and the Antarctic Peninsula (Smith and Corner 1973).

Bryonora castanea (Hepp) Poelt

On mosses, mainly on *Andreaea* sp.

Hala near Arctowski Station, c. 15 m.

Species new to the lichen flora of the Antarctic, and to the Southern Hemisphere.

Bryoria chalybeiformis (L.) Brodo et D. Hawksw.

On soil and mosses.

Smok N 30 m; 80, 160 m; Jersak Hills SE 190 m.

Buellia anisomera Vain.

On rocks and stones.

Moraine near Ecology Glacier 50 m; Ambona 85 m; Ubocz 100 m.

Buellia augusta Vain.

On rocks and stones often visited by birds.

Barrel Point SE 10 m; Uplaz N 55 m; Ubocz 90 m.

New to King George Island. Reported from the South Orkney Islands, South Shetland Islands and the Antarctic Peninsula (Redon 1985).

Buellia cladocarpiza Lamb

On rocks visited by birds.

Cytadela N 60 m; Ubocz NW 100 m.

Buellia coniops (Wahlenb. in Ach.) Th. Fr.

On rocks manured by birds.

Penguin Ridge 15 m; Barrel Point E 50 m; Ubocz 90 m.

Buellia granulosa (Darb.) Dodge

On rocks and stones.

Uplaz 50 m; Ubocz 90 m; Sphinx Hill 100 m.

New to King George Island. Reported from Penguin Island (Dodge 1973), the Antarctic Peninsula and South Orkney Islands (Dodge 1973, Redon 1985).

Buellia latemarginata Darb.

On rocks manured by birds.

Shag Point S 5 m; near Blue Dyke 7 m; Rakusa Point 10 m.

Buellia papillata (Sommerf.) Tuck.

On soil, mosses, and plant debris.

Smok NW 100 m; Cytadela N 100 m; Panorama Ridge S 140 m.

New to the Lichen flora of the South Shetland Islands. Known also from the Antarctic Peninsula and continental Antarctica (Botnen and Øvstedal 1988, Dodge 1973, Filson 1974).

Buellia perlata (Hue) Darb.

On rocks.

Sphinx Hill N 100 m.

New to King George Island. Reported from Penguin Island and the Antarctic Peninsula (Dodge 1973, Redon 1985).

Buellia russa (Hue) Darb.

On rocks and stones manured by birds.

Llano Point 5 m; Keller Peninsula, Plaza Point 7 m; Uchatka Point 10 m.

Buellia subpedicillata (Hue) Darb.

On rocks.

Sphinx Hill N 80 m.

New to the lichen flora of the South Shetland Islands. Also known from the South Orkney Islands, the Antarctic Peninsula (Redon 1985), and Wilkes Land (Smith 1988).

Caloplaca athallina Darb.

On mosses among rocks.

Keller Peninsula, British Point 50 m; Mount Wawel 100 m; Smok N 160 m; Czajkowski Needle nunatak NE 290 m.

New to the South Shetland Islands? Reported from continental Antarctica (Pilson 1974, 1975, Kappen 1985, Smith 1988).

Caloplaca cirrochrooides (Vain.) Zahlbr.

On rocks, often on marine cliffs.

Shag Point N 5 m; Dufayel Island N 5 m; Barrel Point SE 30 m.

Caloplaca citrina (Hoffm.) Th. Pr.

On mosses and other lichens.

Point Thomas 7 m; Uchatka Point 10 m.

New to the South Shetland Islands. Reported from continental Antarctica (Filson 1974, 1975, Seppelt and Ashton 1978, Kappen 1985, Øvstedal 1986, Smith 1988).

Caloplaca regalis (Vain.) Zahlbr.

On rocks manured by birds.

Uchatka Point 10 m; Stenhouse 20 m.

Very common in the area, especially on marine cliffs.

Caloplaca sublobulata (Nyl.) Zahlbr.

On rocks.

Krzesanica NE 20 m; Sphinx Hill 70 m; Keller Peninsula, Mount Birkenmajer E 200 m.

Very common in the area.

Caloplaca tetraspora (Nyl.) H. Oliv.

On mosses.

Stenhouse S 40 m; Keller Peninsula, British Point 50 m; Sphinx Hill N 85 m.

Caloplaca tirolensis Zahlbr.

On mosses.

Near Arctowski Station 7 m; Stenhouse S 40 m; Smok 130 m.

Common in the area.

Candelaria murrayi Poelt

On rocks.

Rakusa Point 10 m; Point Thomas above Ezcurra Inlet 20 m; Mount Wawel NE 80 m.

Candelariella hallettensis (Murray) Øvst.

On rocks and mosses.

Rakusa Point 10 m; Uplaz 50 m; Keller Peninsula, Mount Birkenmajer E 160 m.

New to the Shetland Islands. Also known from continental Antarctica (Øvstedal 1983, 1986).

Candelariella vitellina (Hoffm.) Müll. Arg.

On rocks and stones.

Cytadela N 10 m; Ambona N 60 m; Jersak Hills 190 m.

Very common in the area.

Carbonea vorticoso (Flörke) Hertel

On rocks.

Kasprowy Hill; SE 200 m.

Catapyrenium daedaleum (Krempelh.) Stein

On soil among rocks.

Ubocz NE 100 m; Krzesanica SE 100 m; Blue Dyke N 105 m.

New to the lichen flora of the Antarctic. Probably new to the Southern Hemisphere.

Catapyrenium lachneum (Ach.) R. Sant.

On soil.

Cytadela, above Firley Cove 10 m; Krzesanica NE 20 m.

New to the Shetland Islands. Reported from the Antarctic Peninsula and South Orkney Islands (Redon 1985).

Catillaria corymbosa (Hue) Lamb

On manured rocks, mainly on marine cliffs.

Dufayel Island 5 m; Rakusa Point 10 m; Uchatka Point 10 m.

Cladonia cariosa (Ach.) Sprengel

On gravelly soil, often on moraines.

Moraine near Ecology Glacier 10, 30 m; Cytadela 60 m; Mount Wawel NW 100 m.

New to the lichen flora of King George Island. Reported from Greenwich Island and Melchior Archipelago (Dodge 1973).

Cladonia furcata (Huds.) Schrader

On soil, on gently sloping stony ground.

Mount Wawel NW 50, 80, 130 m; Keller Peninsula, above Plaza Point 50 m, and Tyrrel Ridge 100 m.

New to King George Island. Reported from Robert Island (Dodge 1973), and the Antarctic Peninsula (Smith and Corner 1973).

Cladonia phyllophora Ehrh. ex Hoffm.

On soil among mosses.

Hala, near Arctowski Station 15 m.

New to the South Shetland Islands. Also known from South Georgia (Lindsay 1973).

Cladonia pyxidata (L.) Hoffm.

On soil and mosses.

Stenhouse Bluff 30 m; Uplaz SE 30 m; Krokiew E 100 m; Jersak Hills 190 m.

New to King George Island. Also known from Robert Island (Dodge 1973), the South Orkney Islands and the Antarctic Peninsula (Redon 1985).

Coelocaulon aculeatum (Schreber) Link

On gently sloping gravelly ground.

Uplaz 60 m; Smok N 160 m; Pond Hill NE 180 m.

Also known from the Ardley Peninsula, West Graham Land (Kärnefelt 1986), the South Orkney Islands, and the Antarctic Peninsula (Lindsay 1969).

Coelocaulon epiphorellum (Nyl. in Crombie) Kärnef.

On soil, on gently sloping gravelly ground.

Demay Point 100 m; Jersak Hills 150, 190 m; Pond Hill 180 m.

Also known from the Barton Peninsula, Robert Island, Livingston Island, the Antarctic Peninsula and South Orkney Islands (Lindsay 1969, Kärnefelt 1986).

Cystocoleus ebeneus (Dillwyn) Thwaites

On soil, mosses and rocks.

Cytadela 10 m; Smok N 80 m; Urbanek-Krag NE 100 m; Dutkiewicz Cliff NW 120 m.

Very common in the area.

Dermatocarpon intestiniforme (Koerb.) Hasse

On rocks.

Dutkiewicz Cliff, on the slope above Italia Valley 60 m.

New to the lichen flora of South Shetland Islands. Also known from Victoria Land (Lamb 1948) and the South Orkney Islands (Lindsay 1974).

Haematomma erythromma (Nyl.) Zahlbr.

On rocks and rock blocks manured by birds.

Agat Point 7 m; Block Point c. 10 m (with fruits); Point Thomas 10 m (with fruits); Krzesanica 70 m; Smok 210 m.

Himantormia lugubris (Hue) Lamb

On rocks, soil, and mosses.

Crepine Point 150 m; Keller Peninsula, Mount Birkenmajer SE 200 m; Czajkowski Needle 296 m; Dutkiewicz Cliff 300 m.

Hypogymnia lugubris (Pers.) Krog

On soil, mosses, and rocks.

Demay Point NW 160 m; Tower W 300 m.

Lecania brialmontii (Vain.) Zahlbr.

On rocks manured by birds.

Keller Peninsula. Plaza Point 10 m; Rakusa Point 10 m; Blue Dyke 15 m.

Lecania gerlachei (Vain.) Zahlbr.

On manured rocks.

Penguin Ridge 15 m; Vaureal SE 75 m.

New to King George Island. Reported from Greenwich Island, Nelson Island, the Antarctic Peninsula (Dodge 1973), and Bouvetøya (Øvstedal 1986).

Lecanora dispersa (Pers.) Sommerf.

On rocks, stones, whale bones, and shells.

Arctowski Station 5 m; Uchatka Point 10 m; Point Thomas 20 m.

Lecanora expectans Darb.

On mosses and plant debris.

Uchatka Point 10 m; Penguin Ridge 50 m; Blue Dyke NE 120 m.

New to the lichen flora of the South Shetland Islands. Reported from continental Antarctica (Botnen and Øvstedal 1988, Filson 1966, 1974, Lindsay 1974, Kappen 1985, Smith 1988).

Lecanora physciella (Darb.) Hertel

On rocks, mainly in the upper regions of hills.

Panorama above Ezcurra Inlet 65 m; Urbanek Crag S 100 m.

New to the South Shetland Islands, reported from Victoria Land (Hertel 1984).

Lecanora polytropa (Hoffm.) Rabenh.

On rocks and mosses.

Keller Peninsula, Plaza Point 5 m; Point Thomas SE 25 m; Czajkowski Needle 290 m.

Lecidea assimilata Nyl.

On mosses and soil.

Smok N 80 m; Mount Wawel NE 100 m.

New to the lichen flora of the Antarctic and to the Southern Hemisphere.

Lecidea atrobrunnea (Ramond ex Lam. et. DC.) Schaer.

On manured rock blocks.

Point Hennequin 5 m; Smok 5, 40 m.

New to the lichen flora of the South Shetland Islands. Also known from the Antarctic Peninsula (Dodge 1973, Smith and Corner 1973).

Lecidea lapicida (Ach.) Ach.

On rocks.

Panorama Ridge, above Ezcurra Inlet 50 m.

Probably new to Antarctica. Reported from the Subantarctic (Hertel 1984).

Lecidea sarcogynoides Koerber

On rocks.

Cytadela, near Gdańsk Icefall, 10 m.

New to Antarctica.

Lecidea sciatriapha Hue

Point Thomas 10 m; moraine near Ecology Glacier 60 m; Jersak Hills 160 m.

Very common in the area.

Lecidella stigmatea (Ach.) Hertel and Leuckert

On rocks and stones.

Moraine near Ecology Glacier 60 m; Demay Point NW 200 m.

New to South Shetland Islands.

Lecidella wulfenii (Hepp) Koerb.

On mosses and plant debris.

Keller Peninsula, above Moraine Point 50 m.

Leptogium puberulum Hue

On soil and rocks.

Kasprowy Hill 20 m; Krokiew 100 m; Zamek 200 m.

Very common nitrophobous species.

Massalongia carnosa (Dicks.) Koerb.

On mosses and soil.

Block Point 10 m; Keller Peninsula, Moraine Point 40 m; Demay Point 180 m.

Mastodia tessellata auct.

On rocks manured by birds.

Shag Point 5 m; Stenhouse 10 m; Uchatka Point 15 m.

Very common on marine cliffs.

Megaspora verrucosa (Ach.) Haf.

On mosses and plant debris.

Jasnorzewski Gardens 7 m; Barrel Point 50 m; Cytadela 100 m; Klekowski Crag 100 m; Urbanek Crag 120 m.

Common in the area.

Microgloea antarctica Lamb

On manured rocks.

Jasnorzewski Gardens 5 m; Uplaz 50 m; Ubocz 120 m.

New to King George Island. Known also from Nelson Island (Lamb 1948, Dodge 1973) and South Orkney Islands (Redon 1985).

Ochrolechia frigida (Swartz) Lynge

Cytadela 50 m; Mount Wawel 100 m; Smok 210 m.

Very common in the area.

Ochrolechia parella (L.) Massal.

On rocks, common especially on the uppermost parts of hills.

Dufayel Island 70 m; Ullman Spur 100 m; Urbanek Crag 160 m.

Pannaria hookeri (Borrer ex Sm.) Nyl.

On rocks and on soil in rock crevices.

Kasprowy Hill NW 60 m; Mount Wawel NW 100 m; Urbanek Crag S 160 m.

Common in the area. Known also from South Orkney Islands, Antarctic Peninsula, Marion Island and Bouvetøya (Øvstedal 1986).

Parmelia saxatilis (L.) Ach.

On rocks and mosses.

Mount Wawel NW 50, 100 m; Pond Hill 180 m.

Reported from South Orkney Islands, Antarctic Peninsula, Elephant Island, Greenwich Island and Livingston Island (Lindsay 1973).

Physcia caesia (Hoffm.) Fűrnr.

On rocks, rarely on mosses.

Dufayel Island 10 m; Kasprowy Wierch 50 m; Stenhouse 50 m.

Common in the area.

Physcia dubia (Hoffm.) Lettau

On rocks.

Barrel Point 5 m; Stenhouse 40 m; Dutkiewicz Cliff 100 m.

New to the South Shetland Islands. Reported from Victoria Land (Kapfen 1985).

Physconia muscigena (Ach.) Poelt

On soil and mosses, very often near bird nests.

Point Thomas 10 m; Stenhouse 50 m; Ubocz 80 m.

Placopsis contortuplicata Lamb

On stony soil and rocks.

Szafer Ridge 50 m; Ubocz 90 m, Zamek 200 m.

Very common nitrophobous species.

Poeltidea perusta (Nyl.) Hertel et Hafellner

On stones and rocks.

Smok 26 m, Czajkowski Needle N 280 m.

New to Antarctica.

Polyblastia gothica Th. Fr.

On wet soil among rocks.

Demay Point, Creeping slope 180 m; Jersak Hills c. 200 m.

New to Antarctica, new to the Southern Hemisphere.

Porpidia albocaerulescens (Wulfen) Hertel et Knoph

On rocks.

Smok N 15, 40 m.

New to Antarctica.

Porpidia crustulata (Ach.) Hertel et Knoph

On rocks.

Ubocz 50 m; Jersak Hills 140 m.

New to Antarctica.

Pseudephebe minuscula (Nyl. ex Arnold) Brodo et D. Hawksw.

On rocks, rock blocks, and stones, mainly on stone debris on slopes.

Ullman Spur NW 20 m; Smok N 80 m; Mount Wawel 100 m.

Pseudephebe pubescens (L.) Choisy

On rocks.

Mount Wawel NW 50 m; Ullman Spur W 100 m; Blue Dyke SW 110 m.

Psoroma hypnorum (Vahl) Gray

On soil and mosses.

Stenhouse 30 m; Uplaz 60 m; Smok 160 m.

Very common in the area.

Ramalina terebrata Hook et Tayl.

On rocks often visited by birds.

Llano Point 10 m; Vaureal Peak N 40 m.

Rhizocarpon geminatum Koerb.

On rocks.

Dufayel Island NW 70 m; Mount Wawel NW 100 m; Kasprowy Hill W 160 m.

New to the lichen flora of the Antarctic.

Rhizocarpon geographicum (L.) DC.

On rocks and stones.

Point Thomas 30 m; Ubocz 70 m; Keller Peninsula, Mount Birkenmajer 180 m.

Very common in the area.

Rhizocarpon polycarpum (Hepp) Th. Fr.

On rocks.

Point Thomas SE 25 m; Mount Wawel NE 75 m.

New to the lichen flora of the Antarctic.

Rhizoplaca aspidophora (Vain.) Redon

On rocks often visited by birds.

Stenhouse 10 m; Ubocz 60 m; Krokiew 160 m.

Rhizoplaca melanophtalma (DC. in Lam. et DC) Leuck et Poelt

On rocks visited by birds.

Barrel Point NE 5 m; Uplaz NE 50 m; Sphinx Hill N 100 m.

New to the South Shetland Islands. Also known from continental Antarctica (Øvstedal 1983, 1986, Kappen 1985) and Bouvetøya (Øvstedal 1986).

Rinodina deceptionis Lamb

On rocks.

Point Hennequin 5 m; Kasprowy Hill, above Ezcurra Inlet 5 m; Krzesanica NE 40 m.

New to King George Island. Known also from Deception Island (Lamb 1948), South Georgia (Lindsay 1973), and Bouvetøya (Øvstedal 1986).

Rinodina mniaraea (Ach.) Koerb.

On mosses, mainly on storm ridges.

Keller Peninsula: Plaza Point 5 m, British Point 10 m.

New to the lichen flora of the Antarctic and to the Southern Hemisphere.

Rinodina petermanii (Hue) Darb.

On rocks and stones manured by birds.

Keller Peninsula, Plaza Point 5 m; Rakusa Point 10 m; Skua Cliff SE 100 m.

Rinodina turfacea (Wahlenb.) Koerb.

On mosses and plant debris.

Keller Peninsula, near Ferguson Glacier SE 40 m; Mount Wawel NW 80 m; Smok N 160 m.

Sphaerophorus fragilis (L.) Pers.

On soil, among mosses.

Keller Peninsula, British Point 20 m.

New to the lichen flora of the Antarctic and to the Southern Hemisphere.

Sphaerophorus globosus (Hudson) Vain.

On soil among mosses.

Stenhouse 40 m; Uplaz 60 m; Smok 130 m.

Sphaerophorus cfr. *melanocarpus* (Swartz) DC.

On soil, associated with *Sphaerocarpus globosus*.

Keller Peninsula, Barton Buttes 100 m.

Reported from South Georgia (Lindsay 1972).

Staurothele gelida (Hook et Tayl.) Lamb

On stones, rock blocks, and rocks.

Cytadela 10 m; Barrel Point 30 m; Breccia Crag N 130 m.

Very common in the area.

Stereocaulon alpinum Laurer ex Funck

On soil.

Mount Wawel NW 50 m; Keller Peninsula, Mount Flagstaff NE 150 m.

Stereocaulon glabrum (Müll. Arg.) Vain.

On mosses and in rock crevices.

Mount Wawel NW 80 m; Jersak Hills E 170 m.

Tephromela atra (Hudson) Hafellner

On rocks and stones.

Barrel Point NE 30 m; Panorama Ridge, above Ezcurra Inlet 60 m; Jardine Peak SE 250 m.

Thelocarpon sp. *nova* Olech et Alstrup (in press)

Parasitic on *Polyblastia gothica*, on wet soil.

Demay Point, Creeping Slope NE, 180 m; Jersak Hills c. 200 m.

Genus new to the lichen flora of the Southern Hemisphere, species new to science.

Tremolecia atrata (Ach.) Hertel

On stones, rock blocks, and rocks.

Krzesanica NE 60 m; Sphinx N 80 m; Zamek 200 m.

Common in the area.

Umbilicaria aprina Nyl.

On rocks.

Jersak Hills S c. 200 m.

Also reported from continental Antarctica (Kappen 1985, Filson 1987) and the Antarctic Peninsula (Filson 1987).

Umbilicaria cfr. *cristata* Dodge et Baker

On rocks.

Precious Peak NW 200 m, associated with *Rhizocarpon geminatum* and *Staurothele gelida*.

Reported from continental Antarctica (Filson 1974, 1987) and South Georgia (Filson 1987).

Umbilicaria decussata (Vill.) Zahlbr.

On rocks.

Dutkiewicz Cliff, above Italia Valley 100 m; Czajkowski Needle SE 150 m; Jardine Peak 200 m.

Umbilicaria propagulifera (Vain.) Llano

On rocks.

Keller Peninsula, near Flagstaff Glacier E 80°m; Skua Cliff SE 100 m, Jardine Peak S 200 m.

New to the South Shetland Islands. Reported from the Antarctic Peninsula (Filson 1987).

Umbilicaria rufidula (Hue) Filson

On rocks.

Uplaz NE 50 m; Point Thomas N 70 m; Czajkowski Needle SE 150 m.

Usnea acromelana Stirton

On rocks visited by birds.

Point Thomas 5 m; Jersak Hills SE 190 m. New to King George Island.

Known also from the Antarctic Peninsula, South Shetland Islands, continental Antarctica (Filson 1974), and South Orkney Islands (Walker 1985).

Usnea antarctica Du Rietz

On rocks, stones and soil. Shag Point 5 m; Point Thomas 30 m; Zamek 200 m.

Very common in the area.

Usnea aurantiacoatra (Jacq.) Bory

On rocks and soil.

Smok 60 m; Urbanek Crag 120 m; Pond Hill 190 m.

Very common in the area.

Verrucaria ceuthocarpa Wahlenb.

On cliff rocks, not far from sea.

Dufayel Island N 5 m; Rakusa Point N 5 m.

Verrucaria dispartita Vain.

On rock near highwater sea level (in the spray zone).

Rakusa Point N c. 5 m.

New to the lichen flora of South Shetland Islands. Known also from the Antarctic Peninsula (Lamb 1948), South Orkney Islands, and Bouvetøya (Øvstedal 1986).

Verrucaria elaeoplaca Vain.

On stones near creek.

Ubocz c. 70 m.

New to the lichen flora of the South Shetland Islands. Reported from the Antarctic Peninsula (Lamb 1948, Smith and Corner 1973) and Bouvetøya (Øvstedal 1986).

Verrucaria psycrophila Lamb

On shore cliffs in the spray zone.

Dufayel N 5 m; Rakusa Point N 5 m.

Reported also from the Antarctic Peninsula and continental Antarctica (Lamb 1948, Dodge 1973), and South Shetland Islands (Lindsay 1971b).

Verrucaria tessellatula Nyl.

On shore cliffs in the spray zone.

Dufayel N 5 m; Rakusa Point N 5 m; Llano Point 5 m.

Reported also from the South Orkney Islands (Lamb 1948), Marion Island (Lindsay 1976), Bouvetøya (Øvstedal 1986) and South Shetland Islands (Lindsay 1971b).

Xanthoria candelaria (L.) Th. Fr.

On rocks often visited by birds or on mosses.

Rakusa Point 10 m; Rescuers Hill 30 m.

Common on marine cliffs or on top of hills.

Xanthoria elegans (Link) Th. Fr.

On rocks manured by birds.

Agat Point 5 m; Breccia Crag 100 m; Dutkiewicz Cliff 120 m.

Very common in the area.

DISCUSSION

In spite of the fact that lichens dominate in the vegetation cover of Antarctica, data concerning this flora and its distribution in that area have hitherto been scarce and fragmentary. Lichen collections were frequently made by chance gatherers or together with other study material. Even in the South Shetlands, considered to be the best studied from the point of view of lichens, the findings were unsatisfactory.

In the present work, a provisional list of species from the Admiralty Bay region is given; most of these species previously unknown there. Among them many are ones new not only to King George Island and the whole of the South Shetland archipelago, but also to Antarctica and some even to the Southern Hemisphere. The dominant species are bipolar, frequent in the Arctic and Holarctic but on the other hand, discovered in Antarctica. Several species hitherto regarded as Arctic-Alpine (e.g. *Bryonora castanea*, *Caloplaca tirolensis*, *C. tetraspora*, *Lecidea assimilata*, *Lecidella wulfenii*, *Rinodina mniaraea*, *R. turfacea*) are among those with bipolar disjunction. Other most recent studies of Antarctic lichenology have also extended the list of bipolar species

(Jacobsen and Kappen 1988). These findings have greatly changed the hitherto held opinions on the geographic character of the Antarctic lichen flora and indeed, as to the distribution of lichens on earth.

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*Porosty regionu Zatoki Admiralicji, Wyspa Króla Jerzego
(Szetlandy Południowe, Antarktyka)*

Streszczenie

Podano listę 110 gatunków porostów z rejonu Zatoki Admiralicji na Wyspie Króla Jerzego. Spośród nich 61 nie było dotąd znanych z tego terenu. Wśród nich jest 51 gatunków nowych dla Wyspy Króla Jerzego, 35 nowych dla archipelagu Szetlandów Południowych, 15 nowych dla całej Antarktyki i 6 nowych dla Półkuli Południowej. Dla pozostałych gatunków podano nowe stanowiska. Lista porostów Zatoki Admiralicji nie jest jeszcze kompletną. Materiały zebrane przez autorkę podczas XI Wyprawy Antarktycznej PAN do Stacji im. H. Arctowskiego, znajdują się w opracowaniu.