MEDDELELSER OM GRØNLAND
UDGIVNE AF
KOMMISSIONEN FOR VIDENSKABELIGE UNDERSØGELSER I GRØNLAND
BD. 106 · NR. 3

DEN 7DE THULE-EKSPEDITION TIL SYDØSTGRØNLAND 1932
UNDER LEDELSE AF KNUD RASMUSSEN

THE VASCULAR PLANTS OF SOUTH-EAST GREENLAND 60°04′ TO 64°30′ N. LAT.

BY

GUNNAR SEIDENFADEN

WITH 23 FIGURES IN THE TEXT AND 1 PLATE

KØBENHAVN
C. A. REITZELS FORLAG
BIANCO LUNOS BOGTRYKKERI A/S
1933

CONTENTS

		Page
Introduction		5
I.	Historical Remarks	9
II.	List of the localities visited	12
III.	List of the vascular plants of South-East Greenland between 60°04′ and 64°30′ N. lat.	40
IV.	Concluding Remarks	99
V.	List of the plants collected by the 7th Thule Expedition in South Greenland	109
VI.	Contributions to the *Hieracium* flora of Greenland, by S. O. F. Omang	112
Index of the plants mentioned		121
Literature		127

INTRODUCTION

Upon the return of the 7th Thule Expedition from South-east Greenland in the autumn of 1932, the leader of the expedition, Dr. KNUD RASMUSSEN, handed over to Professor KNUD JESSEN a large collection of plants which in the course of the summer had been collected by Mr. RICH. BØGVAD in the area visited by the expedition. In January, 1933, this collection was handed over to me for examination.

The expedition started out from Nanortalik on the southwest coast of Greenland, and in the ensuing period the various parties undertook journeys through the sounds round Cape Farewell, and up along the east coast to Ammagssalik.

A great number of the plants collected by BØGVAD are derived from the most southerly and southwesterly parts of Greenland, regions that have been visited by numerous botanists, and cannot, therefore, be expected to yield anything surprising in a floristic respect. The same applies to the Ammagssalik district, from which after KRUUSE's wintering there in 1901—02 (34, 35, 37) and after the work of later investigators no essentially new data can be expected.

The intervening area, however, has very rarely been explored by botanists; as will appear from the following chapter (chapter I), it has only been visited by some few Danish and, quite recently, by two Norwegian expeditions. Apart from the inaccessible northeast coast, this is probably the least known area within the whole of Greenland.

BØGVAD, however, contrived to visit an exceedingly large number of localities, to which must be added the localities from which collections were made on the 6th Thule Expedition to the same regions in 1931.

Since our knowledge of the flora of the coast has thus been considerably increased, and, moreover, a complete list of the plants from this area is lacking, I have found it natural to give such a list of the plants so far found in the southeastern part of Greenland.

First the area must be delimited to the south and the north. As a

matter of course, we can hardly speak of a natural boundary line in a uniform and coherent coastal area like the present, since such a line would always be somewhat artificial. OSTENFELD was aware of this when he divided Greenland into fourteen districts (51), and avoided all discussion of more or less natural boundaries. As regards the regions here dealt with he draws the boundary between "South Greenland" and the southernmost parts of East Greenland in 61° N. lat., and the "Ammagssalik district" farther north comprises only the tracts of the coast which were visited by KRUUSE, i. e. from 65°30′ to 66°20′ N. lat.

As the northern boundary I have chosen the most northerly point at which plants were collected south of the Ammagssalik district, viz. c. 64°30′ N. lat. Thus a whole degree of latitude still remains unvisited by botanists.

The southern boundary seems the most difficult to draw. The simplest, and perhaps the most consistent, method would be to draw a line running north-south through the extreme southern point of Greenland at Cape Farewell, which line will intersect the various islands and sounds in about 44° W. long. I am, however, of the opinion that the South Greenland skerries form a fairly well-defined floristic whole, and hence such a line of demarcation would be extremely unnatural (this is evidently also the opinion of EBERLIN (41, p. 325)). The fact that we know fewer plants from the eastern than from the western skerries, may well be due to the more superficial investigation of the former, and need not necessarily be ascribed to unfavourable climatic conditions. It must be borne in mind that throughout the greater part of the year the East Greenland ice-current will bend up along the southern part of the west coast. Moreover, previously the unfavourable influence of this current on the vegetation has very likely been to some extent overestimated.

As the southern boundary of the area to be dealt with in the following I have therefore chosen a line running from the inland ice to the point on the east coast where the mouth of Prins Christian Sound is situated, i. e. in 60°04′ N. lat. This must not, however, be considered an attempt to draw a natural boundary, since it has merely a practical purpose. Later, more thorough investigations immediately north and south of this line may perhaps render it possible to draw a more natural boundary, either quite ecologically or through a flora decline as defined by KUPFFER (38, cf. also BÖCHER (4)).

Hence in the following a list will be given of the plants so far found within the area from 60°04′ N. lat. to 64°30′ N. lat.

When, as already stated, I have decided not to confine myself to discussing the collections of the two latest Danish expeditions, but to include all former finds, even if these have already been partially

published, it is due to the fact that the several data are dispersed in various papers, and that many of the determinations on which the lists formerly published are based, have later been revised by different scientists, so that the lists often give erroneous information. In the course of the forty years that have elapsed since the last supplement to Conspectus Florae Groenlandicae appeared (59), our conception and knowledge of the numerous species have on the whole undergone considerable change.

The list will be preceded by a brief description of the localities from which plants have been collected. Such a description must, of course, be very deficient when the localities have not been visited by myself or another botanist. In that case it can only contain the remarks set down by the collector or the other members of the expedition, and the conclusions that can be drawn from the plants brought back from the particular locality; and here, too, it is necessary to be cautious, the collections having been made by persons not very familiar with the work. I have therefore chiefly confined myself to enumerating the localities with their various names, giving, as far as possible, their exact longitude and latitude as well as the names of the persons to whom the collections from the particular localities are due.

It is often difficult to find out from the available maps the position of the various localities mentioned in the previous papers dealing with this stretch of coast. I have therefore found it most convenient to include in this paper a general map on which the different localities are marked.

Chapter V contains a list of the plants collected on the 7th Thule Expedition to South Greenland, in which I include the part of the east coast lying south of 60°04′ N. lat. Bøgvad visited 17 localities within this area, and even if his collections do not furnish much fresh information, I still think they deserve to be published, our knowledge, especially of the eastern part of Greenland, being rather slight.

While working up the material I have received help and guidance of various kinds from assistants in the Botanical Museum of Copenhagen. I especially wish to thank my three fellow-students, M. sc. Thorv. Sørensen, cand. mag. P. Gelting, and Mr. T. Bøcher, and further M. sc. J. Grontved, to whom I am especially indebted for the readiness with which he has placed the material from the 6th Thule Expedition at my disposal, although he had already made an almost complete determination of it.

I am further indebted to Professor Knud Jessen and Dr. Knud Rasmussen for the permission to undertake this examination, and to the latter for having placed the necessary funds at my disposal. Finally, my acknowledgements are due to the foreign specialists who have kindly undertaken to determine the species of some critical genera.

Among these are Mrs. ELIS. EKMAN, who has determined the species of *Draba*, Dr. DAHLSTEDT and Dr. OMANG, who have determined the *Taraxacum* and *Hieracium* species respectively, and Professor SAMUELSSON, Stockholm, who has verified my determinations of the *Epilobium* species, for which I owe him a special debt of gratitude.

The Botanical Museum of Copenhagen, March, 1933.

I. Historical Remarks.

The first important foundation of our knowledge of the Greenland flora was laid by the Danish scientist J. VAHL. VAHL stayed in Greenland from 1828 to 1836, and year after year he traversed large parts of the country with indefatigable zeal, securing the collections which still form the basis of the Arctic Herbarium in Copenhagen. VAHL possessed a singular power of observation, and acquired such a thorough knowledge of the Greenland flora that a large number of the localities of the various plants now known are due to him.

VAHL came to Greenland in 1828 as a member of the expedition sent out under the leadership of GRAAH in search of the presumed European settlement on the east coast. The expedition started in the spring of 1829, making its way in umiaks up along the east coast then entirely unknown. VAHL accompanied the expedition to about 61°50′ N. lat., when it was realised that the provisions carried would only suffice for one European to spend the coming winter at the coast. On his return journey, too, VAHL collected plants on the east coast. Altogether our herbarium contains plants from thirteen localities within the area here treated.

A list of the plants collected by VAHL was given in Conspectus Florae Groenlandicae (39), published in 1880. This work, however, does not contain all the information that could be obtained. Thus VAHL's statements of the localities have been confused, and the finds have been referred to the west coast. Several corrections are given in the two supplements to Conspectus Florae Groenlandicae (40, 59), nevertheless I have found some plants in the herbarium which have formerly been overlooked.

Besides VAHL, GRAAH, too, made collections in 1829, especially in a couple of localities north of the regions visited by VAHL. A list of the plants there, which have been determined by HORNEMANN, is included in the report on the expedition published by GRAAH (20, p. 191 ff.). As regards GRAAH's plants some confusion has likewise taken place, probably by the incorporation of HORNEMANN's herbarium in that of the Museum. In a large number of the plants, it is true, the localities are correctly indicated, but WORMSKJØLD's name has been substituted for GRAAH's, and so the plants have erroneously been thought to

originate from the west coast. In his Second Supplement (59) ROSENVINGE has evidently been aware of this error, so most of the corrected indications are incorporated in this supplement.

While in the succeeding years the exploration of West Greenland was in steady progress, a long series of years was to elapse before an expedition again set out for the east coast.

In 1881 HOLM carried out a survey of the southernmost part of Greenland, and also visited the east coast. However, the botanist of the expedition, SYLOW, mainly worked south of Prins Christian Sound, so only two of his localities fall within the area treated in this paper. SYLOW's collections are published in the pars secunda of Conspectus Florae Groenlandicae (40).

Of far greater importance, however, is the expedition which in the period from 1883 to 1885, still under the leadership of HOLM, continued the work up along the east coast. Two naturalists, EBERLIN and KNUTSEN, were members of the expedition. While KNUTSEN's collections were restricted to the northernmost regions visited by the expedition, i. e. the regions round Ammagssalik, EBERLIN secured comprehensive collections from about 26 localities along the coast northward to about 63° N. lat. Moreover, EBERLIN was the first to give a general description of the aspect of the vegetation on this coast, so bleak and inhospitable compared with the remaining part of Greenland (41, p. 283; 10, 11). EBERLIN's localities are contained in the 1st and 2nd supplements to Conspectus Florae Groenlandicae (40, 59).

Another series of years was to pass before investigations were again carried out on this uninhabited, barren, and inaccessible coast. Unfortunately, on his botanical journey to South Greenland in 1925 the experienced Arctic botanist M. P. PORSILD only visited one point within the area in question, viz. Nunatsuk, where, on the other hand, he made some interesting finds. The most important of these have been published (56), but the rest of PORSILD's collections have been included in our herbarium, where I have had the opportunity of examining them.

In 1925 a Danish hunting expedition wintered in Lindenow Fjord in about 60°30′ N. lat., and during this expedition collections were made by one of the members of the expedition, Mr. CHRISTENSEN. The plants were chiefly collected in the neighbourhood of the place where the expedition had its headquarters, viz. the old Eskimo settlement Narssaq. Professor OSTENFELD determined the plants that were brought home, but no list of them was published, though OSTENFELD probably used the material for the compilation of his list in 1926 (51).

Finally, in 1931, the Danish scientific investigations, which in the course of years had encircled Greenland, were extended to these regions, when Dr. KNUD RASMUSSEN led an expedition to this stretch of the

coast from Lindenow Fjord to Umîvik. One of the members of the expedition, cand. mag. E. HOLTVED, was engaged in the excavation of the Eskimo settlements in the interior of Lindenow Fjord by Tininnertôq, and here secured a beautiful collection of plants, which has contributed much to increase our knowledge of the flora of this fjord. Other members of the expedition made collections in the more northerly parts of the area whenever occasion served; mention should especially be made of the collections brought back from the inner fjords near Skjoldungen in the Akernernârmîn fjord complex, which have brought to light much fresh information.

In addition to the Danish expedition a Norwegian vessel visited the coast in 1931, and made collections in a few places north of Lindenow Fjord. However, apart from the finding of *Diapensia lapponica*, which is here reported for the first time from a part of the east coast, the very brief plant list published (42) contains no important facts.

Of considerably greater importance are the finds made by the Norwegian "Heimen" Expedition in 1931 to the regions between Timmiarmîn and Umîvik. The botanist BJØRLYKKE was a member of this expedition, and, as far as can be seen from the extremely brief report (3), a large number of plants were collected in various places, both along the outer coast and in the interior of the fjords. Unfortunately, however, the first report published on these plants contains only a very summary list of the plants found within the district which are not contained in OSTENFELD'S list (51, p. 54), and nothing is reported about the conditions under which these, in part rare, specimens were collected, or whether they occurred in greater or smaller number within the localities mentioned.

Finally follow the collections that have occasioned the preparation of the list contained in this paper, viz. those made by R. BØGVAD on the 7th Thule Expedition in the summer of 1932. BØGVAD joined the expedition as a geologist, and it was to a great extent an occupation of spare moments for him to collect plants. As a geologist his task was to arrive at a general impression of the geology of the whole coast, and accordingly his stays in the various places could only be of very short duration.

It cannot, therefore, be expected that the collections made in 1931—32 should give a true picture of the species occurring on the east coast; on the contrary the collected material often indicates that an experienced botanist may make much richer finds. I believe, however, that the often hastily collected plants give a fairly good picture of which plants are dominant along this stretch of the coast, and owing to his careful search, BØGVAD, though not a botanist, has contrived to make an astonishing number of new finds.

II. The Localities visited.

Below a list will be given of the localities from which larger or smaller collections of plants have been brought back by the expeditions mentioned in the preceding chapter. The list contains first the designations of localities employed in the following pages under the individual plants, and then follows a description of the position of the locality with a statement of longitude and latitude. Further I have found it convenient to state what names have in the course of time been applied to these localities. From a study of the older literature it will appear that the spelling of the Eskimo names often varies greatly, which is due to the fact that the West Greenland spelling has been transferred to East Greenland. In the present paper, however, the correct spelling is employed, for which I am indepted to the specialists in placenames Professor W. THALBITZER and Mr. H. OSTERMANN.

As will appear from the following, I have divided the area in question, i. e. the area from 60°04′ N. lat. to 64°30′ N. lat., into seven unequally large parts. I have done this without any secret plantgeographical intentions, my only purpose having been to facilitate the general view of the indications of localities in the following list of plants. The localities visited, however, as will appear from the map (pl. 1), centre round the large fjord sytems in groups separated by narrow coastal tracts, where the inland ice frequently extends to the outer coast. Hence the boundary lines drawn will possibly not be without plantegeographical interest, especially after a closer investigation of the whole district, more particularly the inner fjords, into which, apart from the Lindenow and Skjoldungen complexes, the investigators have never completely penetrated. This division does not entirely coincide with that proposed by EBERLIN (41, p. 326), which I do not find quite adequate.

The seven parts are, as a rule, bounded by projecting capes on the outer coast or by broad glaciers, and their limits are thus indicated below by the geographical latitude of the capes.

I. The Lindenow Part.

(60°04′ to 60°39′ N. lat.).

This part extends from the southern boundary of the investigated area, which boundary, as mentioned in the introduction, strikes the

coast at the north side of the mouth of Prins Christian Sound, to a point on the coast in about 60°39′ N. lat. The inland ice extends far out on to this part of the coast, separating Lindenow Fjord from Danell Fjord. The boundary line has been drawn about midway between these two fjords.

1. Nunatsuk.

(60°04′ N. lat., 43°05′ W. long.).

The locality was first visited by SYLOW in 1881, who, however, only collected few plants. Later it was visited by EBERLIN (June 3, 1884), but although it appears from HOLM's report (27, p. 75) that the expedition stayed here one week, only few plants were brought back from this locality. In recent times the place has been visited by the well trained Arctic botanist PORSILD in 1925. PORSILD states that the place is very variable and luxuriant, exhibiting "heaths, meadows, bogs, fertile slopes, hillsides" (56, p. 7). A large number of plants collected here are found in the Copenhagen herbarium, and in his paper (l. c.) PORSILD mentions several interesting species.

2. Alik Island.

(60°08′ N. lat., 43°02′ W. long.).

The locality was first visited by VAHL in 1829 (Alluk). GRAAH describes the island in the following way (20, p. 69): Aluk is considerably higher than the adjacent mainland. The rock walls are rather abrupt, and the whole island, which is about 10 km in circuit, actually consists of two mountains separated by a huge cleft, the easternmost of which is the highest. It has a rather rich vegetation, notably a large number of crawberries (*Empetrum nigrum*) occurred. The western side has a foreshore, on which tent rings are found everywhere". It appears from this description that the part of the island visited by VAHL has a very luxuriant vegetation, which is clearly evidenced by the numerous plants brought back from this place. EBERLIN also visited the island, and brought back a few plants. However, as far as can be made out, his visit took place on the return journey in the autumn of 1884, which was very rapid and impeded by continuous storms, preventing scientific work.

Finally, BØGVAD visited the island twice (on July 10 and September 18, 1933). He states that the island is made up of syenite, and has brought back a fairly considerable collection of plants.

3. Qerertatsiaq.

(60°11′ N. lat, 43°05′ W. long.).

The island was visited by EBERLIN in 1884 (June 11 to 29) and in 1885 (May 23 to June 12); he called it Kekertatsiak. HOLM designates

the place more closely as Sagdliarusek (now Sagtiariseq) at the eastern end of the Qerertatsiaq Island (27, p. 75). Only few plants were brought back.

4. Kangerajik.

(60°14′ N. lat., 43°02′ W. long.).

This point, which is also called Cape Hvitfeldt, was the northernmost point reached by SYLOW in 1881. Only few collections were made.

5. Dronning Louise Island.

(60°22′ N. lat., 43°12′ W. long.).

The place was visited by EBERLIN, who collected some few plants. Further, BØGVAD went ashore on the island, which he describes as a stony desert. In addition to a few lichens, only five species of higher plants occurred.

6. Southern branch of Lindenow Fjord.

(60°25′ N. lat., 43°23′ W. long.).

Only visited by BØGVAD (September 16, 1932), who has brought back a small collection of plants from the eastern side of the head of the fjord, where the banks form nearly perpendicular mountain walls.

7. Opposite Tininnertôq.

(60°33′ N. lat., 43°58′ W. long.).

From the south coast of the interior of Lindenow Fjord BØGVAD has brought back a small number of plants (collected on September 12, 1932). On the sandy shore there were extensive growths of *Elymus arenarius*.

8. Head of Lindenow Fjord, south coast.

(60°34′ N. lat., 44°06′ W. long.).

Only visited by BØGVAD (September 12), who states that the coast consisted of screes with a scanty vegetation. Of interest is only the occurrence of *Poa laxa*, it being the only locality within the area where this species has been collected.

9. Head of Lindenow Fjord, north coast.

(60°37′ N. lat., 44°05′ W. long.).

The inner part of Lindenow Fjord trends towards the northwest. From the head of the Fjord BØGVAD, who visited the place on September 12, 1932, has brought back a fairly large collection of plants collected in the luxuriant southward-facing valley which forms the continuation of the fjord.

10. Tininnertôq, Lindenow Fjord.

(60°34′ N. lat., 43°57′ W. long.).

The place, which is situated on the north coast of the inner part of the fjord, is one of the best investigated within the area. This is prin-

cipally due to the fact that HOLTVED spent most of the summer of 1931 here (Sixth Thule Expedition) carrying out archæological investigations, and by far the majority of the plants brought back by this expedition are derived from this place. Moreover, BØGVAD stayed here for some days in 1932 (September 12—14) and i. a. made an ascent to 500 m altitude, during which plants were collected. A broad northward-trending valley forms fertile plains, and on either side of the valley the mountains rise in southwardly exposed terraces, which are frequently damp and

WITTRUP-HANSEN phot.

Fig. 1. Inner part of Lindenow Fjord near Tininnertôq.

grown with a rich vegetation of ferns, *Viola palustris*, and other interesting plants. At an altitude of about 500 m there was a plateau with a vegetation resembling that of the coast proper; thus the occurrence of *Elymus* and, in a sheltered river-bed at the same height, *Angelica archangelica* should be mentioned. Cf. figs. 1—5.

11. Northern branch of Lindenow Fjord.

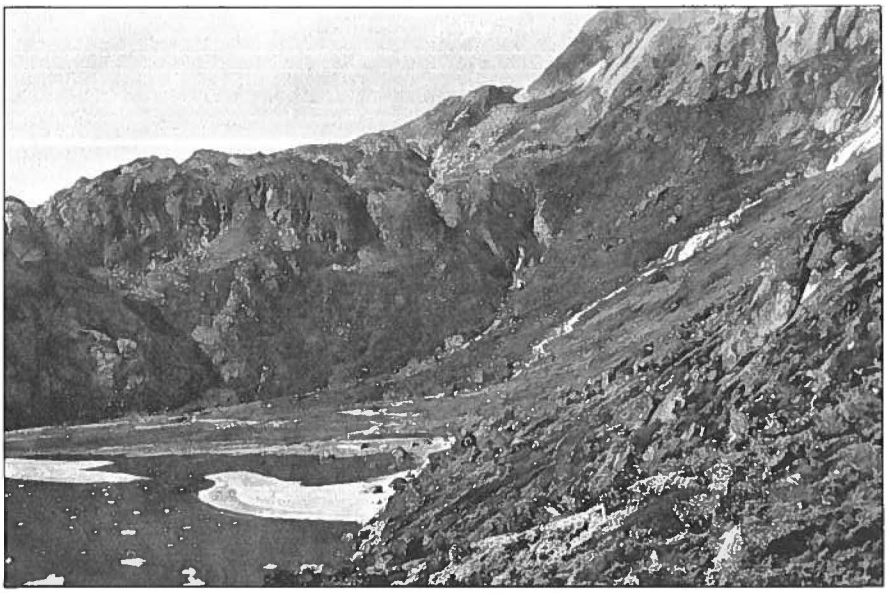
(60°37′ N. lat., 43°33′ W. long.).

BØGVAD made some collections (on September 11) on the eastern side of the fjord.

12. Igtukulik, Lindenow Fjord.

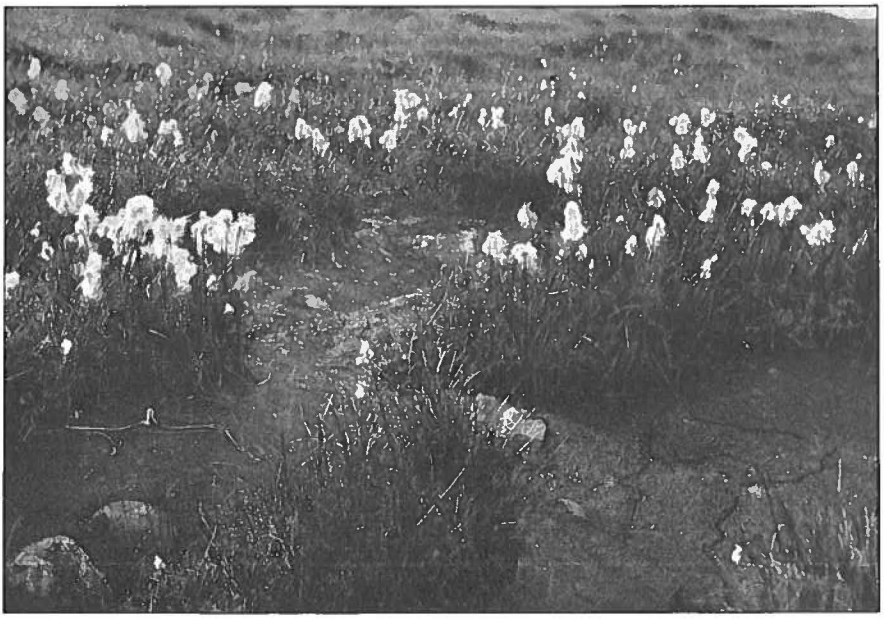
(60°32′ N. lat., 43°33′ W. long.).

At the eastern cape situated where Lindenow Fjord is joined by its northern branch several plants were collected by CHRISTENSEN in 1925 (see Historical Remarks p. 10). Further, the place was visited by HOLTVED in 1931, who brought back a number of plants.



WITTRUP-HANSEN phot.

Fig. 2. Tininnertôq, Lindenow Fjord. Hill-sides with water-streams flanked by a luxuriant vegetation.



WITTRUP-HANSEN phot.

Fig. 3. Tininnertôq, Lindenow Fjord. Damp soil with *Eriophorum Scheuchzeri* HOPPE.

WITTRUP HANSEN phot.

Fig. 4. Tininnertòq, Lindenow Fjord. Shrubs of *Salix arctophila* × *glauca*.

WITTRUP HANSEN phot.

Fig. 5. Tininnertôq, Lindenow Fjord. Detail picture of the vegetation of the river sides shown in fig. 2. In the middle of the picture, *Angelica archangelica*.

13. Narssaq, Lindenow Fjord.

(60°30′ N. lat., 43°24′ W. long.).

Narssaq is the locality in Lindenow Fjord that has been visited by the largest number of expeditions. It was visited by VAHL as early as 1829, when it was inhabited by Eskimos (cf. GRAAH (20, p. 71), who called the place Narksak). Later the place has apparently been visited by EBERLIN, according to his labels in the Herbarium, but it does not appear from the travelling report when the visit took place. The largest contribution to our knowledge of the flora of this place has, however, been delivered by CHRISTENSEN, who in 1925 spent a year here, and made beautiful and copious collections. Finally BØGVAD during his stay here in 1932 (September 5—7) collected a fairly large number of plants.

14. Sagtia Fjord.

(60°28′ N. lat., 43°06′ W. long.).

Probably an incorrect designation for the sound extending between the northeastern cape of Lindenow Fjord and Sagtia Island, which was visited by EBERLIN in 1884. Only few collections were made.

15. Nanîseq.

(c. 60°30′ N. lat., c. 43°12′ W. long.).

Nanîseq, termed by VAHL Nennese or Nenese, and by GRAAH Neneetsuk, is the sound immediately north of Lindenow Fjord. On the south side of this sound collections were made both by VAHL and EBERLIN, notably a great part of the plants collected by VAHL are derived from this locality. In 1932 BØGVAD stayed for some days in this sound (July 11, and September 4 and 9), and collected plants in three different places on the south coast between the Norwegian station at the head of the sound and its entrance.

16. Annikitsoq.

(60°31′ N. lat., 43°07′ W. long.).

In 1932 (July 11) BØGVAD collected some few plants on the mainland immediately north of Annikittoq Island.

Ikertôq.

(? N. lat., ? W. long.).

This locality, also spelled Ikitok, is marked on several of VAHL's specimens collected in June, 1829. VAHL spent the whole of this month on the east coast, and a proof that the locality actually lay on the east coast is furnished by the fact that VAHL himself has often added "e plage orientali" on the labels. However, neither on the maps nor in the travelling reports has this name been applied by either GRAAH or HOLM. It also appears from HARTZ's list (23, p. 1015) of the East Green-

land place-names that he has been unable to locate the place. Mr. OSTERMANN has kindly translated the word to "the broad inlet".

17. Nagtoralik.

(60°32′ N. lat., 42°58′ W. long.).

The place was visited by the Norwegian Signalhorn Expedition, which unfortunately gives no information whatever about the conditions prevailing there. A very few plants were collected here by EBERLIN.

18. Cape Walloe.

(60°33′ N. lat., 42°50′ W. long.).

Visited on September 4, 1932, by BØGVAD, who states that the place where he collected was exposed towards the southeast and rather barren, so no large collection of plants was brought back.

19. Straumen, Kangertuaraq Fjord.

(60°35′ N. lat., 42°57′ W. long.).

The Norwegian Signalhorn Expedition made some collections on the north side of the fjord, but no further information about the place is given (42, p. 3).

20. Mortensberget, Kangertuaraq Fjord.

(60°35′ N. lat., 43°06′ W. long.).

As the preceding. Situated about 12 km farther west.

21. Kangertuaraq Fjord.

(60°35′ N. lat., c. 43°00′ W. long.).

EBERLIN has only marked his labels Kangerdluaraq, without any closer indication of the locality. It appears, however, from HOLM's report (27, p. 113) that the expedition made investigations along the whole of Kangertuaraq from June 16 to 23, 1884.

22. Kûttîn Fjord.

(60°38′ N. lat., 43°00′ W. long.).

This fjord was visited by the Norwegian Signalhorn Expedition, who called it Kutsitfjord. According to the map (42, p. 2), the collections were made about midway up the fjord, on its northern shore.

II. The Kangertiluk Part.

(60°39′ to 61°23′ N. lat.).

This part extends from the northern boundary of the Lindenow Fjord complex to the point where the inland ice again approaches the outer coast, viz. immediately south of Cape Tordenskjold, where there

is only a narrow strip of coast (61°23′ N. lat.). Within this part of the area there occur four or five, mutually rather independent, parallel fjords.

23. Kûttîn.

(60°41′ N. lat., 42°48′ W. long.).

In addition to the above-mentioned fjord, the name Kûttîn (EBERLIN's Kutek) probably indicates an island off the northern part of this fjord. It is not quite clear from HOLM's description where the plants were collected. BØGVAD has brought back several plants collected on

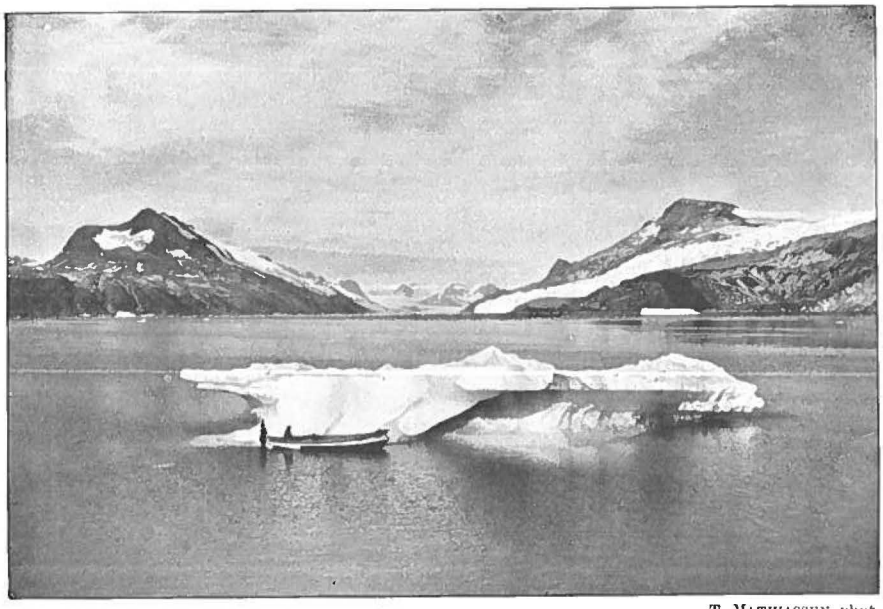


Fig. 6. Head of Danell Fjord. T. MATHIASSEN phot.

the mainland, in a river-bed inside Kûttîn, chiefly in damp places, and I have therefore referred EBERLIN's plants to this locality.

24. Qasingortoq.

(60°48′ N. lat., 42°44′ W. long.).

The place was visited by EBERLIN in 1883 (August 3).

25. Head of Danell Fjord.

(60°53′ N. lat., 43°21′ W. long.).

In the maps the fjord is also indicated by the Eskimo name Ilivilik. The plants brought back from this locality were collected by BØGVAD, on August 31, on the south coast of the fjord, near its head. Cf. fig. 6.

26. Ivimîn.

(60°50′ N. lat., 42°50′ W. long.).

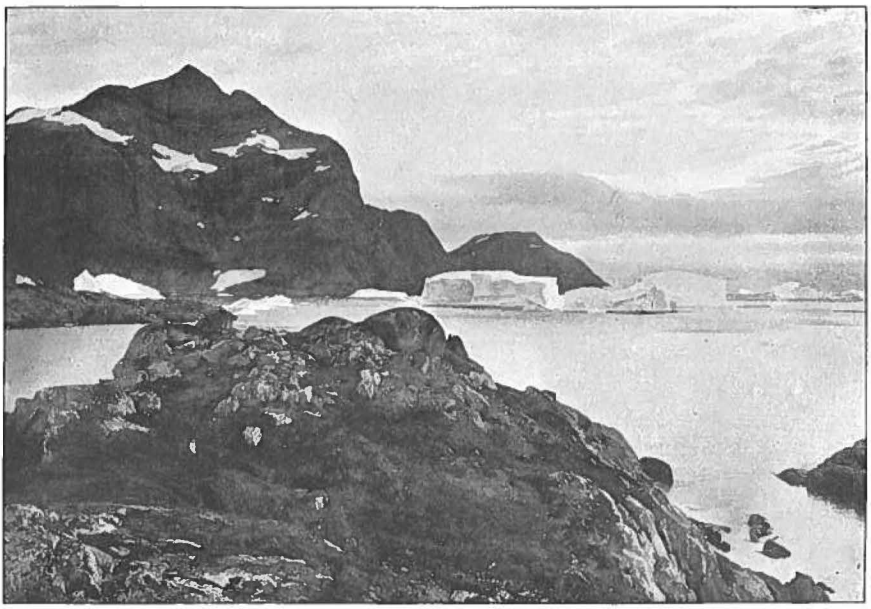
Sometimes called Ivingmiut by VAHL. Both GRAAH (20, p. 73) and HOLM (27, p. 65) state that the place was inhabited at the time of their

visit. The place has indeed a luxuriant character, and both VAHL and EBERLIN have brought back fairly large collections from this locality. Supplementary collections were made by BØGVAD (September 2).

27. Ilivileq Island.

(60°46′ N. lat., 42°42′ W. long.).

Collections were made by EBERLIN in 1883, probably in the southern part of the island (cf. HOLM 27, p. 67).



T. MATHIASSEN phot.

Fig. 7. Cape Discord seen from the south.

28. Cape Discord.

(60°53′ N. lat., 42°35′ W. long.).

Visited on September 1 by BØGVAD, who collected some plants in a small open harbour south of the cape. Cf. fig. 7.

29. North of Ilivileq Island.

(60°55′ N. lat., 42°42′ W. long.).

On August 30, 1932, BØGVAD visited the north coast of the sound that separates Ilivileq Island from the mainland. About 30 species of plants were found growing in disintegrating diabase.

30. Sarqap nûa.

(60°58′ N. lat., 42°38′ W. long.).

Visited by VAHL for the first time on July 13, 1829, who here had one of his best localities. GRAAH states (20, p. 75) that no Eskimos

lived here, but some old house ruins occurred, and judging from the plants brought back the place must be said to be rather luxuriant despite its position at the outer coast. VAHL has often marked his labels Serketnouk or Serketnoua.

EBERLIN stayed here for a week at the end of June, 1885, and collected a few plants.

31. Qajartalik.

(61°02′ N. lat., 42°37′ W. long.).

VAHL made a short stay on this island (July 14, 1829), and has brought back very few plants only.

32. Kangertiluk Fjord.

(c. 61°06′ N. lat., c. 42°55′ W. long.).

Both VAHL and EBERLIN visited this fjord, and rather considerable collections were secured, especially by VAHL. The exact position of their locality cannot, however, be definitely stated, but most likely they have only visited the outer part of the fjord.

33. Syenitnæs.

(61°06′ N. lat., 42°49′ W. long.).

By this name BOGVAD designates a projecting point on the northern coast of Kangertiluk Fjord. Here some few plants were collected on August 28. *Cochlearia off. var. groenlandica* (L.) GELERT occurred in extensive growths along the shore.

34. Syenitbugt.

(61°08′ N. lat., 42°48′ W. long.).

A deep bay on the northern shore of Kangertiluk Fjord. As indicated by the name, the substratum is here syenite, and in a valley trending north and with a luxuriant vegetation BOGVAD collected (August 27) an exceedingly large number of plants. It is one of the localities whence he has brought back the largest collections.

35. Ingitait.

(c. 61°10′ N. lat., c. 42°40′ W. long.).

The place was visited by EBERLIN.

36. Igîssat Fjord.

(61°11′ N. lat., 42°39′ W. long.).

From a locality on the north coast of this fjord, near its mouth, BOGVAD has brought back a small collection of plants (coll. on August 27). An old Eskimo house ruin is stated to occur in this place.

37. S. W. of Cape Trolle.

(61°11′ N. lat., 42°33′ W. long.).

BOGVAD has brought back a small collection of plants (coll. on August 8) from a rather steep slope about 6—8 km east of the preceding locality.

38. Tâterait.

(61°15′ N. lat., 42°36′ W. long.).

EBERLIN, who visited the place in 1883, calls it Taterat. BØGVAD, too, has brought back some plants from this locality.

39. Head of Puiagtoq Fjord.

(61°18′ N. lat., 43°00′ W. long.).

During his visit to the south coast of Puiagtoq Fjord, near its head, BØGVAD collected some few species (August 19, 1932).

T. MATHIASSEN phot.

Fig. 8. Old Eskimo ruin at Auarqat, densely grown with grasses and *Salix* shrubs.

40. Auarqat.

(61°17′ N. lat., 42°38′ W. long.).

The place, which is an old Eskimo settlement, was visited by BØGVAD on July 13, 1932. Cf. fig. 8.

41. Karqa.

(61°17′ N. lat., 42°34′ W. long.).

The name indicates the extreme point of Auarqat Peninsula. EBERLIN collected several plants in this place, which he called Karrat; among these is *Plantago juncoides* LAM *var. glauca* HORNEM., a rather rare plant along this stretch of the coast.

42. Qôrormîn.

(61°21′ N. lat., 42°26′ W. long.).

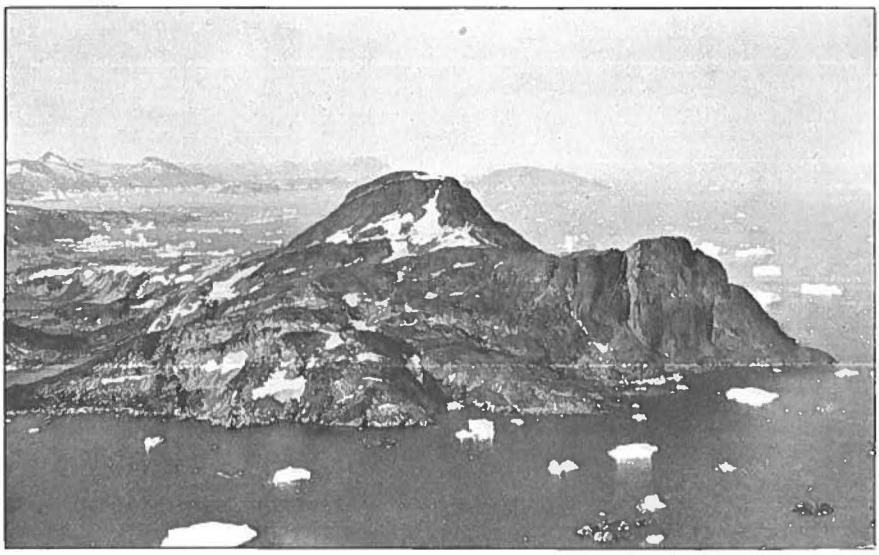
The place, which has a rather exposed situation on the narrow strip

of coast south of Cape Tordenskjold, was visited by VAHL, probably on his return journey in July, 1829. On the old maps the place is called Koremiut.

III. The Aneritêq Part.

(61°23′ to 62°11′ N. lat.).

The northern boundary of this part has been drawn in 62°11′ N. lat., immediately north of Ingerqiarqe. As at Qôrormîn, the ice-free strip of coast in this place is very narrow, and the inland ice extends quite close



GEODETIC-INSTITUTE phot.

Fig. 9. Air-photograph of Cape Tordenskjold.

to the sea. Thus this part comprises the two fjords, Aneritêq Fjord and Napasortivaq Fjord, and the skerries outside these fjords.

43. Cape Tordenskjold.

(61°24′ N. lat., 42°19′ W. long.).

This cape has only been visited by EBERLIN. Cf. fig. 9.

44. North of Cape Tordenskjold.

(61°26′ N. lat., 42°22′ W. long.).

BOGVAD visited the small harbour in this place twice, viz. on July 13 and August 21, and has brought back several plants.

45. Nûk.

(61°29′ N. lat., 42°20′ W. long.).

The collections from this place are due to VAHL, who visited it in 1829, most likely on his return journey. Sometimes he designates the place Nu-uk.

46. Akia Peninsula.

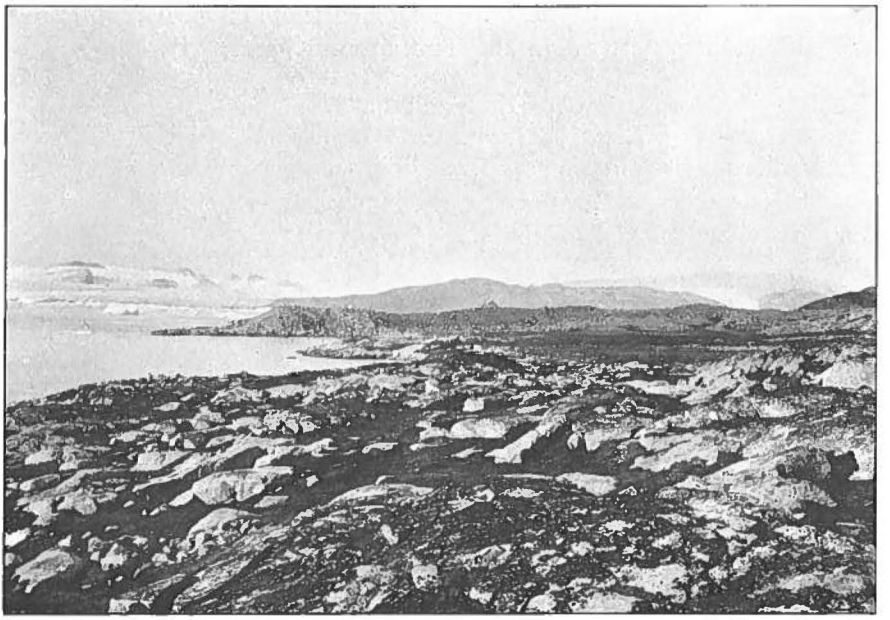
(61°31′ N. lat., 42°27′ W. long.).

With this name BØGVAD indicates the headland that bounds the mouth of Aneritêq on the south. He states that the soil consisted of crumbling syenite, which resulted in a luxuriant vegetation (visited on August 25).

47. Aneritêq.

(61°32′ N. lat., 42°23′ W. long.).

This name occurs frequently in the Herbarium on VAHL's and



T. MATHIASSEN phot.

Fig. 10. The old Eskimo settlement at Aneritêq, seen from the east.

EBERLIN's labels, it is, however, not always evident whence the plants are derived. Judging from the travelling reports, however, most of them are derived from the cape bounding the mouth of the fjord on the north, where at the time of VAHL's visit there stood a large Eskimo settlement, the remains of which are still preserved. Cf. fig. 10.

48. Qutteq Island.

(61°33′ N. lat., 42°12′ W. long.).

This island lies opposite the mouth of Aneritêq Fjord. On July 14 BØGVAD collected some few plants here, among which should be mentioned *Coptis groenlandica* (OED.) FERN., which is of rather rare occurrence on this coast. BØGVAD states that the ground was damp in several places.

49. Pâtussoq.

(61°36′ N. lat., 42°20′ W. long.).

The place was visited by BØGVAD on August 24, 1932.

50. Takissoq Island.

(61°36′ N. lat., 42°14′ W. long.).

This island has only been visited by BØGVAD (on August 24, 1932). About this island (27, p. 178) and the above-mentioned Qutteq Island HOLM states that they are more richly covered with vegetation than the islands along the outer coast in general, which the plants brought back would also seem to show. The place should not be confounded with the Takissoq Island in the Timmiarmîn part.

51. Kaniorqat.

(61°37′ N. lat., 42°16′ W. long.).

Kaniorqat is the name of the high mountains that stand quite close to the shore inside Takissoq Island. This coast was visited by EBERLIN, who called it Kanajorkat.

52. Napassortivaq.

(61°43′ N. lat., 42°13′ W. long.).

Unfortunately nobody has ever visited the interior of this fjord. The only plants derived from this fjord, have been collected by BØGVAD, who went ashore for a few hours on August 17, 1932, on the south coast of the mouth of the fjord.

53. Cape Rantzau.

(61°46′ N. lat., 42°04′ W. long.).

This cape has been visited by VAHL, and in recent times by the 6th Thule Expedition and by BØGVAD. The latter has brought back a rather large collection of plants (coll. July 14), all from a place slightly north of the steep cape.

54. Karqin akernan.

(61°47′ N. lat., 42°08′ W. long.).

This name indicates the depression between Cape Rantzau and Cape Adelaer. The collections at hand are due to EBERLIN, who also called the place Karrit Akungnak.

55. Kangeq.

(61°50′ N. lat., 42°02′ W. long.).

Among the plants collected by VAHL and kept in the Herbarium of the Botanical Museum of Copenhagen, a rather large part were collected at "Kangek inter Anoretok et Puisortok". All promontories in Greenland are called Kangeq, so it cannot be definitely made out which cape VAHL refers to. However, according to GRAAH's travelling report, VAHL accompanied GRAAH northward to a point situated immediately

south of Cape Adelaer, which is likewise denominated Kangeq. Here they stayed for some few days, and there is every reason to believe that VAHL used the time in this, his most northerly, locality to collecting plants.

56. Island near Puisertoq.

(61°56′ N. lat., 42°00′ W. long.).

Puisertoq is one of the largest glaciers within the southern part of the east coast of Greenland. The small skerries situated opposite the front of this glacier will naturally be much influenced by the nearness of the ice, and accordingly BØGVAD, who visited it on August 16, 1932, is of the opinion that the nine species brought back from this place represent the whole vegetation of the island.

57. Puisertoq.

(61°58′ N. lat., 42°05′ W. long.).

The labels of several plants collected by EBERLIN are marked with this name. According to the travelling report they were collected on the small cape situated immediately north of the glacier.

58. Rud Island.

(62°06′ N. lat., 42°07′ W. long.).

The collections from this place have been made by EBERLIN. HOLM (28, p. 182) describes the island and its whole neighbourhood as exceedingly barren and but little hospitable, and greatly marked by the numerous glaciers that issue directly from the inland ice within this area.

59. Ingerqiarqe.

(62°10′ N. lat., 42°12′ W. long.).

The place is designated by HOLM (28, p. 184) as the only oasis found on this barren, glacierised coast. It is the only place where it was possible to pitch a tent, and has been much used by the Eskimos in former time for this purpose. The plants derived from this place, which are few and unimportant, have been collected by EBERLIN.

IV. The Timmiarmîn Part.

(62°11′ to 62°40′ N. lat.).

As mentioned above, this barren coast, with its numerous glaciers descending from the inland ice, forms a natural boundary of this part of the area. As its northern boundary has been chosen a line drawn across the land in about 63°40′ N. lat. Thus this part comprises the two fjord complexes Ikermîn and Timmiarmîn, the latter of which, in particular, is divided into a large number of partially unknown sounds and islands. For about a hundred years ago this northern fjord complex was inhabited by a rather numerous population of Eskimos.

60. Nagtoralik.

(62°26′ N. lat., 41°10′ W. long).

At the northwestern point of this island BØGVAD collected some plants on July 21 and August 16. The island is barren, and rises rather abruptly from the sea. (27, p. 187).

61. Eqalimmîn.

(62°30′ N. lat., 42°10′ W. long.).

This name is applied by EBERLIN and BØGVAD to designate their localities at the mouth of Amitsuarsuk Fjord. It is not quite clear where EBERLIN made his collections. BØGVAD's locality, however, is situated on the south coast of the island Uvdlorsiutit, near the old Eskimo house ruins, and presumably EBERLIN is referring to the same place. BØGVAD visited the place on July 21. The place should not be confounded with Eqalimmîn in the Akernernârmîn part.

62. Langholmen.

(62°35′ N. lat., 42°10′ W. long.).

By this name BJØRLYKKE (3, p. 2) indicates a small skerry situated in a bay at the north coast of the above-mentioned island Uvdlorsiutit.

63. Takissoq.

(62°38′ N. lat., 42°25′ W. long.).

An elongated island situated in the southern part of the mouth of Timmiarmîn Fjord. It was visited by BØGVAD on July 13, who has brought back a rather large number of species. HOLM (27, p. 188) describes the island as pleasant, grown with heather and grass, and formerly often visited by the Eskimos in the summer time.

The place should not be confounded with the Takissoq Island in the Aneritêq part.

64. Timmiarmîn.

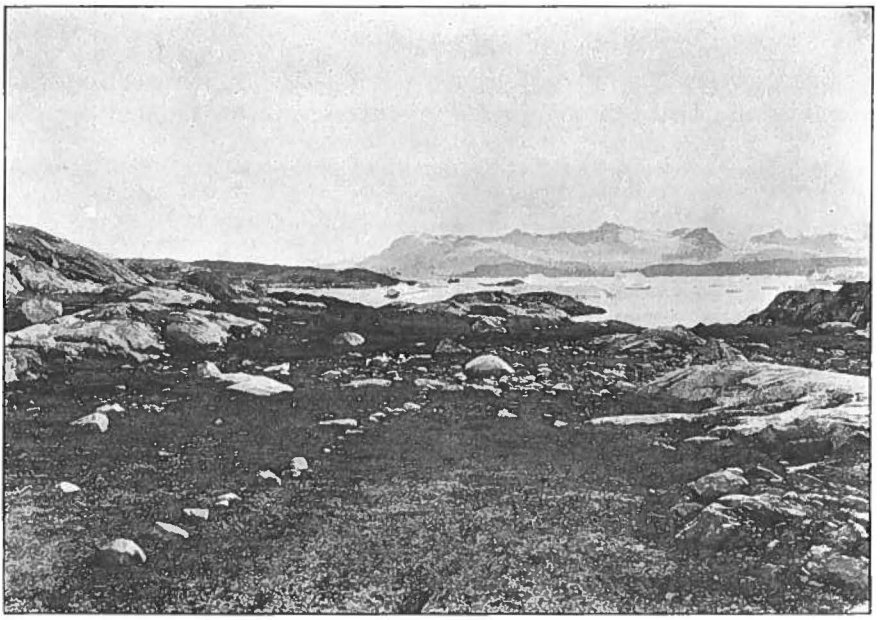
(62°40′ N. lat., 42°27′ W. long.).

The Eskimo settlement after which the fjord complex has been named is situated on the north side of the fjord, near its mouth (cf. fig. 11). The 6th Thule Expedition called at the place, and collected several plants. Subsequently BØGVAD spent a rather long time in the place (July 15—17) and has brought back a large collection of plants from it.

65. Bratness.

(c. 62°40′ N. lat., c. 42°28′ W. long.).

This name was applied by the Signalhorn Expedition to designate a locality near Timmiarmîn, possibly the same as BØGVAD's locality.



T. MATHIASSEN phot.

Fig. 11. The locality at Timmiarmîn.

RICH. BOGVAD phot.

Fig. 12. The locality at Sarpap aqaliva.

66. Aitsivîn Island.

(62°40′ N. lat., 42°09′ W. long.).

The few plants brought back from this island were collected by BØGVAD, who went ashore on the northeast side of the island on July 17.

67. Qerertaq.

(c. 62°45′ N. lat., c. 42°00′ W. long.).

Judging from EBERLIN's indication of latitude, the plants he states he has collected at Timmiarmîn, are derived from the east coast of the large island that forms the northern boundary of Timmiarmîn Fjord. In order to distinguish this locality from BØGVAD's Timmiarmîn, I have applied the above designation.

68. Kangertip pâva.

(? N. lat., ? W. long.).

The place has only been visited by EBERLIN, who has brought back a few plants.

69. Igtermîn.

(62°44′ N. lat., 42°28′ W. long.).

The collections from this place, which is the innermost locality in Timmiarmîn Fjord, were secured by BJØRLYKKE.

70. Lomvattnet.

(62°47′ N. lat., 42°13′ W. long.).

BJØRLYKKE's name of a locality (presumably a lake) on the north side of Timmiarmin-Qerertaq.

71. North of Igtitarajugtoq.

(62°52′ N. lat., 42°22′ W. long.).

In a broad valley running northward BØGVAD made rather large collections of plants on July 22, which bear evidence of the favourable and sheltered position of the locality.

72. Ikerasak.

(62°47′ N. lat., 41°57′ W. long.).

Ikerasak is the name of the sound north of Timmiarmîn-Qerertaq. BØGVAD made collections on the northern headland of the eastern mouth of the sound.

73. Sarpap aqaliva.

(62°48′ N. lat., 41°53′ W. long.).

A sound or fjord, occurring immediately north of the preceding sound. The plants from this place were likewise collected (July 24) by BØGVAD. Cf. fig. 12.

V. The Ũmmánaq Part.

(63°40′ to 63°07′ N. lat.).

This part comprises only the Ũmmánaq Fjord complex proper, and is separated from the Akernernârmîn part on the north by the large peninsula that juts out between Ũmánaq Fjord and the Skjoldungen complex.

74. Nunat.

(62°54′ N. lat., 41°42′ W. long.).

A small sheltered harbour inside Griffenfeld Island, visited by Bøgvad on July 24.

75. Griffenfeld Island.

(62°55′ N. lat., 41°34′ W. long.).

Called Ũmmánaq by the Eskimos, which name is also applied by Eberlin. Several expeditions have called at this island, and collections have been brought back by Graah, Eberlin, and the 6th and 7th Thule Expeditions as well. Eberlin's and Bøgvad's collections are particularly large. All the collections have probably been made in the southern part of the island.

76. Ebba Havn.

(62°58′ N. lat., 41°28′ W. long.).

The name given by the 6th Thule Expedition to a small harbour on the north coast of Griffenfeld Island, whence several plants have been brought back.

77. Ũmmánaq Fjord.

(c. 63°00′ N. lat., c. 41°40′ W. long.).

Eberlin has brought back several plants from this fjord, but without any close indication of the locality. Presumably, however, they are derived from the outer part of the fjord.

78. Rudi Island.

(63°02′ N. lat., 41°35′ W. long.).

Bjørlykke's name for a small island, not indicated on the map, at the northern headland of the mouth of the fjord, where he collected several plants.

79. West of Pilerqit.

(63°07′ N. lat., 41°52′ W. long.).

Rather comprehensive collections were made (July 27) by Bogvad in the small fjord, which from Annât Bay cuts into the land west of the old Eskimo settlement Pilerqit.

80. Pilerqit.

(63°07′ N. lat., 41°49′ W. long.).

Bjørlykke also collected some plants at the old settlement proper.

81. Annât.

(63°07′ N. lat., 41°54′ W. long.)

The name of an old Eskimo settlement southeast of Pilerqit, in which BOGVAD made some collections on July 24. Cf. fig. 13.

82. Vogtsbu.

(63°06′ N. lat., 41°38′ W. long.).

A small bay at the north side of Ũmmánaq Fjord named by BJØRLYKKE, who collected some plants there.

Fig. 13. Hill-slopes at Annât. RICH. BOGVAD phot.

83. Head of Blindtarmen.

(63°03′ N. lat., 41°42′ W. long.).

A narrow fjord near Vogtsbu, which cuts into the land in a northwesterly direction. Was visited by BJØRLYKKE, who calls it Innfjorden.

VI. The Akernernârmîn Part.

(63°07′ to 63°46′ N. lat.).

This part comprises the largest fjord complex within the area. Here the inland ice has retreated rather far back from the coast, into which cut a series of deep fjords, in part unknown. Farthest west two sounds extend north and south of the Skjoldungen Island. Beyond this point the fjords, as far as known, decrease in length towards the north. The northernmost fjord is named Bernstorff Fjord, and immediately north of this fjord the inland ice again appraoches the coast. The northern boundary of this part has been drawn immediately north of the fjord.

Owing to the presence of these deep fjords, the Akernernârmin part is inhabited by a large number of interesting plants. A closer investigation of the fjords like that made in the Ammagssalik area, the Scoresby Sound area, and the more northerly fjord areas will doubtless prove extremely profitable and greatly alter our conception as to the composition of the flora within this area. (Cf. p. 102).

84. Caroline Amalie Harbour.

(63°11′ N. lat., 41°22′ W. long.).

A sheltered bay on the south side of Inigssuarmîn, the sound south of Skjoldungen. The collections are due to BØGVAD, who visited the place on August 3.

85. South coast of Skjoldungen.

(63°15′ N. lat., 41°20′ W. long.).

Some few plants have been brought back by BØGVAD (coll. on August 3) from this place, which is situated in a small fjord near the entrance of the southern sound.

86. Watkins Depot.

(63°18′ N. lat., 41°09′ W. long.).

The locality is situated on the easternmost point of Skjoldungen, where BØGVAD (August 14) collected plants partly at sea level partly at about 130 m altitude.

87. North coast of Inigssuarmîn.

(63°20′ N. lat., 41°40′ W. long.).

The plants, which were collected by BOGVAD on August 1, are derived from the coast of Skjoldungen, about midway up the sound.

88. South coast of Inigssuarmîn.

(63°18′ N. lat., 41°43′ W. long.).

The locality is situated opposite the preceding locality. Collections were made by BOGVAD on August 2.

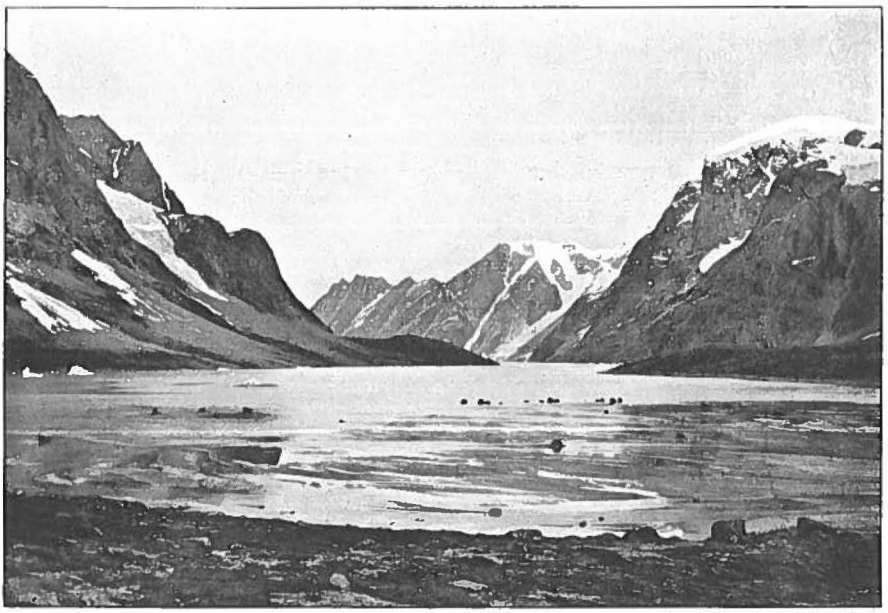
89. Eqalimmîn.

(63°28′ N. lat., 41°54′ W. long.).

This is, no doubt, the most interesting locality within the area, which may be due to the fact that of the localities visited it is the one that is most distant from the outer coast, and further that the inland ice has retreated and given place for a broad and luxuriant valley. Even GRAAH, who made collections in this place, describes it as the most luxuriant encountered on the east coast (20, p. 108 ff.). The Eskimos, too, have been aware of this, since, according to GRAAH, some 200 to

250 Eskimos assembled here in the summer. The place is also designated Dronning Marie Valley.

The numerous collections brought back from this place are thus principally due to GRAAH (20, p. 191). In recent times the place has been visited by BJORLYKKE, the 6th Thule Expedition, and BOGVAD, all of whom collected interesting plants. Among those which, within the area treated in this paper, have been found in this locality only



GEODETIC INSTITUTE phot.

Fig. 14. The inner part of Skjoldunge-Sydsund, seen from Eqalummiut. To the left, Skjoldungen.

may be mentioned: *Rubus saxatilis*, *Linnea borealis*, *Limosella aquatica*, and *Juncus triglumis*.

90. Moreneneset.

(63°29′ N. lat., 41°49′ W. long.).

With this name BJØRLYKKE designates the northwestern point of Skjoldungen, whence he has brought back several plants.

91. Myrodden.

(63°32′ N. lat., 41°41′ W. long.).

BJØRLYKKE's name for a point on the north side of the head of the sound north of Skjoldungen. The 6th Thule Expedition has brought back a number of plants from the neighbourhood of this place.

92. Eskimonæsset.

(63°30′ N. lat., 41°40′ W. long.).

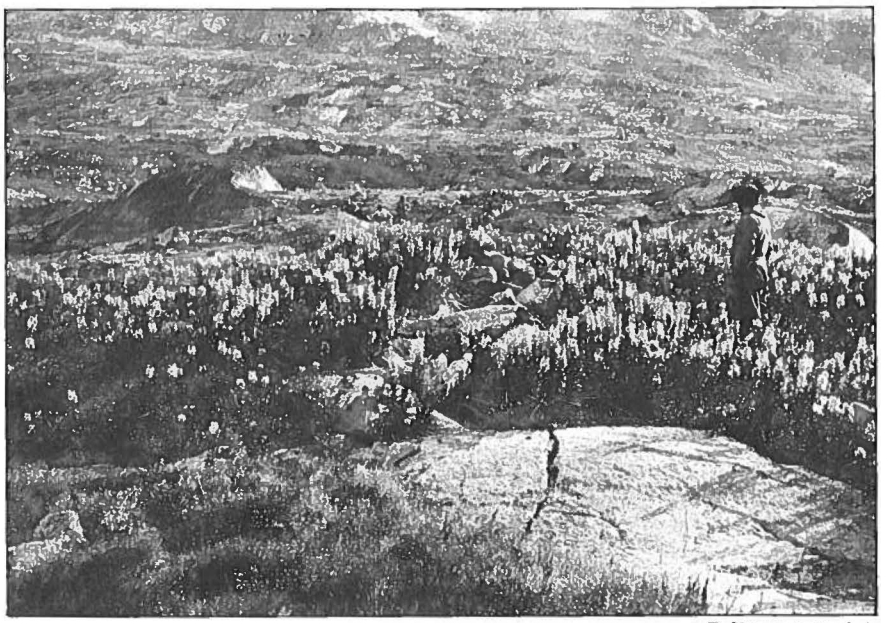
This locality (also called the Ruinnæs), which is situated on the

T. MATHIASSEN phot.

Fig. 15. House ruins at Eskimonæsset, densely covered with vegetation.

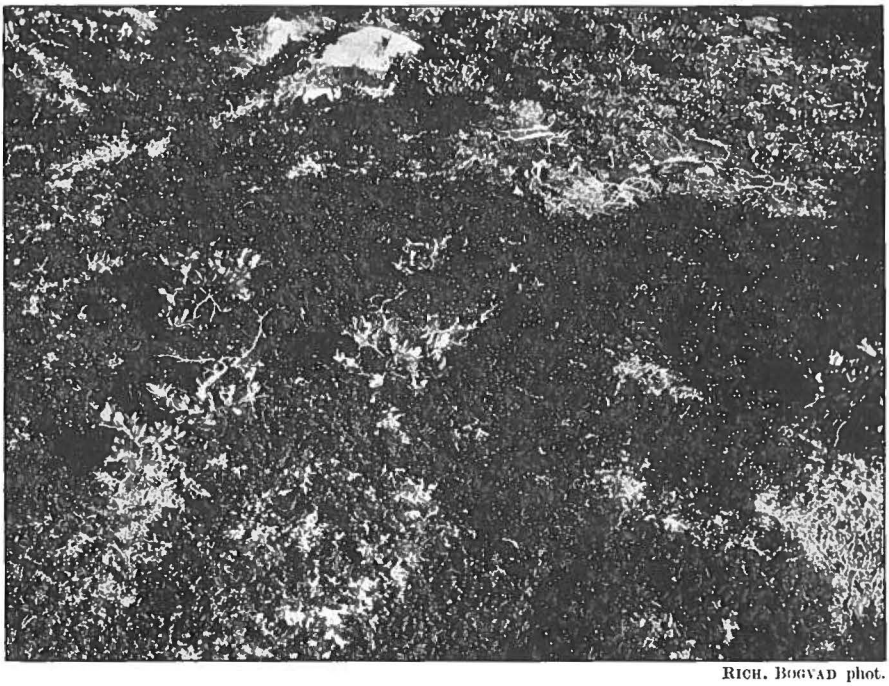
RICH. BØGVAD phot.

Fig. 16. Old Eskimo ruin at Eskimonæsset, covered with *Elymus* and *Chamaenerium angustifolium*.



T. MATHIASSEN phot.

Fig. 17. Dense vegetation of *Chamaenerium angustifolium* at Eskimonæsset.



RICH. BOGVAD phot.

Fig. 18. Carpet of *Empetrum nigrum* with ripe fruits. Eskimonæsset.

north coast of the northern sound of Skjoldungen slightly east of the preceding locality, was one of the most important working places of the 6th Thule Expedition, which has brought back several plants. Cf. fig. 15—18. — It should be noted that another locality in East Greenland in which comprehensive botanical investigations have been carried out (see GELTING (19)), bears the same name, viz. the Eskimonæs on Clavering Island in 74°08′ N. lat.

T. MATHIASEEN phot.

Fig. 19. The harbour at Nukarpik, in the foreground the ruins of GRAAH's wintering house.

93. Itivterssîp akia.

(63°22′ N. lat., 41°25′ W. long.).

The place, situated east of the preceding one, opposite Itivtersivaq on Skjoldungen, was visited by KNUD RASMUSSEN on the 6th Thule Expedition in 1931.

94. North coast of Skjoldungen.

(63°29′ N. lat., 41°43′ W. long.).

Collections were made on the Skjoldungen Island, nearly opposite Eskimonæsset, by BJØRLYKKE and BØGVAD.

95. Nukarpik.

(63°22′ N. lat., 41°07′ W. long.).

From this island, situated at the outer coast north of Skjoldungen, some plants were brought back by GRAAH, who wintered on the island (cf. fig. 19), and by BJØRLYKKE and BØGVAD.

96. Finnsbu.

(63°32′ N. lat., 41°20′ W. long.)

BJORLYKKE's name of a locality on the south coast of Langenæs Fjord.

97. Aqiliariseq.

(63°28′ N. lat., 41°28′ W. long.).

The cape between the two branches of Langenæs Fjord, visited by BOGVAD.

98. Head of Lommefjord.

(63°31′ N. lat., 41°30′ W. long.).

The place has only been visited by BØGVAD (August 6), who collected some few plants. Cf. fig. 20.

RICH. BOGVAD phot.

Fig. 20. The head of Lommefjord.

99. Imarsivik.

(63°23′ N. lat., 41°07′ W. long.).

The collections from this island are due to BJØRLYKKE.

100. Flotsundet.

(63°24′ N. lat., 41°05′ W. long.).

By this name BJØRLYKKE designates the sound north of Imarsivik Island. He has brought back a number of plants from the north side of the sound.

101. Head of Trollfjorden.

(63°35′ N. lat., 41°27′ W. long.).

BJØRLYKKE mentions some few plants from this place.

102. Trollfjordseidet.

(63°32′ N. lat., 41°19′ W. long.).

The place is situated on the western side of Kangersineq, some distance from its head. BJØRLYKKE mentions some few plants from this place.

103. Eidsdalen.

(63°32′ N. lat., 41°13′ W. long.).

Only visited by BJØRLYKKE in 1931.

104. Kikut.

(63°30′ N. lat., 40°54′ W. long.).

Peninsula west of Cape Moltke, visited by BJØRLYKKE in 1931.

105. Qimisa Island.

(63°36′ N. lat., 40°35′ W. long.).

This island, situated off the rough coast at Bernstorff Fjord, has only been visited by GRAAH (cf. 20, p. 192).

VII. The Umîvik Part.

(63°46′ to 64°30′ N. lat.).

This part is the most northerly within the area in question. Only five localities have been visited within this part, and the collections brought back give only a deficient impression of the plants occurring there. A close investigation will doubtless show the flora of this fjord complex, which comprises several large, partially unknown, fjords, to resemble that of Akernernârmîn or Ammagssalik.

The northern boundary of this area has been selected ad random since no collections have been made between Umîvik and Ammagssalik.

106. Krumpen Fjord.

(63°50′ N. lat., 40°40′ W. long.).

A single place in the outer part of this fjord was visited by BØGVAD on August 10.

107. Skerry near Umîvik.

(64°10′ N. lat., 40°31′ W. long.).

The place was visited by BØGVAD on August 10.

108. Utermiut.

(64°21′ N. lat., 40°42′ W. long.).

109. Gyldelöve Nordsund.

(64°18′ N. lat., 41°05′ W. long.)

110. Nordenskiöld Nunatak.

(64°23′ N. lat., 40°40′ W. long.).

The three last-mentioned localities have only been visited by the Norwegian Heimen Expedition in 1931. The Gyldenlöve Nordsund has been named Otto Sverdrup Fjord by BJØRLYKKE.

III. List of Plants found in Southeast Greenland between 60°04′ and 64°30′ N. lat.

The conception of species and the nomenclature which have formed the basis of the following list are in agreement with the works on the more northerly parts of East Greenland which will be published almost simultaneously with this paper. These are BØCHER's paper on the flora between Ammagssalik and Scoresby Sound (4), SØRENSEN's on the flora between Scoresby Sound and Franz Joseph Fjord (68), and GELTING's (19) on the flora between Franz Joseph Fjord and Hochstetter Foreland in about 75°30′ N. lat. If added to the Danish publications by KRUUSE on the flora of the Ammagssalik region, HARTZ's and KRUUSE's works on the flora of Scoresby Sound (23—26, 34—37), and finally OSTENFELD's and LUNDAGER's papers on the flora of the most notherly part of East Greenland (44, 49, 52), we have a whole series of Danish works furnishing the flora lists for East Greenland. For the purpose of uniformity we have applied the same nomenclature and the same limitation of the species as used by OSTENFELD in his paper "The Flora of Greenland and its Origin" (51), only very few names having been altered in accordance with the most important recent literature. We are fully aware that the nomenclature at present applied to Arctic plants disagrees at many points with Index Kewensis, which, pushed to its furthest consequences, would alter the names of numerous of our species.

Similarly, many collective species and "polymorphous" species might on closer examination be divided into several good species. This applies no doubt to the whole *Betula* complex, as well as to the *Cerastium alpinum*, *Poa pratensis*, *Festuca ovina* and several other complexes.

If we apply OSTENFELD's conception of the species, about 200 species of vascular plants are derived from the district treated in this paper. They are enumerated below in the same order as in OSTENFELD's list (51), first come Vascular Cryptogams and Gymnosperms, then follow Dicotyledons (Choripetals and Sympetales), and finally Monocotyledons; the species are arranged alphabetically within each family, and these again in alphabetical order within the above-mentioned main divisions. The index given in p. 121 ff. gives the easiest manner in which to find a certain species.

Finally, the localities of each species, so far published or recorded in the Herbarium in Copenhagen, are given, to which are added some supplementary remarks. In the list of localities the following abbreviations have been employed: (V) means that the specimens have been collected by VAHL, (S) by SYLOW in 1881, (E) by EBERLIN in 1883—85, (L) by the Danish Lindenow Fjord Expedition in 1925, (P) by PORSILD in 1925, (H) by the members of the 6th Thule Expedition in 1931 (principally by HOLTVED), (Sig) by the Norwegian Signalhorn Expedition in 1931, (B) by BJØRLYKKE (the Norwegian Heimen Expedition in 1931), and finally (Bg) by BØGVAD on the 7th Thule Expedition in 1932. A! indicates that I have seen the specimens from the particular expedition myself.

PTERIDOPHYTAE.

EQUISETACEAE.

1. *Equisetum arvense* L.

Lindenow Part: Tininnertôq (H!); Narssaq (L!); Kangertuaraq (E!). Head of Lindenow Fjord, north coast (Bg!); Kangertiluk part: Head of Danell Fjord (Bg!); Syenitbugt (Bg!); Ũmmánaq part: Annât (Bg!); Eqalimmîn (Graah! H!).

The species is of scattered occurrence everywhere along the coast. Seems to have been overlooked by the collectors to some extent.

By far the greater number of the individuals seem to belong to *f. boreale* Milde.

2. *Equisetum variegatum* Schleich.

Ũmmánaq part: Rudi Island (B); Vogtsbu (B); Pilerqit (B); Annât (Bg!); Akernernârmîn part: Eqalimmîn (B).

Rarer than the preceding species, and easily overlooked by the collectors. The specimen from Annât, the only one that I have seen, belonged to *f. anceps* Milde.

LYCOPODIACEAE.

3. *Lycopodium alpinum* L.

Lindenow part: Nunatsuk (B!); Alik (V); Head of Lindenow Fjord, north coast (Bg!); Tininnertôq (H!); Narssaq (L!, Bg!); Naniseq (V); Mortensberget (Sig); Kangertuaraq (V). — Kangertiluk part: Kûttîn (E!, Bg!); Head of Danell Fjord (Bg!); Sarqap nûa (V!); Kangertiluk (E!); Syenitnæs (Bg!); Head of Puiagtoq Fjord (Bg!). — Aneritêq part: North of Cape Tordenskjold (Bg!); Kaniorqat (E); Cape Rantzau (Bg!). — Timmiarmîn part: Nagtoralik (Bg!); Takissoq (Bg!); Timmiarmîn (Bg!); Bratnes (Sig); Qerertaq (E!). — Ũmmánaq part: Griffenfeld Island (H!); Griffenfeld Isl. (E!); West of Pilerqit (Bg!); Annat (Bg!). — Akernernârmîn part: North coast of Inigssuarmîn (Bg!); Nukarpik (Bg!); Eqalimmîn (Graah!).

Apparently very common everywhere.

4. *Lycopodium annotinum* L.

Lindenow part: Tininnertôq (H!, Bg!). — Kangerdluluk part: Kangertiluk (E!). — Timmiarmîn part: Ikerasak (Bg!);

Sarpap aqaliva (Bg!). — Ũmmánaq part: West of Pilerqit (Bg!). — Akernernârmîn part: North coast of Inigssuarmîn (Bg!); Eqalimmîn (H!).

A rare species, which seems to occur in the fjords only. All the individuals examined by me belong to *var. pungens* Desv.

5. *Lycopodium complanatum* L. *subsp. chamæcyparissus* A. Br.

Lindenow part: Naniseq (Bg!). — Timmiarmîn part: Sarfap aqaliva (Bg!).

The species has not been found previously within this part of East Greenland, but since it is rather common in South-west Greenland and has also been found in the Ammagssalik area (35, p. 283), the two new localities cannot be surprising.

6. *Lycopodium Selago* L.

Lindenow part: Nunatsuk (S); Alik (V, Bg!); Head of Lindenow Fjord north coast (Bg!), Tininnertôq (H!, Bg!); Narssaq (L!, Bg!); Naniseq (V!, Bg!); Nagtoralik (Sig); Mortensberg (Sig). — Kangertiluk part: Kûttîn (Bg!); Ilivileq Island (E); North of Ilivileq Island (Bg!); Sarqap nûa (E!), Kangertiluk (V!), Syenitbugt (Bg!); Ingitait (E!); Tâterait (Bg!). — Aneritêq part: North of Cape Tordenskjold (Bg!); Aneritêq (V!); Cape Rantzau (Bg!); Qerertaq (E!); Sarpap aqaliva (Bg!). — Ũmmánaq part: Griffenfeld Island (E, H!); Ebba Havn (H!). — Akernernârmîn part: Nukarpik (Bg!).

A very common species, especially in the inner fjords. The chief species and *f. appressum* Desv. seem to be equally frequent.

OPHIOGLOSSACEAE.

7. *Botrychium boreale* (Fr.) Milde.

Kangertiluk part: Kangertiluk (V!).

As already mentioned by Gelert (48, p. 2), there occurred among Vahl's collections of *Botrychium lunaria* from this locality some few specimens of this species, so exceedingly rare in Greenland.

For some reason unknown to me the species is not mentioned in Rosendahl's list of the plants from this locality (58, p. 214).

8. *Botrychium lanceolatum* (Gmel.) Ångstr.

Akernernârmîn part: Finnsbu (B).

Found for the first time within the district as late as 1931 (3, p. 5). One of the plants which may be expected to occur, though rarely, within the area, since it has formerly been found both north and south thereof.

9. *Botrychium lunaria* (L.) Sw.

Kangertiluk part: Kangertiluk (V!). — Aneritêq part: Karqin akernan (E!). — Ũmmánaq part: Ũmmánaq Fjord (E!).

Not found by the recent expeditions.

POLYPODIACEAE.

10. *Asplenium viride* HUDS.

Akernernârmîn part: Finnsbu (B); Flotsundet (B).

No specimen from this district is kept in the Herbarium in Copenhagen, but as it has been found both north and south thereof, the finding of it within the Akernernârmîn part seems quite natural. It is, however, a rare plant, which is easily overlooked by the collectors.

11. *Athyrium alpestre* (HOPPE) NYL.

Lindenow part: Nunatsuk (S); Naniseq (V!); Mortensberget (Sig). — Kangertiluk part: Kûttin (E!, Bg!); Kangertiluk (V!). — Timmiarmîn part: Nagtoralik (Bg!); Lomvattnet (B); Sarqap aqaliva (Bg!). — Ũmmánaq part: Vogtsbu (B). — Akernernârmîn part: North coast of Inigssuarmîn (Bg!); Nukarpik (Bg!); Finnsbu (B); Imarsivîk (B); Flotsundet (B); Eidsdal (B); Kikut (B).

The form occurring in Greenland has been referred by ROSENDAHL (58, p. 209) to *var. dentatum* CHRIST.

It is interesting that this plant, which was formerly known from a few localities in the most southerly part of Greenland, has during the last few years been found in a large number of localities along the east coast as far north as 63°33′ N. lat. No doubt we are here concerned with a clearly eastern species (cf. p. 107). Outside Greenland it is distributed in Iceland, Scotland, Scandinavia, Russian Lappland, the Pyrenees, the central European Mountains, the Alps, Caucasus, and Asia Minor.

12. *Cystopteris fragilis* (L.) BERNH.

Lindenow part: Naniseq (V!). — Kangertiluk part: Ilivileq Island (E!); Kangertiluk (V!). — Aneritêq part: Aneritêq (V!). — Timmiarmîn part: Nagtoralik (Bg!); Timmiarmîn (H!, Bg!); Qerertaq (E!). — Akernernârmîn part: Nukarpik (Bg!); Eqalimmîn (GRAAH!, H!).

The species seems to be much rarer here than along the more northerly parts of the east coast. ROSENDAHL (58, p. 210) does not record the species from East Greenland.

13. *Dryopteris dilatata* (A. GRAY) HOFFM. *var. americana* FERN. (*Lastraea spinulosa f. intermedia* MILDE; *Dryopteris austriaca* (JACQ.) WOYN.).

Lindenow part: Naniseq (V!); Mortensberget (B). — Kangertiluk part: Syenitbugt (Bg!). — Aneritêq part: Aneritêq (V!).

A rare plant, probably mainly occurring in the fjords, into which most of the expeditions have not penetrated.

The form occurring in East Greenland is referred by ROSENDAHL (58, p. 210) to *var. oblonga* MILDE. Quite recently PORSILD has made a critical examination of the material, and is of opinion that it should be refferred to *var. americana* FERN.

14. *Dryopteris Filix mas* (L.) SCHOTT.

Lindenow part: Tininnertôq (H!, Bg!).

The species is new to the district, but was found by VAHL immediately south thereof, by Ujarasârssuk in Prins Christian Sound (not mentioned by ROSENDAHL (58, p. 211)). Northern limit in East Greenland: 60°35′ N. lat.

? *Dryopteris fragrans* (L.) SCHOTT.

Recorded in Flora Arctica (48, p. 5) as occurring in East Greenland as far north as 60°41′ N. lat. By a ! it is indicated that the author has seen the particular specimen. No specimens are, however, found in our Herbarium, nor are corresponding statements found in the literature. Thus for the time being we must take up an expectant and sceptic attitude as regards the occurrence of the species within the district.

15. *Dryopteris Linneana* C. CHR.

(*Dryopteris pulchella* (SALISB.) HAYEK; *Polypodium Dryopteris* L.)

Lindenow part: Head of Lindenow Fjord, north coast (Bg!); Tininnertôq (H!); Narssaq (L!); Naniseq (V!); Straumen (Sig); Kangertuaraq (E!). — Kangertiluk part: Kangertiluk (V, E!); S.W. of Cape Trolle (Bg!). — Aneritêq part: Kaniorqat (E!); Cape Rantzau (Bg!). — Ũmmánaq part: Griffenfeld Isl. (E!). — Akernernârmîn part: Eqalimmîn (H!); Eskimonæsset (H!); Nukarpik (Bg!).

The species seems to be of scattered occurrence in suitable localities all along the coast. Has also been found in Ammagssalik (35, p. 284). Northern limit: Lake Fjord, 66°20′ N. lat. (4, p. 13).

16. *Dryopteris phegopteris* (L.) C. CHR.

Lindenow part: Nunatsuk (S!), Naniseq (V!); Nagtoralik (Sig). — Kangertiluk part: Kangertiluk (E). — Ũmmánaq part: Griffenfeld Isl. (E!).

Apparently rare. Not found by the recent expeditions to the northern part of the district.

17. *Polystichum lonchites* (L.) ROTH.

Lindenow part: Tininnertôq (H!, Bg!); Narssaq (L!); Mortensberget (Sig). — Kangertiluk part: Kûttîn (E!, Bg!); Sarqap nûa (E!); Igissat Fjord (Bg!). — Aneritêq part: Aneritêq (V!). — Tim-

miârmîn part: Timmiarmîn (Bg!). — Ũmmánaq part: Griffenfeld Isl. (E); Annât (Bg!). — Akernernârmîn part: Nukarpik (Bg!).

Of scattered occurrence all along the coast. Northern limit: 68°31′ N. lat. (4, p. 12).

18. *Woodsia glabella* R. BR.

Aneritèq part: Aneritèq (V!).

A very rare plant. The locality marks the southern boundary of the species in Greenland (61°32′ N. lat.).

19. *Woodsia ilvensis* (L.) R. BR.

Lindenow part: Nunatsuk (S!, P!); Tininnertôq (H!, Bg!). — Kangertiluk part: Kùttîn (E!); Kangertiluk (V!). — Aneritèq part: Cape Tordenskjold (E!); Kangeq (V!). — Timmiarmîn part: Timmiarmîn (Bg!); Qerertaq (E!). — Ũmmánaq part: Griffenfeld Isl. (E!); West of Pilerqit (Bg!). — Akernernârmîn part: Eqalimmîn (H!); Itivtersîp akia (H!).

The form occurring in East Greenland should probably be referred to *forma rufidula* (MICHX) KOCK.

SELAGINACEAE.

20. *Selaginella selaginoides* (L.) LINK.

Ũmmánaq part: Vogtsbu (B). — Akernernârmîn part: Trollfjordseidet (B).

The species has been found in these two localities only, viz. by the Norwegian expedition in 1931 (3, p. 8). Thus for the present it seems to have its northern limit in 63°34′ N. lat. In West Greenland it has been found as far north as about 66° N. lat., but according to KRUUSE's and BÖCHER's investigations it is apparently absent from Ammagssalik.

CONIFERAE.

CUPRESSACEAE.

21. *Juniperus communis* L.

Lindenow part: Nunatsuk (S); Alik (S); Tininnertôq (H!), Bg!); Northern branch of Lindenow Fjord (Bg!); Narssaq (L!, Bg!); Mortensberget (Sig). — Kangertiluk part: Kangertiluk (V!); Syenitbugt (Bg!); Tâterait (Bg!); Auarqat (Bg!). — Aneritêq part: Aneritêq (V); Cape Rantzau (Bg!); Kangeq (V!); Ingerqiarqe (E!). — Timmiarmîn part: Nagtoralik (Bg!); Kangertip pâva (E!); Timmiarmîn (H!, Bg!); Bratnes (Sig); North of Igtitarajugtoq Island (Bg!). — Ũmmánaq part: Griffenfeld Island (H!); Ũmmánaq Fjord (E!); West of Pilerqit (Bg!); Annât (Bg!). — Akernernârmîn part: Eskimonæsset (H!); Eqalimmîn (H!); Nukarpik (GRAAH, Bg!).

The Greenland form is generally referred to *forma nana* WILLD. The greater part of the East Greenland material should probably also be referred to that form. It should, however, be pointed out that there is a rather great difference between individuals collected in favourable localities in the interior of the fjords and those found at the outer coast, only the latter possessing the typical adpressed and involute leaves characteristic of *f. nana* WILLD.

The species seems to be commonly distributed along the coast, as a matter of course especially in the fjords. It should be pointed out, however, that it has not been found between Nukarpik (63°22′ N. lat.) and Ammagssalik. In East Greenland the northern limit of the species is in about 67°30′ N. lat., where it was collected by the English Watkins Expedition (4, p. 19).

DICOTYLEDONES.

BETULACEAE.

Betula.

From the area treated in this paper a large collection of *Betula* forms has been brought back, which are especially related to *Betula glandulosa* MICHX. This species, however, is very variable, both with regard to the form and size of the leaves and to the glandulation of the branches, so it should probably be subjected to a close examination, which, however, has not been attempted in this paper. The northern limit of the species seems to be in about 63°00′ N. lat. I am, however, not quite certain that some specimens brought back from Eskimonæsset in the Akernernârmîn part should not be referred to *B. glandulosa* × *nana* (*f. subnana* OSTENFELD in herb.). The northern species *Betula nana* has its southern limit in Akernernârmîn, where, as in Ammagssalik, it is rare occurring in the inner fjords only, in which it shows agreement with the species that seem to prefer a continental climate.

OSTENFELD already found some specimens from Southeast Greenland (Cape Tordenskjold EBERLIN) in the Herbarium which he thought should be considered hybrids between *B. glandulosa* and *B. pubescens*. The latter species has not been found within the area, but immediately south thereof, viz. in Prins Christian Sound. This form, which has formerly been described as *Betula Rosenvingii* C. K. SCH., can only with difficulty be distinguished from several of the *B. glandulosa* forms. It is fertile, and thus there exists a gradual transition from *B. pubescens* to *B. glandulosa* s. str. Nevertheless I consider some of the specimens brought back from the southern part of the area as hybrids.

On the other hand, it seems quite possible that several of the *B. glandulosa* forms should rightly be regarded as hybrids with *B. nana*, with which they have many characters in common. The whole problem, which in West Greenland is attended with still greater difficulties, should no doubt be made the subject of a more comprehensive investigation by a specialist.

Specimens of *Betula* have been brought back from the following localities within the area in question:

22. *Betula nana* L.

Akernernârmîn part: Eqalimmîn (GRAAH!, B, Bg!); Eskimonæsset (H!); Finnsbu (B).

23. *Betula glandulosa* MICHX. *sens. latum.*

Lindenow part: Opposite Tininnertôq (Bg!); Tininnertôq (H!); Northern branch of Lindenow Fjord (Bg!); Narssaq (E!, L!, Bg!); Naniseq (V!, E!, Bg!); Nagtoralik (Sig); Cape Walløe (Bg!); Mortensberget (Sig). — Kangertiluk part: Ivimîn (Bg!); North of Ilivileq Island (Bg!); Kangertiluk (V!); Syenitbugten (Bg!); Auarqat (Bg!); Karqa (E!). — Ũmmánaq part: Rudi Island (B).

Forms which should probably be referred to *Betula glandulosa* × *pubescens* have been brought back from: Lindenow part: Naniseq (Bg!). — Kangertiluk part: Kûttîn (Bg!); Tâterait (Bg!). — Aneritêq part: Cape Tordenskjold (E!). (The last-mentioned specimen was determined by OSTENFELD in 1925).

CALLITRICHACEAE.

24. *Callitriche anceps* FERN.

Lindenow part: Nunatsuk (E!).

Unfortunately the specimens from Nunatsuk are in such a bad state of preservation that they cannot be determined with certainty. They have been determined by SAMUELSSON as "*C. anceps*?". This species is neither mentioned in the literature on East Greenland nor in OSTENFELD's list. The Herbarium, however, contains a large number of individuals derived from Angmagssalik, and determined by SAMUELSSON as *C. anceps* FERN. The species is recorded from several places in South Greenland, and was further collected by the 7th Thule Expedition (see p. 110), so it seems quite possible that the specimens from Nunatsuk belong to this species, and it seems also likely that on closer investigation it might be found in several places within the district, where it may have been overlooked by previous investigators.

25. *Callitriche verna* (L.) LÖNNR.

Timmiarmîn part: Lomvattnet (B). — Ũmmánaq part: Rudi Island (B). — Akernernârmîn part: Eqalimmîn (B); Myrodden (B).

Only found by the Norwegian expedition in 1931 (31, p. 5).

CARYOPHYLLACEAE.

26. *Cerastium alpinum* L.

Lindenow part: Nunatsuk (S); Alik (V!, Bg!); Head of Lindenow Fjord, south coast (Bg!); Igtukulik (H!); Tininnertôq (H!, Bg!); Narssaq (L!); Naniseq (V!). — Kangertiluk part: Ivimîn (V!);

Kangertiluk (V!, E!); Syenitbugt (Bg!); Ingitait (E!); Igissat Fjord (Bg!); Auarqat (Bg!); Qorormîn (V). — Aneritêq part: Aneritêq (V!); Takissoq Island (Bg!); Puisertoq (E!). — Timmiarmîn part: Timmiarmîn (H!, Bg!); Bratnes (Sig). — Ûmmánaq part: Nunat (Bg!); West of Pilerqit (Bg!); Annat (Bg!). — Akernernârmîn part: Watkins Depot (Bg!); Itivtersîp akia (H!); Eskimonæsset (H!); Nukarpik (Bg!); Qimisa Island (GRAAH). — Umîvik part: North coast of Krumpen Fjord (Bg!); Skerry near Umîvik (Bg!).

Common all over the coast.

Within this district, as throughout the whole of Greenland, the species is highly polymorphous. The relation between the various forms is still far from elucidated, and deserves a closer investigation. By application of the current terminology the majority of the individuals should be referred to *forma lanatum* LINDBL., *forma legitimum* LINDBL. being rarer.

27. *Cerastium trigynum* VILL.

Lindenow part: Nunatsuk (P!); Alik (V!, Bg!); Head of Lindenow Fjord, north coast (Bg!); Narssaq (L!), Nanîseq (V!). — Kangertiluk part: Kûttîn (E!, B!); Head of Danell Fjord (Bg!); Ivimîn (V!, E!); Cape Discord (Bg!); Ingitait (E!); Tâterait (E!); Head of Puiagtoq Fjord (Bg!); Auarqat (Bg!). — Aneritêq part: Aneritêq (V!); Takissoq Island (Bg!); Napassortivak (Bg!); Cape Rantzau (Bg!); Island near Puisertoq (Bg!). — Timmiarmîn part: Nagtoralik (Bg!); Timmiarmîn (Bg!); Ikerasak (Bg!). — Akernernârmîn part: Qimisa Island (GRAAH).

Common throughout the area.

28. *Honckenya peploides* (L.) EHBH.

Lindenow part: Kangertuarsuk qingua (E!); Straumen (Sig); Nagtoralik (Sig); Kûttîn Fjord (Sig). — Timmiarmîn part: Timmiarmîn (Bg!); North of Igtitarajugtoq Island (Bg!). — Akernernârmîn part: North coast of Skjoldungen (Bg!); Head of Lommefjord (Bg!).

29. *Minuartia biflora* (L.) WBG.

Kangertiluk part: Ingitait (E!). — Aneritêq part: Cape Tordenskjold (E!); Kaniorqat (E!). — Ûmmánaq part: Ûmmánaq Fjord (E!); West of Pilerqit (Bg!).

One of the species that are most frequently overlooked, so it is difficult to state anything about its distribution.

30. *Minuartia groenlandica.*

Kangertiluk part: Ivimîn (E!). — Aneritêq part: Puisertoq (E!).

This rare species has not been found within the district by the recent expeditions.

? *Minuartia rubella* (GRAEBN.) WBG.

This species is mentioned in OSTENFELD's list (51, p. 56). I have, however, been unable to find any specimen in the Herbarium of Copenhagen, and the species is not mentioned in the literature on this area either. Even if it may be found in the inner fjords on closer investigation, it is doubtless rare. I regard it as belonging to the continental type, which has its main distribution in West Greenland and in the part of East Greenland lying north of Scoresby Sound (cf. p. 101).

31. *Sagina caespitosa* (J. VAHL) LGE.

Akernernârmîn part: Watkins Depot (Bg!).

Not found previously within this area, but might naturally be expected to occur here (35, p. 228), since it is recorded from South Greenland as well as from Ammagssalik (very rare).

32. *Sagina intermedia* FENZL.

Lindenow part: Nunatsuk (P!). — Kangertiluk part: Ivimîn (V, E!); Kangeq Island (?) (V). — Aneritèq part: Napassortivaq (Bg!); Kangeq (V!).

Rather rare.

33. *Sagina Linnaei* PRESL.

Lindenow part: Nunatsuk (P!); Alik (V!).

Rare, not found by the expeditions of recent years. The species is mentioned in OSTENFELD's list as occurring between 61° and 65° N. lat. No specimen, however, is kept in the Herbarium, nor is the species recorded in the literature from this area. Northern limit 68°31′ N. lat. (4, p. 12).

34. *Sagina procumbens* L.

Kangertiluk part: Ivimîn (V!).

The species has not been found within the district since 1829. It seems to have its northern limit in this place (60°50′ N. lat). The origin of the species in Greenland is discussed by PORSILD (57, p. 61); OSTENFELD considered it an old Norse plant. According to my view, PORSILD's arguments for not considering it an old Norse plant are not absolutely convincing, so the origin of the species seems to me to be still an open question.

35. *Silene acaulis* L.

Lindenow part: Alik (V, Bg!); Head of Lindenow Fjord, south coast (Bg!); Tininnertôq (H!, Bg!). — Kangertiluk part: Ivimîn (V!); Ingitait (E!). — Aneritèq part: Aneritêq (V!); Cape Rantzau

(E!). — Timmiarmîn part: Takissoq (Bg!); Timmiarmîn (H!). — Ûmmánaq part: Griffenfeld Island (Bg!); Ûmmánaq Fjord (E!); West of Pilerqit (Bg!). — Akernernarmîn part: Eskimonæsset (H!); Eqalimmîn (H!). — Umîvik part: Skerry near Umîvik (Bg!).

Common along the whole coast.

36. *Stellaria borealis* BIG.

(*Stellaria alpestre* HARTM.; *Stellaria calycantha* LED.).

Lindenow part: Igtukulik (L!); Nanîseq (V!). — Kangertiluk part: Kangertiluk (V!); Syenitbugt (Bg!); Tâterait (E!). — Akernernârmîn part: Eqalimmîn (Bg!).

A rather rare species. Northern limit in Ammagssalik 66°08′ N. lat. (35, p. 229).

37. *Stellaria humifusa* ROTTB.

Lindenow part: Alik (V!); Igtukulik (H!); Nanîseq (V!). — Aneritêq part: North of Cape Tordenskjold (Bg!). — Timmiarmîn part: Eqalimmîn (E!); Timmiarmîn (Bg!). — Ûmmánaq part: Griffenfeld Island (E!). — Umîvik part: Qimisa Island (GRAAH).

Probably often overlooked by the collectors.

38. *Stellaria media* (L.) WITH.

Kangertiluk part: Ivimiut (V!). — Aneritêq part: Aneritêq (V!).

This rare species has not been found since the days of VAHL. Thus for the present it has its northern limit in East Greenland Aneritêq. (61°32′ N. lat.).

VAHL's specimens have been examined by BEGUINOT, who has determined the individuals from Ivimîn as *Stellaria media var. subgymnocalyx* BEG. and the specimens from Aneritêq as *Stellaria media var. trichocalyx* TRAUTV.

The species is described by PORSILD (57, pp. 13 and 63) as typically anthropochorous, and is referred by him to the plants which have undoubtedly been introduced by man, and probably during the two centuries of the present colonisation (l. c. p. 80). PORSILD is aware of the existence of the East Greenland localities, but does not discuss them. One might be inclined to assume that in East Greenland. at any rate, the plant has not been introduced by man. A fact militating against this view is that it has not been found there in recent years, as also the circumstance that at the time VAHL collected his plants the coast was inhabited by Eskimos, who were in lively commercial communication with the West Greenlanders. GRAAH mentions expressly (20, pp. 73 and 78) that there were Eskimos living at Ivimîn and Aneritêq where he and VAHL went ashore. The question still remains unsolved, and will no doubt remain unsolved till new plants are found.

39. *Viscaria alpina* (L.) Don.

Lindenow part: Alik (V!); Opposite Tininnertôq (Bg!); Head of Lindenow Fjord, north coast (Bg!); Igtukulik (L!); Tininnertôq (H!); Narssaq (L!, Bg!); Nanîseq (V, E!); Mortensberget (Sig). — Kangertiluk part: Kûttîn (E!), Ilivileq Island (E!); Cape Discord (Bg!); North of Ilivileq Island (Bg!); Sarqap nûa (E!); Kangertiluk (V!); Syenitbugt (Bg!); Igîssat Fjord (Bg!); Tâterait (E, Bg!); Head of Puiagtoq Fjord (Bg!); Auarqat (Bg!); Karqa (E!), Qorormîn (V). — Aneritêq part: North of Cape Tordenskjold (Bg!); Akia Peninsula (Bg!); Aneritêq (V); Patussoq (Bg!); Takissoq Island (Bg!); Napassortivak (Bg!); Cape Rantzau (H!, Bg!); Kangeq (V!). — Timmiarmîn part: Nagtoralik (Bg!); Takissoq (Bg!); Timmiarmîn (H!, Bg!); Qerertaq (E!); North of Igtitarajugtoq Island (Bg!); Ikerasak (Bg!); Sarqap aqaliva (Bg!). — Ũmmánaq part: Nunat (Bg!); Griffenfeld Island (H!, Bg!); Ella Havn (H!); West of Pilerfiit (Bg!); Annat (Bg!). — Akernernârmin part: Caroline Amalie Harbour (Bg!); Nukarpik (Bg!); Eskimonæsset (H!); Eqalimmîn (H!); Qimisa Island (Graah). — Umîvik part: North coast of Krumpen Fjord (Bg!).

One of the plants most frequently brought back from Greenland.

CORNACEAE.

40. *Cornus sueccica* L.

Lindenow part: Nunatsuk (S!, P!); Alik (V!); Tininnertôq (Bg!); Kangertuaraq qingua (E). — Kangertiluk part: Kûttîn (E!), Kangertiluk (E); Ingitait (E!).

The species, which is rather rare within the area, has its northern limit at Ingitait (61°09′ N. lat.).

CRASSULACEAE.

41. *Sedum annuum* L.

Lindenow part: Nunatsuk (S); Tininnertôq (Bg!). — Aneritêq part: Karqin akernan (E!). — Ũmmánaq part: Ũmmánaq Fjord (E!); Annat (Bg!).

Only rarely brought back from the area, possibly because the species has been overlooked owing to its small size.

42. *Sedum roseum* (L.) Scop.

Lindenow part: Nunatsuk (S); Alik (V, Bg!); Head of Lindenow Fjord, north coast (Bg!); Tininnertôq (H!, Bg!); Narssaq (L!); Nanîseq (V!); Nagtoralik (Sig). — Kangertiluk part: Kûttîn (Bg!); Syenitbugt (Bg!); Igîssat Fjord (Bg!); S. W. of Cape Trolle (Bg!); Tâterait (V, Bg!); Auarqat (Bg!). — Aneritêq part: Akia Peninsula (Bg!); Napassortivak (Bg!); Island near Puisertoq (Bg!). — Timmiarmîn

part: Takissoq (Bg!); Tinmiarmîn (H!, Bg!); Bratnes (Sig); Ikerasak (Bg!. — Ũmmánaq part: Nunat (Bg!); Ũmmánaq Fjord (E); Annat (Bg!). — Akernernârmîn part: Eqalimmîn (H!, Bg!); Eskimonæsset (H!); Itivtersip akia (H!); Nukarpik (Bg!). — Umîvik part: North coast of Krumpen Fjord (Bg!); Skerry near Umîvik (Bg!).

The species has often been brought back by the collectors, so it must be supposed to be common, or its abundant representation in the collections may be due to its conspicuous size and appearance.

CRUCIFERAE.

43. *Arabis alpina* L.

Lindenow part: Tininnertôq (Bg!); Narssaq (L!); Straumen (Sig). — Kangertiluk part: Ivimîn (V!); Kangertiluk (E!). — Aneritêq part: Cape Tordenskjold (E!). — Timmiarmîn part: North of Igtitarajugtoq Island (Bg!). — Ũmmánaq part: Griffenfeld Island (Bg!); Ũmmánaq (E!. — Akernernârmîn part: Watkins Depot (Bg!); South coast of Inigssuarmîn (Bg!); Eqalimmîn (GRAAH!, H!, Bg!).

Common along the whole coast.

44. *Cardamine bellidifolia* L.

Kangertiluk part: Ingitait (E!). — Ũmmánaq part: Ũmmánaq (E!).

The species is not mentioned in LANGE's list for this area (39, 40), and ROSENVINGE (59) seems likewise to have overlooked the two specimens found in the Herbarium. It is, however, inserted in OSTENFELD's list (51) from this district. The species has its southern limit in 61°09′ N. lat.

The species has not been found by the most recent expeditions.

43. *Cardamine pratensis* L. *var. angustifolia* HOOK.

Ũmmánaq part: Rudi Island (B); Vogtsbu (B).

Apparently a very rare species within this area, and only found by the Norwegian expedition in 1931.

46. *Cochlearia officinalis* L. *v. groenlandica* (L.) GELERT.

Lindenow part: Nunatsuk (S!). — Kangertiluk part: Ivimîn (V!, E); Syenitnæs (Bg!). — Timmiarmîn part: Kangertup pava (E). — Ũmmánaq part: Griffenfeld Island (GRAAH); Ũmmánaq Fjord (E). — North of Umîvik part: Snedorff Island (GRAAH).

The individuals from Nunatsuk have been referred by GELERT to *var. oblongifolia* (DC). The only plant mentioned from the coast between 64°30′ N. lat. and Ammagssalik.

Draba.

It seems as if the *Draba* species are on the whole rarer within this area than in any other part of Greenland, with the exception, possibly, of the north coast. The few species brought back in the course of years, have frequently been studied, and various determinations of them have been made. The determinations given below are due to Mrs. ELIS. EKMAN, who has gone through the whole Danish collection of Arctic *Drabae*.

47. *Draba aurea* M. VAHL.

Kangertiluk part: Karqa (E). — Timmiarmîn part: Qerertaq (E!). — Ũmmánaq part: Ũmmánaq Fjord (E!); West of Pilerqit (Bg!).

Not common.

? *Draba daurica* DC.

The species is found in OSTENFELD's list (51, p. 57), but is not mentioned in the literature, and no specimens are found in the Herbarium, so for the time being it should probably be disregarded.

48. *Draba groenlandica* ELIS. EKMAN.

Timmiarmîn part: Qererta (E!).

49. *Draba groenlandica var. arctogena* ELIS. EKMAN.

Ũmmánaq part: Ũmánaq Fjord (E!).

50. *Draba incana* L.

Lindenow part: Tininnertôq (Bg!). — Aneritôq part: Kangeq (V!).

51. *Draba nivalis* LILJEB.

Kangertiluk part: Kangertiluk (V!). — Ũmmánaq part: Ũmmánaq (E!). — Akernernârmîn part: Qimisa Island (GRAAH).

52. *Draba rupestris* (R. BR.) LINDB.

Lindenow part: Naniseq (V!). — Aneritêq part: Kangeq (V!). — Ũmmánaq part: West of Pilerqit (Bg!).

EMPETRACEAE.

53. *Empetrum nigrum* L. *var. hermaphroditum* LGE.
(*Empetrum hermaphroditum* HAGERUP).

Lindenow part: Alik (V, Bg!); Qerertatsiaq (E!); Opposite Tininnertôq (Bg!); Head of Lindenow Fjord, north coast (Bg!); Tininnertôq (H!); Northern branch of Lindenow Fjord (Bg!); Igtukulik (H!); Narssaq (L!); Nanîseq (Bg!); Nagtoralik (Sig); Straumen (Sig); Mortensberg (Sig); Kûttînfjord (Sig). — Kangertiluk part: Kûttîn

(Bg!); Ivimîn (V!); North of Ilivileq Island (Bg!); Kangertiluk (B!); Tâterait (Bg!); Auarqat (Bg!). — Aneritèq part: North of Cape Tordenskjold (Bg!); Kûttîn Island (Bg!); Napassortivak (Bg!); Cape Rantzau (Bg!); Island near Puisertoq (Bg!). — Timmiarmîn part: Eqalimmîn (Bg!); Timmiarmîn (Bg!); Ikerasak (Bg!). — Ũmmánaq part: Griffenfeld Island (Bg!); Ebba Havn (H!); West of Pilerqit (Bg!). — Akernernârmîn part: Eqalimmîn (H!); Eskimonæsset (H!) (Cf. fig. 18, p. 36); Nukarpik (Bg!). — Umîvik part: North coast of Krumpen Fjord.

Very common along the whole coast. The variety *hermaphroditum* LGE. is the most common species everywhere. It is not excluded, however, that representatives of the dioecious species, *E. nigrum* L., occur among the sterile specimens.

HALORHAGIDACEAE.

54. *Hippuris vulgaris* L.

Lindenow part: Nunatsuk (E!). — Kangertiluk part: Ivimîn (V!). — Aneritèq part: Akia Peninsula (Bg!). — Akernernârmîn part: Eqalimmîn (GRAAH); Eskimonæsset (H!); Akiliariseq (B!).

Probably rather common within the area.

OENOTHERACEAE.

55. *Chamaenerium angustifolium* (L.) SCOP.

Lindenow part: Head of Lindenow Fjord, north coast (Bg!); Tininnertôq (H!); Lindenow Fjord (E!); Narssaq (L!); Nanîseq (Bg!); Mortensberg (Sig). — Kangertiluk part: Kangertiluk (V!); Syenitbugt (Bg!); S. W. of Cape Trolle (Bg!); Nûk (S!). — Timmiarmîn part: Timmiarmîn (H!, Bg!); Bratnes (Sig). — Ũmmánaq part: Ũmmánaq Fjord (E); West of Pilerqit (Bg!); Annât (Bg!). — Akernernârmîn part: Eqalimmîn (GRAAH!, H!); Myrodden (H!); Eskimonæsset (H!) (Cf. fig. 16 and 17, p. 35 and 36); Nukarpik (Bg!).

The species seems to be common except in the northernmost part of the area.

56. *Chamaenerium latifolium* (L.) SWEET.

Lindenow part: Head of Lindenow, south coast (B!); Head of Lindenow Fjord, north coast (Bg!); Tininnertôq (H!); Narssaq (L!); Straumen (Sig). — Kangertiluk part: Kûttît (E!, Bg!); Head of Danell Fjord (Bg!); North of Ilivileq Island (Bg!); Kangertiluk (V!); S. W. of Cape Trolle (Bg!); Head of Puiagtoq Fjord (Bg!). — Aneritêq part: Karqin akernan (E!). — Timmiarmîn part: Takissoq (Bg!); North of Igtitarajugtoq Island (Bg!); Ikerasak (Bg!). — Sarqap aqaliva (Bg!). — Ũmmánaq part: Nunat (Bg!); Ebbas Havn (H!); Annât (Bg!). — Akernernârmin part: Caroline Amalie Hbr. (Bg!); Wat-

kins Depot (Bg!); South coast of Inigssuarmîn (Bg!); North coast of Inigssuarmîn (Bg!); Eqalimmîn (GRAAH!, H!); Eskimonæsset (H!); Nukarpik (Bg!); Head of Lommefjord (Bg!); Qimisa Island (GRAAH!).

Just as common within this district as within the remaining part of Greenland.

57. *Epilobium anagallidifolium* LAM.

Lindenow part: Nunatsuk (S!); Alik (V); Southern branch of Lindenow Fjord (Bg!); Narssaq (Bg!); Nanîseq (V!). — Kangertiluk part: Kûttîn (Bg!); Head of Danell Fjord (Bg!); Kangertiluk (V!); Ingitait (E!). — Aneritêq part: Akia Peninsula (Bg!). — Akernernârmîn part: Nukarpik (Bg!).

Professor SAMUELSSON has kindly verified my determinations of this species.

58. *Epilobium Hornemanni* RCHB.

Lindenow part: Nanîseq (V). — Kangertiluk part: Kangertiluk (V!). — Ũmmánaq part: Griffenfeld Island (E!). — Akernernârmîn part: Eqalimmîn (GRAAH!).

Apparently rarer than the preceding species. All the specimens have been determined by Professor SAMUELSSON.

59. *Epilobium lactiflorum* HAUSSKN.

Lindenow part: Nunatsuk (S!, P!); Head of Lindenow Fjord, north coast (Bg!); Tininnertôq (Bg!); Nanîseq (V!); Kangertuartivaq (E!). — Kangertiluk part: North of Ilivileq Island (Bg!); Kangertiluk (E!); Ingitait (E!); Syenitbugt (Bg!); S. W. of Cape Trolle (Bg!). — Timmiarmîn part: Nagtoralik (Bg!). — Ũmmánaq part: West of Pilerqit (Bg!). — Akernernârmîn part: Eqalimmîn (H!); Nukarpik (Bg!).

The species has its northern limit in 69°18′ N. lat. (hot spring). South of 68°31′ N. lat. it is rather common (4, p. 2), but is rare in Ammagssalik (35, p. 225). Thus it seems to be rather commonly distributed in this district, though it is here near its northern limit.

Professor SAMUELSSON has kindly verified my determinations.

60. *Epilobium palustre* L.

Lindenow part: Tininnertôq (H!, Bg!).

The species has not been found before in East Greenland. The above-mentioned finds in connection with BØCHER's (4, p. 16) finding of the species at a hot spring in Knighton Bay in 69°15′ N. lat. form a valuable addition to the information given by PORSILD (57, p. 68) about the distribution of the species in West Greenland. In West Greenland it is common in the southern part, especially near the old Norse house ruins, which induced OSTENFELD to list it as an "Old Norse

Plant" (though with a ?). Further it has occasionally been found outside the Norse area, viz. in 61°30′ N. lat. In addition, the species occurs at some few hot springs in Disko Island in 69°15′ N. lat. Thus in Greenland we find a nearly symmetric distribution of the species, which supports the views of PORSILD that the species is a native of Greenland. PORSILD's statement (l. c., p. 69) that the plant fructifies on Disko but is unable to spread to other hot springs in the neighbourhood, seems to me an excellent proof that here the plant is a relict from a warmer period.

The material from East Greenland has kindly been determined by Professor SAMUELSSON.

PAPILLIONACEAE.

61. *Lathyrus maritimus* (L.) FRIES.

Lindenow part: Nunatsuk (S!, P!); Alik (V!); Tininnertôq (H!, Bg!); Igtukulik (L![; Narssaq (E!, L!, Bg!).

This southern species, which belongs to the group that according to OSTENFELD (51, p. 18) has been introduced by the old Norsemen, seems to be rather common along the whole north coast of Lindenow Fjord. This does not speak in favour of OSTENFELD's view. More probably the plant has immigrated without the agency of man, at any rate into this area. PORSILD (57, p. 67) discusses the question, but takes no definite standpoint.

PAPAVERACEAE.

62. *Papaver radicatum* ROTTB.

Timmiarmîn part: Qererta (E!).

In Conspectus Florae Groenlandicae the species is stated to be commonly distributed in East Greenland from 60° to 82° N. lat. However, as stated by ROSENVINGE (59, p. 674), it has only been found in this single place within the area in question, and is likewise stated by KRUUSE (35, p. 237) to be rare in the Ammagssalik area, where it has only been found at high altitudes. This agrees well with EBERLIN's statement that the specimen brought back was collected at 250 m above the sea. It may, no doubt, be taken for granted, more especially since no specimens have been brought back by the latest expeditions, that it is rare in South-east Greenland and only occurs at high levels.

POLYGONACEAE.

63. *Koenigia islandica* L.

Lindenow part: Nanîseq (V!). — Kangertiluk part: Ivimîn (V!). — Aneritêq part: Aneritêq (V!).

Only brought back by VAHL. The species is probably not rare, but is nearly always overlooked by non-botanists.

64. *Oxyria digyna* (L.) HILL.

Lindenow part: Qerertatsiak (E!); Head of Lindenow Fjord, south coast (Bg!); Tininnertôq (H!, Bg!); Narssaq (L!); Kûttînfjord (Sig). — Kangertiluk part: Kûttîn (Bg!); Head of Danell Fjord (Bg!); Ivimîn (E!); North of Ilivileq Island (Bg!); Kangertiluk (V!); Syenitbugt (Bg!). — Aneritêq part: North of Cape Tordenskjold (Bg!), Napassortivaq (Bg!); Takissoq (Bg!); Cape Rantzau (Bg!). — Timmiarmîn part: Nagtoralik (Bg!); Takissoq (Bg!); Timmiarmîn (H!, Bg!); Bratnes (Sig); North of Igtitarajugtoq Island (Bg!). — Ũmmánaq part: Griffenfeld Island (Bg!); Ebbas Havn (H!); West of Pilerqit (Bg!); Annât (Bg!). — Akernernarmîn part: Caroline Amalie Hbr. (Bg!); Eqalimmîn (H!); Eskimonæsset (H!); Itivtersîp akia (H!); Nukarpik (Bg!). — Umîvik part: North coast of Krumpen Fjord (Bg!); Skerry near Umîvik (Bg!).

One of the commonest species within the district.

65. *Polygonum heterophyllum* LINDM. *v. boreale* (LGE) LINDM.

Lindenow part: Nunatsuk (E!).

Only found at the southernmost point within the district. As to its origin in Greenland, see PORSILD (57, p. 28).

66. *Polygonum viviparum* L.

Lindenow part: Alik (Bg!); Head of Lindenow Fjord, north coast (Bg!); Tininnertôq (H!); Narssaq (L!); Nanîseq (Bg!); Straumen (Sig); Mortensberg (Sig). — Kangertiluk part: Kûttîn (Bg!); Head of Danell Fjord (Bg!); Kangertiluk (V!); Syenitbugt (Bg!); Ingitait (E!); S. W. of Cape Trolle (Bg!); Tâterait (Bg!); Auarqat (Bg!). — Aneritêq part: North of Cape Tordenskjold (Bg!); Cape Rantzau (Bg!); Island near Puisortoq (Bg!). — Tingmiarmîn part: Timmiarmîn (Bg!); Bratnes (Sig); North of Igtitarajugtoq Island (Bg!); Ikerasak (Bg!); Sarpap aqaliva (Bg!). — Ũmmánaq part: Ebbas Havn (H!); West of Pilerqit (Bg!). — Akernernârmîn part: Caroline Amalie Hbr. (Bg!); Watkins Depot (Bg!); Eqalimmîn (GRAAH!); Eskimonæsset (H!); Itivtersîp akia (H!); Nukarpik (Bg!); Qimisa Island (GRAAH!). — Umîvik part: North coast of Krumpen Fjord (Bg!); Skerry near Umîvik (Bg!).

Just as common in this district as in the remaining part of Greenland.

PORTULACACEAE.

67. *Montia lamprosperma* CHAM.

Lindenow part: Nanîseq (V!). — Kangertiluk part: Ivimîn (V!). — Aneritêq part: Aneritêq (V!). — Akernernârmîn part: Eqalimmîn (B); Myrodden (B).

A rare species, but has presumably been overlooked by the collectors.

RANUNCULACEAE.

68. *Coptis groenlandica* (OED.) FERN.

Lindenow part: Alik (S); Tininnertôq (H!); Naniseq (V!). — Kangertiluk part: Kangertiluk (V!); Ingitait (E!). — Aneritêq part: Kûttin Island (Bg!); Kaniorqat (E!); Cape Rantzau (Bg!); Puisertoq (E). — Ũmmánaq part: Griffenfeld Island (E!). — Akernernârmîn part: Eqalimmîn (Bg!).

Rather common.

69. *Ranunculus acer* L.

Lindenow part: Nunatsuk (S, P!).

Apart from the most southerly point the species seems to be absent from the district, even if it has occasionally been found in Ammagssalik.

70. *Ranunculus hyperboreus* ROTTB.

Lindenow part: Naniseq (V!). — Kangertiluk part: Ivimîn (V!, E!). — Akernernârmîn part: Qimisa Island (GRAAH).

Seems to be extremely rare.

71. *Ranunculus pygmaeus* WAHLB.

Lindenow part: Nunatsuk (P!). — Ũmmánaq part: Griffenfeld Island (Bg!). — Akernernârmîn part: Qimisa Island (GRAAH).

Less rare than the preceding species.

72. *Ranunculus trichophyllus* CHAIX *var.* ?

Some specimens found in the Herbarium of the Botanical Museum of Copenhagen labelled: "In aquis stagnantibus insulae Kikertarsuitsiak J. VAHL, Aug. 1829", are, according to the date, derived from the southern part of the east coast. However, no locality of the said name occurs, so VAHL has possibly confounded the name Qerertatsiaq (60°11′ N. lat.) with Kekertarsuak (60°06′ N. lat.), both of which names designate islands situated between Nunatsuk and Lindenow Fjord.

73. *Thalictrum alpinum* L.

Lindenow part: Tininnertôq (H!, Bg!); Lindenow Fjord (E!); Narssaq (L!). — Aneritêq part: North of Cape Tordenskjold (Bg!). — Timmiarmîn part: Sarpap aqaliva (Bg!). — Ũmmánaq part: Ũmmánaq Fjord (E!). — Akernernârmîn part: Eskimonæsset (H!).

ROSACEAE.

Alchemilla.

The *Alchemilla* species, with the exception of *A. alpina*, have kindly been determined by Mr. BØCHER. The notes on the determinations are given under the mention of the finds from the regions north of Ammagssalik (44, p. 16—17), where the description of the newly defined species is likewise to be found.

74. *Alchemilla alpina* L.

Lindenow part: Alik (V, Bg!); Head of Lindenow Fjord, south coast (Bg!); Head of Lindenow Fjord, north coast (Bg!); Tininnertôq (Bg!); Northern branch of Lindenow Fjord (Bg!); Narssaq (Bg!); Nanîseq (Bg!); Mortensberg (Sig). — Kangertiluk part: Kûttîn (Bg!); North of Ilivileq Island (Bg!); Sarqap nûa (E!); Syenitbugt (Bg!); Igîssat Fjord (Bg!); S. W. of Cape Trolle (Bg!); Auarqat (Bg!). — Aneritêq part: Akia Peninsula (Bg!); Aneritêq (V!); Takissoq Island (Bg!); Cape Rantzau (Bg!). — Timmiarmîn part: Nagtoralik (Bg!); Takissoq (Bg!); Timmiarmîn (H!, Bg!); North of Igtitarajugtoq Island (Bg!); Ikerasak (Bg!). — Ũmmánaq part: Nunat (Bg!); Griffenfeld Island (H!); Ũmmánaq Fjord (E); West of Pilerqit (Bg!); Annât (Bg!). — Akernernârmîn part: Eqalimmîn (GRAAH!, H!); Nukarpik (Bg!); Qimisa Island (GRAAH).

Very common all along the coast.

75. *Alchemilla filicaulis* BUSER.

Lindenow part: Alik (V!); Head of Lindenow Fjord, north coast (Bg!); Igtukulik (L!). — Ũmmánaq part: Nunat (Bg!).

A rare species.

76. *Alchemilla glomerulans* BUSER.

Lindenow part: Nunatsuk (S!, P!). — Kangertiluk part: Ilivileq Island (E!); Syenitbugt (Bg!). — Ũmmánaq part: Ũmmánaq Fjord (E!).

A rare species.

77. *Alchemilla pseudomicans* BOCHER (4).

Kangertiluk part: Kûttîn (Bg!); S. W. of Cape Trolle (Bg!). — Ũmmánaq part: Annat (Bg!).

See above.

78. *Comarum palustre* L.

(*Potentilla palustris* (L.) SCOP.).

Lindenow part: Nunatsuk (S!, E!, P!).

Within the area in question the species has been found in this

locality only. It has, however, also been found in Ammagssalik, so a careful search in the interior of the fjords may very possibly result in the finding of the species there.

? Dryas integrifolia (M. VAHL).

In Pars Secunda of Conspectus Florae Groenlandicae (40, p. 234) LANGE states that this species was collected by EBERLIN in Sagtia Fjord (60°28′ N. lat.), Lindenow part.

The species has neither been found by earlier nor by later expeditions, and in his mention of the plants collected by EBERLIN (41) LANGE writes (l. c. p. 277): "*Dryas sp.* (*integrifolia* M. VAHL)? Sagdlia Fjord (E.). (Not previously found in East Greenland) (No specimens at hand)" [translated from Danish]. Evidently no specimen of this species has ever been brought home. Thus a mistake or a confusion may very likely have taken place, so for the present one should, no doubt, be sceptic as to the occurrence of the species within the district. The species is very rare in Ammagssalik, and only found by KRUUSE (35, p. 219) in a few localities at high altitudes. In the southern part of the west coast it is likewise rare.

79. *Potentilla anserina* L.

Lindenow part: Tininnertôq (H!, Bg!). — Kangertiluk part: Kûttîn (E!); Karqa (E). — Timmiarmîn part: Timmiarmîn (H!, Bg!); Qererta (E!).

The form occurring in Greenland is generally considered a special variety, *var. Egedii* RYDB. Some botanists hold the view that the form should be referred to *P. pacifica* HOWELL. The various forms occurring in Greenland greatly deserve a closer investigation (cf. 57, p. 16).

80. *Potentilla Crantzii* BECK.

(*Potentilla maculata* POURR.; *P. alpestris* HALL. fil.).

Lindenow part: Tininnertôq (H!, Bg!); Lindenow Fjord (E). — Aneritêq part: Cape Tordenskjold (E!); Karqin akernan (E!). — Timmiarmîn part: Sarpaq aqaliva (Bg!). — Ûmmánaq part: Ûmmánaq Fjord (E!); West of Pilerqit (Bg!). — Akernernârmîn part: Eqalimmîn (H!, Bg!).

Here and there.

81. *Potentilla Ranunculus* LGE.

Akernernârmîn part: Eqalimmîn (GRAAH!).

Even HORNEMANN (20) was aware of the presence of this species in the material brought back by GRAAH, since he describes a "*P. nivea var. foliis haud niveis, forsan n. sp.* (l. c. p. 191). On the basis of the specimens collected by GRAAH and some of those collected in West

Greenland by BERGGREN, LANGE (39, p. 7) defines the species as *P. Ranunculus* LGE. The species has later been found in several places in West Greenland between 69°00′ and 71° N. lat.

The reason why it is not mentioned in OSTENFELD's list (51, p. 60) is probably that GRAAH's specimens have been removed from their place in the Herbarium, and OSTENFELD has therefore found it most advisable not to insert it in his list. Now, however, GRAAH's specimens are present in the Herbarium, and there can be no doubt that we are here concerned with a locality, for the time being isolated, of the species (cf. *Rubus saxatilis*).

82. *Potentilla tridentata* SOLAND.

Lindenow part: Tininnertôq (H!, Bg!); Igtukulik (H!); Narssaq (L!, Bg!); Nanîseq (V!); Mortensberg (Sig). — Kangertiluk part: Kûttîn (E!); Ivimîn (V!); Cape Discord (Bg!); Sarqap nûa (E!); Kangertiluk (V!); Igîssat Fjord (Bg!). — Aneritêq part: Patussoq (Bg!). — Timmiarmîn part: Timmiarmîn (H!); Ikerasak (Bg!). — Ũmmánaq part: Griffenfeld Island (H); West of Pilerqit (Bg!). — Akernernârmîn part: Eqalimmîn (GRAAH!, H!, Bg!); Nukarpik (Bg!).

A rather common species.

83. *Rubus saxatilis* L.

Akernernarmîn part: Eqalimmîn (GRAAH, B, H!).

This species is mentioned in HORNEMANN's list (20, p. 191) from Eqalimmîn ("at high altitudes") of plants collected by GRAAH in 1829—30. It is also mentioned in Conspectus Florae Groenlandicae (39, p. 2), from which it further appears that LANGE has not seen the plants, and in the second supplement (59, p. 654) ROSENVINGE states that "no specimens from the east coast were found in the herbarium of the Botanical Garden". The correctness of HORNEMANN's statement has therefore been doubted, and the species is not mentioned in OSTENFELD's list for this district (51, p. 60). On the contrary OSTENFELD refers it to the introduced plants, stating (l. c. p. 19): "*R. saxatilis*, which is common in Iceland and Norway, but lacking in North America, can hardly have been introduced by other means than by the Norsemen". — The latest finds of the Norwegian and Danish expeditions show that HORNEMANN's statement is correct, and would seem to indicate that the species has been introduced into Greenland by other means than by the old Norsemen. It seems most natural to assume that migrating birds now and then carry its seed to the coast, where, however, the species is only able to persist in favourable localities. The locality in question is conspicuous owing to its numerous southern elements (see also PORSILD, 57, p. 66).

84. *Sibbaldia procumbens* L.

Lindenow part: Nunatsuk (P!); Southern branch of Lindenow Fjord (Bg!); Tininnertôq (Bg!); Narssaq (L!); Nagtoralik (Sig); Mortensberg (Sig). — Kangertiluk part: Ilivileq Island (E!); Kûttîn (Bg!); Head of Danell Fjord (Bg!); North of Ilivileq Island (Bg!); Kangertiluk (V!); Syenitbugt (Bg!); S. W. of Cape Trolle (Bg!). — Aneritêq part: Cape Tordenskjold (E!); Kûttîn Island (Bg!); Cape Rantzau (Bg!); Karqin akernan (E!); Puisertoq (E!). — Timmiarmîn part: Eqalîmmîn (Bg!); Bratnes (Sig). — Ûmmânaq part: Ebbas Havn (H!). — Akernernarmîn part: Watkins Depot (Bg!); Nukarpik (Bg!).

Rather common along the whole coast.

SALICACEAE.

Salix.

(excl. *Salix herbacea*).

For the determination of the various forms of *Salix* I have exclusively used FLODERUS's work (Om Grönlands Salices. Medd. om Gr. Bd. 63, 1925).

By a more careful investigation of the anatomical and morphological characters of the pure species of *Salix arctophila* COEK, *S. arctica* L., and *S. glauca* L. in Greenland I have attempted to find further deviating characters, and with a view to future investigations I shall here briefly sum up the most important characters of significance for the distinction between the species or for the ascertainment of a species in a hybrid complex. As regards the morphological aspects, the characteristics given below are thus principally based on the above-mentioned paper by FLODERUS, while the anatomical characters are based on my own investigations.

Salix arctophila COEK.

(Cf. *S. chloroclados* FLOD. in l. c. p. 158; FLODERUS states (in litt.) that according to later investigations he does not think it possible to maintain the species.)

The penninerved blade is never hairy. Margin of the leaf sometimes slightly glandular, especially at the base. Stomata apparently absent from the upper surface. Epidermal cells large; in plane section the number of cells in a sq.mm proved to be 400 to 900 (cf. the following species). Hypodermic layer absent. Midrib of blade with bast along upper and under surface. Cuticle of upper surface smooth, of under side papillary.

Petiole long (more than 5 mm) and flat, without hairs.

Branches usually greenish, shiny owing to wax or resinous substances. In tangential section the medullary rays are seen to consist of 4—12 cells in height, frequently very elongated. Pericycle bast present in isolated strands. In older stems there further occurs a ring of bast strands in the secondary cortex.

The phellogene produces more than one cell layer in a year, the lumen is hardly completely filled. The phelloderm is made up of two cell layers.

Salix arctica L.

(Cf. FLODERUS l. c. p. 130).

The penninerved leaf is more or less tomentose on the under side. The upper

side with scattered hairs, gradually falling off. No glands along the edges of the leaves. Stomata both on upper and lower side. Epidermal cells large, as in *S. arctophila* 400—900 per sq.mm. Cuticle smooth on upper side, fine papillae on under side. Sometimes fine furrows in the cuticle along the leaf margins.Hypodermis absent, a coherent row of thin-walled cells may, however, occur on the under side of the leaf. Midrib of leaf with bast strands along upper and under side, the lowermost of which may be divided into several strands.

Leaf stalk long (over 5 mm, usually about 13 mm), slightly hairy. In transverse section the leaf stalk is seen to be much flattened dorsiventrally. Parenchyma occurs inside a chollemchymatous sheath.

Branches entirely without hairs. Pith always present. In tangential section medullary rays prove to be 4—8 cells high. Pericycle bast consisting of scattered bast strands. Phellogene developing only one cell layer annually, lumen not completely filled, which causes shedding of "annual rings". Many (about 5) layers of phelloderm.

Salix glauca L.

Penninerved leaves obovate, obtuse, upper and under sides covered with a dense tomentum. Glands rarely occurs, and if so, in the basal part of the leaf only. Stomata apparently absent on the upper side. Epidermal cells small, in transverse section 2000—4000 cells may be counted in a square mm. Cuticle smooth on the upper side, as in the other species, while the under side is densely covered with rod-shaped protuberances of a length of about 0.005 mm. Hypodermis absent. Bast lacking in the midrib, which, in contrast to those of the other species, protudes on the upper side of the leaf.

Leaf stalk short, not exceeding 5 mm, and very hairy.

Annual shoots covered with long hairs, which later fall of. Medulla present. In tangential section the medullary rays are seen to consist of more cells in height than in the other species (8—14). Pericyclic bast consisting of several unequally large bast strands. The phellogene produces only one layer annually. On account of the fairly long, not suberous radial cell walls the individual suberous layers are rather widely separated. Thus the layers are shed singly. Only one phelloderm layer.

By means of the above facts in connection woth FLODERUS's excellent description, I have come to the conclusion that the forms brought back from Southeast Greenland only comprise *Salix arctophila* and *Salix glauca*, while, as far as I can make out, *Salix arctica* cannot be traced so far south.

Next, I have attempted to determine the available material. As far as I have been able to ascertain, no pure species occur, but generally the material varies greatly, from almost *S. glauca*-like forms to nearly smooth erect green *S. arctophila* forms. The material shows no tendency to a predominance of *S. arctophila*-like forms in the southern part in contrast to the predominance of *S. glauca* in the northern part, as might have been expected. The modifications rather leave the impression of being due to the different conditions prevailing in the various localities. Moreover, it might probably be assumed that the factor complexes of the particular locality exert a selective influence on the vast majority of the varying germinating seeds or embryo plants.

By far the greater number of the specimens brought back are almost intermediate forms, though varying in details. The forms in which *S. arctophila* plays the most important part seem also to be of rather common occurrence.

The following forms can be distinguished:

85. *Salix arctophila* COEK × *glauca* L. s. l.

I. Nearly unmixed *S. arctophila* (*Salix arctophila* (× *glauca*)).

Lindenow part: Narssaq (Bg!). — Aneritêq part: Patussok (Bg!); Cape Rantzau (Bg!). — Akernernârmîn part: Eqalimmîn (H!).

II. Forms in which *S. arctophila* is dominant (*S. arctophila* × *glauca*).

Lindenow part: Head of Lindenow Fjord, north coast (Bg!); Narssaq (Bg!); Nanîseq (Bg!). — Kangertiluk part: Ivimîn (Bg!). — Aneritêq part: Akia Peninsula (Bg!); Cape Rantzau (Bg!). — Timmiarmîn part: Takissoq (Bg!); North of Igtitarajugtoq Island (Bg!); Ikerasak (Bg!). — Ûmmánaq part: Nunat (Bg!). — Akernernârmîn part: Eqalimmîn (Bg!); Eskimonæsset (H!); Nukarpik (Bg!); Head of Lommefjord (Bg!).

III. Intermediate forms (*Salix arctophila* × *glauca*).

Lindenow part: Nunatsuk (S!); Alik (Bg!); Qerertatsiaq (E!); Tininnertôq (H!) (cf. fig. 4, p. 17), Northern branch of Lindenow Fjord (Bg!); Narssaq (L!); Nanîseq (Bg!); Mortensberget (Sig). — Kangertiluk part: Kûttîn (E!); Head of Danell Fjord (Bg!); North of Ilivileq Island (Bg!); Syenitbugt (Bg!); Igîssat Fjord (Bg!); Tâterait (Bg!); Head of Puiagtoq Fjord (Bg!). — Aneritêq part: Napassortivak (Bg!). — Timmiarmîn part: Nagtoralik (Bg!); Timmiarmîn (Bg!); North of Igtitarajugtoq Island (Bg!); Sarpaq aqaliva (Bg!). — Ûmmánaq part: West of Pilerqit (Bg!); Annât (Bg!). — Akernernârmîn part: South coast of Skjoldungen (Bg!); South coast of Inigssuarmîn (Bg!).

IV. Forms in which *S. glauca* is dominant (*S. arctophila* × *glauca*).

Lindenow part: Alik (V!, S!, E!); Nanîseq (V!, E!); Nagtoralik (Sig); Mortensberget (Sig). — Kangertiluk part: Ivimîn (V!); Kangertiluk (V); Auarqat (Bg!). — Aneritêq part: Aneritèq (V!); Kangeq (V!). — Timmiarmîn part: Eqalimmîn (E!); Bratnes (Sig). — Ûmmánaq part: Griffenfeld Island (E!, Bg!).

V. Nearly unmixed *S. glauca* forms (*S.* (*arctophila* ×) *glauca*).

Lindenow part: Kangerajik (S!); Tininnertôq (Bg!).

A division into the above-mentioned five types will, of course, always be greatly subjective, and a later more thorough investigation

will probably arrive at a different result. It will, however, appear from the above, as already mentioned, that there seems to be no marked north and south distribution of the various forms.

86. *Salix herbacea* L.

Lindenow part: Nunatsuk (E!, P!); Alik (Bg!); Qerertatsiaq (E!); Dr. Louise Island (Bg!); Southern branch of Lindenow Fjord (Bg!); opposite Tininnertôq (Bg!); Northern branch of Lindenow Fjord (Bg!); Narssaq (L!); Naniseq (V!, E!, Bg!); Cape Walløe (Bg!); Mortensberget (Sig). — Kangertiluk part: Head of Danell Fjord (Bg!); Cape Discord (Bg!); North of Ilivileq Island (Bg!); Sarqap nûa (V); Kangertiluk (V!); S. W. of Cape Trolle (Bg!); Tâterait (Bg!). — Aneritêq part: North of Cape Tordenskjold (Bg!); Aneritêq (V); Qutteq Island (Bg!); Cape Rantzau (E!, Bg!). — Timmiarmîn part: Eqalimmîn (Bg!); Takissoq (Bg!); Timmiarmîn (H!, Bg!); Bratnes (Sig); Ikerasak (Bg!). — Ũmmánaq part: Nunat (Bg!); Griffenfeld Island (E!, Bg!); Ebbas Havn (H!); West of Pilerqit (Bg!); Annât (Bg!). — Akernernârmîn part: Caroline Amalie Hbr. (Bg!); Eqalimmîn (Graah!, H!); Nukarpik (Bg!). — Umîvik part: North coast of Krumpen Fjord (Bg!); Skerry near Umîvik (Bg!).

Common along the whole coast.

SAXIFRAGACEAE.

? *Saxifraga aizoides* L.

This species is described by Ostenfeld (51, p. 60) as occurring in the district. It is, however, not mentioned in the literature, nor does the Copenhagen Herbarium contain any specimens from this area. The species is rare in Ammagssalik (35, p. 243), and is described by Gelting (19) and Sørensen (68) as a typical plant of the inner fjords. Thus it doubtless belongs to the continental species and, if present in the area, is probably restricted to the inner fjords (cf. p. 101).

87. *Saxifraga Aizoon* L.

Lindenow part: Tininnertôq (H!). — Aneritêq part: Cape Tordenskjold (E!). — Ũmmánaq part: Ũmmánaq Fjord (E!). — Akernernârmîn part: Watkins Depot (Bg!).

Seems to be rather rare within the area.

88. *Saxifraga cernua* L.

Kangertiluk part: Kangertiluk (V!). — Ũmmánaq part: West of Pilerqit (Bg!).

Evidently much rarer here than in the more northerly parts of Greenland.

89. *Saxifraga caespitosa* L.

Lindenow part: Alik (Bg!); Tininnertôq (H!, B!); Narssaq (Bg!); Naniseq (V!); Kûttîn Fjord (Sig). — Kangertiluk part: Ivimîn (V!). — Aneritêq part: Takissoq Island (Bg!); Kaniorqat (E!); Kangeq (V!); Aneritêq (V!). — Timmiarmîn part: Takissoq (Bg!); Timmiarmîn (Bg!); North of Igtitararajugtoq Island (Bg!). — Ũmmánaq part: Griffenfeld Island (E!); Ũmmánaq Fjord (E!); West of Pilerqit (Bg!). — Akernernârmîn part: Caroline Amalie Hbr. (Bg!); Watkins Depot (Bg!); Eskimonæsset (H!); Nukarpik (Bg!).

Described in Conspectus Flora Groenlandica (39, p. 62) as rather common, even if only few specimens from our area are found in the Herbarium. The latest collections prove, however, that the species is rather common, though probably less frequent than in other southerly parts of Greenland.

90. *Saxifraga nivalis.*

Lindenow part: Tininnertôq (Bg!); Naniseq (V!). — Kangertiluk part: Kangertiluk (V!); Ingitait (E!). — Timmiarmîn part: Qerertaq (E!). — Ũmmánaq part: Griffenfeld Island (E!); West of Pilerqit (Bg!). — Akernernârmîn part: Watkins Depot (Bg!).

A common species.

91. *Saxifraga nivalis* L. *var. tenuior* WAHLENB.

Timmiarmîn part: Igdlormiut (B). — Ũmmánaq part: Vogtsbu (B). — Akernernârmîn part: Finnsbu (B); Eqalimmîn (B); Qimisa Island (GRAAH).

Although it cannot be definitely stated whether this variety is connected with *Saxifraga nivalis* L. by way of transitional forms, I have maintained it as an independent variety, since in its typical occurrence it differs greatly from the main species, and moreover there is a rather considerable ecological difference between the two forms. In the previous literature it has not been separated from *S. nivalis*, so it is difficult to say anything about its distribution outside this district, where it seems to be rather common even if it is not abundantly represented in the collections, probably because the collectors have not paid special attention to it.

92. *Saxifraga oppositifolia* L.

Lindenow part: Naniseq (V!). — Kangertiluk part: Kangertiluk (V!); Ingitait (E!). — Ũmmánaq part: Griffenfeld Island (E!, Bg!). — Akernernârmîn part: Watkins Depot (Bg!).

From the rather sparse collections at hand it can hardly be concluded that the species in uncommon, but rather that the collectors

have considered the species so common that it was not worth while to collect it. The cause may also be found in its early florescence.

93. *Saxifraga rivularis* L.

Lindenow part: Nunatsuk (P!); Kangerajik (S!); Nanîseq (V!). — Kangertiluk part: Kûttîn (E); Ivimîn (E!); Sarqap nûa (E!); Kangertiluk (V!); Ingitait (E!). — Aneritêq part: Cape Tordenskjold (E!); Aneritêq (V!); Takissoq Island (Bg!), Kangeq (V!); Island near Puisertoq (Bg!). — Timmiarmîn part: Takissoq (Bg!). — Akernernârmîn part: Caroline Amalie Hbr. (Bg!); Watkins Depot (Bg!). — Umîvik part: Skerry near Umîvik (Bg!).

Rather common all along the coast.

94. *Saxifraga stellaris* L.

Lindenow part: Nunatsuk (S, P!); Alik (E); Dr. Louise Island (Bg!); Southern branch of Lindenow Fjord (Bg!); Tininnertôq (H!, B!); Nanîseq (V!, Bg!); Mortensberg (Sig). — Kangertiluk part: Kûttîn (Bg!); Head of Danell Fjord (Bg!); Ivimîn (V!); Cape Discord (Bg!); Kangertiluk (V!); Syenitbugt (Bg!); Ingitait (E!). — Aneritêq part: Cape Tordenskjold (E!); North of Cape Tordenskjold (Bg!). — Timmiarmîn part: Nagtoralik (Bg!). — Ũmmánaq part: Griffenfeld Island (E!); Annât (Bg!). — Akernernârmîn part: Caroline Amalie Hbr. (Bg!); Eqalimmîn (Graah, H!); Nukarpik (Bg!); Qimisa Island (Graah). — Umîvik part: North coast of Krumpen Fjord (Bg!).

Probably the most common of the *Saxifraga* species.

UMBELLIFERAE.

95. *Angelica archangelica* L.

Lindenow part: Tininnertôq (H!, Bg!); Nanîseq (V); Narssaq (L!). — Kangertiluk part: Syenitbugt (Bg!). — Ũmmánaq part: Griffenfeld Island (E); Annât (Bg!). — Akernernârmîn part: Eqalimmîn (H!); Eskimonæsset (H!); Nukarpik (Graah).

Rather rare within the area, and only occurring in well sheltered places. Northern limit in Ammagssalik 66°19′ N. lat. (35, p. 245).

96. *Ligusticum scoticum* (L.) Scott.

Lindenow part: Tininnertôq (Bg!).

Not previously found in East Greenland. Is regarded by Ostenfeld (51, p. 18) as probably introduced by the old Norsemen. It may, however, have spread to the east coast in the past period, but Porsild (57, p. 69) regard it as too common to have been introduced, and refers it to the plants that have immigrated without the agency of man. Thus its northern limit on the east coast is Tininnertôq, 60°35′ N. lat.

VIOLACEAE.

97. *Viola palustris* L.

Lindenow part: Nunatsuk (S, P!); Tininnertôq (Bg!); Nanîseq (V!). — Kangertiluk part: Ilivileq Island (E); Kangertiluk (V!). — Aneritêq part: Karqin akernan (E!). — Timmiarmîn part: Qerertaq (E!). — Ũmmánaq part: Griffenfeld Island (E!).

Rather rare within the district.

BORRACINACEAE.

98. *Mertensia maritima* (L.) DON.

Ũmmánaq part: West of Pilerqit (Bg!).

This plant has a rather peculiar distribution. While it is rather commonly distributed on the west coast between 66° and 76° N. lat., it has previously been found in one place only on the east coast, viz. in Tasiusak in 65°37′ N. lat. (KRUUSE, 35, p. 250). Now we have a new isolated locality on the east coast. It is not quite clear to me how this should be accounted for. The species is rather common in Iceland, and in 1930 I found it all along the coast of Jan Mayen, where conditions must be assumed to be considerably less favourable. BOCHER (4, p. 8) states that he has found the plant in the place indicated by KRUUSE; the individuals were poorly developed and produced no flowers. The specimens brought back by BOGVAD are vigorous and richly flowering and bear unripe fruits; no doubt they produce fertile seeds.

CAMPANULACEAE.

99. *Campanula rotundifolia* L.

Lindenow part: Nunatsuk (S!, E!); Alik (V!); Head of Lindenow Fjord, north coast (Bg!); Tininnertôq (H!, Bg!); Narssaq (L!); Nanîseq (V!); Mortensberg (Sig). — Kangertiluk part: Kangertiluk (V!); Syenitbugt (Bg!). — Aneritêq part: Karqin akernan (E!). — Timmiarmîn part: Nagtoralik (Bg!); Bratnes (Sig); Timmiarmîn (H!); Sarpap aqaliva (Bg!). — Ũmmánaq part: Nunat (Bg!); Griffenfeld Island (Bg!); West of Pilerqit (Bg!). — Akernernârmîn part: Watkins Depot (Bg!); Eqalimmîn (H!); Eskimonæsset (H!); Nukarpik (Bg!); Qimisa Island (GRAAH!).

Very common throughout the area.

CAPRIFOLIACEAE.

100. *Linnaea borealis* L.

Akernernârmîn part: Eqalimmîn (B).

Eqalimmîn is the only place within the district where this small species has been found. The explanation of the peculiar occurrence here of distinctly southern types (cf. *Rubus saxatilis* a. o.) is doubtless prin-

cipally to be sought in the extraordinarily favourable position of the locality far in towards the interior of the fjords within an area where the inland ice has retreated a comparatively long distance from the coast (cf. the map in fig. 23). (Probably it is also to some extent due to the fact that the place has been investigated by several expeditions, which usually did not penetrate very far into the fjords. A closer investigation made by an experienced botanist will doubtless bring to light several surprising facts, and is greatly needed in order that our knowledge of this coast may become equal to that of the remaining part of Greenland).

COMPOSITEAE.

Antennaria.

Our knowledge of the various forms of this species is still very incomplete. Evidently we are here concerned with a parallel to the *Taraxacum* and *Hieracium* forms. The similarity is naturally to be sought in the apogamous propagation of nearly all the representatives of these genera in Greenland. Thus the *Antennaria* are represented by several constant forms which may be either endemic or be indigenous to America or Europe. The various forms are, however, closely related, which is probably the cause why the various points of difference have not previously attracted attention. Hence in the preparation of the present list no regard has been paid to the previous records of the species from East Greenland, only the forms represented in the herbaria having been considered. Among these latter and the specimens contained in the latest collections I have distinguished five forms, four of which I have referred to forms previously described, while one deviates slightly from those previously described from Greenland, and hence I have given it no specific name. Possibly it is represented among the forms known from America, but since a close study of these forms would be very difficult and somewhat beyond the scope of this paper, I have left this question, possibly to be dealt with later in connection with a study of the whole of the Greenland material.

101. *Antennaria alpina* (L.) GÄRTN. *var. canescens* LGE.

Lindenow part: Alik (Bg!); Lindenow Fjord (E!); Kangertuaraq Qingua (E!). — Kangertiluk part: Kangertiluk (V!); Ingitait (E!). — Aneritêq part: Kangeq (V!). — Timmiarmîn part: Qerertaq (E!). — Akernernârmîn part: Watkins Depot (Bg!); Eqalimmîn (H!).

Seems to be the most common form here as everywhere in Greenland.

102. *Antennaria groenlandica* PORSILD.

Kangertiluk part: Kangertiluk (V!). — Ũmmánaq part: West of Pilerqit (Bg!).

Rather rare, and near its northern limit, since north of this area it has only been found in two places in the Ammagssalik district (65°40′ and 66°19′ N. lat.) (35, p. 261).

103. *Antennaria intermedia* (ROSENV.) PORS.

Akernernârmîn part: Eskimonæsset (H!).

This species, endemic in Greenland, is here reported for the first time from East Greenland. It is of common occurrence in West Greenland, but rarer towards the south (PORSILD in litt.). Cf. the map in fig. 23, p. 105).

104. *Antennaria labradorica* NUTT.

Akernernârmîn part: Eqalimmîn (GRAAH!).

The specimens brought back by GRAAH, which have been kept under the label *A. alpina*, seem to be identical with the individuals brought back from West Greenland from the area between 69° and 79° N. lat., which have been designated *Antennaria angustifolia* ELIS. EKMANN, but which, according to PORSILD (in litt. and according to identified material sent home), should be referred to the American species. This is another example of an isolated occurrence in Eqalimmîn (cf. above).

105. *Antennaria* sp.

Timmiarmîn part: Timmiarmîn (Bg!).

This species is closely related to the *A. alpina* forms owing to its vexilliform appendages at the uppermost stem leaves and the nearly equally sized acute involucral bracts, which in the lower part of the outer whorls are tomentose, while the upper part of the inner bracts are scarious, brownish, lacerate. There are further a small number of pits (about 25) in the receptacle.

The species seems, however, to differ somewhat from *A. alpina* by not having stolons and by producing caespitose shoots. Moreover the apices of the bracts are light-brown, and not, as is the case at any rate in *A. alpina*, of a dark olive-green colour.

Thus the species is probably more closely related to *A. labradorica* or another related form than to *A. alpina*. Apparently it differs from *A. labradorica* only by its sometimes more or less spathose leaves and its generally rather distinctly mucronate apex.

106. *Erigeron compositus* PURSH.

Akernernârmîn part: Moreneneset (B).

The species has not been found before within the area. Nor does it occur in other places along the coast south of Scoresby Sound, but is rather commonly distributed along the west coast and in Northeast Greenland. The species is usually regarded by systematists as very

ancient (cf. e. g. FERNALD (12—17)). It seems natural to assume that it has immigrated into Greenland at a very early date, and has later, during the Glacial Period, been ousted from the southeast coast with the exception of the single locality in the Akernernârmîn part, where I consider it as a relict from a pre- or interglacial warm period. Judging from its present distribution in Greenland as well as elsewhere it is decidedly a continental species.

107. *Erigeron eriocephalus* J. VAHL.

Ũmmánaq part: Annât (Bg!).

It is only with some hesitation that I have referred the specimens brought back from Annât to this species. It is not represented among the material previously brought back from this district, and seems to not having been found on the east coast south of Scoresby Sound.

108. *Erigeron unalaschkensis* (Dc) VIERH.

Aneritêq part: Cape Tordenskjold (E!). — Ũmmánaq part: West of Pilerqit (Bg!).

The specimen collected at Cape Tordenskjold has been determined by VIERHAPPER. Those brought back by BØGVAD conform so closely with VIERHAPPER'S specimens in the Herbarium that the correctness of the determinations can hardly be doubted. The species occurs, though rarely, along the whole east coast as far north as 75° N. lat.

109. *Erigeron uniflorus* L.

Lindenow part: Alik (Bg!); Kangertuaraq (E!). — Aneritêq part: Cape Tordenskjold (E!). — Ũmmánaq part: Nunat (Bg!); Griffenfeld Island (E!); West of Pilerqit (Bg!). — Akernernârmîn part: Eqalimmîn (GRAAH); Qimisa Island (GRAAH).

The most common of the *Erigeron* species, but this, too, is comparatively rare.

110. *Gnaphalium norvegicum* GUNN.

Lindenow part: Nunatsuk (S); Alik (Bg!); Head of Lindenow Fjord, north coast (Bg!); Tininnertôq (H!); Narssaq (L!, Bg!); Sagtia (E); Nanîseq (V!); Nagtoralik (Sig); Mortensberget (Sig); Cape Walløe (Bg!). — Kangertiluk part: Kûttîn (Bg!); Cape Discord (Bg!); North of Ilivileq Island (Bg!); Syenitbugt (Bg!); S. W. of Cape Trolle (Bg!). — Aneritêq part: Kaniorqat (E!). — Timmiarmîn part: Nagtoralik (Bg!). — Akernernârmîn part: North coast of Inigssuarmîn (Bg!); Eqalimmîn (GRAAH).

Common to the south, rarer towards the north. It extends to Ammagssalik, where it is rare and has its northern limit (35, p. 260).

111. *Gnaphalium supinum* L.

Lindenow part: Nunatsuk (S, P!); Alik (Bg!); Narssaq (L!, Bg!); Cape Walløe (Bg!); Mortensberget (Sig). — Kangertiluk part: Kûttîn (Bg!); Kangertiluk (V!); S. W. of Cape Trolle (Bg!); Tâterait (E!). — Aneritêq part: Aneritêq (V!); Takissoq Island (Bg!); Puisertoq (E!). — Timmiarmîn part: Nagtoralik (Bg!); Eqalimmîn (Bg!); Sarpap qaliva (Bg! . — Ũmmánaq part: Griffenfeld Island (E, H!); Annât (Bg!). -- Akernernârmîn part: Nukarpik (Bg!).

Here and there. Has probably often been overlooked by the collectors.

Hieracium.

The *Hieracium*-material has been studied by Dr. phil. S. O. F. OMANG, who in a special chapter of this paper (p. 112 et seq.) gives a closer discussion of the species collected by the 6th and 7th Thule Expeditions together with a treatment of some of the older specimens brought home from the southern and southeastern parts of Greenland. I am very thankful to Dr. OMANG for his interest and the great help he has given me.

112. *Hieracium alpinum* (L.) BACKH.

Lindenow part: Nunatsuk (S, E!); Alik (Bg!); Tininnertôq (H!, Bg!); Nanîseq (V). — Timmiarmîn part: Igtermîn (B); Lomvattnet (B); Ikerasaq (Bg!); Timmiarmîn (H!). — Ũmmánaq part: Nunat (Bg!); Ũmmánaq Fjord (E!); Pilerqit (B); Vogtsbu (B); Annât (Bg!). — Akernernârmîn part: Caroline Amalie Hbr. (Bg!) Eqalimmîn (GRAAH, B, Bg!); Eskimonæsset (H!); Itivtersûp akia (H!); North coast of Skjoldungen (B); Nukarpik (Bg!); Finnsbu (B); Imarsivik (B); Eidsdalen (B); Kikut (B); Qimisa (GRAAH). — Umîvik part: Nordenskiölds Nunatak (B).

The commonest of the *Hieracium*-species. See also p. 113.

113. *Hieracium amitsokense* (ALMQU.) DAHLST.

In the Herbarium of the Botanical Museum of Copenhagen there is found a specimen collected by VAHL and marked "E Groenlandia orientali", which may thus have been found in the area in question. The species has not been observed by the latest expeditions. Cf. p. 117.

114. *Hieracium groenlandicum* (A. T.). ALMQU.

Lindenow part: Tininnertôq (H!); Narssaq (L!); Mortensberget (Sig). — Kangertiluk part: Igîssat Fjord (Bg!). — Timmiarmîn part: Lomvattnet (B). — Ũmmánaq part: Ũmmánaq Fjord (E!); Vogtsbu (B); Annât (Bg!). — Akernernârmîn part: Eqalimmîn

(B, H!); North coast of Skjoldungen (Bg!); Itivtersûp akia (H!); Finnsbu (B); Trollfjordseidet (B).

For further particulars, see the treatment by Dr. OMANG in p. 117.

115. *Hieracium hyparcticum* ALMQU.

Lindenow part: North coast of Lindenow Fjord (Bg!); Naniseq (V!, Bg!). — Kangertiluk part: Kûttîn (E!, Bg!). — Aneritêq part: Kaniorqat (E!). — Ũmmánaq part: Vogtsbu (B). — Akernernârmîn part: Eskimonæsset (H!); Eidsdalen (B); Kikut (B).

The discussion by Dr. OMANG on this species, is found in p. 113.

116. *Hieracium ivigtutense* (ALMQU.) OMANG.

Kangertiluk part: Kangertiluk (V!).

See p. 116.

117. *Hieracium lividorubens* ALMQU.

Lindenow part: Nunatsuk (E!); Tininnertôq (H!); Narssaq (Bg!).

In addition a specimen is found in Copenhagen labelled "E Groenlandia orientali, J. Vahl" without my closer indication of the place.

Dr. OMANG's remarks on the species are found in p. 114.

118. *Hieracium nepiocratum* n. sp. OMANG.

In p. 120. Dr. OMANG discusses this new species, which has only been found in one single place, viz. Tininnertôq, by HOLTVED.

119. *Hieracium stelechodes* OMANG.

In his previous paper on the *Hieracium*-species of South-east Greenland (47, p. 4), Dr. OMANG erects this new species on material found by BJØRLYKKE in Eqalimmîn. The species has not been found in this place nor in other places by the latest Danish expeditions. (Cf. also p. 107).

Taraxacum.

The material of this species collected by the 6th and 7th Thule Expeditions has kindly been determined by Dr. H. DAHLSTEDT, Stockholm, who has likewise gone through the greater part of the *Taraxacum* material of the Botanical Museum of Copenhagen.

120. *Taraxacum croceum* DT.

Lindenow part: Head of Lindenow Fjord, north coast (Bg!); Tininnertôq (H!). — Kangertiluk part: Head of Danell Fjord (Bg!); Syenitbugt (Bg!). — Aneritêq part: Cape Tordenskjold (E!); Cape Rantzau (Bg!); Karqin akernan (E!). — Ũmmánaq part: Annât (Bg!). — Akernernârmîn part: Watkins Depot (Bg!); Qimisa (GRAAH!).

This is the only of the *Taraxacum* species that seems to be fairly common on the southeast coast. Among the material Dr. DAHLSTEDT has found several modifications which should be subjected to a closer examination.

121. *Taraxacum purpuridens* DT.

Akernernârmîn part: Itivtersîp akia (H!); Nukarpik (Bg!).

This species has not been previously recorded from Greenland, and is not represented in our Arctic Herbarium. Otherwise its area of distribution is the central and northern parts of Sweden and Norway and Northern Finland[1]).

122. *Trimorpha borealis* VIERH.

(*Erigeron alpinus* L., *E. neglectus* KERN.).

Lindenow part: Lindenow Fjord (E!); Tininnertôq (H!); Narssaq (L!). — Kangertiluk part: Ilivileq Island (!).

The species is further recorded (under the name of *E. alpinus* L.) from Cape Griffenfeld (E), Cape Rantzau (E), and Eqalimmîn (GRAAH), but since I have not seen these specimens, I prefer to regard Ilivileq Island (65°51′ N. lat.) as the northern limit of the species in East Greenland until closer investigations have been made. According to OSTENFELD it is an "Old Norse Plant". I agree, however, with PORSILD in his statement that" there is nothing to support OSTENFELD's theory of its introduction by the Norse settlers" (57, p. 72).

DIAPENSIACEAE.

123. *Diapensia lapponica* L.

Lindenow part: Nunatsuk (P!); Alik (V); Qerertatsiaq (E!); Tininnertôq (H!); Igtukulik (H!); Narssaq (L!); Nanîseq (V!, Bg!). — Kangertiluk part: Igîssat Fjord (Bg!). — Aneritêq part: North of Cape Tordenskjold (Bg!); Aneritêq (V). — Ũmmánaq part: Griffenfeld Island (E, Bg!); West of Pilerqit (Bg!).

Here and there throughout the area.

ERICACEAE.

124. *Bryanthus coeruleus* (L.) DIPPEL.

Lindenow part: Nunatsuk (S); Alik (V, Bg!); Kangerajik (S!); Head of Lindenow Fjord (Bg!); Igtukulik (L!); Nanîseq (V!, Bg!); Cape Walløe (Bg!); Mortensberget (Sig); Kangertuaraq (E!). — Kangertiluk part: Kûttîn (Bg!); Head of Danell Fjord (Bg!); Cape Discord (Bg!); North of Ilivileq Island (Bg!); Sarqap nûa (E); Igîssat Fjord (Bg!). — Aneritêq part: North of Cape Tordenskjold (Bg!); Aneritêq

[1]) DAHLSTEDT, H.: De Svenska Arterna av Släktet Taraxacum. — Kungl. Sv. Vet. Akad. Handlingar Bd. 9; No. 2, 1930 p. 70.

(V!); Cape Rantzau (Bg!). — Timmiarmîn part: Eqalimmîn (Bg!); Takissoq (Bg!); Timmiarmîn (Bg!); Bratnes (Sig); Sarpap aqaliva (Bg!). — Ũmmánaq part: Griffenfeld Island (E!); West of Pilerqit (Bg!); Sarpap aqaliva (Bg!). — Ũmmánaq part: Griffenfeld Island (E!); West of Pilerqit (Bg!). — Akernernârmîn part: Eqalimmîn (Graah!); Nukarpik (Bg!).

Common throughout the district.

125. *Cassiope hypnoides* (L.) Don.

Lindenow part: Nunatsuk (P!); Alik (S); Southern branch of Lindenow Fjord (Bg!); Narssaq (L!); Nanîseq (V!); Straumen (Sign). — Kangertiluk part: Sarqap nûa (E!); Kangertiluk (V!). — Aneritêq part: Aneritêq (E!); Qutteq Island (Bg!); Cape Rantzau (Bg!); Puisertoq (E). — Timmiarmîn part: Takissoq (Bg!). — Ũmmánaq part: Griffenfeld Island (Bg!); West of Pilerqit (Bg!). — Akernernârmîn part: Eskimonæsset (H!).

Here and there in damp places.

126. *Loiseleurea procumbens* (L.) Desv.

Lindenow part: Nunatsuk (S!); Alik (V); Southern branch of Lindenow Fjord (Bg!); Narssaq (L!, Bg!); Nanîseq (V); Nagtoralik (Sig); Straumen (Sig); Mortensberget (Sig). — Kangertiluk part: Ivimîn (Bg!); Cape Discord (Bg!); Sarqap nûa (V). — Aneritêq part: North of Cape Tordenskjold (Bg!); Aneritêq (V); Akia Peninsula (Bg!); Cape Rantzau (Bg!); Puisertoq (E). — Timmiarmîn part: Kangertup pava (E!); Takissoq (Bg!). — Akernernârmîn part: Eskimonæsset (H!).

Rather common.

127. *Rhododendron lapponicum* (L.) Wbg.

Aneritêq part: Aneritêq (V!). — Ũmmánaq part: Griffenfeld Island (E!). — Akernernârmîn part: Head of Lommefjord (Bg!).

Seems to be much rarer in this district and in Ammagssalik than in the more northerly parts of East Greenland.

128. *Vaccinium uliginosum* (L.).

Lindenow part: Alik (Bg!); Head of Lindenow Fjord (Bg!); Tininnertôq (H!); Northern branch of Lindenow Fjord (Bg!); Narssaq (L!); Nanîseq (V!, Bg!); Straumen (Sig); Mortensberget (Sig). — Kangertiluk part: Kûttîn (Bg!); Head of Danell Fjord (Bg!); North of Ilivileq Island (Bg!); Sarqap nûa (V!); Kangertiluk (V!); Igîssat Fjord (Bg!); Tâterait (Bg!). — Aneritêq part: North of Cape Tordenskjold (Bg!); Cape Rantzau (Bg!); Kangeq (V!). — Timmiarmîn part:

Nagtoralik (Bg!); Eqalimmîn (Bg!); Takissoq (Bg!); Timmiarmîn (H!, Bg!); Ikerasaq (Bg!). — Ũmmánaq part: Nunat (Bg!); West of Pilerqit (Bg!); Ebbas Havn (H!). — Akernernârmîn part: South coast of Skjoldungen (Bg!); Eqalimmîn (GRAAH!, H!); Eskimonæsset (H!); Nukarpik (Bg).

Seems to be very common along the whole coast.

GENTIANACEAE.

129. *Gentiana nivalis* L.

Lindenow part: Kangertuaraq (E). — Kangertiluk part: Kangertiluk (V!). — Timmiarmîn part: Qerertaq (E). — Ũmmánaq part: Nunat (Bg!); Ũmmánaq Fjord (E!); Annât (Bg!). — Akernernârmîn part: Eskimonæsset (H!).

Rare.

LABIATAE.

130. *Thymus arcticus* DUR.

(*Thymus serpyllum* L. *var. prostrata* HORN.).

Lindenow part: Nunatsuk (V); Alik (Bg!); Southern branch of Lindenow Fjord (Bg!); Tininnertôq (H!, Bg!); Lindenow Fjord (E!); Narssaq (L!); Nanîseq (V!). — Timmiarmîn part: Timmiarmîn (Bg!); North of Igtitarajugtoq Island (Bg!). — Ũmmánaq part: Ũmmánaq Fjord (E!); Annât (Bg!). — Akernernârmîn part: Eqalimmîn (H!, Bg!); Eskimonæsset (H!).

Rather common throughout the area.

LENTIBULARIACEAE.

131. *Pingvicula vulgaris* L.

Lindenow part: Alik (S!); Kangerajik (S!); Nanîseq (V!). — Kangertiluk part: Kùttîn (E!). — Aneritêq part: Karqin akernan (E!); Puisertoq (E!). — Timmiarmîn part: Eqalimmîn (E). — Ũmmánaq part: Griffenfeld Island (E). — Further it is recorded by VAHL from Ikertôq on the east coast which it has proved impossible to locate (cf. p. 18).

Seems to be of rather sporadic occurrence. Not found by the most recent expeditions.

PIROLACEAE.

? *Pirola grandiflora* RAD.

This species is mentioned in OSTENFELD's list (51). It is, however, not mentioned in the literature, and I have been unable to find any specimen in the Herbarium. Hence, for the time being, it should not probably be included in the list of the plants occurring in this area, and we agree with BÖCHER in assuming that in East Greenland the species has its southern limit in Ammagssalik, where it occurs in the interior

of the fjords only. Throughout its area of distribution it is a continental species (cf. p. 000).

132. *Pirola minor* L.

Lindenow part: Nunatsuk (S, P!); Alik (V!); Tininnertôq (Bg!); Nanîseq (V!). — Kangertiluk part: Kûttîn (Bg!); Ivimîn (V!); North of Ilivileq Island (Bg!); Kangertiluk (V!, E!); Syenitbugt (Bg!); S. W. of Cape Trolle (Bg!). — Aneritêq part: Pâtussok (Bg!); Kaniorqat (E!). — Ũmmánaq part: Griffenfeld Island (E!); Annât (Bg!).

Here and there.

PLANTAGINACEAE.

133. *Plantago juncoides* Lam. *var. glauca* Hornem.

Lindenow part: Alik (V); Tininnertôq (H!); Igtukulik (H!); Nanîseq (V!). — Kangertiluk part: Ivimîn (V!); Karqa (E). — Aneritêq part: Aneritêq (E!).

A rare species, found by the most recent expeditions in Lindenow Fjord only. Its northern limit in East Greenland is in 65°37′ N. lat. (35, p. 247).

PLUMBAGINACEAE.

? *Armeria vulgaris* Willd. *var. sibirica* (Turcz.) Rosenv.

Listed by Ostenfeld as occurring within the area. No doubt, however, it has not been brought back by any of the expeditions, since it is not mentioned in the previous literature, nor is any specimens from this district found in the Herbarium. Hence, for the time being, it should probably be disregarded until more precise records are available; as it has been found both in South Greenland and, though rarely, in Ammagssalik (35, p. 247), the species may very likely occur within the area.

SCRUPHULARIACEAE.

134. *Bartschia alpina* L.

Lindenow part: Nunatsuk (S); Alik (V, Bg!); Kangerajik (S); Tininnertôq (Bg!); Igtukulik (L!); Nanîseq (V!); Nagtoralik (Sig); Cape Walløe (Bg!); Mortensberget (Sig). — Kangertiluk part: Kûttîn (Bg!); Ilivileq Island (E); Kangertiluk (V!). — Timmiarmîn part: Nagtoralik (Bg!). — Ũmmánaq part: Griffenfeld Island (E, Bg!); Annât (Bg!). — Akernernârmîn part: Eqalimmîn (Graah); Eskimonæsset (H!); Qimisa Island (Graah!).

Rather commonly distributed.

135. *Euphrasia latifolia* Pursh.

Lindenow part: Tininnertôq (H!, Bg!); Narssaq (E!, L!). — Ũmmánaq part: Ũmmánaq Fjord (E!). — Akernernârmîn part: (Graah, Bg!).

Seems to be very rare. Has only been found in the most sheltered places at the head of the fjords. A continental species.

136. *Limosella aquatica* L.

Akernernârmîn part: Myrodden (B), 63°35′ N. lat.

New to East Greenland, found by BJØRLYKKE (3, p. 7).

137. *Pedicularia flammea* L.

Lindenow part: Narssaq (L!). — Kangertiluk part: Qasingortoq (E!); Kangertiluk (V!). — Aneritêq part: Cape Tordenskjold (E!). — Ũmmánaq part: West of Pilerqit (Bg!).

Seems to be considerably rarer here than in the more northerly tracts of East Greenland.

138. *Rhinanthus groenlandicus* CH. & A.

Lindenow part: Nunatsuk (S); Head of Lindenow Fjord, north coast (Bg!); Tininnertôq (H!, Bg!); Narssaq (E!, L!, Bg!); Nanîseq (V).

Seems to be of rather frequent occurrence in the interior of Lindenow Fjord. The species has its northern limit in East Greenland within this part, viz. in Nanîseq in 60°30′ N. lat.

139. *Veronica alpina* L.

Lindenow part: Nunatsuk (S, P!); Alik (V!, Bg!); Nanîseq (V); Mortensberg (Sig); Cape Walløe (Bg!). — Kangertiluk part: Kûttîn (E, Bg!); Serqap nûa (E); Kangertiluk (V); Syenitbugt (Bg!); Ingitait (E); Igîssat (Bg!). — Aneritêq part: Cape Tordenskjold (E); Cape Rantzau (Bg!). — Timmiarmîn part: Timmiarmîn (Bg!); Lomvattnet (B). — Ũmmánaq part: Griffenfeld Island (E). — Akernernârmîn part: Eqalimmîn (GRAAH).

As far as I can make out, the greater part of the material belongs to var. *villosa* WORMSKJ. A revision of the Arctic *V. alpina* forms and their various names is, however, much needed. I have been contemplating to undertake such a revision, but has, for the time being, postponed it, all our Greenland material being lent out to Professor LEHMANN, Tübingen, who will probably publish a monograph on the *Veronica* species. Hence it has been impossible for me to obtain information about Professor LEHMANN's view as to the *Veronica* forms of South-east Greenland, so for the present we must content ourselves to await the appearance of Professor LEHMANN's paper.

140. *Veronica fructicans* (L. fil.).

Lindenow part: Alik (Bg!); Narssaq (L!). — Kangertiluk part: Kûttîn (E!); Ilivileq (E!); Kangertiluk (V!). — Aneritêq part: Karqin akernan (E!). — Ũmmánaq part: Ũmmánaq Fjord (E!); Annât (Bg!). — Akernernârmîn part: Eqalimmîn (GRAAH!); Qimisa (GRAAH).

Rather common.

MONOCOTYLEDONES

CYPERACEAE.

141. *Carex alpina* Sw.
(*Carex Halleri* Gunn.).

Ũmmánaq part: Rudi Island (B). — Akernernârmîn part: North coast of Skjoldungen (B).

A rare species, first found within this district by the Norwegian expedition in 1931. On the east coast it has further been found in Scoresby Sound and in a few places north of this sound (68).

142. *Carex atrata* L.

Lindenow part: Tininnertôq (Bg!). — Ũmmánaq part: Ũmmánaq Fjord (E!).

This plant, like the preceding species, seems to be rare within the area in question. It has its northern limit in Ammagssalik, whence it is known from a few localities, the northernmost of which is in 66°20′ N. lat. (4, p. 13).

143. *Carex brunescens* (Pers.) Poir.

Lindenow part: Ikertôq (V!); Straumen (Sig).

This species has been brought back from the east coast more rarely than the preceding species. In addition to the two localities mentioned above, it has only been found in a single locality on the east coast, viz. by Ammagssalik in 65°56′ N. lat. (35, p. 274).

144. *Carex canescens* L.

Lindenow part: Nanîseq (V!). — Kangertiluk part: Ivimîn (V!). — Aneritêq part: Aneritêq (V!). — Akernernârmîn part: Eskimonæsset (H!).

The last-mentioned locality is the northernmost locality of the species so far observed (63°30′ N. lat.).

145. *Carex capillaris* L.

Ũmmánaq part: Ũmmánaq Fjord (E!).

The species has not been found by the most recent expeditions to the area. It probably belongs to the group of species that are far commoner in the more northerly parts of East Greenland.

146. *Carex capitata* SOLAND.

Lindenow part: Ikertôq (V!). — Aneritêq part: Kangeq (V!).

Agrees with the preceding species in its evidently rare occurrence within the area. Not found by the most recent expeditions.

147. *Carex deflexa* HORN.

Lindenow part: Nanîseq (V!). — Kangertiluk part: Sarqap nûa (V). — Aneritêq part: Puisertoq (E!).

This species, too, has not been found by the latest expeditions. The three isolated localities mentioned above are the only ones so far known from the east coast, where, for the time being, its northern limit must be drawn at the Puisertooq Glacier in 61°56′ N. lat.

148. *Carex glareosa* WBG.

Lindenow part: Nanîseq (V!). — Kangertiluk part: North of Ilivileq Island (Bg!); Sarqap nûa (V!); Kangertiluk (V!); Syenitbugt (Bg!); Ingitait (E!). — Aneritêq part: Aneritêq (V!); Kangeq (V!). — Timmiarmîn part: Eqalimmîn (E!); Ikerasak (Bg!). — Ũmmánaq part: Griffenfeld Island (E!). — Akernernârmîn part: Caroline Amalie Hbr. (Bg!); Nukarpik (Bg!). — Umîvik part: Skerry near Umîvik (Bg!).

Seems to be rather common throughout the district. Judging from the collections brought back this species, the succeeding species, and *Carex rigida* are the only fairly common *Carex* species.

149. *Carex Lachenalii* SCHK.

Lindenow part: Nunatsuk (S!, P!); Alik (V!, Bg!); Ikertôq (V!); Opposite Tininnertôq (Bg!); Cape Walløe (Bg!). — Kangertiluk part: Kûttîn (Bg!); Head of Danell Fjord (Bg!); Ivimîn (V!); Cape Discord (Bg!); Kangertiluk (V!). — Aneritêq part: Takissoq Island (Bg!); Napassortivaq (Bg!); Cape Rantzau (Bg!). — Timmiarmîn part: Nagtoralik (Bg!); Timmiarmîn (Bg!). — Akernernârmîn part: Krumpen Fjord (Bg!).

Apparently common throughout the area. Curiously enough it seems to be rarer in Ammagssalik, but grows commoner again in the northern part of East Greenland.

150. *Carex Macloviana* D'URV.

Lindenow part: Tininnertôq (Bg!). — Ũmmánaq part: Pilerqit (B). — Akernernârmîn part: Finnsbu (B); Eqalimmîn (B); Eidsdal (B); Trollfjordseidet (B); Myrodden (B).

The species is marked with a point of interrogation in OSTENFELD's list (51, p. 64). The collections of the most recent expeditions, especially

BJØRLYKKE's in 1931 (3, p. 6), show that the species is rather commonly distributed within the area.

151. *Carex nardina var. Hepburnii* BOOTT.

Akernernârmîn part: Bjørlykkeneset (B); Eqalimmîn (B); Trollfjordseidet (B); Head of Trollfjorden (B).

This species, too, is indicated as doubtful in OSTENFELD's list (51). Within this area it seems to be restricted to the inner ramifications of the Akernernârmîn Fjord complex, where the Norwegian expedition in 1931 found it in the above-mentioned places. This in connection with its wide distribution in the fjord complexes north of Scoresby Sound seem to be a definite proof of its partiality to a continental climate.

152. *Carex rariflora* (WBG.) SM.

Lindenow part: Narssaq (L!); Nanîseq (V!). — Kangertiluk part: Ivimîn (V!); Sarqap nûa (E!). — Aneritêq part: Island near Puisertoq (Bg!); Ingerqiarqe (E!). — Timmiarmîn part: Qerertaq (E!). — Ũmmánaq part: Griffenfeld Island (E!).

Here and there.

153. *Carex rigida* GOOD.

Lindenow part: Nunatsuk (E!, P!); Alik (V!); Head of Lindenow Fjord, south coast (Bg!); Head of Lindenow Fjord, north coast (Bg!); Tininnertôq (H!); Lindenow Fjord (V!); Narssaq (L!, Bg!); Nanîseq (V!, Bg!); Ikertôq (V!); Cape Walløe (Bg!); Mortensberget (Sig). — Kangertiluk part: Kûttîn (E!); Head of Danell Fjord (Bg!); Ivimîn (V!, Bg!); Ilivileq Island (E!); North of Ilivileq Island (Bg!); Sarqap nûa (E); Kangertiluk (V!); Syenitbugt (Bg!); Ingitait (E!); S. W. of Cape Trolle (Bg!); Tâterait (E!); Head of Puiagtoq Fjord (Bg!). — Aneritêq part: North of Cape Tordenskjold (Bg!); Akia Peninsula (Bg!); Aneritêq (V!); Cape Rantzau (Bg!); Kangeq (V!); Puisertoq (E!); Ingerqiarqe (E!). — Timmiarmîn part: Eqalimmîn (Bg!); Takissoq (Bg!); Timmiarmîn (Bg!); Qerertaq (E!); Sarpap aqaliva (Bg!). — Ũmmánaq part: Griffenfeld Island (Bg!); Annât (Bg!). — Akernernârmîn part: Eqalimmîn (H!); Eskimonæsset (H!).

The most common of all the *Carex* species, occurring in a large number of the localities visited. Here, like in other parts of Greenland, it is extremely variable. The specimens brought back have formerly been described under various names (e. g. *C. hyperborea* DREY (ex parte), *C. Dreyeriana* LGE., *C. Warmingii* HOLM., *C. Fyllae* HOLM.). Later investigations, however, seem to show that these species pass evenly into each other, and hence they are now regarded as one species with a wide margin of variation. A close study of the different forms is highly needed. I have not attempted to make a division of the South-east Greenland

material, since such a division should be made in connection with more comprehensive investigations. Among the specimens at hand the variety *Biglorii* (TUCK) is, however, rather easily distinguishable. This plant occurs in company with the main species in several places, thus at Eskimonæsset, Narssaq, and Ingitait. Another variety, *Carex rigida var. concolor* R. BR., from Nunatsuk, has been determined by PORSILD. Part of the material is no doubt mixed with other species; thus I consider it for certain that the hybrid *C. rigida* GOOD. × *Goodenoughii* GAY, which is rather common where the two species occur together (cf. Flora arctica, 48, p. 72), is represented in the material. As far as I have been able to make out, *Carex Goodenoughii*, it is true, does not occur within the area in question, but the locality for the hybrid, Narssaq in Lindenow Fjord, is not particularly distant from the area of distribution of *C. Goodenoughii* in South Greenland. In other localities, too, in Lindenow Fjord there occur forms which seem to include specifically different elements.

154. *Carex rotundata* WBG.

Lindenow part: Nunatsuk (P!). — Kangertiluk part: Tâterait (Bg!); Karqa (E!). — Akernernârmîn part: Eskimonæsset (H!).

A rare species, only found in very few localities on the east coast between the southern point of Greenland and Scoresby Sound.

155. *Carex rufina* DREY.

Lindenow part: Nunatsuk (P!); Naniseq (V!). — Aneritèq part: North of Cape Tordenskjold (Bg!). — Akernernârmîn part: Finnsbu (B); Kikut (B). — Umîvik part: Gyldenlöves Nordsund (B).

Apart from VAHL's locality in Naniseq this species has only been recorded from Greenland in the most recent years. Considering the distribution of the species in Iceland and Scandinavia, the finding of it is in no way surprising. In addition to the above-mentioned localities, the northernmost of which are due to the Norwegian expedition in 1931, a specimen from Ammagssalik (Kinguarssuak, 66°08′ N. lat.) is found in the Herbarium (under the name of *C. glareosa*. The determination of this specimen to *Carex rufina* is due to THORV. SØRENSEN, who has made a critical revisio nof the *Carex* material of the Arctic Herbarium. In the determination of the more difficult species from this area I have likewise been helpfully assisted by Mr. SØRENSEN, for which I owe him a great debt of gratitude). The species has further been found in a single place north of Ammagssalik in 66°20′ N. lat. (see BØCHER 4, p. 13).

156. *Carex salina* WAHL.

Lindenow part: Nunatsuk (P!).

Among the rather variable forms of this species PORSILD (56, p. 13)

consider the specimens from this locality to be very closely related to the main type. Here they occurred without any mixture of halophilous species, but all the specimens were immature and cannot be definitely identified.

157. *Carex saxatilis* L.

Kangertiluk part: Karqa (E). — Ũmmánaq part: Rudi Island (B). — Akernernârmîn part: Finnsbu (B).

Unfortunately I have seen no specimens of this species from the district here treated. EBERLIN's specimens from Karqa do not seem to exist any longer. It is obvious from OSTENFELD's list (51, p. 65), in which it is not mentioned, that he has not placed confidence in EBERLIN's record of the species. Within Greenland the species has a strikingly northern distribution, and it seems to me rather improbable that it should be found south of Scoresby Sound, and this view agrees with the fact that it has not been found by BØCHER (4). It may present a a superficial resemblance to *C. rotundata*, and hence there is a possibility that the Norwegian records (3, p. 7) may be due to a confusion with this species.

158. *Carex scirpoidea* MICH.

Lindenow part: Narssaq (L!); Nanîseq (V!); Nagtoralik (E!). — Timmiarmîn part: Ikerasak (Bg!). — Ũmmánaq part: Griffenfeld Island (E!); West of Pilerqit (Bg!). — Akernernârmîn part: South coast of Inigssuarmîn (Bg!).

Seems to be rather rare within the district.

159. *Carex subspathacea* WORMSKJ.

Lindenow part: Nanîseq (V!).

This small species is, as a rule, overlooked by the collectors, which is probably the reason why it has not been found in other places within the area.

160. *Carex stylosa* C. A. MEY.

Lindenow part: Alik (V!); Southern branch of Lindenow Fjord (Bg!); Narssaq (L!, Bg!); Nanîseq (V!); Cape Walløe (Bg!); Mortensberget (Sig); Ikertôq (V!). — Timmiarmîn part: Langholmen (B). — Ũmmánaq part: Vogtsbu (B).

Prior to the finding of the species by the Norwegian expedition in 1931 it had not been found north of 61°00′ N. lat., but its northern limit has thus been removed to 63°08′ N. lat. OSTENFELD lists it (51, p. 18) among the species that have probably been introduced by the old Norsemen. The most recent finds seem to speak against this view. Moreover PORSILD (57, p. 47) adds several reasons for assuming that the species has immigrated from America without the agency of man.

If so, it is only curious that in East Greenland the species extends farther northward than in West Greenland (northern limit 62°30′ N. lat.).

161. *Elyna Bellardii.*

Akernernârmin part: Bjørlykkeneset (B).

The species was first found by the Norwegian expedition in 1931 in the above locality. Its isolated occurrence here in connection with its very rare occurrence in Ammagssalik (35, p. 272) and farther north, where it has only been found in the interior of Kangerdlugssuak (4, p. 00), in contrast to its frequent distribution in the fjords north of Scoresby Sound proves its dependency on a continental climate (cf. p. 102 and the map of the distribution of the species within Greenland in fig. 21).

162. *Eriophorum polystachyum* L.

Lindenow part: Nunatsuk (S, P!); Alik (Bg!); Dr. Louise Island (E!); Narssaq (L!); Nanîseq (V!, E!, Bg!); Kkertôq (V!); Mortensberget (Sig). — Kangertiluk part: Ivimin (V!); Cape Discord (Bg!); Kangertiluk (V); Ingitait (E!); Tâterait (Bg!). — Aneritêq part: North of Cape Tordenskjold (Bg!); Kaniorqat (E!).

It appears from OSTENFELD's list (51, p. 66) that the species occurs all along the Greenland coast. It is, however, interesting to note that according to the investigations of the most recent expeditions to East Greenland there is a peculiar gap in the distribution of this plant. The species is not mentioned in KRUUSE's list of the plants of the Ammagssalik district (35), nor do we find any specimens from this region in the Herbarium. In the latest work on the flora between Ammagssalik and Scoresby Sound by BOCHER (4, p. 17) it is stated that the species has not been found between these two points. While the species is of common occurrence along the whole west coast as well as in the southernmost part of the area here treated, it seems to disappear suddenly at Kaniorqat (61°37′ N. lat.) and does not appear again until at Scoresby Sound, where it is rather common (cf. fig. 22, p. 104).

The problem now arises how this peculiar distribution is to be accounted for. There is no obvious reason for it, yet it is not quite impossible that the species may have immigrated from the north and have spread partly southwards along the west coast to an area round the southern point of Greenland, and up along the east coast, partly, and more slowly, around the north of Greenland and down along the east coast (cf. the map showing the distribution of the species in Greenland, fig. 22). Thus it may be supposed, either that the species, as assumed by OSTENFELD (51, p. 46), has survived the last glaciation in unglaciated areas in northern Greenland — a theory which THORV. SØRENSEN, GELTING, and myself find rather attractive as regards several East

Greenland plants — or it may have migrated from the unglaciated areas in North America via Smith Sound and the other northerly sounds to Greenland. According to our present knowledge of its distribution it seems least probable that it should have immigrated by way of Europe-Iceland. But otherwise we cannot disregard the possibility that the species lack some conditions unknown to us and essential for its existence in the area from 61°37′ N. lat. to 70°00′ N. lat. (cf. p. 00).

163. *Eriophorum Scheuchzeri* HOPPE.

Lindenow part: Nunatsuk (S, P!); Alik (Bg!); Dr. Louise Island (Bg!); Tininnertôq (cf. fig. 3, p. 16); Narssaq (L!, Bg!); Nanîseq (V!); Cape Walløe (Bg!). — Kangertiluk part: Kûttîn (Bg!); Head of Danell Fjord (Bg!); Ivimîn (V!); Cape Discord (Bg!); North of Ilivileq Island (Bg!); Syenitbugt (Bg!); Ingitait (E); Head of Puisertoq Fjord (Bg!); Auarqat (Bg!). — Aneritêq part: Cape Tordenskjold (E!); North of Cape Tordenskjold (Bg!); Akia Peninsula (Bg!); Aneritêq (V!); Takissoq Island (Bg!); Rud Island (E!). — Timmiarmîn part: Nagtoralik (Bg!); Qerertaq (E). — Ũmmánaq part: Ebbas Havn (H!). — Akernernârmîn part: Caroline Amalie Hbr. (Bg!); Watkins Depot (Bg!); Eqalimmîn (H!); Eskimonæsset (H!); Nukarpik (Bg!).

Common along the whole coast, but not found between Nukarpik and Ammagssalik, where it is rare. The species is further rare between Ammagssalik and Scoresby Sound (BØCHER 4, p. 17).

164. *Scirpus caespitosus* L. *var. austriaca* (PALLA) ASCH.

Lindenow part: Nunatsuk (S!); Narssaq (L!, Bg!); Nanîseq (V!, E!); Ikertôq (V!). — Timmiarmîn part: Qerertaq (E!); Bratnes (Sig). — Ũmmánaq part: Griffenfeld Island (E).

Seems to be rare here as in the more northerly regions (cf. the map showing the distribution of the species within Greenland, BØCHER 4, p. 46).

165. *Agropyrum violaceum* (HORN.) LGE.

Lindenow part: Narssaq (L!).

The species is new to the east coast. It should, however, be remarked that according to kind information by the botanists that have been at work in Northeast Greenland, viz. GELTING, KOIE, and SØRENSEN, the species has been found in several localities north of Scoresby Sound. I therefore confine myself to referring the readers to the papers by GELTING and SØRENSEN, which will appear shortly (19, 68).

166. *Agrostis borealis* HARTM.
(*Agrostis rubra* L.).

Lindenow part: Nunatsuk (S!, P!); Alik (V!); Dr. Louise Island (Bg!); Northern branch of Lindenow Fjord (Bg!); Narssaq (L!); Nanîseq

(V!); Ikertôq (V!); Cape Walløe (Bg!); Mortensberget (Sig). — Kangertiluk part: Cape Discord (Bg!); Kangertiluk (V!); Syenitbugt (Bg!); Ingitait (E!); Igìssat Fjord (Bg!); Head of Puiagtoq Fjord (Bg!). — Aneritêq part: Kaniorqat (E); Ingerqiarqe (E). — Timmiarmîn part: Eqalimmîn (Bg!); Bratnes (Sig); Sarpap aqaliva (Bg!); North of Igtitararajugtoq Island (Bg!). — Ũmmánaq part: Griffenfeld Island (Bg!). — Akernernârmîn part: Eqalimmîn (H!); Nukarpik (Bg!). — Umîvik part: Krumpen Fjord (Bg!); Skerry near Umîvik (Bg!).

Seems to be rather common all along the coast.

167. *Agrostis canina* L.

Lindenow part: Tininnertôq (H!); Narssaq (Bg!).

Evidently very rare, having not been found between Lindenow Fjord and Ammagssalik, where it is likewise very rare.

168. *Anthoxanthum odoratum* L.

Ũmmánaq part: Vogtbu (B).

On the east coast the species has been found in this place only, viz. by the Norwegian expedition in 1931 (3, p. 5). This find is extremely interesting, since the species is placed by PORSILD (57, p. 44) among the six species which after a very critical examination he regards as having been introduced into South-east Greenland by the old Norsemen. The same view is held by ROSENVINGE (59) and OSTENFELD (51). The finding of the species in this place, far from the old settlements, shows that the plant may also spread to Greenland without the agency of man. Unfortunately BJØRLYKKE does not mention in his too summary enumeration under which conditions the plant occurred. We must therefore assume that the species has immigrated into Greenland without human agency, also into the southern area, and thus the number of undoubted "Old Norse Plants" should be reduced to five; or we are here concerned with an adventitious occurrence in South Greenland and a natural occurrence in East Greenland. Considering the nearly dominant character of the species in some places in South Greenland (cf. PORSILD l. c.) the latter conjecture is probably the most natural. We must, however, await possible new finds in East Greenland as well as information about the mode of growth of the species before the question can be fully settled.

169. *Calamagrostis Langsdorffii.*

Lindenow part: Alik (Bg!); Opposite Tininnertôq (Bg!); Head of Lindenow Fjord, north coast (Bg!); Tininnertôq (H!); Igtukulik (B!); Narssaq (L!, Bg!); Nanîseq (Bg!); Mortensberget (Sig). — Kangertiluk part: Kangertiluk (V!); Igìssat Fjord (Bg!).

The species seems to be more commonly distributed in Lindenow Fjord than has been previously assumed. Northern limit in East Greenland: 61°11′ N. lat.

170. *Calamagrostis neglecta* (Ehrh.) Gelert.

Timmiarmîn part: Timmiarmîn (Bg!); Eqalimmîn (H!).

By inserting this species in his list for this district Ostenfeld (51, p. 67) has shown that he considers it very possible that the species is represented here, although it is neither mentioned in the literature nor found in the Herbarium. This view has been confirmed by the two isolated finds by the recent expeditions.

171. *Deschampsis alpina* (L.) R. & S.

Lindenow part: Alik (V); Southern branch of Lindenow Fjord (Bg!); Tininnertôq (H!); Narssaq (L!); Nanîseq (V!); Nagtoralik (Sig); Cape Walløe (Bg!); Mortensberget (Sig). — Kangertiluk part: Kûttîn (Bg!); Head of Danell Fjord (Bg!); Ivimîn (V!); Cape Discord (Bg!); North of Ilivileq Island (Bg!); Syenitbugt (Bg!); Ingitait (E!); Tâterait (Bg!). — Aneritêq part: North of Cape Tordenskjold (Bg!); Akia Peninsula (Bg!). — Timmiarmîn part: Nagtoralik (Bg!).

Common in the southern part of the area, but seems to be absent between 62°26′ N. lat. and Ammagssalik, while north of Ammagssalik it is rather common (cf. Bøcher 4, p. 13). Nearly all the specimens collected are *f. vivipara.*

172. *Deschampsia flexuosa* (L.) Trin.

Lindenow part: Nunatsuk (S!); Alik (V); Tininnertôq (H!); Northern branch of Lindenow Fjord (Bg!); Narssaq (L!); Nanîseq (V!, Bg!); Nagtoralik (Sig); Cape Walløe (Bg!); Mortensberget (Sig). — Kangertiluk part: Ivimîn (Bg!); Tâterait (Bg!). — Timmiarmîn part: Bratnes (Sig). — Ũmmánaq part: Nunat (Bg!). — Akernernârmîn part: Eqalimmîn (H!); Eskimonæsset (H!); Nukarpik (Bg!).

Here and there. In addition to the main species, the material further contains some few specimens of *v. montana* (L.) Gremli. and *v. montana Subvar. pallida.*

173. *Elymus arenarius* L.

Lindenow part: Alik (V); Opposite Tininnertôq (Bg!); Tininnertôq (H!, Bg!), Narssaq (L!, Bg!); Nanîseq (V). — Kangertiluk part: Ivimîn (V!); Tâterait (Bg!). — Aneritêq part: Akia Peninsula (Bg!); Napassortivak (Bg!); Karqin aqernan (E). — Ũmmánaq part: West of Pilerqit (Bg!). — Akernernârmîn part: Eqalimmîn (Graah, H!); Eskimonæsset (H!, Bg!) (cf. fig. 16, p. 35); Itivtersîp akia (H!); Head of Lommefjord (Bg!).

Here and there, evidently most common in the interior of the fjords, where it has its northern limit in 63°32′ N. lat.

174. *Festuca ovina* L.

Lindenow part: Nunatsuk (P!); Alik (Bg!); Head of Lindenow Fjord, north coast (Bg!); Tininnertôq (H!); Nanîseq (V!, E!); Ikertôq (V!). — Kangertiluk part: Ivimîn (V!); Kangertiluk (V!); Syenitbugt (Bg!); Auarqat (Bg!). — Aneritêq part: Akia Peninsula (Bg!); Aneritêq (V!); Napassortivak (Bg!). — Ũmmánaq part: Griffenfeld Island (E!). — Akernernârmîn part: Watkins Depot (Bg!).

Common. Nearly all the specimens are viviparous (*f. vivipara* L.). Some of the older specimens are referred to different varieties, thus for instance *var. supina* (SCHUR) and *var. subcapitata* LGE. I have been unable to distinguish sharply between the various forms.

175. *Festuca rubra* L.

Lindenow part: Narssaq (L!); Tininnertôq (H!). — Kangertiluk part: Ivimîn (V!). — Ũmmánaq part: Ebbas Havn (H!). — Akernernârmîn part: Nukarpik (Bg!).

Rather rare within the area. *Var. arenaria* (OSB.) FR. occasionally occurs, but as far as I can make out, connected with the main species by transitional forms, and most frequently occurring in company with these.

176. *Hierochloë alpina* R. & S.

Kangertiluk part: Ingitait (E!). — Aneritêq part: Aneritêq (V!, E!); Patussoq (Bg). — Ũmmánaq part; Griffenfeld Island (H!, Bg!); West of Pilerqit (Bg!).

The species is much rarer here than in Northeast Greenland. It seems to be absent between Ũmmánaq (63°07′ N. lat.) and Kangerdlugssuak, where it has only been found in the interior of the fjord (4, p. 16). Thus the species seems to belong to the category of continental species described below in p. 102. OSTENFELD (51, p. 44) consider it very probable that the species has survived the last glaciation in unglaciated areas somewhere in the northern part of Greenland.

177. *Nardus strictus* L.

Lindenow part: Nunatsuk (P!); Narssaq (L!). — Ũmmánaq part: Vogtsbu (B). — Akernernârmîn part: Finnsbu (B); Kikut (B); Myrodden (B).

Very rare, and only found by the expeditions of the recent years. The species has its northern limit in East Greenland in 63°36′ N. lat. OSTENFELD refers it to the "Old Norse Plants", which is criticised, no doubt rightly, by PORSILD (57, p. 45), who discusses at some length its

occurrence and possible ways of migration. PORSILD knew nothing about the more northerly occurrence of the species in East Greenland, which makes his theory all the more probable.

178. *Phippsia algida* (SOLAND.) R. BR.

Lindenow part: Nanîseq (V!). — Aneritêq part: Island near Puisertoq (Bg!).

Seems to be very rare, or has possibly been overlooked to some extent.

179. *Phleum alpinum* L.

Lindenow part: Nunatsuk (S!); Alik (Bg!); Head of Lindenow Fjord, south coast (Bg!); Head of Lindenow Fjord, north coast (Bg!); Tininnertôq (H!, Bg!); Narssaq (L!, Bg!); Nanîseq (V!, Bg!); Nagtoralik (Sig); Cape Walløe (Bg!); Mortensberget (Sig). — Kangertiluk part: Kûttîn (Bg!); Head of Danell Fjord (Bg!); Ilivileq Island (E!); Cape Discord (Bg!); North of Ilivileq Island (Bg!); Kangertiluk (V!); Syenitbugt (Bg!); S. W. of Cape Trolle (Bg!). — Aneritêq part: Patussoq (Bg!). — Timmiarmîn part: Nagtoralik (Bg!); Timmiarmîn (H!, B!); Bratnes (Sig). — Ũmmánaq part: Nunat (Bg!); Annât (Bg!). — Akernernârmîn part: Eqalimmîn (H!).

Very common to the south, but rarer to the north. Occurs here and there in Ammagssalik. Northern limit in 68°31′ N. lat. (4, p. 12).

Poa.

The *Poa* species occurring within this area are rather difficult to determine, since we are here concerned with an area where representatives of the northern and southern species meet and are connected by transitional forms. Notably *Poa pratensis* is connected with its Arctic substitutes *Poa alpigena* and, in part, *Poa rigens*. Hence I have been unable to undertake a definite determination of several forms. It is desirable that the occurrence of the genus *Poa* as a whole in Greenland, more especially in its southern part, should be subjected to a thorough revision.

180. *Poa alpigena* (FR.) LINDB.

Lindenow part: Tininnertôq (Bg!); Ikertôq (V!. — Kangertiluk part: Ivimîn (V!); Kangertiluk (V!). — Aneritêq part: Aneritêq (V!). — Akernernârmîn part: Nukarpik (Bg!).

The species seems to be less common within the area in question than its more southerly substitute *Poa pratensis* L. (which see). The specimens from Tininnertôq should most probably be referred to *f. pyramidata* LINDB. Among the *Poa alpigena*-like material brought back from the locality Auarqat I have found what I take to be the hybrid

P. alpigena × *alpina*, another form from Tâterait (likewise in the Kangertiluk part) I have taken to be *P. alpigena* × *rigens*. As regards the palea and ligula characters, several forms are most closely related to *P. pratensis*, and are therefore listed under this species; a later critical revision, however, may possibly arrive at a different result.

181. *Poa alpina* L.

Lindenow part: Nunatsuk (S!); Head of Lindenow Fjord, south coast (Bg!); Head of Lindenow Fjord, north coast (Bg!); Northern branch of Lindenow Fjord (Bg!); Narssaq (L!, Bg!); Nanîseq (V!); Nagtoralik (Sig); Cape Walløe (Bg!); Mortensberget (Sig); Straumen (Sig. — Kangertiluk part: Kûttîn (Bg!); Ivimîn (V!); Cape Discord (Bg!); North of Ilivileq Island (Bg!); Kangertiluk (V!); Syenitbugt (Bg!). — Aneritêq part: Aneritêq (V!). — Timmiarmîn part: Nagtoralik (Bg!); Takissoq (Bg!); Bratnes (Sig); North of Igtitarajugtoq Island (Bg!); Sarpap aqaliva (Bg!). — Ûmmánaq part: Ebbas Havn (H!); Annât (Bg!). — Akernernârmîn part: South coast of Inigssuarmîn (Bg!); Eskimonæsset (H!); Nukarpik (Bg!).

A very common species. Occurs sometimes as *v. vivipara* (L.).

182. *Poa glauca* M. VAHL.

Lindenow part: Nunatsuk (S!, P!); Narssaq (L!).

Seems to be exceedingly rare within the area. Is stated in Consp. Fl. Groenl. to be commonly distributed throughout the whole of Greenland, and in OSTENFELD's list (51, p. 67) it is stated to occur between 61° and 65° N. lat. I have, however, not seen any specimens from the area in question. According to TH. SØRENSEN (68), the Greenland form of *P. glauca* differs from the Icelandic form, and thus we are here possibly concerned with a peculiar higharctic (continental) form.

183. *Poa laxa* HAECKE.

Lindenow part: Head of Lindenow Fjord, south coast (Bg!). — Kangertiluk part: Ingitait (E!).

Seems to be very rare. On the east coast the species has its northern limit in Ammagssalik, where it has been observed in two places.

184. *Poa nemoralis* L.

A form that is most probably referable to this species, but hardly distinguishable with certainty from *Poa glauca* L., has been found north of Igtitarajugtoq Island (Timmiarmîn part). The species is listed by OSTENFELD (51, p. 67) as found within the district. I have, however, been unable to find any specimens from this stretch of the coast in the Herbarium, which agrees with Consp. Fl. Groenl. and its supplements, in which the only place on the east coast from which it is recorded is Ammagssalik.

185. *Poa pratensis* L.

Lindenow part: Alik (Bg!); Opposite Tininnertôq (Bg!); Nanîseq (V!). — Kangertiluk part: Ivimîn (V!); North of Ilivileq Island (Bg!). — Aneritêq part: Aneritêq (V!). — Timmiarmîn part: North of Igtitarajugtôq (Bg!). — Akernernârmîn part: Nukarpik (Bg!).

Here and there all along the coast. As stated above, there further occur several forms of *P. pratensis*, intermediate with other species, thus:

Poa pratensis ad Poa alpigena: Kangertiluk part: Syenitbugt (Bg!). — Aneritêq part: Napassortivak (Bg!); Island near Puisertoq (Bg!).

Poa pratensis ad Poa rigens: Lindenow part: Alik (Bg!). — Kangertiluk part: Kûttîn (Bg!); Head of Puiagtoq Fjord (Bg!).

These forms are intermediate as regards the specifically distinguishing characters. They are not viviparous.

186. *Poa rigens* Hartm.

Lindenow part: Alik (Bg!); Head of Lindenow Fjord (Bg!). — Kangertiluk part: Head of Danell Fjord (Bg!); S. W. of Cape Trolle (Bg!). — Aneritêq part: Akia Peninsula (Bg!). — Timmiarmîn part: Timmiarmîn (Bg!). — Ũmmánaq part: Annât (Bg!); Head of Blindtarmen (B).

Consp. Fl. Groenl. (39) records, under the name of *Poa flexuosa* Wg., the occurrence of the species in Nanîseq (V). I have not, however, had access to the specimens.

The individuals occurring within this area differ somewhat from the slender higharctic species that occur in North-east Greenland. It appears from Ostenfeld's labels that he considered *Poa rigens* Hartm. a synonym of *Poa arctica* R. Br., in which he agrees with Lindmann (in Holmberg: Skandinaviens Flora (p. 211)) and other authors. I think, however, that R. Brown's *Poa arctica* differs from *Poa rigens* Hartm., which should probably rather be considered a variety of *Poa pratensis*, of which, as already stated, transitional forms often occur. However, I have not dared to embark upon an investigation of this question, since a study of the plants as well as of the intricate literature would require several years. To emphasise that the East Greenland forms seem to me to differ from the more northerly species I have chosen the name *Poa rigens* Hartm. in contrast to my collaborators in the north who employ the name *Poa arctica* R. Br.

187. *Puccinellia angustata* (R. Br.) Rond. & Redf.

Umîvik part: Utermîn (B).

Only found by the Norwegian expedition in 1931 (3, p. 7). The

species has its southern limit in this place (64°22′ N. lat.). According to OSTENFELD (51, p. 43), it belongs to the group of species that have "passed the last glaciation in unglaciated areas in Greenland".

188. *Puccinellia phryganodes* (TRIN.) S. & M.

Lindenow part: Straumen (Sig). — Kangertiluk part: Igîssat Fjord (Bg!). — Aneritêq part: North of Cape Tordenskjold (Bg!); Napassortivak (Bg!). — Timmiarmîn part: Lomwattnet (B); North of Igtitarajugtôq Island (Bg!). — Ûmmánaq part: Head of Blindtarmen (B). — Akernernârmîn part: Finnsbu (B); Imarsivik (B); Eqalimmîn (B); Eidsdal (B).

Not until the latest years has the species been found within the area, and is not mentioned in OSTENFELD's list (51, p. 67). It is probably rather common, but is easily overlooked.

189. *Puccinellia retroflexa* (CURT) HOLMB.

Aneritêq part: North of Cape Tordenskjold (Bg!). — Akernernârmîn part: Finnsbu (B).

Very rare within the area.

190. *Trisetum spicatum* (L.) RICHT.

Lindenow part: Alik (V!); Opposite Tininnertôq (Bg!); Tininnertôq (H!); Narssaq (L!); Nanîseq (V!); Cape Walløe (Bg!); Mortensberget (Sig). — Kangertiluk part: Ilivileq Island (E); Kangertiluk (V!); Syenitbugt (Bg!); Ingitait (E); Head of Puiagtoq Fjord (Bg!). — Aneritêq part: North of Cape Tordenskjold (Bg!); Kangeq (V!); Ingerqiarqe (E). — Timmiarmîn part: Bratnes (Sig); North of Igtitarajugtôq Island (Bg!). — Ûmmánaq part: Griffenfeld Island (E!). — Akernernârmîn part: South coast of Skjoldungen (Bg!); Eqalimmîn (H!); Itivtersip akia (H!); Nukarpik (Bg!).

Common along the whole coast.

191. *Vahlodea atropurpurea* (WAHLBG.) FR.

Timmiarmîn part: Lomvattnet (B). — Akernernârmîn part: Finnsbu (B); Imarsivik (B); Eidsdal (B).

Only found by the Norwegian expedition in 1931 (3, p. 8). It is new to the east coast, where it thus seems to be restricted to a small area near 63° N. lat., corresponding to its small area of occurrence on the West coast round 64° N. lat.

JUNCACEAE.

192. *Juncus arcticus* WILLD.

Ûmmánaq part: Rudi Island (B). — Akernernârmîn part: Eqalimmîn (B).

Only found by the Norwegian expedition in 1931 (3, p. 6). Its occurrence was, however, to be expected, since it occurs both in South Greenland and in a single place in Ammagssalik. In its mode of distribution it approaches the "continental" species (p. 102). It is much commoner in the northern parts of East Greenland, but seems to have its northern limit in about 75° N. lat. (62, p. 15).

193. *Juncus biglumis* L.

Ũmmánaq part: Rudi Island (B); Vogtsbu (B). — Akernernârmîn part: Finnsbu (B); Skjoldungen, inner north side (B); Eqalimmîn (B).

Only found by the Norwegian expedition in 1931 (3, p. 7). In its mode of distribution it much resembles the preceding species, being increasingly common towards the north.

194. *Juncus filiformis* L.

Lindenow part: Nunatsuk (E, P!); Narssaq (L!).

Only found in Lindenow Fjord, to which it has, no doubt, immigrated from South Greenland, where it is rather common. Ostenfeld refers it to the group of species that are supposed to have been introduced by the old Norsemen. Its occurrence here may hardly be considered in opposition to this assumption. It should, however, be added that Porsild (57, p. 53) thinks the species has immigrated without human agency, which seems just as likely. A solution of the problem can hardly be attained at present.

195. *Juncus squarrosus* L.

Lindenow part: Alik (V!); Nanîseq (E!); Cape Walløe (Bg!).

For particulars regarding this species, the reader is referred to Porsild's paper (57, p. 54). The most recent finds have furnished no contribution to the understanding of the peculiar distribution of this species.

196. *Juncus trifidus* L.

Lindenow part: Nunatsuk (S); Alik (Bg!); Head of Lindenow Fjord, south coast (Bg!); Head of Lindenow Fjord, north coast (Bg!); Tininnertôq (H!, Bg!); Narssaq (L!, Bg!); Nanîseq (Bg!); Cape Walløe (Bg!). — Kangertiluk part: North of Ilivileq Island (Bg!); Sarqap nùa (E!); Qajartalik (V); Ingitait (E!); Igissat Fjord (Bg!); Tâterait (Bg!); Auarqat (Bg!). — Aneritêq part: North of Cape Tordenskjold (Bg!); Aneritêq (V, E!); Kangeq (V!); Karqin akernan (E). — Timmiarmîn part: Takissôq (Bg!); Qerertaq (E); North of Igtitarajugtôq Island (Bg!); Ikerasak (Bg!); Sarpap aqaliva (Bg!). — Ũmmánaq part: Griffenfeld Island (E); West of Pilerqit (Bg!). — Akernernârmîn part: Eqalimmîn (H!); Nukarpik (Bg!). — Umîvik part: Krumpen Fjord (Bg!).

Commonly distributed throughout the area.

197. *Juncus triglumis* L.

Akernernârmîn part: Skjoldungen, inner north side (B).

During his stay in Copenhagen in 1930 Mr. PORSILD undertook a revision of our material of *Juncus*. He arrived at the conclusion that nearly all the specimens kept in the Herbarium under the name of *J. triglumis* L. should rightly be referred to the species *Juncus albescens* (LGE) FERN. (which should probably more correctly be called *Juncus triglumis var. albescens* LGE. (cf. SORENSEN 63)), while only some few individuals collected in the Igaliko region in South Greenland were referable to the main species *J. triglumis*. Unfortunately I have not seen the Norwegian specimens from Skjoldungen, nor do I know whether BJØRLYKKE has been aware of the presence of two different species in Greenland. This point is of rather great interest, since the correct determination will decide whether the form occurring at Skjoldungen should be considered an extremely rare outpost of *J. albescens*, which is of common occurrence north of Scoresby Sound, or a representative of *J. triglumis* originating from Iceland-Scandinavia as the Igaliko forms.

198. *Luzula arcuata* WG.

Lindenow part: Dr. Louise Island (Bg!); Head of Lindenow Fjord, south coast (Bg!); Narssaq (L!, Bg!); Ikertôq (V!). — Kangertiluk part: Head of Danell Fjord (Bg!); Ilivileq Island (E!); Kangertiluk (V!); Ingitait (E!). — Aneritêq part: Kaniorqat (E); Cape Rantzau (E!). — Timmiarmîn part: Eqalimmîn (E!). — Ũmmánaq part: Griffenfeld Island (E!, Bg!). — Akernernârmîn part: Watkins Depot (Bg!).

We are here concerned with a mixed area of the two species, *Luzula arcuata* WG. and *Luzula confusa* LINDEB. Presumably the two species should rightly be considered vicarious forms, *L. confusa* being the alpine or continental type, and *L. arcuata* the southern or insular type. In one single case only have I been able to decide whether the form in question belonged to one or the other species, and all transitional forms are represented. They have therefore been treated as a whole, and I have applied the name *Luzula arcuata* as a collective name for the whole form complex.

199. *Luzula frigida* (BUCH) SAM.

Aneritêq part: Kangeq (V!).

The Herbarium contains a specimen determined by SAMUELSSON as *L. frigida var. contracta* SAM. I hold the view that the species *Luzula frigida* and *Luzula multiflora* (EHR.) LEJ. form a parallel to the above-mentioned *Luzula arcuata* form circle, with *L. frigida* as the alpine representative. The only difference is that the transitional area of

L. multiflora lies somewhat farther south, and in consequence intermediate forms do not occur in East Greenland, while they are represented in South Greenland, where it is very difficult to decide whether a specimen should be referred to one or the other of the species. Accordingly I have included all the specimens brought back from South Greenland by BØGVAD under the elder species, *Luzula multiflora* (cf. p. 111).

200. *Luzula parviflora* DESV.

Lindenow part: Head of Lindenow Fjord, north coast (Bg!); Igtukulik (L!); Narssaq (E!, L!); Nanîseq (V!). — Kangertiluk part: Kûttîn (Bg!).

Occurs only in the southern part of the area. Northern limit: Kûttîn in 60°41′ N. lat.

201. *Luzula spicata* (LAM.) DC.

Lindenow part: Nunatsuk (P!); Alik (Bg!); Dr. Louise Island (Bg!); Southern branch of Lindenow Fjord (Bg!); Head of Lindenow Fjord, south coast (Bg!); Head of Lindenow Fjord, north coast (Bg!); Narssaq (L!); Ikertôq (V!); Cape Walløe (Bg!); Kangertuaraq (E!). — Kangertiluk part: Kûttîn (Bg!); Head of Danell Fjord (Bg!); Cape Discord (Bg!); North of Ilivileq Island (Bg!) Kangertiluk (V!); Syenitbugt (Bg!); Ingitait (E!); Head of Puiagtoq Fjord (Bg!). — Aneritêq part: Cape Tordenskjold (E!); North of Cape Tordenskjold (Bg!); Akia Peninsula (Bg!); Aneritêq (V!) Takissôq Island (Bg!). — Timmiarmîn part: Nagtoralik (Bg!); Bratnes (Sig).— Ũmmánaq part: Griffenfeld Island (E!). — Akernernârmîn part: Itivterssîp akia (H!); Nukarpik (Bg!).

Seems to be common along the whole coast.

JUNCAGINACEAE.

202. *Triglochin palustris* L.

Ũmmánaq part: Head of Blindtarmen (B).

LILIACEAE.

203. *Tofieldia palustris* HUDS.

Lindenow part: Tininnertôq (H!); Narssaq (L!, Bg!); Nanîseq (V!). — Kangertiluk part: Kûttîn (E!); Sarqap nûa (V); Kangertiluk (V!). — Aneritêq part: Karqin aqernan (E!). — Timmiarmîn part: Timmiarmîn (Bg!). — Ũmmánaq part: Griffenfeld Island (E); West of Pilerqit (Bg!). — Akernernârmîn part: Caroline Amalie Hbr. (Bg!).

Rather rare.

ORCHIDEAE.

204. *Habenaria hyperborea* (L.) R. BR.

Lindenow part: Tininnertôq (H!); Kangertuaraq (E!). — Ũmmánaq part: Griffenfeld Island (E).

Rare. Northern limit in Ammagssalik.

205. *Habenaria straminea* FERN.

Lindenow part: Tininnertôq (H!, Bg!); Annikitsoq (Bg!). — Kangertiluk part: Kangertiluk (V!). — Aneritêq part: Karqin aqernan (E!). — Akernernârmin part: Eqalimmîn (Bg!).

As the preceding, and most frequently growing in company with that species.

206. *Listera cordata* (L.) R. BR.

Lindenow part: Nunatsuk (P!); Alik (V!); Naniseq (V!). — Kangertiluk part: Kangertiluk (V!, E!); Ingitait (E!). — Ũmmánaq part: Vogtsbu (B). — Akernernârmin part: Finnsbu (B); Eqalimmîn (B); Trollfjordseidet (B).

The distribution of this species is very like that of *Athyrium alpestre* (see p. 107). According to the investigations of the latest years, it, too, seems to be much more frequent on the east coast than on the west coast, which has doubtless some connection with its European origin. The species is circumpolar, and since OSTENFELD did not know the East Greenland localities, he classified it among the plants that have probably immigrated from America (51, p. 45). However, according to the collections of the recent years this seems hardly probable.

IV. Concluding Remarks.

It will appear from the preceding list that 206 species of higher plants occur in South-east Greenland. This number is, however, not directly comparable with that given in OSTENFELD's list (51), since, as already mentioned, OSTENFELD draws the southern boundary of his district in 61°00′ N. lat. Thus he excludes the area which is designated the Lindenow part in the above pages.

Of the plants mentioned in the above list the following occur in this southernmost part only:

Dryopteris filix mas
**Callitriche anceps*
**Sagina Linnaei*
Epilobium palustre (NB. cf. p. 57)
Lathyrus maritimus
Polygonum heterophyllum var.
**Ranunculus acer*
* — *trichophyllus*
**Comarum palustre*
Ligusticum scoticum
Rhinanthus groenlandicus
**Carex brunescens*
* — *subspathacea*
— *salina*
Agropyrum violaceum
**Agrostis canina*
**Poa glauca*
Juncus filiformis
— *squarrosus*

Of these 19 species those marked with an asterisk have been found in Ammagssalik. However, the greater number of them are small and inconspicuous plants which may easily have been overlooked by the collectors.

OSTENFELD's list comprises 168 species from the area between 61° and 65° N. lat., the species marked with a ? included. This list, however, contains several species which are not stated in the literature to occur within the particular area, nor are any specimens of them found in the Herbarium. These are as follows:

1) The species marked with a ? in OSTENFELD's list:

Equisetum variegatum
Lycopodium complanatum
Botrychium lanceolatum
Asplenium viride
Sedum villosum
Cardamine pratensis
Rumex acetosella
Ranunculus reptans
— *trichophyllus*
Potentilla anserina
Gentiana aurea
Galium Brandegei
Carex Mackloviana
Carex microglochin
— *nardina*
— *supina*
Elyna Bellardii
Alopecurus aristulatus
Puccinellia phryganodes
— *retroflexa*
Juncus arcticus
— *biglumis*
— *supinus*
— *triglumis*
Triglochin palustre
Potamogeton filiformis

2) The species stated by OSTENFELD to occur but not hitherto found within the area:

Honckenya peploides
Draba daurica (hirta)
Ranunculus acer
Alchemilla filicaulis (minor)
Dryas integrifolia
Comarum palustre
Saxifraga aizoides
Pirola rotundifolia var. grandiflora
Armeria sibirica
Carex brunescens
— *subspatacea*
Agrostis canina
Calamagrostis neglecta
Phippsia algida
Deschampsia flexuosa
Poa glauca
— *nemoralis*

To obtain a general view of our knowledge of the East Greenland flora between 61° and 65° N. lat. prior to the most recent expeditions it will thus be necessary to deduct the above-mentioned 43 species from the 168 mentioned by OSTENFELD. OSTENFELD states himself that he has corrected the number "by interpolating some common species not recorded from here" (l. c. p. 29). A small number of the species marked with a point of interrogation or indicated in the usual way have later proved to occur in the area, while the greater number have not yet been found. And even if more species are found in the future, they need not necessarily be the species which OSTENFELD, with his views of immigration and distribution, assumed to occur within the area.

It will be evident from the data given above that at present 187 species of vascular plants are known from the east coast of Greenland between 61° and 65° N. lat., while prior to the recent expeditions only 125 were known. This increase by 62 species, collected in great part by non-botanists, shows that the east coast is inhabited by a far greater

number of species than has previously been assumed, and that further finds may be expected in future.

Hence it is no doubt too early to embark upon a geographical treatment of the flora of South-east Greenland, its routes of immigration, and its age. The longer such an investigation is postponed, the more correct, of course, will be the results. During the past fifty years ingenious theories as to the origin and age of the Greenland flora have repeatedly been subverted or invalidated by new finds made in Greenland or other Arctic regions.

When studying the flora of a particular area, one's attention is naturally arrested by certain facts that afford a hint as to what method should be adopted. In the following I shall therefore give some observations made during my work, in hopes that they may be of some value to future students of the immigration history of the Greenland flora.

It is remarkable that several species occurring both in Northeast and in West Greenland, even in its most southerly part, seem to be absent from the area here treated. This is the case with the following species:

Minuartia rubella
**Sedum villosum*
Draba daurica
**Subularia aquatica*
Rumex acetosella
Ranunculus reptans
Dryas integrifolia
Campanula uniflora
Saxifraga aizoides
**Gentiana aurea*
Pirola rotundifolia var. grandiflora
Armeria vulgaris var. sibirica
**Galium Brandegei*
Carex incurva
— *michroglochin*
— *supina*
Juncus castaneus
— *supinus*
**Potamogeton filiformis*
**Sparganium affine*

To these may be added some species that are of very rare occurrence within the area, viz.

Sagina intermedia
Cardamine pratensis
Papaver radicatum
Saxifraga cernua
Rhododendron lapponicum
Carex capillaris
— *nardina*
Erigeron compositus
Euphrasia latifolia
Elyna Bellardii
Calamagrostis neglecta
Hierochloë alpina
Poa glauca
Juncus arcticus
— *biglumis*
— *triglumis var. albescens*
Eriophorum polystachyum
— *Scheuchzeri*

The species in the first group marked with an asterisk may, I suppose, occur within the area, and the fact that they have not been brought back is possibly due to their small size. The remaining species, however, would no doubt have been represented in the collections if they had occurred, or been common.

The cause of the absence of these species may be sought in the insular climate of the south-east coast in connection with the more considerable precipitation during the period of vegetation and the nearness of the inland ice, conditioned by the precipitation and other factors. The result will be a dampness of the outer coast and an absence of deep fjords and icefree land, as found in West and North-east Greenland. It will appear from the above lists that the species are such as are usually designated as continental by other authors (cf. e. g. GELTING's and SORENSEN's "Inner Fjord plants" (19, 68) and STEFFEN's excellent treatment; many of the species regarded by STEFFEN as steppe plants are mentioned in the above list (67, p. 12)). In reality the southeast coast is interesting on account of its deviation in this respect from the remaining part of Greenland. The question now arises how the above-mentioned rare plants have come to exist in a region outside their natural area. In my judgment they would seem to originate from a time when the climate was more suitable to them, i. e. they are either pre-glacial relicts or relicts from an interglacial warm period. I consider the latter alternative the most probable, but no doubt the question can only be settled by an investigation of the whole area of distribution of the species within and outside Greenland in connection with an investigation of their genetic relationships. Since, however, such an investigation should be made on a large scale, I leave the question open for further investigation.

Eriophorum polystachyum exhibits some deviation in occurrence and distribution. In p. 86 it is stated how the distribution indicated in the map in fig. 22 may be accounted for. To show the distribution of a species that is typical of the above-mentioned group, the distribution within Greenland of *Elyna Bellardii* has been represented in fig. 21.

While the above-mentioned species must in the main be termed continental species or, what is to some extent equivalent to this, Arctic species, occasional rare species, which are typical southern outposts, may occur within the area. Let us first consider the plants regarded by OSTENFELD as "Old Norse Plants", i. e. plants that owe their existence in Greenland to the old Norsemen, who were in such lively communication with Iceland — whence, for instance, they introduced cattle — that, according to OSTENFELD, they have introduced a number of plants, too. Within the area from 60°04′ to 64°30′ N. lat. the following species, regarded by OSTENFELD as old Norse plants, occur:

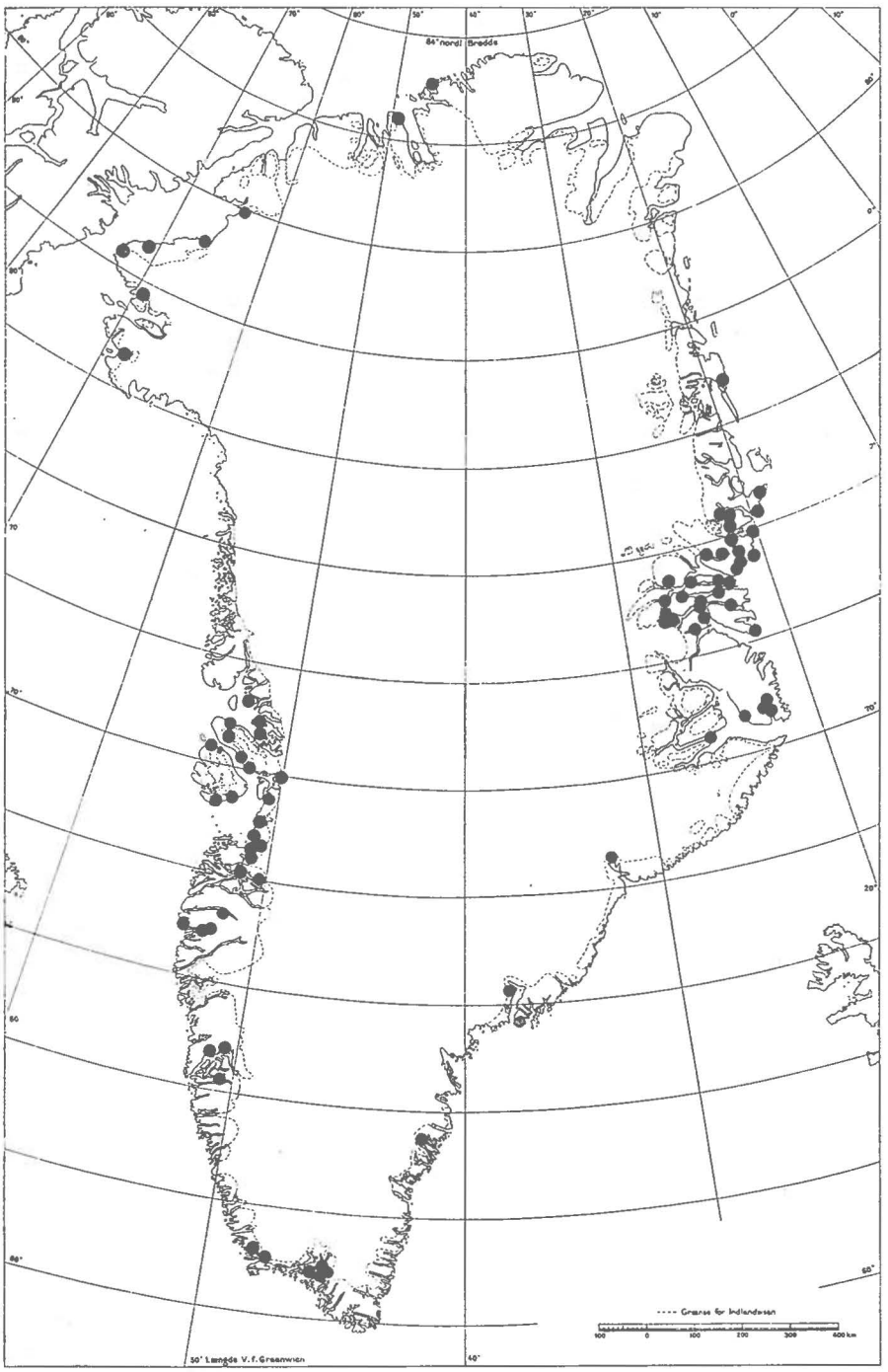


Fig. 21. The distribution within Greenland of *Elyna Bellardii*.

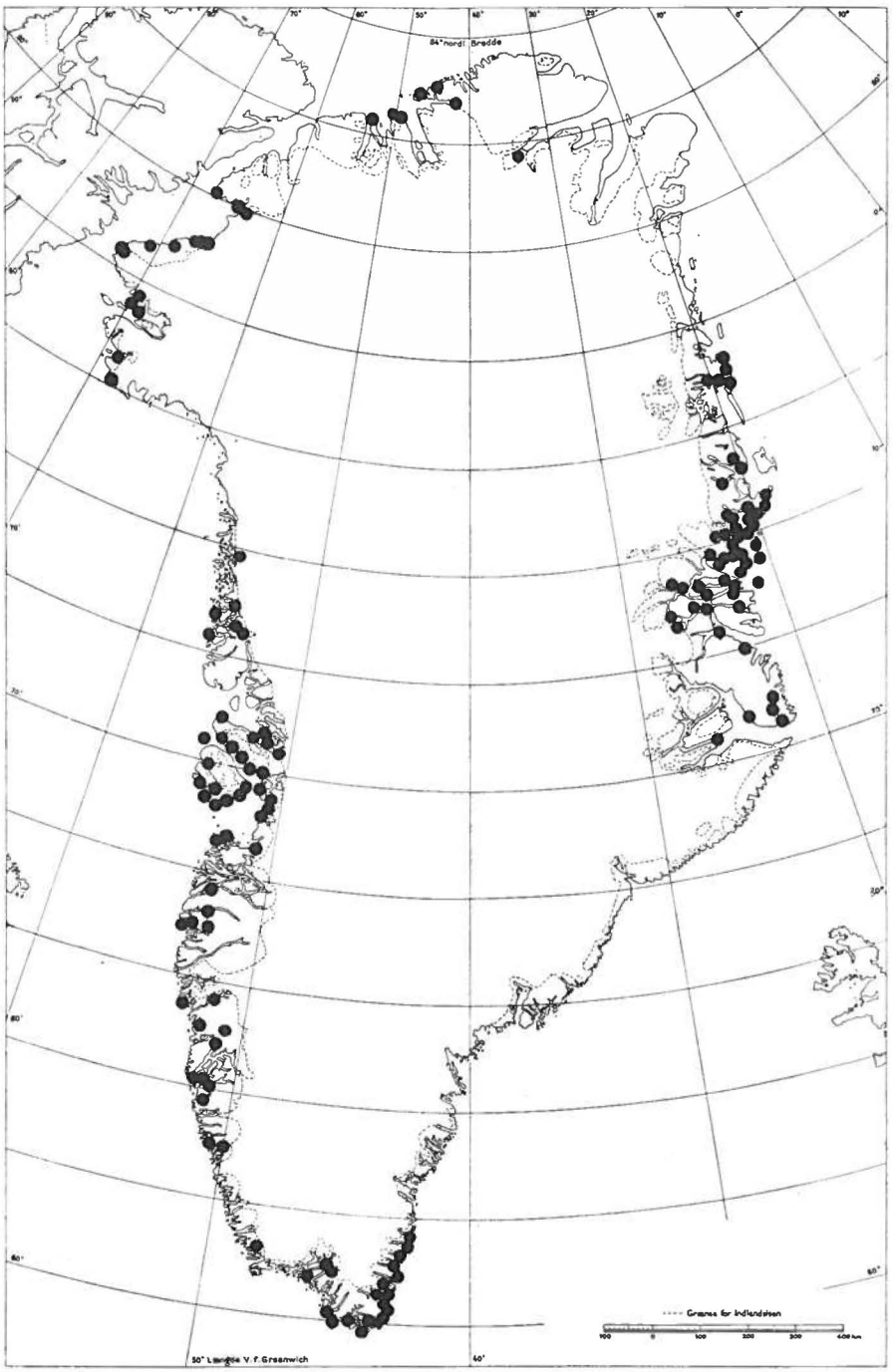


Fig. 22. The distribution within Greenland of *Eriophorum polystachyum*.

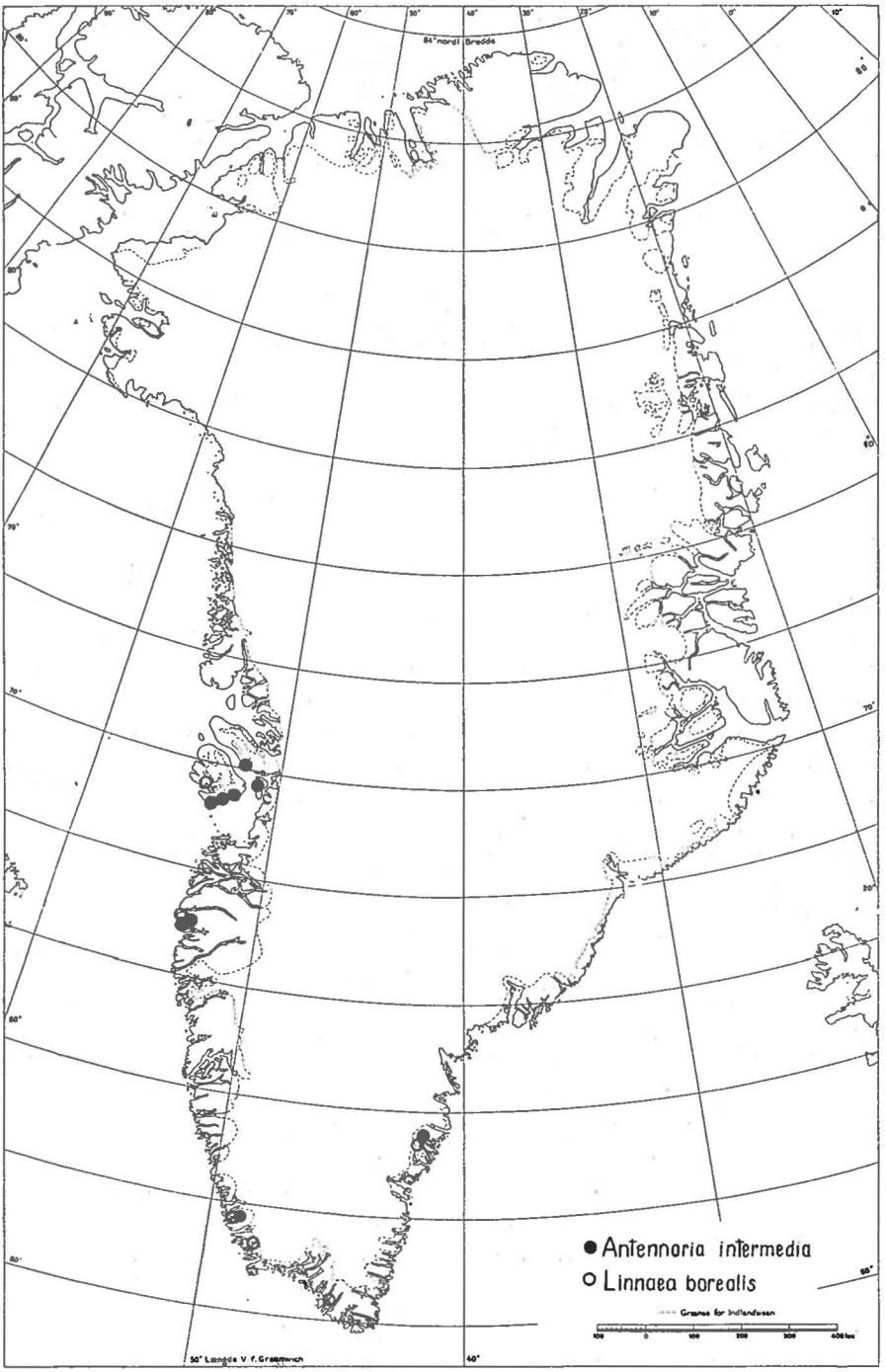


Fig. 23. The distribution within Greenland of *Antennaria intermedia* and *Linnaea borealis*.

Sagina procumbens
Stellaria media
Lathyrus maritimus
Rubus Saxatilis
Ligusticum scotium
Trimorpha borealis
Hieracium groenlandicum
— *hyparcticum*
Rhinanthus groenlandicus
Carex stylosa
Anthoxanthum odoratum
Nardus strictus
Poa nemoralis
Juncus filiformis
— *squarrosus*

In his latest work PORSILD (57) has critically revised OSTENFELD'S old Norse plants, and has arrived at a different result, being of opinion that very few species can in reality be referred to this category. We will now examine whether the occurrence of the species in Southeast Greenland furnishes any solution of the problem. Under the description of the individual species in the preceding list it has been mentioned what may be concluded from their occurrence in East Greenland. In general the finds from this coast would seem to a great extent to support PORSILD's conjecture that a large number of the species have immigrated without human agency. However, we cannot disregard the almost just as probable supposition that a species occurring in South Greenland is an old Norse plant, even if it has immigrated in a natural way into other localities. In those cases where the species is common in the area once inhabited by the Norsemen while outside this area it is only present in a few isolated localities (e. g. in the Akernernârmîn part), this is doubtless the right theory. Excellent examples of this are the species *Stellaria media* (p. 52) and *Anthoxanthum odoratum* (p. 88), both of which PORSILD after much consideration regards as undoubted old Norse plants. Both these species occur in quite isolated localities rather far to the north in South-east Greenland, thus *Anthoxanthum odoratum* occurs at Vogtsbu (Ũmmánaq part) in 63°06′ N. lat.

In addition to the above-mentioned "Old Norse Plants" of OSTENFELD, several species have their northern limit in the area here treated, viz.

Botrychium boreale
Athyrium alpestre
Dryopteris dilatata
— *filis mas*
— *phegopteris*
Selaginella selaginoides
Betula glandulosa
Minuartia groenlandica
Sagina caespitosa
Cornus sueccica
L *Epilobium palustre*[1])
L *Polygonum heterphyllum*
Montia lamprosperma
E *Linnaea borealis*
E *Antennaria intermedia*
E *Limosella aquatica*
L *Rhinanthus groenlandica*
Carex cannescens
L — *salina*
Calamagrostis Langsdorffi
Elymus arenarius
Poa pratensis ?

[1]) Cf. p. 57.

Vahlodea atropurpurea	*Luzula parviflora*
Juncus triglumis ?	*Listera cordata*

I believe that the greater number of these plants have immigrated after the Glacial Epoch, and at present probably have their natural area in Greenland. The species marked with an L occur in the Lindenow part only.

The four species marked with an E have only been found at or in the neighbourhood of Eqalimmîn in the innermost part of the Akernernârmîn complex. Of these *Limosella* should no doubt be left out of consideration, since it may possibly be found in other places on closer investigation. I regard the three remaining species, *Linnea borealis*, *Antennaria intermedia*, and *Juncus triglumis*, as relicts from an interglacial warm period, on account of their peculiar occurrence here and in other places within and outside Greenland. The distribution in Greenland of the two first-mentioned species is shown in the map in fig. 23. To these must be added *Potentilla Ranunculus* and *Antennaria labradorica*, which within East Greenland have only been found at Eqalimmîn and which have also a peculiar distribution in West Greenland; thus they do not occur in South Greenland. Another species whose distribution presents points of interest is *Triglochin palustre*, which in East Greenland has only been found at the head of Blindtarmen (Ũmmánaq part), in a single locality at Ammagssalik, and in some few localities in North-east Greenland (cf. GELTING (19) and SØRENSEN (68)). As regards its origin it is possibly allied with the above-mentioned species. However, according to SØRENSEN it occurs especially in places where birds are living, and hence he is of opinion that it may have been introduced from Iceland in recent times.

The only endemic species occurring within the area here treated are *Hieracium stelechodes* and *H. Scholanderi*, recently found by BJØRLYKKE at Eqalimmîn (Akernernârmîn part), and described by OMANG (47, p. 4). However, future investigations of its genetic relationships and distribution must decide whether the species has originated on the spot from other, now extinct, presumably Icelandic forms of the *Nigrescentia* section of the subgenus *Archieracium alpina*, or it has been introduced in its present form. OMANG gives no opinion on this question.

It is a peculiar fact that apparently none of the species specific to East Greenland occur within the area in question. None of the species found here are absent from the west coast.

In this connection it should be pointed out that two species, viz. *Athyrium alpestre* and *Listera cordata*, seem to be much more common on the east coast than on the west coast. This applies especially to *Athyrium alpestre*. Of this species specimens from only three localities in South Greenland (two of which lie on the east coast) are found in

the Herbarium, while it has been brought back from 16 localities on the more superficially investigated east coast (cf. p. 44). The same applies, though to a somewhat less extent, to *Listera cordata*, of which the Herbarium contains specimens from about 14 localities on the west coast and 9 on the east coast (cf. p. 98), despite the fact that this plant belongs to the category of inconspicuous plants overlooked by untrained collectors. Thus it may be mentioned that BØGVAD has not brought back a single specimen. When this distribution is taken into consideration, and it is borne in mind that the two species have very small and easily dispersed diaspores, there seems to me hardly any doubt that they have immigrated from Iceland, where they both occur, in rather recent times, at any rate after the latest large glaciation.

Sagina caespitosa occurs in an isolated locality on the outer coast of Skjoldungen (Akernernârmîn part), which is the only locality on the east coast so far known. The species is absent from Iceland, but of common occurrence in West Greenland, whence it has probably, in some way or other, migrated to the east coast. I should think that this immigration has taken place at a rather recent date.

I have confined myself to giving these few and rather desultory concluding remarks on the ground already mentioned, that as yet we know too little about the vegetation along this stretch of the coast. It has been an essential obstacle to me that I have not personally visited the localities. It seems to me, however, that the facts pointed out above in connection with other observations made by me — which, however, I consider too slightly based for publication — proves the existence within South-east Greenland of an area which deviates considerably from other parts of Greenland. At the outset the insular climate which this coast and Iceland have in common, as well as the nearness of this island, might be expected to have set its mark upon the flora to a far greater extent than is apparently the case. Another point of interest is that as far as can be made out, the inland ice within this area has not been subjected to such considerable oscillations during the various ice ages as in the remaining part of Greenland, possibly the edge of the inland ice has not even been much farther advanced during the great ice age than at present. When once the geologists have added fresh information about this problem, and our botanical knowledge has been somewhat increased, we shall probably be in the possession of a valuable material for the elucidation of the exceedingly interesting question concerning the Greenland flora during the great ice age. All the geological and botanical investigations in Greenland of recent years seem to me to suggest that a far larger number of plants than previously assumed have survived the great glaciation in Greenland.

V. List of the vascular plants found by the 7th Thule Expedition in South Greenland.

As mentioned in the introduction, M. Sc. BØGVAD made several collections of plants on the way to and from the area of the east coast of Greenland described in the preceding chapters, i. e. the southernmost part of Greenland.

Since several of the localities are situated in the eastern part of the South Greenland skerries, and the greater number of them have not formerly been visited by any expeditions, I have found it adequate to give a list of the plants that have been brought back from this area.

Plants have been brought back from about 17 localities, which are distributed as follows from east to west. (Cf. the map.)

1. Small island in the eastern part of the Qipisarqo Strait (59°58′ N. lat.; 43°12′ W. long.)
2. South coast of Christian IV Island in Qipisarqo Strait (59°59′ N. lat.; 43°16′ W. long.)
3. South coast of Prins Christian Sound opposite Sermeq Kujatdleq (60°04′ N. lat.; 43°24′ W. long.)
4. South part of an island east of Tunua (59°55′ N. lat.; 43°27′ W. long.)
5. Kangerdluk in Prins Christian Sound (60°07′ N. lat.; 43°35′ W. long.)
6. Small fjord with glaciers on the north coast of Ikeq (59°56′ N. lat.; 43°38′ W. long.)
7. Sammissoq (59°58′ N. lat.; 43°54′ W. long.)
8. Near Igdlorssuit Glacier, 500 m o.H. (60°21′ N. lat.; 43°56′ W. long.)
9. Igdlorssuit (60°19′ N. lat.; 43°59′ W. long.)
10. Five localities near Augpilagtoq and the adjacent coasts (ca. 60°07′ N. lat.; 44°17′ W. long.)
11. Head of Kangerdluk Fjord, north of Ilua (60°12′ N. lat.; 44°20′ W. long.)
12. Pamiagdluk (59°55′ N. lat.; 44°22′ W. long.)
13. Igdlukasik (60°02′ N. lat.; 44°49′ W. long.)
14. Nanortalik (60°07′ N. lat.; 45°16′ W. long.)
15. Ikerasârssuk (60°13′ N. lat.; 45°10′ W. long.)
16. Qanikitsoq (60°27′ N. lat.; 44°51′ W. long.)
17. Amitsuarssuk (60°42′ N. lat.; 45°20′ W. long.)

Locality No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Lycopodium alpinum	..	..	..	..	..	..	..	—	..	—	..	—	..	—	..	..	..
— *annotinum*	..	..	..	..	..	..	..	..	—	—	..	—	..	—	—	..	—
— *selago*	..	..	..	..	..	..	..	..	—	—	..	—	..	—	—	..	..
Athyrium alpestre	..	—	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cystopteris fragilis	..	..	..	..	..	..	..	..	..	—	..	..	..	—	..	..	..
Dryopteris dilatata v. *am.*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	—	..	..
— *filix mas*	..	..	..	..	..	..	..	..	—	..	..	..	..	..	..	..	..
— *Linneana*	..	—	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Polysticum lonchites	..	..	..	..	—	..	..	..	—	—	..	..	..	..	..	..	..
Juniperus communis	..	..	..	..	—	..	..	..	—	—	..	..	..	—	—	—	..
Betula glandulosa s. l.	..	..	..	..	..	..	..	..	—	—	—	..	..	..	—	—	..
— *pubescens s. l.*	..	..	..	..	..	..	..	..	..	—	..	..	..	..	..	..	—
Callitriche anceps	..	..	..	..	..	..	..	..	..	..	..	..	—	..	..	..	..
Cerastium alpinum	..	..	..	..	..	..	..	..	—	..	—	..	—	..	—	..	..
— *caespitosum*	..	—	..	..	..	..	..	..	..	—	..	..	..	..	..	..	..
— *trigynum*	..	..	..	..	..	..	..	..	..	—	..	..	..	..	..	..	..
Honckenya peploides	..	..	..	..	..	..	—	..	..	—	..	..	..	..	..	..	..
Minuartia groenlandica	..	—	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Silene acaulis	..	..	..	..	..	..	..	—	—	—	..	..	..	—	..	..	..
Viscaria alpina	—	..	..	..	..	..	..	..	—	—	..	..	..	..	..	—	—
Cornus canadensis	..	..	..	..	..	..	..	..	..	—	..	..	..	..	..	..	..
— *sueccica*	..	—	..	..	..	..	..	..	..	—	..	..	..	..	..	..	..
Sedum annuum	..	..	..	..	..	..	..	..	..	..	..	..	..	—	..	..	..
— *roseum*	..	..	—	..	..	..	..	..	—	—	..	..	..	..	..	..	..
Arabis alpina	..	..	..	..	..	..	..	—	..	—	..	..	..	—	..	..	..
Cochlearia officinalis v. *groenlandica*	..	..	..	..	..	..	..	..	..	—	..	..	..	..	—	..	..
Draba rupestris	..	..	..	..	..	..	..	..	..	..	..	..	..	—	..	..	..
Empetrum nigrum	..	..	—	..	—	..	..	—	..	—	..	..	..	—	..	—	..
Epilobium angustifolium	..	..	..	..	..	..	..	..	—	..	..	..	..	..	..	..	..
— *Hornemanni*	..	..	..	..	..	..	..	..	..	—	..	..	..	..	..	..	..
Lathyrus maritimus	..	..	..	..	..	..	..	..	..	—	..	..	..	..	..	..	—
Oxyria digyna	..	..	—	—	..	..	..	..	..	—	..	..	..	..	..	..	..
Polygonum viviparum	..	..	..	—	..	..	..	..	..	..	..	..	..	..	..	..	..
Rumex acetosella	..	..	..	..	..	..	..	..	—	..	..	..	..	..	..	..	..
Coptis groenlandica	..	..	..	..	..	..	..	..	..	..	..	..	..	..	—	..	..
Ranunculus acer	..	—	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Alchemilla alpina	..	..	..	—	..	..	..	—	—	—	..	—	—	—	—	—	..
— *filicaulis*	..	..	..	..	..	..	..	..	..	—	..	..	..	..	..	..	..
Potentilla tridentata	..	..	..	..	..	—	..	..	—	—	..	..	..	—	..	—	..
Salix arctophila × *glauca s. l.*	..	..	..	..	..	..	..	..	—	—	—	..	—	..	—	..	..
— *herbacea*	..	..	—	..	..	..	..	..	—	—	—	..	..	..	—	..	..
Saxifraga caespitosa	—	..	..	..	..	..	..	..	..	—	—	..	—	..	..	—	..
— *oppositifolia*	..	..	..	..	..	..	..	..	..	..	—	..	..	..	..	..	..
— *stellaris*	..	—	—	..	—	..	..	..	..	—	..	..	..	..	..	..	..
Angelica archangelica	..	..	—	..	—	..	..	..	..	—	—	..	..	..	..	..	—
Ligusticum scoticum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	—
Campanula rotundifolia	..	..	..	..	..	..	..	..	..	—	..	..	..	..	..	..	—
Gnaphalium norvegicum	..	..	..	—	..	..	..	..	—	—	..	..	..	..	..	—	..
Hieracium alpinum[1]	..	..	..	—	..	—	..	..	..	—	..	..	..	..	..	..	..
— *hyparticum*	..	..	..	..	..	..	..	..	..	—	..	..	..	—	..	..	..
— *Scholanderi*	..	..	..	..	..	..	..	..	..	—	..	..	..	..	..	..	..

[1]) Cf. p. 112. [2]) The species has been determined by Dr. DAHLSTEDT, who states as follows on the label: "Peculiar form, possibly belonging to *Taraxcum maurostylum* DT.. but its head and ligulae recalling

Locality No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Taraxacum croceum	..	..	..	..	..	..	..	..	..	—	..	..	..	—	..	..	..
— *maurostylum*[2])	..	..	..	—	..	..	..	..	..	..	..	..	..	..	..	..	..
Diapensia lapponicum	..	..	..	..	..	..	..	—	..	—	..	..	..	—	..	..	..
Bryanthus coeruleus	..	..	..	..	—	..	..	—	..	—	..	—	..	..	—	..	..
Ledum groenlandicum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	—	..	..
Loiseleurea procumbens	..	..	..	—	..	..	..	—	..	—	..	..	..	..	—	..	..
Rhododendron lapponicum	..	..	..	..	..	..	..	..	..	—	..	..	..	..	..	..	..
Vaccinium uliginosum	..	..	—	..	..	..	..	—	—	—	..	—	..	..	..	..	..
Thymus arcticus	..	..	..	..	..	..	..	..	—	—	..	..	—	..	..	..	..
Pinguicula vulgaris	..	..	..	..	—	..	..	..	..	—	..	..	..	..	..	..	..
Pirola minor	..	..	..	..	..	—	..	..	..	—	..	..	..	..	..	..	..
Armeria sibirica	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	—	..
Bartschia alpina	..	..	..	..	—	..	..	..	..	—	..	—	..	..	..	..	..
Euphrasia latifolia	..	..	..	..	..	..	..	..	..	—	..	..	..	..	..	..	..
Pedicularis flammea	..	..	..	..	..	..	..	..	..	..	—	..	..	..	..	..	..
Rhinanthus groenlandica	..	..	..	..	..	—	..	..	..	—	..	..	..	..	..	—	..
Veronica alpina	..	..	..	..	..	..	..	..	..	—	..	..	..	..	..	..	..
— *saxatilis*	..	..	..	..	..	..	..	..	..	—	..	..	..	—	..	..	..
Carex lachenalii	..	..	..	..	..	..	..	..	..	—	..	—	..	..	..	..	..
— *Lyngbyei* × *rigida*	..	..	..	..	..	..	..	..	..	—	..	..	..	—	..	..	..
— *rigida*[3])	..	—	..	..	..	..	..	—	—	..	..	..	—	—	..	..	..
— *stylosa*	..	..	—	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Eriophorum polystachyum	..	..	..	..	..	..	..	..	..	—	..	..	..	..	..	..	..
— *Scheuchzeri*	—	..	..	..	..	..	..	—	—	—	..	..	—	..	—	..	..
Scirpus caespitosus	..	—	..	..	—	..	..	..	..	..	..	..	..	..	..	..	..
Agrostis borealis	..	..	..	..	..	..	..	..	..	—	—	..	..	..	..	—	..
— *canina*	..	..	..	..	..	..	..	..	..	—	—	..	..	..	—	..	..
Calamagrostis Langsdorffi	..	..	..	..	..	..	..	..	..	—	..	..	..	..	—	..	..
Deschampsia alpina	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
— *flexuosa*	..	..	—	..	..	..	..	..	..	—	—	..	—	—	—	..	..
Elymus arenarius	..	..	..	..	..	..	..	..	..	..	—	—	..	..	..	..	..
Festuca duriuscula[4])	..	..	..	..	..	..	..	..	..	—	..	—	—	..	—	..	..
— *ovina*	..	..	..	..	..	..	..	..	..	—	..	—	—	—	..	..	..
— *rubra*	..	..	..	..	..	..	..	..	..	—	..	..	—	..	..	—	..
Nardus strictus	..	..	..	..	..	..	..	..	..	—	..	..	..	..	..	..	..
Phleum alpinum	..	..	..	—	..	..	..	..	—	—	..	..	..	..	..	..	..
Poa alpina	..	..	..	..	..	..	..	..	..	—	..	..	..	..	..	..	..
— *glauca*	..	..	..	..	..	..	..	..	..	—	..	..	..	..	..	..	..
— *pratensis*	..	..	..	..	..	..	..	..	—	—	—	..	..	—	..	..	..
— *pratensis ad rigens*[5])	..	..	..	—	..	..	..	..	..	..	..	..	..	..	..	..	..
Trisetum spicatum	—	..	..	..	..	..	..	..	..	—	..	..	..	—	..	..	..
Juncus squarrosus	..	..	..	..	..	..	..	..	..	..	..	..	—	..	..	..	..
— *trifidus*	..	..	—	..	..	..	..	..	—	..	—	..	..	—	..	..	—
Luzula arcuata[6])	..	..	..	..	..	..	..	..	..	..	..	..	..	..	—	..	..
— *multiflora*[7])	..	..	..	..	..	..	..	..	..	—	—	..	—	..	—	..	..
— *spicata*	—	..	..	..	..	..	..	..	..	—	—	—	..	—	..	—	..
Tofieldia palustris	..	..	..	..	..	—	..	..	..	..	—	..	..	..	..	..	..
Habenaria hyperborea	..	—	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
— *straminea*	..	..	..	..	..	..	..	..	..	..	..	—	..	..	..	..	..

Taraxacum naerrosum DT. [3]) Cf. p. 83. The specimens from locality 13 are doubtless hybrids, but I have been unable to determine which. [4]) All the specimens collected are viviparous, and apparently identical with *Festuca duriuscula* var. *villosa vivipara* ROSENV. (59, p. 735). It seems natural to conclude that this form is in reality *Festuca ovina* × *rubra*. [5]) Cf. p. 93. [6]) Cf. p. 96, [7]) Cf. p. 96. It should be added that on closer examination all the specimens brought home with the exception of some few specimens from Pamiagdluk, might possibly be referred to SAMUELSSON's *L. frigida*, but I have been unable to make a definite distinction between the two species.

VI. Contributions to the *Hieracium* flora of Greenland.

By **S. O. F. Omang.**

While engaged in working up a number of *Hieracium* specimens collected by the Norwegian Expedition to South East Greenland 1932, I was requested by Mr. GUNNAR SEIDENFADEN to determine some material of *Hieracium* collected by the Danish 6th and 7th Thule Expeditions to South East Greenland in 1931 and 1932. The first-mentioned work rendered it necessary for me to prepare a general view of the distribution of the *Hieracium* species along the east coast of Greenland[1]), and being already occupied with the *Hieracium* flora of Greenland, I was pleased to work up the Danish material too. At my request some older *Hieracium* material was kindly lent me by the Botanical Museum, Copenhagen, and thus this older material could be revised in connection with the determination of the new material.

In the present paper, which will furnish information supplementary to my previous work, I shall quote the statements on the labels of the revised older collections, several of which are now almost to be considered as classical, and the original texts of the labels will be of interest in many cases for the elucidation of the history and synonymics of the Greenland species of *Hieracium*.

As was to be expected, a great part of this older material, the collection of which dates back probably one hundred years, was much time-worn, and since it has probably often been collected under very unfavourable conditions, the conservation has not always been quite satisfactory. Hence it will be understood that in many cases it was but little suited for determination. During my examination of it, however, I received the positive impression that certain of the definitions of species hitherto acknowledged — and also maintained in this paper — include heterogenous elements which must in the future be differentiated. A study of the older literature would seem to confirm such a supposition. However, a closer determination of the species can not, of course, take place till more comprehensive and well preserved fresh material is available. I take the liberty to call the attention of future

[1]) OMANG: Übersicht über die Hieraciumflora Ost-Grönlands. — Skrifter om Svalbard og Ishavet, No. 55, Oslo 1933.

botanists to this fact. In order to stimulate the ardour for collecting I may add that *Hieracium* material from Greenland may possibly supply science with many new species.

H. alpinum (L.) BACKH.

During the 7th Thule Expedition to South-east Greenland this species was collected by RICH. BØGVAD in the following localities:

Ikerasârsuak: On a peninsula east of South-Tunua, 59°55′ N. lat.; Bræfjord in Ikeq, 59°56′ N. lat.; Qakrasuaq Sound, the south side opposite Augpilagtoq, 60°06′ N. lat.; west of Alik, 60°07′ N. lat.

Lindenow Fjord: West of Tininnertôq in Lindenow Fjord, 60°34′ N. lat. 500 m above sea-level.

Ũmmánaq: The south side of Ikerasak River, west of Igdluk, 62°54′ N. lat.; inside Nunat, Amitsuarsuak, 62°54′ N. lat.; Annât Fjord in Ũmmánaq Fjord, Østdalen, 63°08′ N. lat.; Caroline Amalie Hbr., 63°13′ N. lat.

Akernernârmîn: GRAAH's wintering harbour, Nukarpik, 63°22′ N. lat.; small island near GRAAH's wintering harbour, 63°22′ N. lat.

Ammagssalik: Tasiusak, 65°37′ N. lat.

In the Botanical Museum, Oslo, three sheets of this species of older date are found, the labels of which bear the following statements:

H. alpinum L. Sardlevok in sinu Ilua. Aug. 13, 1881, leg. SYLOW.
H. alpinum L. Kagsiarsuk, Igaliko Fjord, S. Grönland, July 10, 1880. CARL PETERSEN.
H. alpinum L. Leg. N. HARTZ ad Danmarks Ø. Aug. 1892.

The latter specimen seems to be a form deviating somewhat from the type, with more elongated phyllaries and a sparser pilosity of involucre and stem.

H. hyparcticum ALMQU.

On the 6th and 7th Thule Expeditions this species was collected in the following places by HOLTVED and RICH. BØGVAD respectively:

Lindenow Fjord: Nanîseq near the Norwegian station, 60°31′ N. lat. (BØGVAD)[1]); the north coast of the head of Lindenow Fjord, 60°37′ N. lat. (BØGVAD).

Ilivileq: The mainland inside Kûttîn, 60°41′ N. lat. (BØGVAD).

Akernernârmîn: Slope behind Eskimonæsset, 63°34′ N. lat., 40 m above sea-level (HOLTVED).

On the west coast (west of Cape Farewell): Nanortalik, 60°07′ N. lat. (BØGVAD); Igdlorssuit, 60°19′ N. lat. (BØGVAD).

The Botanical Museum, Oslo, also contains specimens of this species from Julianehaab, Igaliko, Kagsiarsuk in Igaliko, and Frederikshaab (KNUD JESSEN); Kagsiarsuk by Igaliko Fjord (CARL PETERSEN).

[1]) Probably the Norwegian station Grønlia, 60°32′ N. lat. Cf. OMANG l.c. p. 6.

The following specimens among the revised older material belong to this species. The text of the labels is quoted verbatim:

H. atratum FR. var. *villosa*! Ø. Gronl. Kanajorqat (61°37'). Aug. 14, leg. P. EBERLIN. — The handwriting is EBERLIN's, and the printed head of the label runs as follows: Dansk geologisk og geografisk Undersogelse af Grønland 1884.

H. atratum FR. var. *villosa*! Ø. Gronl. Kutek [Kúttît] 60°41'. Aug. 11, leg. P. EBERLIN. — The handwriting is EBERLIN's, and the printed head of the label runs as follows: Dansk geologisk og geografisk Undersogelse af Grønland 1883.

H. murorum L. E. Groenlandia 60°8'—64°10'. J. VAHL. — In addition to this printed label, a label in VAHL's handwriting and with the following text is attached to the sheet: "In locis graminosis humidiusculis per pedes alpium sinuum Groenlandiae orientalis et occidentalis a 60° usque ad 64°, floret Juli & Aug. J. VAHL."

H. murorum — in locis graminosis Nennese 1829 Juli. — Another label on the same sheet: *H. murorum* — distr. Colon. Juliannehaab. dedit HOLBØLL 1837[1]). November. Both labels are in VAHL's handwriting. The sheet contains a defective flowering specimen, presumably *H. hyparcticum* ALMQU., and a leaf rosette, without indication as to which of these two specimens the two labels respectively belong. On the sheet is added in another (FRIES's?) handwriting: "Potius forsan *H. atratum* FR."

According to statements on the sheets, all these forms were determined in 1891 by ALMQUIST and DAHLSTEDT as: *H. nigrescens* WILLD. **hyparcticum* ALMQU. The first two sheets, marked by EBERLIN *H. atratum* FR. *var. villosa*, no doubt contain the original specimens of the *H. murorum* **villosum* described by JOH. LANGE in Conspct. Fl. Groenl. II (1887). Of the two forms, that from Kanajorqat hardly differs from the typical *H. hyparcticum*, whereas the form from Kûttîn is only to be considered a modification of that species with leaves very densely hairy.

H. lividorubens ALMQU.

The 7th Thule Expedition has brought back some specimens belonging to this species from the following localities:

Lindenow Fjord: Narssaq (60°30' N. lat.) and Tininnertôq (60°34' N. lat.) in Lindenow Fjord (RICH. BØGVAD).

In the Botanical Museum of Oslo specimens are found from: Julianehaab, Igaliko, and Kagsiarsuk in Igaliko Fjord (KNUD JESSEN).

The following specimens of the older material belong to this species:

H. murorum L. E. Groenlandia 60°8'—64°10'. J. VAHL. — In addition to this printed label, a label in VAHL's handwriting and with the following text is attached to the sheet: "In locis graminosis humidiusculis per pedes alpium sinum Groenlandiae orientalis et occidentalis a 60° usque ad 64°. floret Juli & Aug. J. VAHL." — The sheet contains two specimens, one of which belongs to *H. hyparcticum* ALMQU. (see this species).

---

[1]) In LANGE: Consp. Fl. Groenl. I (1880) the locality Julianehaab (HOLB.) is indicated under *H. atratum* FR., and under *H. murorum* L.: Nenese [Nanîseq] (V.).

H. murorum L. Kiækstok Dalen v. Tunugdliarfik Fjord[1]). Jun. 30. A. KORNERUP. Printed head of the label: Dansk geologisk Undersøgelse af Grønland 1876.

H. nigrescens WILLD. **livido-rubens* S. ALMQU. Groenlandia australis, Friedrichsthal. Jul. 28, 1883. AUG. BERLIN.

H. atratum FR. Ø. Grønl. Nunatsuk (60°4')[2]). Aug. 12, leg. P. EBERLIN. Printed head of the label: Dansk geologisk og geografisk Undersøgelse af Grønland 1885.

H. murorum L. (*H. nigrescens* v. *livido-rubens* ALMQU.). Akungnak i Bredefjord[3]). 15. Jul., legit Dr. L. KOLDERUP ROSENVINGE a. 1888.

H. nigrescens WILLD, **lividorubens* ALMQU. *a, genuinum.* det. ALM. & DAHLST. Tunnuarmiut i Tunugdliarfik. legit Dr. KOLDERUP ROSENVINGE a. 1888. 19. Jul.

H. nigrescens WILLD. **livido-rubens* ALMQU. f. *foliis integrioribus.* S. ALMQU. et H. DAHLST. Groenl. austr.: Julianehåb. leg. N. HARTZ an. 1889. 23. Aug.

H. nigrescens WILLD. **livido-rubens* ALMQU. *a, genuina* (*silvaticiforme* ALMQU.) *foliis integrioribus* (on another sheet: *fol. magis dentatis*). Ilua, lat. bor. 59°55'. 1889. legit D^na^ E. LUNDHOLM.

H. murorum **villosum* LGE. J. L(ANGE). Nunarsuak 60°. legit LUNDHOLM. Mai—Juni 1890.

All the specimens mentioned above have been determined by ALMQUIST and DAHLSTEDT as *H. nigrescens* WILLD. **livido-rubens* ALMQU. *f. silvaticiformis.*

H. nigrescens WILLD. **lividorubens* ALMQU. Timiutak (ostl. Ø) ved Sardlok, 60°34'. legit: A. JESSEN 31. Aug. 1894.,

H. nigrescens WILLD. **lividorubens* ALMQU. oven paa [on top of] Storfjeldet ved Julianehaab c. 1000' o. H. 20. Sept. 1894. A. JESSEN.

H. nigrescens WILD. subsp. *lividorubens* ALMQU. Julianehaab (ved Ferskvandssøens N.Ø.lige Bred) [at the north-eastern bank of the fresh water lake]. 8. Juli 1900. leg. GUSTAV MELDORF.

H. livido-rubens ALMQU. spæd [tender] form. det. DAHLSTEDT. Syd-Grønl. Igdlors suit, Prins Christians Sund[4]), 60°10' N. 21. Juli 1925. A. E. PORSILD & M. P. PORSILD.

H. livido-rubens ALMQU. det. DAHLSTEDT. Syd-Grønl. Taserssup Qingua, Tasermiut-Fjord, 60°16' N. 27.—28. Juli 1925. A. E. PORSILD & M. P. PORSILD.

β. subnudulum DAHLST.

The revised material contains four sheets with this species:

H. murorum — in locis graminosis Ujarasarksoit[5]). 1829 Juli. (VAHL's handwriting).

H. murorum L. E. distr. Colon. Juliannehaab. Leg. J. VAHL. (VAHL's handwriting).

H. murorum **villosum* LGE J. L(ANGE). Groenl. austr.: Tasermiut. Legit N. HARTZ an. 1889. 5. Sept.

---

[1]) = Kiagtut in Tunugdliarfik Fjord in JOH. LANGE: Consp. Fl. Gr. I (1880) and in KOLDERUP ROSENVINGE: Andet Tillæg (1892) (?).

[2]) Mentioned under *H. murorum* L. var. (*H. nigrescens* **livido-rubens* ALMQU. in Berl.) in JOH. LANGE: Consp. Fl. Gr. II (1887).

[3]) Bredefjord = Ikersuak.

[4]) = Ikerasarsuak.

[5]) = Ujarasarsuk, mentioned under *H. murorum* L. in JOH. LANGE: Consp. Fl. Gr. I (1880), and under *β subnudulum* in KOLDERUP ROSENVINGE: Andet Tillæg (1892).

H. murorum var. (*livido-rubens*) — *H. nigrescens livido-rubens* ALMQU. J.L(ANGE). Groenl. austr.: Kagdlokasik i Tasermiut. Mellem lavt Birkekrat [Among low birch shrubs]. Legit N. HARTZ an. 1889 prim. Septbr.

The three first-mentioned sheets have been determined by S. ALMQUIST and H. DAHLSTEDT as *H. nigrescens* WILLD. **livido-rubens* ALMQU. f. *vulgatiformis*, and all sheets have later been determined by DAHLSTEDT as *H. nigrescens* WILLD. **livido-rubens* ALMQU. β, *subnudulum* DAHLST. On this latter sheet DAHLSTEDT writes as follows: "skild från hufvudformen genom mera långsträckta spetsigare ô helare blad, smala holkfjäll, hvilka äro mot spetsarne nakna ô föga håriga, endast nedtill i kanterna svagt stjernhåriga õ for öfrigt glest håriga af finare mörkare hår m. m." [differs from the main form by having more elongated, more pointed and less toothed leaves, narrow phyllaries, naked towards the apices and but slightly pilose, only at the lower margins sparsely covered with stellate hairs and otherwise with a scattered covering of finer and darker hairs, etc.].

H. Scholanderi OM.

OMANG: Übersicht über die Hieraciumflora Ost-Grönlands, pag. 7.

A single small specimen of this species was collected by the 7th Thule Expedition, viz.:

Ikerasârssuak: Augpilagtoq, 60°07′ (RICH. BØGVAD).

Formerly only met with at Möretun, 60°29′ N. lat., in the Lindenow Fjord district (DEVOLD & SCHOLANDER).

H. ivigtutense (ALMQU.) OM.

To this species belongs the following specimens from the older material:

H. vulgatum — in locis graminosis sinus Kangertluluk[1]), 1829 Juni. Leg. J. VAHL. (Label in VAHL's handwriting).

(Without designation) — in locis glareosis subhumidis inferalpium Korsoak[1]) sinus Tassarmiut 1823, Aug. Leg. J. VAHL. (Label in VAHL's handwriting).

H. vulgatum — in locis graminosis Segliviarsuk[1]) sinu Illoa 1829, Juli. J. VAHL (label in VAHL's handwriting).

H. vulgatum — in rupibus Amitsuarsuk sinus Aglaitsok[1]). 1828, Sept. (VAHL's label).

H. dovrense FR. **groenlandicum* ALMQU. v. *ivigtutense* ALMQU. Groenlandia austral., Groenedal prope Ivigtut. 20. Aug. 1883. AUG. BERLIN.

H. dovrense β, *ivigtutense* ALMQU. J. L(ANGE). (LANGE's label). Kuanersok[2]), c. 62°. legit: N. HARTZ. 12. Juli 1889.

H. dovrense FR. J. L(ANGE). (LANGE's label). Præstefjæld[3]). 2. Aug. EUG. WARMING og TH. HOLM.

The three first-mentioned sheets of VAHL's collection and that of HARTZ were determined in 1891 by ALMQUIST and DAHLSTEDT as *H. dovrense* FR. **groenlandicum* ALMQU. var. *ivigtutensis* ALMQU., the sheet from Præstefjæld by DAHLSTEDT as the same species.

---

[1]) The localities Kangertluluk, Korsoak, Segliviarsuk, Amitsuarsuk in Agdluitsok Fjord (V.) are mentioned in JOH. LANGE: Consp. Fl. Gr. I (1880) under *H. Dovrense* FR.

[2]) Kuanersok = Kvanefjord near Frederikshaab.

[3]) Præstefjæld near Holstenborg.

H. groenlandicum (A.-T.) ALMQU.

During the 6th and 7th Thule Expeditions this species was collected by HOLTVED and RICH. BØGVAD respectively, in the following localities:

Lindenow Fjord: Tininnertôq on the north side of the inner part of Lindenow Fjord (HOLTVED).

Auarqat: Igîssat Fjord, the northern side near Østpynt, 61°11′ N. lat. (BØGVAD).

Ûmmânaq: Annât Fjord, Østdalen, 63°08′ N. lat. (BØGVAD).

Akernernârmîn: Eqalimmîn, mountain facing towards the southeast, 100 m above sea-level (HOLTVED); Itivtersip akia, 10 m above sea-level (HOLTVED); Skjoldungen, Nordsund, near a house ruin, 63°24′ (BØGVAD).

In the Botanical Museum of Oslo a form of this species is found, from the head of Igaliko Fjord (KNUD JESSEN, 1926).

Among the older Danish material the following specimens were found:

H. dovrense FR. **groenlandicum* ALMQU. Kobbefjord, nær Godthaab[1]), 23.—30. Aug. 1866. Leg. RINK. — Determined by DAHLSTEDT as: *H. dovrense* FR. **groenlandicum* ALMQU. v. *ivigtutensis* ALMQU.

H. dovrense FR. v. *grœnlandica* ALMQU. — added: teste ALMQU. et DAHLST. 1891. Ø. Grønl. Umanaks Fjord (63°). 300′ alt. 13. Juli. leg. P. EBERLIN. — Printed head of the label: Dansk geologisk og geografisk Undersøgelse af Grønland 1885.

H. groenlandicum ALMQU. Groenl. orient., Lindenows Fjord, Elvleje ved Narsak (River bed near Narsak). 27. Aug. 1925, c. 60°30′ N. Lat. leg. K. N. CHRISTENSEN, det. C. H. O(STENFELD).

H. dovrense FR. Grønland, leg. RABEN. Added on the label: "**amitsokense* (ALMQU.) DAHLST."[2]).

H. amitsokense (ALMQU.) DAHLST.

Among the revised older material the following specimens belonging to this species are found:

H. vulgatum — in locis graminosis, insulae meridionali orae orientali freti Ikarisarsoak[3]). 1829. Juli. Leg. J. VAHL (label in VAHL's handwriting). Another label attached to the sheet runs as follows: "*H. dovrense* γ *amitsokense* BERL J. L(ANGE) 1886" and "teste DAHLSTEDT 1891".

---

[1]) The locality Kobbefjord near Godthaab (RINK) is mentioned in JOH. LANGE: Consp. Fl. Gr. I (1880) under *H. vulgatum* FR.

[2]) In JOH. LANGE: Consp. Fl. Gr. I (1880), under *H. Dovrense* FR., the following statement regarding this specimen is found: "først funden af Raben, men uden Angivelse af Voxested." (first found by Raben, but without indication of the locality).

[3]) The locality mentioned in JOH. LANGE: Consp. Fl. Gr. I (1880) for *H. Dovrense* FR., "paa Øerne v. Ikerasarsuk" (on the islands at Ikerasarsuk), according to the Latine text on VAHL's label should be corrected to "on the island south of Ikerasarsuk" (Christian IV.s Ø?).

H. vulgatum FRIES E. distr. Colon. Juliannehaab (the sheet in VAHL's handwriting). An attached label: "*H. vulgatum* FRIES, *H. sylvaticum* Flor. Dan.. *H. murorum β ambiguum.* WAHLENB." (in the same handwriting). Further the following words have been added on the sheet: "Dette Exemplar benyttet til Flora danica." (This specimen used for Flora danica). — Determined in 1891 by DAHLSTEDT as *H. dovrense* FR. * *amitsokense* (ALMQU.) DAHLST.

(Without designation). E. Groenlandia orientali. Leg. J. VAHL (VAHL's handwriting on the sheet). — Determined by DAHLSTEDT in 1891 as *H. dovrense* FR. **amitsokense* (ALMQU.) DAHLST.

H. dovrense FR. Kanekitok Kingua in sinu Ilua.[1]) 22. Aug. Leg. SYLOW. Printed head of the label: Dansk geologisk og geografisk Undersøgelse af Grønland 1881. — Determined by ALMQU. and DAHLST. as "*H. dovrense* FR. **groenlandicum* ALMQU. v. *amitsokensis* ALMQU." and later by DAHLSTEDT (1891) as "*H. dovrense* FR. **amitsokense* (ALMQU.) DAHLST.

H. dovrense FR. **amitsokense* (ALMQU.) DAHLST. det. H. DAHLSTEDT 1891. Ilua, lat. bor. 59°55'. 1889. Legit D^na E. LUNDHOLM.

According to notes on the sheets, all the specimens attached to them have been determined by DAHLSTEDT as *H. amitsokense* (ALMQU.) DAHLST., and since the localities Ikerasârssuk (V.), Kangikitsoq Kingua in Ilua Fjord (SYLOW) and Ilua (Mrs. LUNDHOLM) in KOLDERUP ROSENVINGE: Andet Tillæg (1892) are mentioned by DAHLSTEDT under the same species, there can hardly be any doubt that DAHLSTEDT has been inspecting these very specimens. By a revision of the sheets, the author has, however, found them to contain different forms. The three first-mentioned sheets — VAHL's specimina — belong to a form which may well be ascribed to ALMQUIST's original *H. groenlandicum v. amitsokensis*, and which on the basis of the available material may be characterised as follows:

"Stem densely hairy along its whole length. Leaves (about 8 in number) very hairy on both sides, very densely at the margins, broad, the lowermost narrowly elliptical, shallowly sinuous-toothed, narrowed downwards into broadly winged petioles, the midmost sessile with nearly auriculate clasping base, broadly rhomboid-elliptical — rhomboid-ovate, shortly pointed, the uppermost ovate, acute, with broadly rounded bases, decreasing rapidly in size upwards, and passing into the bracts of the inflorescense, all of which are densely, shallowly, rather uniformly, more or less sharply, toothed, nearly serrate. Heads but few in a slightly branched inflorescense; branches densely hairy, especially in the upper part. Involucre densely hairy, especially towards the base, and like the branches nearly without glands (these very small, almost indistinguishable). Phyllaries broad, obtuse. Styles light-coloured.

---

[1]) Kanekitok Kingua = Kangikitsok Kingua(?). The locality "Kangikitsok Kingua i Ilua Fjord" is mentioned by DAHLSTEDT in KOLDERUP ROSENVINGE: Andet Tillæg (1892) under *H. dovrense* FR. * *amitsokense* (ALMQU.) DAHLST.

The available specimens from Ilua (D^na E. LUNDHOLM) are entirely different, having a high, slightly hairy stem with about 10 leaves, which are narrowly elongated, sparsely toothed, and glabrous on the upper side. However, on account of the poorly developed heads this form cannot be more closely determined.

SYLOW's specimen — one single specimen — doubtless also belongs to a species differing entirely from that characterised above and published here under the name of

H. Sylowi n. sp.

Caulis 45 cm altus, superne sat crebro pilosus, inferne subglaber. Folia (numero 9) sursum usque a basi sensim decrescentia, parvula, plurima utrinque crebro pilosa, suprema in superiore pagina glaberrima, inferiora longiora lanceolata acuminata, basi in petiolum alatum attenuata, subintegra, proxima — intermedia duo — breviora sessilia, basi haud amplectente elliptico-lanceolata acuminata, cetera in bracteas anthelae sensim decrescentia ovata — ovato-lanceolata, peracuta, basi lata semiamplectentia, haec omnia dentibus acutis porrectisque sat remote dentata. Anthela oligocephala (apud specim. 2-cephala); rami acladiumque dense floccosi, pilis breviusculis crebris (at sparsioribus tamen quam apud speciem preacedentem) et glandulis nonnullis minutissimis vestiti. Involucra crassiuscula, basi obtusa, microglandulis crebris, pilis canis sat crebris et glandulis sparsis obscuris minutissimis vestita; squamae involucri angustiusculae sublineares, apice rotundato-obtusae. Styli lutei.

V. Grønland: Kangikitsoq Qingua[1]) near Ilua Fjord (SYLOW).

The species differs from the preceding species especially by having more numerous leaves, gradually decreasing in size right from the base of the stem, teeth more scattered, sparser and somewhat shorter hairs on the branches and involucre, and more equally broad, nearly linear, very obtuse phyllaries.

The form recorded for *H. amitsokense* (ALMQU.) DAHLST. in OMANG: Übersicht über die Hieraciumflora Ost-Grönlands, pag. 11, from a few localities in the Lindenow Fjord district as to the shape of the phyllaries and the pilosity of the involucres and branches agrees closely with the species described above, but has a more branched inflorescense, and large, coarsely and very unequally toothed leaves, and hence exhibits a habitual development differing greatly from that species. A single specimen of a similar form was brought back by the 6th Thule Expedition to South-east Greenland from a valley behind the Eskimonæsset (HOLTVED) in the district Akernernârmîn.

[1]) Cf. the footnote on the preceding page.

H. nepiocratum n. sp. (vel var. *H. crocati* FR.).

Caulis 30—40 cm altus, crassus, circ. 12-folius, ex axillis foliorum ramos erecto-adscendentes elongatos gracilesque foliatos exserens, fusco-rubescens, floccis sparsis adspersus, inferne sparsim pilosus. Folia brevia lata, subtus laxe reticulata, inferiora florendi tempore emarcida, intermedia aequilata acuminata, basi lata amplectente sessilia, marginibus minutissime sparsimque denticulata — integerrima, superiora ovali-ovata, breviter acuminata — acuta, basi late rotundata, semiamplectentia — vix amplectentia, integerrima, in bracteas ± foliaceas anthelae decrescentia, inferiora parce — maxime in nervo marginibusque — pilifera, superiora glabriuscula, utrinque floccis sparsis adspersa. Anthela oligocephala laxa indeterminata, ramis sat erectis gracilibus, inferne tenuiter floccosis sparsiuscule pilosis, sursum — ad capitulum versus — cinereo-tomentosis et pilis canis rigidis numerosis vestitis, haud glandulosis, sed pilis interdum apice glanduliformibus. Involucre circ. 10 mm alta, lata, basi subtruncata, pilis brevibus canescentibus sparsis, glandulis sparsis et floccis raris in extimis marginibus squamarum exteriorum densis vestita; squamae latae ovato-lanceolatae obtusissimae. Calathidia mediocria, valde radiantia, dentibus ligularum vix ciliatis et stylis luteis.

Lindenow Fjord: Tininnertôq on the north coast of the inner part of the Fjord (HOLTVED).

Especially distinguished by its polyphyllous, much branched stem, its short, broad, nearly entire leaves, slight pilosity except on the upper part of the branches, yellow styles, etc. It is closely related to *H. crocatum* FR. and might possibly be regarded as a varity of that species.

INDEX OF THE SPECIES MENTIONED

Page

Agropyrum violaceum **87**, 99
Agrostis borealis **86**, 111
— *canina* **88**, 99, 100, 111
— *rubra* see *A. borealis.*
Aira see *Deschampsia.*
Alchemilla alpina **61**, 110
— *filicaulis* **61**, 100, 110
— *glomerulans* **61**
— *pseudomicans* **61**
— *minor* 100
Alopecurus aristulatus 100
Alsine see *Minuartia.*
Angelica archangelica 15, 17, **69** 110
Antennaria alpina **71**
— *dioica* var. see *A. groenlandica.*
— *groenlandica* **71**
— *intermedia* **72**, 105, 106
— *labradorica* **72**, 107
Anthoxanthum odoratum **88**, 106
Arabis alpina **54**, 110
Archangelica see *Angelica.*
Armeria vulgaris var. *sibirica* **79**, 100, 101, 111
Aspidium Dryopteris see *Dryopteris Linneana.*
Asplenium viride **44**, 100
Athyrium alpestre **44**, 106, 107, 110
Bartschia alpina **79**, 111
Batrachium see *Ranunculus.*
Betula glandulosa **49**, 106, 110
— *nana* **49**
— *pubescens* **48**, 110
Botrychium boreale **43**, 106
— *lanceolatum* **43**, 100
— *lunaria* **44**
Bryanthus coeruleus **76**, 111
Calamagrostis Langsdorffi **88**, 106, 111
— *neglecta* **89**, 100, 101
Callitriche anceps **49**, 99, 110
— *verna* **39**
Campanula rotundifolia **70**, 110
— *uniflora* 101
Cardamine bellidifolia **54**

Page

Cardamine pratensis **54**, 100, 101
Carex alpina **81**
— *atrata* **81**
— *brunescens* **81**, 99, 100
— *canescens* **81**, 106
— *capillaris* **81**, 101
— *capitata* **82**
— *deflexa* **82**
— *Dreyeriana* see *C. rigida.*
— *festiva* see *C. Mackloviana.*
— *glareosa* **82**
— *hyperborea* see *C. rigida.*
— *incurva* 101
— *Lachenalii* **82**, 111
— *lagopina* see *C. Lachenalii.*
— *Lyngbyei* 111
— *Mackloviana* **82**, 100
— *michroglochin* 100, 101
— *nardina* 83, 100, 101
— *nigritella* see *C. stylosa.*
— *rariflora* **83**
— *rigida* **83**, 111
— *rotundata* **85**
— *rufina* **84**
— *salina* **84**, 99, 106
— *saxatilis* **85**
— *scirpoidea* **85**
— *subspathacea* **85**, 99, 100
— *stylosa* **85**, 106, 111
— *supina* 100, 101
— *Warmingii* see *C. rigida.*
— *vitilis* see *C. brunescens.*
Cassiope hypnoides **77**
Catabrosa see *Phippsia.*
Cerastium alpinum 40, **49**, 110
— *arcticum* see *C. alpinum.*
— *caespitosum* 110
— *trigynum* **50**, 110
Chamenerium angustifolium 35, 36, **56**, 110
— *latifolium* **56**
Cochlearia officinalis var. *groenlandica* 22, **54**, 110
Comarum palustre **61**, 99, 100
Coptis groenlandica 25, **60**, 110
Cornus canadensis 110
— *suecicca* **53**, 106, 110
Cystopteris fragilis **44**, 110
Deschampsia alpina **89**, 111
— *flexuosa* **89**, 100, 111
Diapensia lapponica **76**, 111
Draba aurea **55**
— *borea* see *D. daurica.*

Page

Draba daurica **55**, 100, 101
— *corymbosa* see *D. rupestris*.
— *groenlandica* **55**
— *hirta* see *D. daurica*.
— *incana* **55**
— *nivalis* **55**
— *rupestris* **55**, 110
Dryas integrifolia **62**. 100, 101
Dryopteris austriaca see *D. dilatata*.
— *dilatata* **44**, 106, 110
— *filix mas* **45**, 99, 106, 110
— *Linneana* **45**, 110
— *phegopteris* **45**, 106
— *pulchella* see *D. Linneana*.
Elymus arenarius 14. 15, 35, **89**, 106, 111
Elyna Bellardii **86**, 100, 101
Empetrum nigrum 13, 36, **55**, 110
Epilobium anagallidifolium **57**
— *alpinum* see *E. anagallidifolium*.
— *angustifolium* see *Chamaenerium*.
— *Hornemanni* **57**, 110
— *lactiflorum* **57**
— *latifolium* see *Chamaenerium*.
— *palustre* **57**, 99, 106
Equisetum arvense **42**
— *variegatum* **42**, 100
Erigeron alpinus see *Trimorpha*.
— *borealis* see *Trimorpha*.
— *compositus* **72**, 101
— *eriocephalus* **73**
— *neglecta* see *Trimorpha*.
— *unalaschkensis* **73**
— *uniflorus* **73**
Eriophorum polystachyum **86**, 101, 102, 104
— *Scheuchzeri* 16. **87**, 101, 111
Euphrasia latifolia **79**, 101, 111
Festuca duriuscula 111
— *ovina* 40, **90**, 111
— *rubra* **90**, 111
Galium Brandegei 100, 101
Gentiana aurea 100, 101
— *nivalis* **78**
Glyceria see *Puccinellia*.
Gnaphalium norvegicum **73**, 110
— *supinum* **74**
Habenaria albida see *H. straminea*.
— *hyperborea* **98**, 111
— *straminea* **98**, 111
Haloscias see *Ligusticum*.
Hieracium alpinum **74**, 110, **113**
— *amitsokense* **74**, **117**, 119

Page

Hieracium atratum ... 114
— *crocatum* ... 120
— *dovrense* ... 116, 117
— *groenlandicum* ... **74**, 106, **117**
— *hyparcticum* ... **75**, 106, 110, **113**
— *ivigtutense* ... **75**, **116**
— *lividorubens* ... **75**, **114**, 115
— *murorum* ... 114, 115
— *nepiocratum* ... **75**, **120**
— *nigrescens* ... 115
— *Scholanderi* ... 107, 110, **116**
— *stelechodes* ... **75**, 107
— *Sylowii* ... **119**
— *vulgatum* ... 116
Hierochloë alpina ... **90**, 101
Hippuris vulgaris ... **56**
Honckenia peploides ... **50**, 100, 110
Juncus albescens ... **96**
— *arcticus* ... **94**, 100, 101
— *biglumis* ... **95**, 100, 101
— *castaneus* ... 101
— *filiformis* ... **95**, 99, 106
— *squarrosus* ... **95**, 99, 116, 111
— *trifidus* ... **95**, 111
— *triglumis* ... 34, **96**, 100, 101, 107
— *supinus* ... 100, 101
Juniperus communis ... **41**, 110
Kobresia Bellardii see *Elyna*.
Koenigia islandica ... **58**
Lastrea spinulosa see *Dryopteris dilatata*.
Lathyrus maritimus ... **58**, 99, 106, 110
Ledum groenlandicum ... 111
Ligusticum scoticum ... **69**, 90, 106, 110
Limosella aquatica ... 34, **80**, 106, 107
Linnaea borealis ... 45, **70**, 105, 106, 107
Listera cordata ... **98**, 107
Loiseleurea procumbens ... **77**, 111
Luzula arcuata ... **96**, 111
— *confusa* see *L. arcuata*.
— *frigida* ... **96**
— *multiflora* ... **97**, 111
— *parviflora* ... **97**, 107
— *spicata* ... **97**, 111
Lycopodium alpinum ... **42**, 110
— *annotinum* ... **42**, 110
— *complanatum* ... **43**, 100
— *Selago* ... **43**, 110
Mertensia maritima ... **70**
Minuartia biflora ... **50**
— *groenlandica* ... **50**, 106, 110
— *rubella* ... **51**, 101

Page

Montia lamprosperma **59**, 106
Nardus strictus **90**, 106, 11
Oxyria digyna **59**, 110
Papaver radicatum **58**, 101
Pedicularis flammea **80**, 111
Phippsia aldida **91**, 100
Phleum alpinum **91**, 111
Phyllodoce see *Bryanthus.*
Pingvicula vulgaris **78**, 111
Pirola rotundifolia var. *grandiflora* **78**, 100, 101
— *minor* **79**, 111
Plantago juncoides 23, **79**
Poa alpigena **91**
— *alpina* **92**, 111
— *arctica* **93**
— *cenicia* see *P. rigens.*
— *flexuosa* see *P. rigens.*
— *glauca* **92**, 99, 100, 101, 111
— *laxa* 14, **92**
— *laxiuscula* see *P. laxa.*
— *nemoralis* **92**, 100, 106
— *pratensis* 43, **93**, 106, 111
— *rigens* **93**
Polygonum heterophyllum var. *boreale* **59**, 99, 106
— *viviparum* **59**, 110
Polypodium alpestre see *Athyrium alpestre.*
— *Dryopteris* see *Dryopteris Linneana.*
Polystichum lonchites **45**, 110
Potamogeton filiformis 100, 101
Potentilla anserina **62**, 100
— *Crantzii* **62**
— *alpestris* see *P. Crantzii.*
— *maculata* see *P. Crantzii.*
— *Ranunculus* **62**, 107
— *tridentata* **63**, 110
Puccinellia angustata **93**
— *phryganodes* **94**, 100
— *retroflexa* **94**, 100
Ranunculus acer **60**, 99, 100, 110
— *hyperboreus* **60**
— *pygmæus* **60**
— *reptans* 100, 101
— *trichophyllus* **60**, 99, 100
Rhinanthus groenlandicus **80**, 99, 106, 111
Rhododendron lapponicum **77**, 101, 111
Rubus saxatilis **34**, **63**, 106
Rumex acetosella 100, 101, 110
Sagina caespitosa **51**, 106, 108
— *intermedia* **51**, 101
— *Linnei* **51**, 99
— *nivalis* see *S. intermedia.*

Page

Sagina procumbens **51**, 106
— *saginoides* see *S. Linnaei*.
Salix arctica **80**
— *arctophila* 17, 64, **66**, 110
— *glauca* 65, **66**
— *herbacea* **67**, 110
Saxifraga aizoides **67**, 100, 101
— *Aizoon* **67**
— *cernua* **67**, 101
— *caespitosa* **68**, 110
— *groenlandica* see *S. caespitosa*.
— *nivalis* **68**
— *oppositifolia* **68**, 110
— *rivularis* **69**
— *stellaris* **69**, 110
— *tenuior* see *S. nivalis* var. *tenuior*.
Scirpus austriacus see *S. caespitosa*.
— *caespitosus* **87**, 111
Sedum annuum **63**, 110
— *roseum* **53**, 110
— *villosum* 100, 101
Selaginella selaginoides **46**, 106
Sibbaldia procumbens **64**
Silene acaulis **51**, 110
Sparganium affine 101
Stellaria alpestris see *S. borealis*.
— *borealis* **52**
— *calycantha* see *S. borealis*.
— *humifusa* **52**
— *media* **52**, 106
Subularia aquatica 101
Taraxacum croceum **75**, 111
— *maurostylum* 111
— *purpuridens* **76**
Thalictrum alpinum **60**
Thymus arcticus 78, 111
Triglochin palustre **97**, 100, 107
Tofieldia palustris **97**, 111
Trimorpha borealis **76**, 106
Trisetum spicatum **94**, 111
Vaccinium uliginosum **77**, 111
Vahlodea atropurpurea **94**, 107
Veronica alpina **80**, 111
— *fruticans* **80**, 111
— *saxatilis* see *V. fruticans*.
Viola palustris 15, **70**
Viscaria alpina **53**, **110**
Woodsia glabella **46**
— *hyperborea* see *W. ilvensis*.
— *ilvensis* **46**

LITERATURE

1. Andreev, V.: Виды Plantago полярного побережья Европы. — Journ. de la Soc. Bot. de Russie Tome 15, Nr. 4, 1930. In Russian, with a German Summary: Die Plantago-Arten der Polarkuste Europas.
2. Berlin, A.: Kärlväkster, insamlade under den svenska Expeditionen till Grönland 1883. — Övers. Kungl. Sven. Vet. Akad. Förhandl. 1884.
3. Bjørlykke, Bj.: Some Vascular Plants from South-East Greenland collected on the "Heimen" Expedition in 1931. Preliminary Report. — Skrifter om Svalbard og Ishavet Nr. 43, 1932.
4. Bocher, T.: Phytogeographical Studies of the Greenland Flora based upon Investigations of the Coast between Scoresby Sound and Angmagssalik. — Medd. om Grønland, Bd. 104 Nr. 3, 1933.
5. Blytt, A.: Bidrag til en Theori om Indvandringen af Norges Flora under vexlende regnfulde og tørre Tider. — Kristiania Vid. Akad. 1875—76.
6. Blytt, M. N.: Norges Flora. — Kristiania 1902—06.
7. Britton, N. L. & H. A. Brown: An illustrated Flora of the Northern United States, Canada and the British Possesions etc. — New York 1898.
8. Dahlstedt, H.: Studier öfver arktiska Taraxaca. — Arch. för Bot. Stockholm 1905.
9. — Arktiska och alpina Arter inom Formgruppen Taraxacum cerat hophorum (Led.) DC. — Ibid. Vol. 5, 1906.
10. Eberlin, P.: Blomsterplanterne i dansk Østgrønland. — Arch. f. Math. Naturv., Bind 12, Kristiania 1888.
11. — Antikritiske Bemærkninger om den grønlandske Fanerogamfloras Historie. — Geogr. Tidsskrift Bd. 12, København 1893.
12. Fernald, M. L.: Isolation and Endemism in Northeastern America. — American Journal of Bot. Bd. XI, 1924.
13. — Persistence of Plants in unglaciated Areas of Boreal America. — Mem. Am. Acad. Bd. XV, No. 3, 1925.
14. — The Antiquity and Dispersal of Vascular Plants. — Quart. Rew. of Biol. Vol. 1, Nr. 2, 1926.
15. — Some Relationship of the Floras of the Northern Hemisphere. — Proc. of the Internat. Congr. of Plant Sciences 2, 1929.
16. — Unglaciated Western Newfoundland. — Harvard Alumni Bulletin. 1930.
17. — Specific Segregation and Identities in some Floras of Eastern North America and the Old World. — Rhodora, Vol. 33, 1931.
18. Floderus, B.: Om Grönlands Salices. — Medd. om Grønland, Bd. LXIII, Kbhvn. 1923.

19. GELTING, P. E. — Ibid. Bd. 101, Nr. 2.
20. GRAAH, W. A.: Undersøgelses Reise til Østkysten af Grønland. København 1832.
21. GRØNLUND, CHR.: Islands Flora. København 1881.
22. GUNNARSON, J. G.: Monografi över Skandinaviens Betulæ. Arlöv 1925.
23. HARTZ, N.: Fortegnelse over Stednavne i Conspectus Florae Groenlandiae (cf. 39).
24. — Fanerogamer og Karkryptogamer fra N.Ø. Grønland 75°—70° N. Br. og Angmagssalik. — Medd. om Grønland, Bd. XVIII, København 1896.
25. HARTZ, N. & E. BAY: Østgrønlands Vegetationsforhold. — Ibid.
26. HARTZ, N. & CHR. KRUUSE: The Vegetation of Northeast Greenland 69°25'—75° N. Br. — Ibid. Bd. XXX, 2, København 1911.
27. HOLM, B. & V. GARDE: Beretning om Konebaads-Expeditionen til Grønlands Østkyst 1883—85. — Ibid. Hefte 9, 1889.
28. — — Om de geografiske Forhold i Dansk Østgrønland. — Ibid.
29. HOLM, THEO: Contributions to the Morphology, Synonomy and Geographical Distribution of Arctic Plants. — Rep. Canad. Arctic Exp. 1912—18. Vol. V, part B. Ottawa 1922.
30. HOLMBERG, O. R.: Skandinaviens Flora. Häfte 2, Stockholm 1926.
31. HOOKER, J. D.: Outlines of the Distribution of Arctic Plants. — Transac. Linn. Soc. Vol. 23, London 1861.
32. KOCH, LAUGE: Contributions to the Glaciology of North Greenland. — Medd. om Grønland, Bd. LXV, København 1928.
33. KORNERUP, A.: Om det organiske Liv paa den østlige Nunatak. — Ibid. Bd. I, 1879.
34. KRUUSE, CHR.: Botanical Exploration of the East Coast of Greenland between 65°30'—74°30' N. lat. — Ibid. Bd. XXX, 1904.
35 — List of Phanerogams and Vascular Cryptogams found in the Ammagssalik District. — Ibid.
36. — List of Phanerogams and Vascular Cryptogams of the Coast 75°—66°20' N. lat. of East Greenland. — Ibid.
37. — Rejser og botaniske Undersøgelser i Østgrønland mellem 65°30' og 67°20' i Aarene 1898—1902 samt Angmagssalik-Egnens Vegetation. — Ibid. XLIX, 1911.
38. KUPFFER, K. R,: Grundzüge der Pflanzengeographie der ostbaltischen Gebietes. — Riga 1925.
39. LANGE, J.: Conspectus Florae Groenlandicae. — Medd. om Grønland, Hefte III, 1880.
40. — Conspectus Florae Groenlandicae, Pars secunda. — Ibid. 1887.
41. — Bemærkninger om de i 1883—85 indsamlede Planter paa Østkysten af Grønland. — Ibid. Hefte 9, 1889.
42. LID, JOHS.: Vascular Plants from South East Greenland collected on the "Signalhorn" Expedition in 1931. — Skrifter om Svalbard og Ishavet Nr. 44, Oslo 1932.
43. LINDMANN, C. A. M.: Svensk Fanerogamflora. — Stockholm 1926.
44. LUNDAGER, A.: Some Notes concerning the Vegetation of Germania Land, North East Greenland. — Medd. om Grønland, Bd. XLIII, Kbhvn. 1912.
45. LYNGE, B.: Om Utbredelsen av endel arktiske Laver. — Svensk Bot. Tidskrift Bd. 26, Stockholm 1932.
46. OLSEN, CARSTEN: Cornaceæ. — Medd. om Grønl. Bd. XXXVII, 1921.
47. OMANG, S. O. F.: Beiträge zur Hieraciumflora Ost-Grönlands. — Skrifter om Svalbard og Ishavet Nr. 46, Oslo 1932.
48. OSTENFELD, C. H.: Flora arctica. Copenhagen 1902.

49. OSTENFELD, C. H.: Plantes recoltes à la cote Nord-Est du Groenland. — Duc d'Orleans Crosiere.... Belgica 1905. Bruxelles 1907.
50. — Critical Notes on the Taxonomy and Nomenclature of some Arctic Flowering Plants from Northern Greenland. — Medd. om Grønland, Bd. LXIV, København 1923.
51. — The Flora of Greenland and its Origin. — Vidensk. Selsk. Skrifter Bd. VI, Nr. 3, København 1926.
52. OSTENFELD, C. H. & A. LUNDAGER: List of Vascular Plants from North-East Greenland. — Medd. om Grønland, Bd. XLIII, Nr. 1, København 1910.
53. PORSILD, M. P.: On the Genus Antennaria in Greenland. — Ibid. Bd. LI, 1915.
54. — The Flora of Disko Island and the adjacent Coast of West Greenland from 60°—71° N. lat. with Remarks on Phytogeography, Ecology, Flowering, Fructification and Hibernation. — Ibid. Bd. LVIII, 1920.
55. — Abstract of a communication on "The Flora of Greenland. Its Affinities and Probable Age and Origin." — Torreya Bd. 22, 1922.
56. — Stray Contributions to the Flora of Greenland I—V. — Medd. om Grønland, Bd. LXXVII. 1930.
57. — Alien Plants and Apophytes of Greenland. — Ibid. Bd. 92 Nr. 1, 1932.
58. ROSENDAHL, H. V.: A List of Pteridophytes of Greenland with their Localities. — Ibid. Bd. LVI, 1928.
59. ROSENVINGE, L. K.: Andet Tillæg til Grønlands Fanerogamer og Karsporeplanter. — Ibid. Hefte III, København 1892.
60. — Nye Bidrag til Vestgrønlands Flora. — Ibid. Bd. 15, 1898.
61. SEIDENFADEN, G.: Botanical Investigations during the Danish East Greenland Expedition 1929. — Ibid. Bd. LXXIV, 1930.
62. — Moving Soil and Vegetation in East Greenland. — Ibid. Bd. 87, Nr. 2, 1931.
63. — The Godthaab Expedition 1928. Report on the Botanical Work and some Plant Lists of the Area visited. — Ibid. Bd. 82 Nr. 1, 1932.
64. SEIDENFADEN, G. & THORV. SORENSEN: On *Eriophorum callitrix* CHAM. in Greenland. — Ibid. Bd. 101, Nr. 1, 1933.
65. SIMONS, H. G.: A Survey of the Phytography of the Arctic American Archipelago with some Notes on its Exploration. — Lunds Universitets Aarsskrift. N. F. Afd. 2, Bd. 9, Nr. 14, Lund 1913.
66. STEFANSSON, ST.: Flora Islands. 2. Udg. København 1924.
67. STEFFENS, H.: Versuch zur Gliederung der arktischen Flora. — Botanisches Archiv, Vol. VI, 1924 & Vol. X, Berlin 1925.
68. SORENSEN, THORV.: The Vascular Plants between 71°00′ and 73°10′ N. lat. — Medd. om Grønl., Bd. 101, Nr. 3, København 1933.
69. WARMING, E.: Om Grønlands Vegetation. — Ibid. Bd. XII, København 1888.

Map of the East Coast of Greenland

between lat. 60° 00' n. and lat. 64° 40' n.

Scale

10 0 10 20 30 40 50 km

UMÎVIK PART

AKERNERNÂRMÎN PART

ÛMMÁNAK PART

TIMMIARMÎN PART

ANERITÊK PART

KANGERTILUK PART

LINDENOW PART

SOUTH GREENLAND

Kagsertôk
110
108
Uermin
109
Gyldenløves Nordsund
107
UMÎVIK
Gyldenløves Sydsund
106
Krumpen Fjord
Kap Møsting
105
Kimisâ
101
102
103
Kangerdlugssuak
Kap Moltke
104
Ekalimmin
90
89
94
91
92
Lomviefj.
98
97
Morene-næsset
Langesunds Fjord
Flotsund
100
99
Ilmarsivik
96
93
Nukarpik
95
SKJOLDUNGEN
88
87
85
Watkins Depot
84
86
Inigsuarmin
Caroline Amalie Havn
81
Pilerkit
80
79
Annât
83
82
Uvivak
Ummának Fjord
78
Ebba Havn
77
76
75
Griffenfelds Ø
74
Nunatâ
71
Igtitarajugtok
72
73
Sarpap Akaliva
70
Timmiarmin Kerertak
69
Igdlerasak
67
Igdermin
65
64
66
Aisivin
Timmiarmin Fjord
63
Takissok
TIMMIARMÎN
Langholmen
62
Ekalimmîn
61
60
Nagtoralik
Mogens Heinesens Fjord
Ikermîn
59
Ingerkiarke
Rud's Ø
58
Kap Bille
57
56
Puisertok
55
Kangek
54
Karkin akernan
53
Kap Rantzau
Napassortivak Fjord
52
Kaniorkat
51
Ikerasak
49
Takissok
50
Aneritêk
Aneritek Fjord
47
48
Kuttek
46
Akia
Nûk
45
44
Kap Tordenskjold
43
42
Kôrormîn
Puiagtok Fjord
40
41
Karka
39
Auarkat
Tâterait
38
Kap Trolle
36
37
Igîssat
Igissat Fjord
34
Ingitalt
33
35
Kap Fischer
Kangertiluk Fjord
32
Kajartalik
31
Sarkap nûa
29
30
Danell Fjord
25
Ilivilek Ø
Kap Discord
27
28
Ivimin
26
Kasingortok
24
23
Kûttîn
Kûttîn Fjord
22
20
19
21
Kangerluarsuk
Kap Walløe
17
18
Nagtoralik
Amitsuarssuk
Sermilik
Tiinnertôk
10
9
11
8
7
12
Igtukulik
Lindenows Fjord
Narssak
16
15
Nahtsek
13
14
Sagtia
Dronning Louises Ø
5
Sydprøven
Kanikitsok
Sermersok Ø
Ikerasârssuk
Tasermiut
Igdlorssuit
Kangerajik
4
3
Kererratsiak
Augpilagtok
Kangerdluk
Alik
2
Prins Christians Sund
Chr. d. IV's Ø
1
Nunatsuk
Nanortalik
Igdlukasik
Sammissok
Tkek
Tupuja
Kipisarko
Pamiagdluk
Umanarsuak (Kap Farvel)

Surveyed on Dr. Knud Rasmussen's 7th Thule Expedition 1932
by the Geodetic Institute, Copenhagen.

Where the coast-line is indicated by a continuous, bold outline the survey is complete.

The bold, stippled line indicates that the survey results have not yet been fully utilized.

Where the coast-line is shown with a thin line it has been taken from Holm and Garde's map of 1883-85, the new survey-results not having been worked up yet.

● Botanical Localities

Geodetic Institute, Copenhagen 1933.