MEDDELELSER OM GRØNLAND
UDGIVNE AF
KOMMISSIONEN FOR VIDENSKABELIGE UNDERSØGELSER I GRØNLAND
Bd. 178 · Nr. 2

CONTRIBUTIONS TO THE FLORA OF PEARY LAND, NORTH GREENLAND

BY

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WITH 1 FIGURE IN THE TEXT

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BIANCO LUNOS BOGTRYKKERI A/S
1966

Abstract

This paper can be considered as an addition to K. HOLMEN: The vascular plants of Peary Land, North Greenland. Medd. o. Grønl. 124, 9. It deals with the collections made by the author in 1963. 7 species new to North Greenland were found: *Carex saxatilis*, *Festuca vivipara*, *Hippuris vulgaris*, *Juncus castaneus*, *Pedicularis capitata*, *Ranunculus triochophyllus* var. *eradicatus*, and *Saxifraga tricuspidata*. Some new localities were visited (loc. Nos 97–101). In the list of species new records besides some ecological and phenological additions are also given.

Finally the paper gives the determinations of the material brought home to Copenhagen from loc. Nos 47c, 81 and 102–106 by various collectors since 1957. In this material was also found another species new to North Greenland, *Carex glacialis*.

INTRODUCTION

As one of the results of the botanical investigations carried out on the first Danish Peary Land Expedition (1947–1950) K. HOLMEN has summed up our knowledge about the flora of this northernmost part of Greenland (K. HOLMEN 1957). In the summer of 1963 the present author had the good luck to take part in a second expedition to the same area, again under the eminent leadership of Count EIGIL KNUTH.

The purpose of the participation was to make borings in the lakes in order to obtain series of samples for pollen analyses, and to make collections of vascular plants for exsiccates.

The expedition stayed in Peary Land from May 16 to August 27, using the wintering house "Brønlundhus" of the first expedition as a base. The means of communication were the same as then, dog-sledge on the fiord-ice until midsummer, and later dinghy with outboard motor on Jørgen Brønlund Fjord, and, besides that, our legs. Accordingly very few places were visited where K. HOLMEN had not also been. The area around the eastern end of Nedre Midsommersø had, it is true, also been visited by K. HOLMEN, but his collections were made in winter, whereas the author had the opportunity to spend a few days there at the end of July, bringing the number of species recorded from that area up from 25 to 71. On June 5–10 he visited the interior part of Independence Fjord on a sledge-journey, penetrating as far as Lynge Holme.

As regards the natural conditions of the country the reader is referred to the description by HOLMEN (1957) and FRISTRUP (1952). It may be mentioned here, that the summer of 1963 was very cold, with average monthly temperatures 1–2 centigrades lower than for the years 1949–50, when the mean temperatures were: May −8.6° and −6.9°, June 2.5° and 2.7°, and July 6.0° and 6.4° C resp. In 1963 negative temperatures were measured as late as July 8.

The number of vascular plants known in North Greenland was, according to HOLMEN (1957) 98, but the present investigation added 7 species to the list: *Carex saxatilis*, *Festuca vivipara*, *Hippuris vulgaris*, *Juncus castaneus*, *Pedicularis capitata*, *Ranunculus trichophyllus* ssp.

eradicatus and *Saxifraga tricuspidata*. And one further species can be added: *Carex glacialis*, collected by E. KNUTH in 1960.

Mr. L. AALLING HANSEN, member of the expedition made some collections south of Station Nord in 1962, and E. KNUTH revisited the Jørgen Brønlund Fjord-area in 1964, and brought back some collections. Both have been so kind as to place their collections at my disposal. Finally this paper included the material collected by E. KNUTH and W. E. DAVIES on a helicopter journey in 1960.

ADDITIONAL LOCALITIES

47 c. Zig-Zag Dal, distr. III (app. 81°10′ N., 23° W.). Collections made by E. KNUTH on July 2, 1960.

81. Kap Morris Jesup, distr. V (83°39′ N., 33°00′ W.). Previously one species, *Saxifraga oppositifolia*, was brought home from this northernmost cape in the world. E. KNUTH collected another four species there on a visit on July 6, 1960.

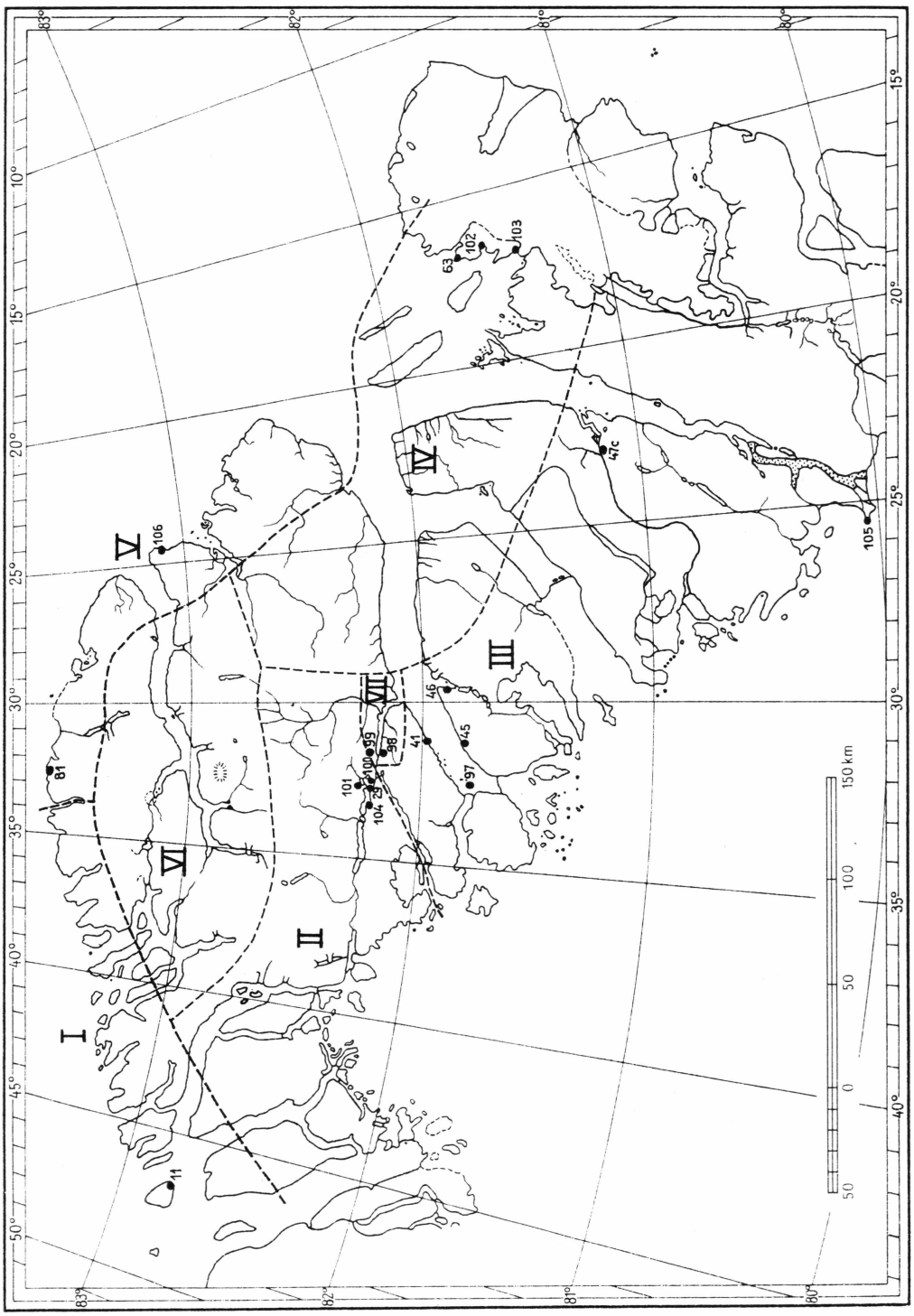
97. Lynge Holme, distr. III (81°49′ N., 32°30′ W.), small islands built up of sandstone and diabas in Independence Fjord, near the head. The largest was visited on June 8, 1963 by the author. The sparse vegetation contained many grasses, among which can be mentioned *Hierochloë alpina*, *Trisetum spicatum* and *Festuca hyperborea*.

98. Deltaterrasser, distr. VII (82°11′ N., 31°10′–15′ W.), a big delta formed by the river Glaciologelv on the south side of Jørgen Brønlund Fjord. Collections were made several times during the summer of 1963.

99. The valley between the mountains Buen and Frysefjeld north of the head of Jørgen Brønlund Fjord, distr. VII (82°12′–17′ N., 30°45′–31°15′ W.). The valley, rising to an elevation of about 300 m, is a fellfield with small ponds, connected by brooklets, and here a rich collection was made on August 10, 1963, by the author. Among the 66 species collected or noted, *Ranunculus eradicatus*, *Saxifraga hyperborea* and *Carex saxatilis* can be mentioned. For these three species this locality is the northernmost habitat known in Greenland.

100. Issø, distr. II (82°15′ N., 32°30′ W.). On the former lake bottom app. 100 m.s.m. south of the present lake huge areas were covered with *Eriophorum scheuchzeri*. On clayey soil on the beach the vegetation was dominated by *Deschampsia brevifolia*, well fruiting, and vigorous specimens of *Juncus biglumis*. In shallow water in the lake *Hippuris* was found, the northernmost record of this species. Collections were made on July 22, 1963, by the author.

101. Blåsø, distr. II (82°16′ N., 32°45′ W.), a lake at an elevation of app. 100 m. Along the north side a hilly moraine landscape with water oozing from the snow-beds. Here a moss vegetation was found with


I
II
III
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11
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47c
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98
99
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104
150 km
100
50
0
50

Fig. 1.

Carex stans a dominating sedge, and with scattered *Juncus biglumis*, *J. triglumis* and *Eriophorum triste*. In this community *Juncus castaneus* was also found (northernmost record), and in several spots *Carex saxatilis*. Along the beach *Deschampsia brevifolia* and *Pleuropogon sabinei* were the dominating species. Collections were made by the author on July 23, 1963.

102. South of Station Nord, distr. IV (app. 81°30′ N., 16°35′ W.), on Prinsesse Ingeborg Halvø. Collections were made by L. Aalling Hansen on July 7, 1962.

103. Hvidebugt, distr. IV (app. 81°24′ N., 17° W.), on Kronprins Christian Land, south of Station Nord. Collections were made by L. Aalling Hansen on July 7, 1962.

104. Store Sandelv, distr. II (82°13′ N., 33°20′ W.), Walcott Land. The river flows into the lake Nedre Midsommersø in a bay called Jollebugt on the south side; collections were made around that bay on July 23, 1964 by E. Knuth. Of special interest is his observations of *Pedicularis capitata*, which was found to be common in the area between Sølejren and Store Sandelv.

105. Kap Georg Cohn, distr. III (80°14′ N., 25°58′ W.), Amdrup Højland. Surrounded on three sides by the inland ice. Collections were made by E. Knuth on June 27, 1960.

106. Hans Egede Land, distr. V (app. 83°07′ N., 24° W.), a cape southeast of Kap John Flagler. Collections were made by W. E. Davies on July 7, 1960.

LIST OF SPECIES

The following deals with a) the species new to North Greenland, b) ecological and phenological additions to HOLMEN (1957) and c) new localities of the species mentioned in HOLMEN l.c. If nothing is otherwise stated the collections or observations were made by the author in 1963. Concerning localities 47c, 81 and 102–106 *vide* above.

Equisetum arvense L.

II: 29 Sølejren (rare).
III: 46 Krognæs.
VII: 99 West of Buen.

Equisetum variegatum SCHLEICH.

II: 29 Sølejren (common).
III: 46 Krognæs.
VII: 99 West of Buen.

This species had previously been found in only three localities, always sterile. It was common in the valley west of Buen, occurring in moss-carpets along ponds and streams, and a few fertile specimens were seen. In the area around Sølejren it was common—it was, for example, found in a moss-rich *Carex stans—Salix arctica* bog with a deep cover of snow in the winter. Fertile specimens were often met with. All finds were from the lowland.

Cystopteris fragilis (L.) BERNH. ssp. *dickieana* (SIM.) HYL.

II: 29 Sølejren (common).
VII: 99 West of Buen, and in the valley north of Buen (collected by E. KNUTH in 1964).

Cerastium arcticum LGE. (*C. alpinum* L. in HOLMEN (1957))

III: 105 Kap Georg Cohn.
IV: 63 Station Nord (var. *sordidum*), 103 Hvidebugt (var. *sordidum*).
V: 81 Kap Morris Jesup, 106 Hans Egede Land.

According to HULTÉN (1956) the North Greenland material can be referred to two closely related varieties, var. *vestitum* HULTÉN (distribution map l.c. fig. 20) and var. *sordidum* HULTÉN (map fig. 22). The former is the most common type in the area visited by the author. HULTÉN has determined two collections of var. *sordidum* loc. 11 John Murray Ø, leg. TH. WULFF, and Navy Cliff land at the head of Independence Fjord, leg. P. FREUCHEN.

Cerastium regelii OSTENF.

II: 29 Sølejren (rare).

None of the many specimens growing in the river delta next to Brønlundhus were flowering in 1963, possibly due to the cold summer.

Melandrium apetalum (L.) FENZL ssp. *arcticum* (FR.) HULTÉN

II: 29 Sølejren (common).
VII: 99 West of Buen.

Melandrium triflorum (R. BR.) J. VAHL

III: 105 Kap Georg Cohn.

Minuartia rubella (WG.) HIERN

III: 97 Lynge Holme, 105 Kap Georg Cohn.
VII: 99 West of Buen.

Silene acaulis JACQ.

III: 97 Lynge Holme.
VII: 98 Deltaterrasser (common on dunes).

Stellaria crassipes HULTÉN

II: 29 Sølejren (common).
III: 45 Saxifragadal, 46 Krognæs, 105 Kap Georg Cohn.
V: 106 Hans Egede Land.
VII: 99 West of Buen.

The capsules are normally empty, but one specimen with a few well developed seeds from the preceding summer was collected on June 26 at Klaresø, and another on June 7 at Saxifragadal.

Braya purpurascens (R. BR.) BUNGE

II: 29 Sølejren (common).
IV: 103 Hvidebugt.
VII: 99 West of Buen, VII D east of Børglun Elv (E. KNUTH 1964).

Braya thorild-wulffii OSTENF.

II: 29 Sølejren (common).
VII: 99 West of Buen.

Cardamine bellidifolia L.

IV: 63 Station Nord.
VII: 99 West of Buen.

Cochlearia groenlandica L.

IV: 103 Hvidebugt.

Draba arctogena E. EKMAN

II: 101 Blåsø.
III: 41 Diabasnæs, 46 Krognæs, 97 Lynge Holme, 105 Kap Georg Cohn.
VII: 99 West of Buen.

Draba bellii HOLM

III: 41 Diabasnæs, 46 Krognæs.
IV: 103 Hvidebugt.
V: 106 Hans Egede Land.

Draba lactea ADAMS

II: 29 Sølejren (common).
III: 41 Diabasnæs, 45 Saxifragadal, 46 Krognæs
VII: 99 West of Buen.

Draba micropetala HOOK.

IV: 103 Hvidebugt.

Draba oblongata R. BR.

II: 29 Sølejren (rare).
VII: 99 West of Buen.

Draba subcapitata SIMM.

II: 29 Sølejren (rare).
III: 41 Diabasnæs.
VII: 99 West of Buen.

Erysimum pallasii (PURSH) FERN.

II: 29 Sølejren (rare), 104 St. Sandelv.
III: 41 Diabasnæs.

Eutrema edwardsii R. BR.

II: 29 Sølejren (rare), 101 Blåsø.

Lesquerella arctica (WORMSKJ.) S. WATS.

II: 101 Blåsø.
III: 46 Krognæs.
VII: 98 Deltaterrasser, 99 West of Buen.

Hippuris vulgaris L.

II: 100 Issø.

This species is common in Greenland, but has not up till now been recorded north of about 77° N. The plants were growing in shallow water along the south coast of Issø, covering a small cove, with hundreds of stems emerging about 10 cm. No flowers or buds were visible on July 22. This is the northernmost record of this species in the world.

Chamaenerium latifolium (L.) SWEET

II: 101 Blåsø, 104 St. Sandelv.
III: 105 Kap Georg Cohn.
VII: 99 West of Buen, VII D east of Børglum Elv (E. KNUTH 1964).

Papaver radicatum ROTTB.

III: 47c Zig-Zag Dal, 97 Lynge Holme, 105 Kap Georg Cohn.
IV: 103 Hvidebugt.
V: 81 Kap Morris Jesup, 106 Hans Egede Land.
VII: 99 West of Buen.

Koenigia islandica L.

II: 101 Blåsø.

This is the second record in North Greenland in the area between Skærfjorden on the east coast and Thule in the west, the first record being that of HOLMEN from 1 km south of Brønlundhus. It was found in large quantities in an extensive moist area beneath a snow-bed on July 23. The tiny plants, most of them no higher than 1 cm, were flowering vigorously, but no seeds were visible. This is the northernmost record of the species in the world (82°16′ N.).

Oxyria digyna (L.) HILL

III: 47c Zig-Zag Dal.
IV: 103 Hvidebugt.
V: 106 Hans Egede Land.
VII: 99 West of Buen.

Polygonum viviparum L.

VII: 99 West of Buen, VII D East of Børglum Elv (E. KNUTH 1964).

Ranunculus trichophyllus CHAIX. var. *eradicatus* (LÆST.) W. B. DREW

VII: Three localities, see below.

According to BÖCHER, HOLMEN and JAKOBSEN (1957) the northern limit of *Ranunculus confervoides* (FR.) ASCH. & GRAEBN. is 76°30′ N. on the west coast and 74°28′ N. on the east coast, both limits being about 900 km away from the Jørgen Brønlund Fjord area. Now were found: 1) A few specimens in the southernmost lake in the valley west of Buen, in large submerged cushions of water-mosses. It was sterile on August 10; 2) Large quantities in small depressions in a dead meander near the mouth of the river Midsommerelv in Jørgen Brønlund Fjord. It was growing together with water-mosses, partly submerged on July 18, but a week later dried out. A few small flower buds were observed; 3) Some hundred specimens in lake Klaresø, 1 km southwest of Brønlundhus, either growing in small stands on the chalk-gyttja bottom between stones at a depth of 20–30 cm, or lying in cushions of water-mosses and *Nostoc*. The water is very rich in HCO_3^-, SO_4^{--} and Mg^{++}, (3.60, 3.02 and 5.51 milliequivalent/litre resp.); pH is 7.4. The plants were observed with time intervals, and on August 14 flower buds were visible on the more vigorous plants. The specimens of the Peary Land collections were tiny, the stem mostly unbranched, max. 4 cm long, creeping and with many adventitious roots. The short (app. 0.5 cm) blades of the firm leaves were sessile, the stipules were dilated and emarginate.

The northernmost record in the world of a *Batrachium* is Alert on Ellesmere Land (82°31′ N.), where BRUGGEMANN and CALDER (1953 p. 169) describe two collections very similar to those from Peary Land. They refer with some hesitation their plants to *Ranunculus circinatus* SIBTH. var. *subrigidus* (W. DREW) BENSON. According to DREW (1936) and FERNALD (1950) *R. subrigidus* is a widely distributed species ranging in different forms from New Foundland to northern Mexico, but according to PORSILD (1957, map 163) the area extends to north of the polar circle. According to his map 162 he seems to refer the Alert find to *R. trichophyllus* var. *eradicatus*.

Ranunculus hyperboreus ROTTB.

VII: 99 West of Buen.

This plant has previously only been found in a floating, sterile form in several places in the lowland at Jørgen Brønlund Fjord. In the valley west of Buen sterile plants were the most common, but flowering specimens were found in moist moss-carpets along a rivulet on August 10. On the stony shore at Opalsø 1 km east of Brønlundhus large quantities of flowering specimens were forming loose mats in moist mosses between or overgrowing the stones; some of them had nearly ripe fruits on August 11.

Ranunculus sulphureus SOL.

II: 29 Sølejren (common).
VII: 99 West of Buen, VII D east of Børglum Elv (E. KNUTH 1964).

Dryas chamissonis SPRENG. ex. JUZ.

III: 97 Lynge Holme.
VII: 99 West of Buen.

Dryas integrifolia M. VAHL

III: 47c Zig-Zag Dal, 105 Kap Georg Cohn.
IV: 102 South of Station Nord, 103 Hvidebugt.
VII: 98 Deltaterrasser, 99 West of Buen.

Potentilla chamissonis HULTÉN

III: 46 Krognæs, 97 Lynge Holme.
VII: 99 West of Buen.

Potentilla hyparctica MALTE

III: 41 Diabasnæs, 105 Kap Georg Cohn.

Potentilla pulchella R. BR.

II: 29 Sølejren (common).
III: 46 Krognæs, 97 Lynge Holme, 105 Kap Georg Cohn.
IV: 63 Station Nord, 102 South of Station Nord.
V: 106 Hans Egede Land.
VII: 99 West of Buen, VII D east of Børglum Elv (E. KNUTH 1964).

Potentilla rubricaulis LEHM.

II: 29 Sølejren (rare).

Salix arctica PALL.

III: 97 Lynge Holme, 105 Kap Georg Cohn.
V: 106 Hans Egede Land.
VII: 99 West of Buen.

Saxifraga caespitosa L.

II: 29 Sølejren (rare).
IV: 102 South of Station Nord.
V: 81 Kap Morris Jesup.
VII: 98 Deltaterrasser, 99 West of Buen.

Saxifraga cernua L.

II: 29 Sølejren (common).
III: 41 Diabasnæs.
IV: 63 Station Nord, 102 South of Station Nord.
VII: 99 West of Buen.

Saxifraga flagellaris WILLD. ssp. *platysepala* (TRAUTV.) A. E. PORS.

II: 29 Sølejren (rare).
IV: 102 South of Station Nord.
VII: 98 Deltaterrasser, 99 West of Buen.

Saxifraga hyperborea R. BR.

VII: 99 West of Buen.

In North Greenland this species is known only from a few finds in the Jørgen Brønlund Fjord area. The species was found twice; 5 km south of Brønlundhus, 500–600 m s.m., it was growing in moss-cushions between boulders, flowering on July 31, and in the valley west of Buen it was richly flowering on August 10, growing in thick moss-carpets in a late snow-bed, 200–300 m s.m. The latter locality (82°16′ N.) is the northernmost record in the world.

Saxifraga nivalis L.

II: 29 Sølejren (rare).
III: 105 Kap Georg Cohn.
IV: 63 Station Nord, 102 South of Station Nord.
VII: 99 West of Buen.

Saxifraga oppositifolia L.

III: 47 c Zig-Zag Dal, 97 Lynge Holme, 105 Kap Georg Cohn.
IV: 103 Hvidebugt.
V: 106 Hans Egede Land.
VII: 99 West of Buen.

Saxifraga tenuis (Wg.) H. Sm.

II: 29 Sølejren (rare).
IV: 63 Station Nord.
VII: 99 West of Buen.

Saxifraga tricuspidata Rottb.

VII: B2 (82°09′ N., 31°25′ W.).

This species is common in West Greenland between Godthaabsfjord and Humboldt Gletscher (app. 64°–79° N.). In East Greenland it is found only in the area around the mouth of Scoresby Sund (70° N.), (distribution map in Böcher 1938 p. 121). The find in Peary Land was made by Thorkild Høy, and a few days later the author visited the locality. It was growing in the canyon formed by the river Zoologelv at an elevation of 350 m, at the transition between a *Luzula confusa*-zone and a moister *Luzula arctica-Poa arctica*-zone, rich in mosses, along the river. Altogether it covered an area of about 1 square metre, and it was flowering on August 4. A few capsules with ripe seeds from the preceding year were still left. The valley had been covered by deep snow in the winter. The habitat was situated in the *Cassiope*-zone dominated by *Cassiope tetragona*, *Poa arctica*, *P. glauca*, *Saxifraga nivalis*, *S. tenuis*, *Luzula confusa*, *L. arctica*, *Cardamine bellidifolia* and *Potentilla hyparctica*. The species has a fairly general distribution on Ellesmere Land, where the northernmost record is Alert (82°31′ N.).

Erigeron compositus Pursh

II: 29 Sølejren (rare), 104 St. Sandelv.
III: 46 Krognæs.
VII: 99 West of Buen, VII D east of Børglum Elv (E. Knuth 1964).

Taraxacum pumilum Dahlst.

II: 100 Issø, 101 Blåsø.
VII: 99 West of Buen.

Taraxacum phymatocarpum J. VAHL

II: app. 10 km northeast of Blåsø (E. KNUTH 1964).
III: 97 Lynge Holme.
VII: 99 West of Buen.

Taraxacum arcticum (TRAUTV.) DAHLST. f. *albiflora* KJELLM.

VII: B2.

This rare species was met with twice, in a mossy *Poa arctica*-community along one of the arms of the river Zoologelv, app. 50 m lower than the locality of *Saxifraga tricuspidata*, and in a rather dry *Luzula confusa-Potentilla hyparctica* heath-like fell-field 5 km south of Brønlundhus, at an elevation of 500–600 m. Both habitats are in the *Cassiope*-zone, and in both places specimens with flowers as well as specimens with ripe fruits were collected, on August 4 and July 31 resp.

Taraxacum arctogenum DAHLST.

II: 29 Sølejren (rare).
VII: 99 West of Buen.

Cassiope tetragona (L.) D. DON

II: 104 St. Sandelv.
III: 47c Zig-Zag Dal, 97 Lynge Holme.

Armeria scabra PALL. ssp. *sibirica* (TURCZ.) HYL.

III: 46 Krognæs.
VII: 98 Deltaterrasser.

At Krognæs it was common on moist clay along the beach, but it was also growing in a *Dryas-Carex nardina* heath near the beach. On the Deltaterrasser it was found by L. AALLING HANSEN growing in the sandy delta. This is the northernmost record in the world (82°11′ N.).

Pedicularis capitata ADAMS

II: 29 Sølejren (common), 104 St. Sandelv.

This species extends from "the western-central sector of Asia eastwards all the way over the remainder of Siberia, Alaska, and Canada to northwestern Greenland" (POLUNIN 1959). Previously only four collections have been made in Greenland, on Inglefield Land between 78°20′ N. and 79°07′ N. In the area around Sølejren and between Nedre Midsommersø and Blåsø it was found in several places, and it was com-

mon too south of Nedre Midsommersø and westwards to St. Sandelv (i.e. as far as E. KNUTH went in 1964). Mostly it was growing in a moist, heathlike vegetation dominated by *Dryas chamissonis* and *Carex misandra* and with *Kobresia myosuroides*, *Polygonum viviparum*, *Salix arctica*, *Juncus biglumis*; sometimes it was found in dryer *Dryas integrifolia-Kobresia myosuroides*-heaths. The snow-covering was thin. The specimens were at the beginning of the flowering on July 22–24, a single specimen only was seen with unripe fruits. This is the northernmost as well as the easternmost record in the world.

Pedicularis hirsuta L.

II: 104 St. Sandelv.
III: 97 Lynge Holme.
VII: 99 West of Buen, VII D east of Børglum Elv (E. KNUTH 1964).

This species is chiefly found in the lowland, parasiting normally (if not exclusively) on *Salix arctica*. It was common along the river Zoologelv up to an elevation of app. 700 m, and on a plateau 500–600 m s.m. in the *Cassiope*-zone, 5 km south of Brønlundhus.

Carex glacialis MACK.

III: 47c Zig-Zag Dal.

The hitherto known distribution in Greenland of this species ranges from 73°25′ N. on the west-coast around Kap Farvel and northwards on the east-coast to 75° N. (map in BÖCHER 1938 p. 231). This new find thus marks a great range-extension, being at the same time the northernmost find in the world (map of the total distribution in HULTÉN 1962 p. 31). The collection had originally been determined by K. HOLMEN and S. LÆGAARD.

Carex maritima GUNN.

II: 29 Sølejren (common).
III: 97 Lynge Holme.

Carex misandra R. BR.

VII: 99 West of Buen.

Carex nardina E. FRIES

III: 97 Lynge Holme, 105 Kap Georg Cohn.
VII: 99 West of Buen.

Carex saxatilis L.

II: 29 Sølejren, 101 Blåsø.
VII: 99 West of Buen.

Apart from North Greenland this species is widely distributed, from 78°35′ N. on the west-coast around Kap Farvel to 77°00′ N. on the east-coast. In Peary Land it was found 1) in a late snow-free *Carex stans*-meadow with *Arctagrostis* and *Eriophorum triste* on moist, clayey soil 4 km east of Sølejren, 2) along a temporary pool at Sølejren on stony bottom, growing with *Equisetum variegatum*, 3) at several places in *Carex stans*-meadows along Blåsø, and 4) at several localities in the valley west and northwest of Buen, mostly between stones along rivers and brooklets, growing together with *Juncus biglumis* and *J. triglumis*. The specimens at 1) and 2) were at the beginning of flowering on July 19, and on 4) with ripe fruits on August 10. Northernmost record in the world is that at Blåsø (82°16′ N.); a map of the total distribution is found in HULTÉN (1962).

Carex stans DREJ.

II: 29 Sølejren (common), 101 Blåsø.
III: 46 Krognæs.
VII: 99 West of Buen.

Eriophorum scheuchzeri HOPPE

II: 29 Sølejren (common), 100 Issø, 101 Blåsø.
VII: 99 West of Buen.

Eriophorum triste (TH. FR.) HADAČ & LÖVE

II: 29 Sølejren (common), 101 Blåsø.
VII: 99 West of Buen.

Kobresia myosuroides (VILL.) FIORI & PAOL.

II: 29 Sølejren (common).
VII: 99 West of Buen.

Kobresia simpliciuscula (WG.) MACK.

III: 46 Krognæs.

This species, previously collected only once in North Greenland, was found on a southeastern exposed moist slope 2 km northwest of Krognæs, Astrup Fjord. The soil was clayey sand; the plant community may be characterized as an *Eriophorum triste-Juncus castaneus* meadow

with a few *Equisetum variegatum* and *Juncus triglumis*. The slope was snow-free on June 6, and the first green leaves of the *Kobresia* were visible, together with the green tips of the stolons of *J. castaneus*.

Alopecurus alpinus Sm.

II: 29 Sølejren (common).
III: 97 Lynge Holme, 105 Kap Georg Cohn.
IV: 63 Station Nord, 102 South of Station Nord.
V: 106 Hans Egede Land.
VII: 99 West of Buen.

Arctagrostis latifolia (R. Br.) Griseb.

VII: 99 West of Buen.

Calamagrostis purpurascens R. Br.

III: 46 Krognæs.
VII: 98 Deltaterrasser, 99 West of Buen.

The species was often met with in dry, warm, sandy places in the area around the head of Jørgen Brønlund Fjord and at Sølejren. On July 22 the lower part of the panicle was still hidden in the upper sheath. All examined anthers were defective, and on August 4 no signs of grain were seen.

Colpodium vahlianum (Liebm.) Nevski

II: 29 Sølejren (common).
IV: 63 Station Nord.
VII: 99 West of Buen.

Deschampsia brevifolia R. Br.

II: 29 Sølejren (common), 100 Issø, 101 Blåsø.
VII: 98 Deltaterrasser, 99 West of Buen, VII D east of Børglum Elv (E. Knuth 1964).

In the eastern part of the Jørgen Brønlund Fjord area it was found in a number of localities, growing as single specimens on wet clay or sand along rivers, brooks or lakes. The plants were mostly sterile, with withered anthers still hanging from last year's panicles. In the more continental parts more and more specimens were fruiting, and together with *Pleuropogon sabinei* this species was the most common grass around the big lakes Issø, Blåsø and Nedre Midsommersø.

Festuca baffinensis N. POLUNIN

II: 29 Sølejren (rare), 101 Blåsø (rare).
VII: 99 West of Buen.

Festuca hyperborea K. HOLMEN

II: 29 Sølejren (rare), 101 Blåsø (rare).
III: 46 Krognæs, 97 Lynge Holme.
VII: 99 West of Buen.

Festuca vivipara (L.) SM.

VII: Jørgen Brønlund Fjord A.

This species is not mentioned in HOLMEN (1957), but is known from the area west of Peary Land as well as southeast of this area. It was found in two localities, on sandy soil in a former river bed at Brønlundhus growing together with *Festuca baffinensis*, and on sandy-clayey soil on a river bank 2 km to the east of the station in an open vegetation with i.a. *Deschampsia brevifolia*, *Braya thorild-wulffii*, *B. purpurascens*, *Draba bellii*, and *Taraxacum pumilum*.

Hierochloë alpina (SW.) R. & S.

III: 45 Saxifragadal, 97 Lynge Holme.

Phippsia algida (SOL.) R. BR.

II: 29 Sølejren (common).
III: 41 Diabasnæs.
VII: 99 West of Buen.

The above mentioned finds belong to the tiny form from the snow-beds, while the tall form from the sea-shore was not seen anywhere but at Brønlundhus (HOLMEN 1952).

Pleuropogon sabinei R. BR.

II: 29 Sølejren, 100 Issø (common), 101 Blåsø (common).
VII: 99 West of Buen.

Poa abbreviata R. BR.

III: 41 Diabasnæs, 46 Krognæs, 97 Lynge Holme, 105 Kap Georg Cohn.
V: 81 Kap Morris Jesup.
VII: 99 West of Buen.

Poa alpigena (E. Fr.) Lindm. var. *colpodea* (Th. Fr.) Schol.

II: 29 Sølejren (rare).
VII: 99 West of Buen.

Besides at these two localities it was rather common north of the river Midsommerelv, and it was collected by Per Kirkeby on a marine terrace 70 m s.m. between Pyramide Plateau and Kap Harald Moltke. Northernmost record is that from the valley west of Buen (82°16′ N.).

Poa arctica R. Br. ssp. *caespitans* Nannf.

II: 29 Sølejren (rare).
III: 46 Krognæs, 97 Lynge Holme, 105 Kap Georg Cohn.

Poa glauca M. Vahl

II: 29 Sølejren (common).
III: 105 Kap Georg Cohn.
VII: 99 West of Buen.

Poa hartzii Gand.

VII: 99 West of Buen.

Puccinellia angustata (R. Br.) Rand & Redf.

III: 97 Lynge Holme.
V: 106 Hans Egede Land.
VII: 99 West of Buen.

Roegneria borealis (Turcz.) Newski var. *hyperarctica* (Pol.) Meld.

II: 29 Sølejren (rare).

This species, previously recorded only three times from North Greenland (cp. distribution map in Böcher (1963 p. 52)), was found on a steep, southwesterly exposed scree at Sølejren with i.a. *Erysimum pallasii*, and on a very dry, sandy moraine together with *Calamagrostis purpurascens* and *Erigeron compositus*. On July 21 the flowering was at the beginning, the anthers filled with pollen.

Trisetum spicatum (L.) Richt.

III: 97 Lynge Holme.
VII: 99 West of Buen.

Juncus castaneus SM.

II: 101 Blåsø.
III: 46 Krognæs.

This species has previously been found in West Greenland between 62°30′ and 76° N., and in East Greenland between 70° and 78° N., and at Angmagssalik (maps in BÖCHER (1938 p. 245) and HULTÉN (1962 p. 29)). The occurrence in Astrup Fjord is mentioned under *Kobresia simpliciuscula*. At Blåsø it was found on a slope exposed towards south-east, with oozing water through a moss-carpet. The vegetation was dominated by *Carex stans*; species of secondary importance were *Juncus biglumis*, *J. triglumis*, and *Eriophorum triste*. The flowering was at the beginning on July 23. The record at Blåsø is the northernmost in the world (82°16′ N.).

Juncus triglumis L.

II: 101 Blåsø.
VII: 99 West of Buen.

The northernmost record in the world is at the easternmost lake in the valley north of Frysefjeld (82°17′ N.).

Juncus biglumis L.

II: 100 Issø, 101 Blåsø.
IV: 63 Station Nord.
VII: 99 West of Buen.

Luzula arctica BLYTT

II: 101 Blåsø.
III: 46 Krognæs.
IV: 63 Station Nord.

Luzula confusa (HARTM.) LINDEB.

III: 97 Lynge Holme, 105 Kap Georg Cohn.

LITERATURE

Bruggemann, P. F. and Calder, J. A. 1953. Botanical investigations in Northeast Ellesmere Island, 1951. – The Canadian Field-Naturalist 67: 157–174.

Böcher, T. W. 1938. Biological distributional types in the flora of Greenland. – Medd. o. Grønl. 106, 2: 1–339.

— 1963. Phytogeography of Middle West Greenland. – Medd. o. Grønl. 148, 3: 1–289.

Böcher, T. W., Holmen, K. & Jakobsen, K. 1957. Grønlands Flora. – København.

Drew, W. B. 1936. The North American representatives of Ranunculus, § Batrachium. – Rhodora 38, 1–47.

Fernald, M. L. 1950. Gray's Manual of Botany. 8th ed. – New York.

Fristrup, B. 1952. Physical geography of Peary Land. – Medd. o. Grønl. 127, 4.

Holmen, K. 1952. Cytological studies in the flora of Peary Land, North Greenland. – Medd. o. Grønl. 128, 5: 1–40.

— 1957. The vascular plants of Peary Land, North Greenland. – Medd. o. Grønl. 124, 9: 1–149.

Hultén, E. 1956. The Cerastium alpinum complex. – Svensk Botanisk Tidskrift 50: 411–495.

— 1962. The circumpolar plants. I. – Kungl. Svenska Vetenskapsakademiens Handlingar. Fjärde Serien. Bd. 8, Nr. 5: 1–275.

Polunin, N. 1959. Circumpolar arctic flora. – Oxford.

Porsild, A. E. 1957. Illustrated Flora of the Canadian Arctic Archipelago. – National Museum of Canada. Bulletin No. 146.

Færdig fra trykkeriet den 14. januar 1966.