

nae plus minus integra et sensim acutata. — Scapi 8-10 cm alti erecti, initio purpurascens, deinde stramineo-virides glaberrimi, apicibus araneosis exceptis. — Involucrum ca. 15 mm altum viridi-olivaceum, phyllariis apice distinctissime cornutis. — Calathia florescentia parce expansa, ca. 25 mm lata, floribus pallide aureis splendentibus, antheris luteis obscurioribus, polline praeditis. — Achaenia parum matura stramineo-brunnea apicibus grosse muricatis, 4.24 mm. longa, pyramides 0.75 mm, rostra 4.50 mm longa.

Rose-Lapie Pass, rocky ledges on mountain west of Mile 116, Nos. 10101 and 10155; lower Lapie River, dry shaly slopes of mountain west of Mile 132, elev. 5000', flowering specimens on June 20, No. 9760 (type); same place, rocky ledges in a ravine, No. 9498; rocky summit west of Mile 132 elev. 5000', No. 9956. Also McQuesten Area: Pelly R. flats near Pelly farm, Campbell, No. 74.

*Taraxacum pellianum* undoubtedly belongs in the section *Ceratophora* Dahlst. and perhaps is closely related to *T. hyperboreum* Dahlst. the type of which came from King William Island, N.W.T. Our plant grows in small tufts bearing numerous erect rosette leaves and usually but one scape; the tap-root is stout for a plant of its size and its crown is densely covered by the remains of last year's leaves. The leaves of the early rosette stage are mostly entire and narrow.

Our plant appears to be restricted to sunny, calcareous shale slopes of the Pelly Range where it flowered from June 15.

**Hieracium gracile** Hook. var. *yukonense* n.var.

Differt radice magis producta et ferente rosettas densas foliorum firmiorum, caulibus floriferis 30-45 cm alt., 2-3 mm diam., firmis, gaudentibus 10-15-(30) capitum subumbellatorum latorum in pendunculis longis gracilibus atrovillosis.

South shoulder of Mt. Sheldon, in old burns on timbered lower slopes in saddle between Mt. Sheldon and Mt. Riddell, elev. 4500', No. 11693 (type); same place, grassy slopes above timberline, No. 11646; northeast spur of Mt. Sheldon, in subalpine meadows near Mile 226, No. 11499; upper Rose River, river flat meadows near Mile 95, No. 10427.

The var. *yukonense*, by its stout and tall stems, many-headed inflorescence and large, leafy rosettes, differs strikingly from the low, few-headed *H. gracile*. From *H. triste* it differs by the presence on the peduncles of stalked glands and by the basal leaves which are glabrous, oblanceolate, sharply acuminate and almost cuspidate rather than obovate-obtuse.

On Mt. Sheldon var. *yukonense* fruited abundantly the first week of August. The achenes, as in *H. gracile*, are dark, wine-red drying almost black.

## 'NORTH-WEST PASSAGE' PLANTS IN THE SCOTT POLAR RESEARCH INSTITUTE<sup>1</sup>

NICHOLAS POLUNIN

*Macdonald Professor of Botany, McGill University, Montreal*

ALTHOUGH VEGETATION tends to be less prolific in the Arctic than in most other regions of the world, it is nevertheless virtually omnipresent in one form or another. Not only does it temper the summer landscape and exist in various forms abundantly in the sea, but it also shows characteristic development in fresh water and, in some circumstances, on snow or even ice. Moreover it is upon the photosynthetic activity of green plants, which alone among living organisms can regularly build up simple

inorganic substances to complex food materials, that all other forms of life are ultimately dependent for their nutriment and very existence. Consequently the elucidation of botanical problems looms large in many arctic research programmes today, and already more than a century and a quarter ago was occupying considerable attention. Outstanding among earlier investigators were Sir W. E. Parry and his officers who collected plants industriously during his three 'North-west Passage' expeditions (1819-20, 1821-23, 1824-25). The approximate routes of these

<sup>1</sup> Received for publication December 16, 1948.



voyages, together with the earlier one of Sir John Ross on which Parry also served, are shown on the accompanying sketch-map (Fig. 1). Many of the resultant collections, which are now scattered in various institutions, have recently been studied (1, 2, 3, 4, 5, 6, 7).

The main subject of this present note is the attractive series of such collections which belong to the Scott Polar Research Institute, Cambridge, and which I have been enabled to study through the kindness particularly of Professor Frank Debenham, Dr. B. B. Roberts, and the Rt. Rev. W. L. S. Fleming. Largely because they do not appear to have been considered by Hooker (8, 9) when preparing his botanical appendices to Parry's accounts of his voyages (10, 11), these collections add not a little to our knowledge of the botany of the regions whence they came; moreover they are of considerable historical interest and, being well preserved, merit some description. This will now be undertaken more or less briefly for each of the six 'sets' (numbered I-VI below) into which the specimens seem naturally to fall.

### I

The first set to be described appears to be one of the two most significant belonging to the Institute and was evidently collected during Parry's 'second' expedition (10), most of the specimens coming from *Melville Peninsula* or its adjacent islands. In some respects this set corresponds closely to a larger one recently presented to the University Herbaria, Oxford (6). Thus similar (but not identical) gilt-edged paper is generally used for mounting, the sheetlets being most often cut down to about 18.5 x 11 cm., while the labels are frequently identical in their content — although not as regards the hand that wrote them, for most at least in this Cambridge set appear to have been written by Parry himself. Such 'individual' labelling is usually to be relied upon as regards place and date, and in this set the attempted specific determinations — which are also in the same hand and were probably Parry's own—are usually in accordance with modern conceptions.

The set consists of 28 separate sheetlets of specimens that are well mounted and usually in good preservation, representing 3 species of Algae, 2 species of lichens, 6 species of mosses, 2 liverworts, and 21 species of vascular plants. Most of these are now

well known from the localities whence these specimens came (1, 14), the majority having been already reported by Hooker (8); the only really notable exception among the vascular plants is *Poa abbreviata* R. Br. of which there is a specimen labelled "Duke of York Bay, Southampton Island, August 18th, 1821" (place and date correspond perfectly with Parry's narrative (10)). This characteristic high-arctic species was reported from Igloolik by Hooker (8) and is now known from elsewhere in the vicinity of Melville Peninsula (1); but it was not previously recorded (at least in the eastern or central sectors of Canada (12)) from anywhere so far south as Southampton Island, to the known flora of which it may now be added, making a total of 169 species and 23 subsidiary entities so far recorded from that considerable land-mass (13). Another significant specimen is that of *Cerastium alpinum* L., s.l., on the sheetlet of which is written "The Island of Igloolik, July 1822". As Hooker expressly reports August as the month of collection of this species at Igloolik, this specimen would seem to give a further indication that he did not consider the present set when preparing his 'Botanical Appendix' (8). There is also a specimen of the lichen *Alectoria ochroleuca* (Ehrh.) Nyl. from Five Hawser Bay, Melville Peninsula, which appears to constitute a new locality; however, the fact that this almost ubiquitous arctic species is well known from the vicinity makes this specimen significant chiefly as yet another indication that Hooker did not see the set to which it belongs.

It is particularly among the mosses that the few cryptogams in the present set are significant; for they include *Ditrichum flexicaule* (Schwaegr.) Hampe from the new locality of Neerlo Nakto Island, and *Hypnum condensatum* Schimp. (also from Neerlo Nakto) which Mr. James Kucyniak affirms is an addition to the known flora of North America.

It would appear most likely that Parry collected as well as labelled most at least of this set; and indeed on the back of one of the moss sheetlets is written "This little collection of Arctic Mosses and Lichens, was given to my dearest Mother by her Cousin Capt. Edw. William [*sic*] Parry... M. Brod-rick". The sheetlets comprising this set are enclosed between two carefully fashioned



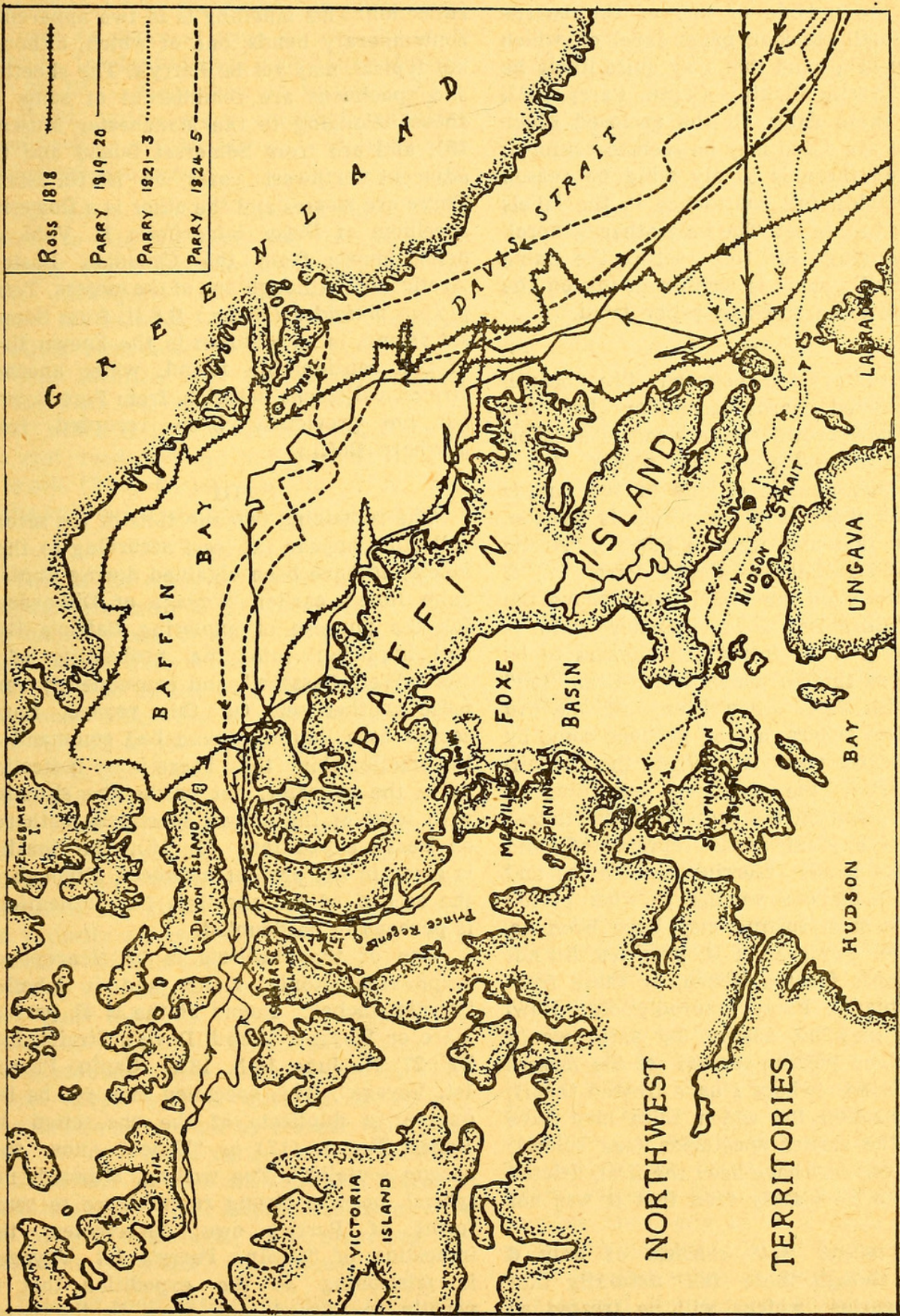


Fig. 1. Sketch-map showing approximate routes of the four "North-west Passage" voyages on which these plants were supposedly collected, viz. Ross 1818 (crossed line), Parry's 'first' 1819-20 (continuous line), Parry's 'second' 1821-3 (dotted line), Parry's 'third' 1824-5 (broken line).



boards of exotic wood that are reminiscent of, but of different origin from, those in the Manchester Museum (5) and in the University Herbaria, Oxford (6). In the present instance the outside of one of the boards bears a small stuck-on paper label on which is written in a hand that may quite likely be Parry's, "Arctic Plants - Captn. Parry 1821-22". To these dates all the enclosed specimens that are dated may be seen to conform; and indeed there is to my mind no reason for not having full confidence in the labels belonging to this set. The only other 'general' label belonging to this set is the name "Louisa Bell" which is written in ink on the board above the stuck-on paper label.

## II

Likewise pressed between two beautifully fashioned boards of similar but not identical dark-brown exotic wood is another, much smaller collection of plants. Again stuck on the outside of one of the boards is a small paper label on which is written, in a hand that may well be Parry's, "Arctic Mosses and Lichens — Captn. Parry [?] & 1825". This time the inked name above the label is "Eliza Bell". The earlier date is deleted with black ink which appears to be the same as that in which both "Eliza Bell" and "Louisa Bell" are written, and one can imagine two sisters, having perhaps come by these treasures without realizing their significance, sorting the specimens according to the dates given on the individual sheetlets—although the plant phyla represented, and the general labels referring to "Mosses and Lichens", make one wonder at what period or periods such sorting may have been accomplished. For even if M. Brodrick did not know a moss from a lichen, or these from vascular plants, Parry assuredly did. However this may be, sorting by dates would have involved putting several of the mosses in Louisa's set (where I have treated them), in compensation for which Eliza may have received the earlier specimens (see below); for whatever may have been the first, deleted date, it can be plainly seen that it was not 1818.

The present 'set' consists of only 6 sheetlets, though these fall naturally into two categories which will be treated as separate sets. Of these the larger comprises four sheetlets that were evidently gathered during Parry's 'third' expedition (11). They

are mounted on rather thick pieces of drawing paper which have been roughly cut down to about 16 x 9 cm. each, and are labelled individually with the locality and year of collection. This labelling is in two apparently contemporary hands, one of which, although not typical, may yet be Parry's. The sheetlets and specimens are reminiscent of some of those belonging to the Manchester Museum (5), and are from Somerset Island and the adjacent northwest coast of Baffin Island. Three are mosses and the other is a flowering specimen of *Dryas integrifolia* M. Vahl, all being known from the Canadian Eastern Arctic (14) although one of the mosses, *Tetraplodon mnioides* (Hedw.) B.S.G. from Somerset Island, is an addition to the known flora of that considerable island, while another, *Bryum pallescens* Schleich. from Port Bowen, has not previously been recorded from northern Baffin.

## III

The remaining two sheetlets of the second collection appear (at least according to their labels) to have been obtained during Captain John Ross's earlier "Voyage of Discovery... for the purpose of exploring Baffin's Bay, and inquiring into the probability of a North-West Passage", and consequently comprise another set. On this voyage, Parry served as a lieutenant and had command of the smaller ship (15). There is no indication as to the collector, but unlike the situation with most of the known specimens gathered on Ross's expeditions (1, 16), the locality is given in the present instances, although of the second of the sheetlets the authenticity is perhaps to be doubted.

One of the sheetlets is of *Neuropogon sulphureus* (König) Hellb. and is labelled "Arctic Lichen. Found at the N. E. part of Hare or Waygatt Island, Davis's Straits, Lat. 70° 27' N. June 18th. 1818. Captn. Parry's 1st. Voyage". This specimen may yet be the one, or a duplicate of the one, cited by Robert Brown (17) as "Usnea?—, nov. sp.? absque scutellis". The writing, although not typical, bears a strong resemblance to some forms of Parry's own; nevertheless, the indication of "Captn. Parry's 1st. Voyage" is misleading as the expedition that is usually so termed took place in the years 1819-20 and during its course Hare Island, which lies off the west coast of Greenland, was not visited (18). Nor was Parry prom-



oted even to the rank of Commander until late in 1820. Apart from these items the label checks almost perfectly with Ross's account, for he writes (15) of "Waygatt or Hare Island" that "On the 18th" (of June, 1818) "I went on shore at noon to take the sun's transit... the latitude was determinated to be  $70^{\circ} 26' 17''$ ... Here then we rested... While on shore, parties were occupied collecting specimens of natural history, and in making geological researches".

The other sheetlet that conforms most closely to this one bears four scraps of apparently exotic dicotyledonous plants that seem inadequate for determination. The paper is different from that of the other sheetlets considered above, although apparently identical with that of the majority of the next set considered below; but the label, which is in a different hand from all the rest, reads "Found N.E. part of Hare or Waygatt [sic] Island. Lat.  $70^{\circ} 27' N$ . This is the only wood and [three illegible words]".

#### IV

This is the other of the more significant sets and consists of 22 sheetlets of which the majority are of thin but good quality paper that is watermarked "Gilling & Allford 1820" and so folded over as to protect the specimens which are usually mounted with glue instead of the commoner strips. Each sheetlet is labelled in what is clearly Parry's hand, and with the possible exception of three which are unlocalized they were all collected at "Igloolik 1823" and accordingly belong to his 'second' expedition (10). The specimens are all in good preservation and the majority are correctly determined, with the name written over the locality and date by Parry who may also be presumed to have been their collector. They comprise one moss and fourteen different species of dicotyledonous plants, all belonging to widespread arctic species that were already recorded from Igloolik by Hooker (8). However, the date given on one of the sheetlets of *Cerastium alpinum* L., s.l., again makes it seem improbable that Hooker can have seen the present specimens when preparing his 'Botanical Appendix' (cf. above).

The two specimens of scurvy-grass (*Cochlearia officinalis* L., s.l.) in this set appear to belong to var. *arctica* (Schlechtend.) Gelert, which has not been recorded from

Igloolik; but they are scarcely sufficient for the foundation of a new record of a 'critical' entity which in any case is already known from the nearby Neerlo Nakto Island (1).

#### V

It is greatly to be regretted that the two remaining sets are unlocalized and indeed virtually unlabelled — the more so as they are the largest of all. Consequently we cannot use them for citation purposes. To be sure, one of them is accompanied by a recent note on the paper of the Institute which states that they are "Plants Collected by Lieutenant J. Nias during the Parry Expeditions. 1819-1822", and I also have a statement initialled by Dr B. B. Roberts to the effect that "A label with this collection reads as follows: 'Given to Jane Sheppard Alison by Lieut. Joseph Nias who sailed with Capt. Parry on board the [name omitted] to endeavour to discover the Northwest Passage'. Presented by Mrs. Baynes and Miss C. Nias". Actually, Joseph Nias was a midshipman on board the *Hecla* on Parry's 'first' voyage and a lieutenant on the *Fury* during Parry's 'second' voyage; and as the 'first' voyage took place in 1819-20 and the 'second' during 1821-23, it may well be that the above dates are correct even if at first glance they appear incongruous. Indeed this would seem the more likely because the present set contains a specimen of *Geum rossii* (R. Br.) Sér., which was first described as *Sieversia rossii* by Robert Brown from material collected on Melville Island during Parry's 'first' expedition, but which is unknown from the region visited by the 'second' expedition (19), whereas this set also contains specimens of *Matricaria inodora* var. *nana* (Hook.) Torrey and Gray emend. Polunin which was well represented in the collections brought back from the 'second' voyage (1, 8) but is unknown on Melville Island where all the plants brought back from the 'first' voyage are supposed (3) to have been collected. However this may be, the present set, being unlocalized, is practically valueless from most points of view — and the more pity as it is large and well preserved, consisting of 22 folders and one extra sheetlet which in most instances contain several (in some as many as 9 or 10) different plants. Almost all the plants belong to widespread and common arctic species. More than half the folders measure about



20 x 14 cm. and are made of larger pieces of the same paper as the last set described above; the remainder are still larger and of different, unwatermarked paper.

## VI

The final set comprises an assortment of 7 folders of various sizes and 19 loose sheetlets of plants that are without any label of any kind, although it has been said that they were collected by Nias. From their general appearance the plants might well emanate from Melville Island. The suggestion about their collector may be supported by the fact that both of the main types of paper used in the Nias collection (described last above) are also represented in the present set.

In conclusion, it is a pleasure to thank the officers of the Scott Polar Research Institute for the loan of these interesting collections, and the following gentlemen for specialist determinations: Dr. R. M. Whelden of Harvard University (Algae), Mr. George A. Llano of the Smithsonian Institution, Washington, D.C., (Lichenes), and Mr. James Kucyniak of the Montreal Botanical Garden (Bryophyta, apart from the single *Bryum* which was determined by Prof. A. LeRoy Andrews of Cornell University). Grateful acknowledgment is also due to Mr. Richard Pennington, University Librarian at McGill, for advice and assistance in dealing with problems of calligraphy — particularly in relation to the fine series of Parry letters in the Redpath Library of McGill University.

## REFERENCES

1. Polunin, Nicholas (1940): "Botany of the Canadian Eastern Arctic: Part I, Pteridophyta and Spermatophyta"; *Canada: Department of Mines and Resources, National Museum Bull. No. 92*, pp. vi + 408.
2. ——— (1942): "On some early collections of arctic plants"; *North Western Naturalist*, XVII, pp. 168-173.
3. ——— (1943a) (dated May 1942:): "Perlustrationes Plantarum Arcticarum I. 'Parry plants' in the possession of (i) the University of Durham, and (ii) the Bristol Naturalists' Society"; *Journal of Botany*, LXXX, pp. 81-94.
4. ——— (1943b): "An early collection of arctic plants belonging to the Society"; *Geographical Journal*, CII, pp. 27-29.
5. ——— (MS.a): "Perlustrationes Plantarum Arcticarum II. 'Parry plants' in the Manchester Museum"; *Journal of Botany* (in the Press).
6. ——— (MS.b): *ibid.* "IV. 'Parry plants' recently added to the University Herbaria Oxford."
7. ——— (MS.c): *ibid.* "V. 'Parry plants' in the possession of the University of Glasgow".
8. Hooker, Sir W. J. (1825): "Botanical Appendix", pp. 381-430 in "Appendix to Captain Parry's Journal of a Second Voyage for the Discovery of a North-West Passage..."; *London*: pp. 1-432.
9. ——— (1826): "Botanical Appendix", pp. 121-131 to Sir W. E. Parry, "Journal of a Third Voyage for the Discovery of a North-West Passage..."; *London*: pp. xxviii + 186, and appendix, pp. 151.
10. Parry, Sir W. E. (1824): "Journal of a Second Voyage for the Discovery of a North-West Passage..."; *London*: pp. xxx + 571.
11. ——— (1826): "Journal of a Third Voyage for the Discovery of a North-West Passage..."; *London*: pp. xxviii + 186 and appendix pp. 151.
12. A specimen in the National Herbarium of Canada (no. 129537), distributed as *Poa laxa* Haenke (Raup & Abbe no. 3903, Mount Selwyn, B.C., July 19, 1932), may yet belong to this species.
13. Polunin, Nicholas (1947): "Additions to the floras of Southampton and Mansel Islands, Hudson Bay"; *Contributions from the Gray Herbarium of Harvard University*, CLXV, pp. 94-105.
14. ——— *et al.* (1947): "Botany of the Canadian Eastern Arctic: Part II, Thallophyta and Bryophyta"; *Canada: Department of Mines and Resources, National Museum Bulletin No. 97*, pp. v + 573.



15. Ross, Sir John (1819): "A Voyage of Discovery... for the purpose of exploring Baffin's Bay..."; *London*: pp. xl. + 252 and appendix pp. cxliv.
16. Wilmot, A. J. (1942): "Canadian Arctic Botany"; *Nature* CXLIX, pp. 5-7. A review of (1).
17. Brown, Robert (1819): "Botanical Appendix" in Ross, *q.v.*, appendix pp. cxxxvii-cxliv.
18. Parry, Sir W. E. (1821): "Journal of a Voyage for the Discovery of a North-West Passage from the Atlantic to the Pacific..."; *London*: pp. xxix + 310 and appendix pp. clxxix.
19. Hultén (Flora of Alaska and Yukon, VI, p. 1042, 1946) has recently remarked on the apparent isolation of "the type locality Melville I., [which]... must be said to be most unexpected phyto-geographically and . . . unparalleled in my experience . . ." as the species is found chiefly in Asia, being otherwise known in America only from Alaska and the adjacent Aleutian Islands and Yukon Territory. Thus Melville Island already constitutes a considerable eastern extension of the known range.

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## NOTES AND OBSERVATIONS

**The Steller Eider in British Columbia.** — On October 15th, 1948, when Mr. Ronald M. Stewart of Massett, Q.C.I., B.C., was duck hunting on Massett Inlet he noticed a flock of Lesser Scaup which had only recently arrived. These birds appeared tired out and were resting with heads under wings. Amongst these he noticed one which looked strange and this bird he collected. Believing it to be a Steller Eider, Mr. Stewart sent it to the writer for confirmation. The bird proved to be an immature female Steller Eider, *Polysticta stelleri*. The bill shows the characteristic shape of that of the Steller Eider and in general the bird is more lightly coloured than the adult female, the underparts being mottled with definite barring on flanks and lower abdomen. The tertials are straight and the colour of the speculum is not so pronounced as in the adult nor is the lightish ring about the eyes so clearly defined. The bill, before drying, was a light slate grey and the tarsi and feet light brown.

This, apparently, is the first record of the Steller Eider in British Columbia waters. — KENNETH RACEY, 6542 Lime St., Vancouver, B.C.

**Feeding Flights Of Common Terns Across The Niagara Peninsula.** — Although no breeding colonies are known to exist in the

western part of Lake Ontario, common terns, *Sterna hirundo* L., are abundant throughout the summer along the shore of western Lincoln County. From May to late July many can be seen almost any day, leaving Lake Ontario and heading south or southwest across the Niagara Peninsula toward Lake Erie, or arriving from that direction. Early in June they become more noticeable and the majority of those going south carry fish in their bills. They are frequently heard passing over long after dark.

The source of these terns appears to be Mohawk Island, a small island in Lake Erie about three miles east of Port Maitland and somewhat over a mile off the shore of Haldimand County. On June 13, 1948, great numbers of terns could be seen through binoculars from the mainland, flying about and alighting on the island, and many others were scattered over the surrounding waters. A large proportion of those flying toward the island carried fish. Although the island was not visited it was evident that it supported a populous colony. It has since been learned, from a note by Donald Gamble (Prothonotary 14 (7): 46-47, 1948) that this is an old and well-known colony which contained about 1100 nests in 1948.

During twenty minutes of observation about 3.00 p.m., seven terns arrived at the





Polunin, Nicholas. 1950. "North-West Passage' plants in the Scott Polar Research Institute." *The Canadian field-naturalist* 64(1), 45–51.  
<https://doi.org/10.5962/p.341183>.

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