

No. IV.

BOTANICAL APPENDIX,

BY

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THE task of preparing a Catalogue of the Plants collected during Captain Parry's second Voyage for the discovery of a North-West Passage from the Atlantic into the Pacific Oceans, is rendered comparatively easy by the knowledge derived from the *Floras* of the neighbouring regions. These have been published by Mr. Brown, in 'Ross' Voyage, and in the first of Captain Parry's expeditions; by the same gentleman in an Enumeration of the Plants gathered in Spitzbergen by Mr. Scoresby; by Dr. Richardson in his Botanical Appendix to Captain Franklin's Journal; and by Mr. Greville in his list of the plants found by Mr. Jameson on the West Coast of Greenland: to which I may be permitted to add a small catalogue, which I drew up for Captain Scoresby, of the vegetable productions which he had collected on the East Coast of West Greenland, and which was published in his account of that voyage. The excellent *Floras* of Denmark, Norway, Lapland, and Siberia, likewise, contain many plants which are common to the arctic or subarctic parts of America.

When the extent of the present collection is considered, a greater accession of new species might perhaps have been anticipated than appears in its enumeration. Few of them can actually be termed novelties; although there are several which were discovered only for the first time during the former Voyage, or in Captain Franklin's researches in Arctic America. The situation of the countries which the expeditions embraced; Melville Island being to the North, and that portion of the continent of America bordering on the Arctic Sea to the South, of the regions last visited by Captain Parry, diminishes the probability of many new plants existing to reward the exertions of those who investigated the intermediate country.

In point of the number of its species, this collection very considerably exceeds that of either of the foregoing Voyages; a circumstance that may be

p. 274. "Br. Spitzb. pl. in Scoresby's Arctic Regions*. v. 1. App. p. 75." Richardson in Franklin's Journ. p. 742.

γ . Foliis radicalibus basi subcuneatis vel transversis alte lobatis, lobo medio cuneato-obovato basi angustiore. Br. in Parry's 1st Voy. App. cclxiv.

HAB. Igloodik. 1822 and 1823. Upper Savage Island. Duke of York's Bay. Five Hawser Bay. Repulse Bay. Barrow River.

The three above mentioned varieties, noticed by Mr. Brown, of this beautiful species of *Ranunculus*, are all to be found among the numerous specimens gathered during the present expedition; and so liable to variation are they in the form of their radical leaves, that on the same individual may be seen the two configurations which distinguish both β and γ . The variety α seems to be the rarest, and there is only one plant of it, which exactly accords with the Linnean figure in the *Flora Lapponica*. Mr. Brown correctly defines the styles of the ovary as "*rectiusculi*." Willdenow describes the beaks or styles of the *pericarps* as straight, which they neither are in his figure nor in Captain Parry's specimens, but decidedly hooked.

The plant is a native of Siberia.

2. *R. hyperboreus*. "Rottb. Pl. Isl. in Act. Hafn. v. 10. p. 458. t. 4. f. 16. Fl. Dan. p. 331. Hook. Icel. Tour. v. 2. p. 327. Wahl. Fl. Lapp. p. 158. Br. in Parry's 1st Voy. p. cclxiv.

Found in small shallow lakes at the entrance of the strait of the Fury and Hecla, and in similar situations in the island of Igloodik. Mr. Edwards. No specimens, however, were gathered. It is found in Norway and Siberia.

3. *R. affinis*, foliis radicalibus pedatomultifidis petiolatis; caulinis subsessilibus digitatis; lobis omnium linearibus, caule erecto 1-2-floro cum calycibus ovariisque pubescentibus, fructibus oblongo-cylindraceis, acheniis rostro recurvo. Br.

R. affinis. B. in Parry's 1st Voy. App. p. cclxv.

There is only one specimen of this, and that exists in Mr. Edwards's collection. It comes, as Mr. Brown observes, very near to *R. auricomus*; and will, probably, prove to be only a slight variety of it.

Mr. Edwards informs me he found it growing on the margin of a small lake on an isle situated in about latitude 69°, at the entrance of the strait of the Fury and Hecla.

II. PAPAVERACEÆ.

2. PAPAVER.

4. *Papaver nudicaule*. Linn. Sp. Pl. p. 725. Fl. Dan. t. 41. (an excellent figure.) Hook. Iceland Tour. App. p. 326. Br. in Ross's Voyage. ed. 2. v. 2. p. 193. Br. Spitz. Pl. in Scoresby's Arctic Regions. (γ radiculatum.) Grev. Pl. of W. C. of Greenl. p. 430. Richardson in Franklin's Journ. App. p. 740. Hook. in Scoresby's E. C. of West Greenl. p. 413. Br. in Parry's 1st Voyage, App. p. cclxv.

* This species did not exist in the collections of plants brought by Captain Scoresby, from the East Coast of Greenland. The individual, so named in the Appendix to the account of that voyage, p. 413, was, by mistake, written *nivalis*; it should have been *glacialis*: a species, I may observe, not found during Captain Ross or either of Captain Parry's voyages, unless it be that noticed by Mr. Brown in the Botanical Appendix to the first of these, "*Ranunculus—sulphureus forte, vel glacialis; species e fragmentis non determinanda*." Both *R. nivalis* and *R. glacialis* are plentiful in Captain Sabine's collections from the E. Coast of West Greenland.

HAB. Igloodik. 1822 and 1823. Ducket Cove. Repulse Bay.

The specimens of this plant are from seven to eight inches high, with their corolla, when fully expanded, nearly two inches in diameter, and of a bright sulphur colour: the calyx covered with brown rough hairs. My Greenland specimens, gathered by Wormskjöld, differ in nothing from these, save in being smaller, with the leaves more compact and rather more hairy. They are, I presume, the *P. radicum* of Rottb. the *nadicaule* of De Candolle.

It is found in Siberia, in Dahuria, in Unalashka, and on the coast of Labrador.

III. CRUCIFERÆ.

3. DRABA.

5. *Draba alpina*. Linn. Sp. Pl. p. 896. Fl. Dan. t. 56. Wahl. Lapp. p. 175. t. 11. f. 4. De Cand. Syst. Veget. v. 2. p. 338. "Br. Spitzb. Pl. in Scoresby's Arctic reg. v. 1. App. p. 75." Grev. Pl. of W. C. of Greenl. p. 431. Hook. in Scoresby's Pl. E. C. of W. Greenl. Richardson in Franklin's Journ. p. 744.

HAB. Igloodik. 1822 and 1823. Barrow River. Neerlo-Nakto.

The specimens of this plant scarcely agree with those in my herbarium, gathered in Lapland by Wahlenberg, the upper part of their scape and the pedicels being hairy*. The calyx also is more hairy than in the plants found by Wahlenberg. Individuals which were sent me from Norway by the late Professor Schmidt have the pedicels and calyx perfectly smooth, in this particular according with Dr. Richardson's plant, where the pedicels are scarcely at all hairy; and the calyx is entirely smooth. Here the germen is slightly pubescent.

In Europe this species has only been found in Norway and Lapland.

6. *D. pauciflora*. Br. in Parry's 1st Voyage. App. cclxvii.

HAB. Barrow River.

Differs from *D. alpina* in being smaller, in having a less number of flowers upon each scape, in the petals not being much more than half the size, and much narrower.

7. *D. micropetala*. (nov. sp.) scapis aphyllis pedicellis pilosis, foliis lato-lanceolatis subvenosis integerrimis pilis furcatis simplicibusque, petalis (albis) anguste-spathulatis calycem pilosiusculum vix superantibus.

HAB. Igloodik.

I feel extremely unwilling to add unnecessarily to the number of species, in a genus which is already burthened with many whose characters depend upon very obscure marks. I cannot, however, refer the present individual to any described one, although in most respects, but its petals, it accords with either *D. alpina* or *D. pauciflora*.

In *D. micropetala*, however, the petals are narrower than in the latter named species, and are decidedly white. The heads of flowers are capitate or corymbose, and crowded, and the glabrous germen or ovary seems to advance to maturity, without the inflorescence being lengthened into a raceme. The leaves are, in some of the specimens, even larger than those of *D. alpina*, and are decidedly reticulated with veins.

8. *D. hirta*, scapis puberulis (vel glabris) nudis vel subdiphyllis, foliis radicalibus oblongis subintegris puberulis, siliculis oblongis pedicellis glaberrimis vel pubescentibus.

Of this species the collection contains the undermentioned varieties (for I can consider them as nothing

* In Captain Sabine's collections from East Coast of W. Greenland, there are numerous specimens of *D. alpina*, some having the scape very pubescent, others nearly glabrous. The leaves also vary much in hairiness.

more), and, as far as I can judge, in plants, the investigation of which is attended with such extreme difficulty, the following synonyms may be attached to each.

Var. 1. 4-5-pollicaris, foliis lato-lanceolatis subdentatis, scapo plerumque mono-diphylo superne, una cum pedicellos calycem siliculasque, glabro.

D. hirta. Linn. Sp. Pl. p. 897. Wahl. Lapp. var. α . inferalpina. p. 175. t. 11. f. 1. De Cand. Syst. Veget. v. 2. p. 343. Hook. in Scoresby's E. C. of West Greenl. p. 413. Richardson in Franklin's Journ. p. 744.

HAB. Igloodik. 1823.

This exactly corresponds with Dr. Richardson's plant, and tolerably so with Wahlenberg's figure. The *D. glabrella* of Richardson approaches very nearly to this plant.

Var. 2. 3-5-pollicaris, foliis lanceolatis subdentatis vel integris, scapo plerumque mono-diphylo, una cum pedicellos calycem siliculamque, pubescente.

D. stellata. β . hebecarpa? De Cand. Sys. Veg. v. 2. p. 346.

D. stellata. α . De Cand. Syst. Veg. (nisi quod silic. glabr.)

D. oblongata. Br. in Ross' Voy. (absque descr.) De Cand. Syst. Veg. v. 2. p. 342.

HAB. Igloodik and Barrow River.

In this state the leaves vary in the degrees of pubescence, and in being more or less entire at the margins.

Var. 3. 3-4-pollicaris, foliis lanceolatis subintegerrimis, scapo plerumque mono-diphylo, una cum pedicellos calycem siliculamque, glaberrimo.

D. lapponica. De Cand. Syst. Veg. v. 2. p. 344. Br. in Parry's 1st Voy. p. cclxiii.

D. androsacea. Wahl. Lapp. p. 174. t. 11. f. 5. (excl. syn. omn.)

HAB. Igloodik. 1822.

My third variety agrees so well with the description, as well as the figure of Wahlenberg's *D. androsacea*, and with the *D. lapponica* of Mr. Brown, that I think I am correct in referring to those authors for it. To me it appears to hold an exactly intermediate rank between my first and my fourth varieties, approaching the former in the generally monophyllous scape, the latter in its smaller size, slenderer habit, and nearly entire leaves.

Var. 4. 1-3-pollicaris, foliis integerrimis, scapo gracili aphylo.

D. hirta. Fl. Dan. t. 142. (excellent.) Jacq. Fl. Austr. t. 432†.

D. nivalis. De Cand. Syst. Veg. v. 2. p. 344.

D. hirta. Var. β . alpicola? Wahl. Lapp. Hook. Fl. Scot. P. 1. p. 197. Grev. Pl. of W. C. of Greenland. p. 431.

D. rupestris. Br. in Hort. Kew. ed. 2. v. 4. p. 91.

HAB. Igloodik. Barrow River. Duckett Cove. Repulse Bay. Winter Island. Neerlo-Nakto.

* *D. oblongata* is thus defined by the latter author; "scapis nudis pube floccosa subhirsutis, foliis cæspitosis oblongo-linearibus integris ciliatis velutinisque, siliculis elliptico-oblongis velutinis." Closely allied to this, according to Mr. Brown and De Candolle, is the *D. corymbosa*, n. sp.† of Mr. Brown in Ross' voyage, "scapis nudis hispidulis, foliis dense cæspitosis oblongis basi attenuatis ciliatis subhispidisque, siliculis ellipticis corymbosis hispidulis." De Cand. This plant Mr. Brown speaks of, for it is not defined in Ross' voyage, as being extremely similar to *D. oblongata* and *D. rupestris*. Hort. Kew. ed. 2., and De Candolle says of it "affinis *D. oblongata* et *hirta*."

† Tab. 432, of the *Flora Austriaca*, represents three varieties of this plant, the uppermost figure approaches nearest to my fourth variety. Indeed, so changeable in this species are the size, the pubescence and the form of its leaves, that it would be endless to notice all the slight differences to which it is subject.

Leaves very variable in hairiness, sometimes quite glabrous, sometimes slightly hairy, especially at the margins, with simple longish pubescence; at other times the hairs are intermixed with a dense stellated pubescence. The scape and pedicells are glabrous or hairy, the germens generally glabrous, occasionally slightly pubescent. I find the same states of this variety in Captain Sabine's E. Greenland plants.

Var. 5. *pollicaris sesquipollicarisque*, scapo vix foliis longiore, pedicellis siliculisque corymbosis glaberrimis.

HAB. Igloolik. Barrow River. Neerlo-Nakto. Aug. 1822.

Were this variety a little larger, and were its pedicells and fruit pubescent, I should have no hesitation in referring it to the *D. corymbosa* of Brown and De Candolle. Except in the shortness of its scapes and the dense and corymbose siliculæ, it does not differ from the preceding variety.

All the states of this plant have the stem divided at the sitting on of the root (*multiceps*) into numerous short branches which are forked, the lower parts covered with the bases of former years' leaves. In these particulars the species differs from *D. incana*, which is either quite simple or sends out from the root; below the ground, several short runners, and has numerous leaves upon the stem.

9. *D. muricella*, scapo nudo velutino, foliis oblongis integris pube stellata casio-velutinis, siliculis oblongo-lanceolatis glabris. D. C.

D. muricella. Wahl. Fl. Lapp. p. 178. t. 11. f. 2. Decand. Syst. Veg. v. 2. p. 340. Br. in Ross' Voy. App. p. 193. Grev. Pl. of W. C. of Greenland. p. 431. Richardson in Franklin's Journ. p. 744.

HAB. South side of the Strait of the Fury and Hecla.

A species, as far as I can discover, differing in no respect from my 4th variety of *D. hirta*, but in being covered with short, dense, stellated pubescence; and in being destitute of simple hairs or marginal cilia. De Candolle has quoted the same figure in the Flora Danica, both for the *D. muricella* and his *D. nivalis* (my 4th variety of *D. hirta*.)

4. COCHLEARIA.

10. *Cochlearia fenestrata*. Br. in Ross' Voy. ed. 2. v. 2. p. 193. De Cand. Syst. Veg. v. 2. p. 367.

HAB. Igloolik. Fern Island. E. entrance of the Frozen strait. Neerlo-Nakto. Upper Savage island. Barrow River.

Most of the specimens are not sufficiently advanced to exhibit the fenestrate axis of the dissepiment of the pericarp: and it is thus scarcely possible to distinguish this plant from some of the states of *C. anglica*.

5. BRAYA.

11. *Braya arctica* (*nov. sp.*): foliis lineari-spathulatis carnosis integerrimis glabris, scapo aphylo pubescente.

HAB. S. side of the Strait of the Fury and Hecla. Neerlo-Nakto.

Radix fusiformis inferne fibroso-ramosa, superne multicaulis. *Caules* perbreves, foliosi. *Folia* vix unciam longa, lineari-spathulata, obtusa, carnosia, integerrima, basi membranaceo-dilatata, alba, juniora viridia, adulta omnino glaberrima, vel pilis raris albis versus apicem instructa, subtus non raro purpurascens. *Scapi* breves, vix foliis longiores, pilosi, pilis albis divaricatis simplicibus vel ramosis. *Pedicelli* bi-trilineares, succulenti, siccitate torulosi, pubescentia. *Calyx* erecto-patens, foliolis late ovatis, concavis, viridibus vel purpurascens, nunc glabris, nunc parce pilosis. *Petala* calyce duplo longiora, unguiculata, ungue purpurascens, lamina alba, vel purpurascens, dilatata. *Filamenta* edentula. *Germen* oblongo-cylindraceum, intense viride subpubescens. *Stylus* distinctus, brevis, cylindraceus, pallide viridis. *Stigma* capitatum bilobum.

Upon comparing the individuals, only two in number of this plant, which exist, though without fruit, in

the present collection, with specimens of *B. alpina* which I had received from its discoverers, it appears that they evidently belong to the same genus. The form of the pistil is exactly similar, and the habit is the same. Indeed almost the only marks of specific difference which I can detect, are that the *B. alpina* is about thrice the size of the present individual, with leaves broader, less fleshy and distinctly toothed, and that the scape is leafy. The *B. ? glabrella* of my friend Dr. Richardson, has its leaves linear, remotely toothed, is of a much longer and slenderer habit, with a scape frequently leafy and almost wholly glabrous.

This plant differs from the *Platypetalum purpurascens* of Mr. Brown, as far as I can judge from his elaborate description, principally in the different shape of its germen.

6. EUTREMA.

12. *Eutrema Edwardsii*. Br. in Parry's 1st Voy. App. p. cclxvii. Tab. A.

HAB. Igloodik. Barrow River. Duke of York's Bay. Duckett Cove. Repulse Bay. Neerlo-Nakto.

These specimens are similar in every respect to those represented in Mr. Bauer's admirable figure, except in the particular of their being almost twice as large, and having some of their corymbs of flowers drooping, while others are erect. One of Mr. Edwards's specimens is a foot in height, but it is in fruit.

7. PARRAYA.

13. *Parraya arctica*. Br. in Parry's 1st Voy. App. p. cclxviii. Tab. B.

HAB. Duke of York's Bay. Repulse Bay.

This plant also, at least the flowering specimens, is twice the size of that represented by Mr. Bauer. The seed vessels, not fully ripe however, are all nearly erect, frequently torulose and attenuated at the base, so that the whole is club-shaped.

Dr. Richardson informs me that this is the same genus with *NEUROLOMA* of De Candolle (*Prodromus Syst. Nat. Regn. Veg.*) which he has adopted from Andr. MSS. The character, however, given in the *Prodromus*, is considerably different from that of Mr. Brown. "*Calyx erectus basi æqualis, sepalis margine membranaceis. Petala unguiculata; limbo obovato. Stam. libera edentula vix calyce longiora. Siliqua lanæolata, sessiles, compressæ, valvis planis. Funiculi umbilicales superne septo adnati. Semina late marginata. Cotyledones accumbentes,*" etc.:—and he includes in it the *Hesperis arabidiflora* of his *Systema* (the *Arabis grandiflora*, Linn. Amæn. A. v. 2. t. L. f. 20), *Hesperis scapigera*, Syst. Veg. and *Arabis nudicaulis*, Syst. Veg.:—all natives of Siberia. Mr. Brown's character of *Parraya* is, "*Siliqua lata linearis, valvis venosis. Semina biseriata, testæ epidermide laxo, corrugato. Cotyledones accumbentes. Stigmata approximata, basibus connatis in stylum (brevissimum) decurrentibus. Filamenta edentula.*"

8. VESICARIA.

14. *Vesicaria arctica*. Richardson in Franklin's Journ. p. 743.

Alyssum arcticum. Fl. Dan. t. 1520. De Cand. Syst. Veg. v. 2. p. 324.

HAB. Igloodik. Duke of York's Bay. Southampton Islet.

9. ARABIS.

15. *Arabis hispida*. Brown Hort. Kew. ed. 2. v. 4. p. 106. Hook. Icel. Tour. App. p. 329. Richardson in Franklin's Journ. App. p. 743.

Cardamine hastulata. Engl. Bot. t. 469.

C. petrea. Lightf. Scot. p. 347. t. 15. f. 2.

C. petrea. β. De Cand. Syst. Veg. v. 2. p. 229.

HAB. Igloodik.

10. CARDAMINE.

16. *C. pratensis*. Linn.

β. angustifolia, foliorum radicalium pinnis lanceolatis basi attenuatis subintegris.

HAB. Igloolik. Duke of York's Bay. Southampton Island.

Among the five specimens which exist of this plant, four out of that number have their radical leaves numerous, and all of them are distinguished by their lanceolate pinnæ, tapering at the base into a short footstalk: which last character is totally at variance with that of *C. pratensis*. In other respects the two plants are perfectly alike.—I may add, that Dr. Richardson's specimens of *C. pratensis*, from the northern parts of America, have their leaflets or pinnæ orbiculate-cordate, with a slender petiole inserted into the notch; whereas those I have from Iceland entirely resemble plants of my *var. angustifolia*.

17. *C. bellidifolia*. Linn. Sp. Pl. p. 913. Fl. Lapp. ed. Sm. p. 222. t. 9. f. 2. Sm. Fl. Brit. p. 697. E. Bot. t. 2355. Fl. Dan. t. 20. Wahl. Fl. Lapp. p. 179. Hook. Fl. Scot. P. 1. p. 199. Wahl. Helv. p. 126. Brown in Scoresby's Arctic Regions, v. i. App. p. 75. Hook. Iceland Tour. v. 2. App. p. 329. Brown in Parry's 1st Voy. App. p. cclxx.

HAB. Igloolik. Mr. Edwards.

A single specimen of this was gathered by Mr. Edwards at Igloolik. Three other individuals of the same plant are in that gentleman's collection from Melville Island.

IV. CARYOPHYLLÆ.

11. SILENE.

18. *Silene acaulis*. Linn. Sp. Pl. 709. Fl. Dan. t. 21. Smith Fl. Brit. p. 472. Hook. Icel. Tour. App. p. 324. Pursh Fl. N. Am. v. i. p. 316. Grev. Pl. of W. C. of Greenl. p. 429. Br. in Ross. Voy. ed. 2. v. 2. p. 192. Wahl. Lapp. p. 122. Hook. Fl. Scot. P. 1. p. 135. Hook. in Scoresby's E. C. of W. Greenl. App. p. 411. Richardson in Franklin's Journ. App. p. 738.

HAB. Upper Savage Island. Duckett Cove. S. side of the Strait of the Fury and Hecla.

This plant is found on most of the European Alps, as well as on the mountains of North America.

12. LYCHNIS.

19. *Lychnis apetala*. Linn. Fl. Lapp. ed. Sm. p. 150. t. 12. f. 1. Fl. Dan. t. 305. Wahl. Lapp. p. 135. t. 7. Gmel. Siber. v. 4. p. 157. Br. in Ross Voy. ed. 2. v. 2. p. 192. Richardson in Franklin's Journ. App. 738.

HAB. Igloolik. Duckett Cove. Neerlo-Nakto. Repulse Bay. Duke of York's Bay. Southampton Island.

A dwarf specimen of this is in Mr. Edwards's collection, having the whole flower of a white colour.

13. SPERGULA.

20. *Spergula saginoides*. Linn. Sp. Pl. p. 631. Sm. Fl. Brit. p. 504. Engl. Bot. t. 2105. Hook. Fl. Scot. P. 1. p. 145. Gmel. Sib. v. 4. t. 157. De Cand. Fl. Gall. p. 394. Wahl. Fl. Lapp. p. 138. Fl. Dan. t. 1577. Hook. Icel. Tour. p. 325.

Two specimens of this plant are in Mr. Edwards's collection. I have received individuals from Professor Hornemann, which were gathered in Greenland. In the *Flora Danica*, too, it is stated to be an inhabitant of Norway.

14. CERASTIUM.

21. *Cerastium alpinum*. Linn. Sp. Pl. p. 628. Lightf. Scot. p. 242. t. 10. (Cerast. latif.) Smith Fl. Brit. p. 500. Engl. Bot. t. 472. Hook. Icel. Tour. App. p. 325. Wahl. Lapp. p. 136. Gmel. Siber. v. 4. p. 150. Hook Fl. Scot. P. 1. p. 144. Br. Spitzb. Pl. in Scoresby's Arct. Reg. v. 1. App. p. 75. Br. in Ross Voy. ed. 2. v. 2. p. 192. Hook. in Scoresby's E. C. of W. Greenl. p. 413?

β. *C. glabratum*, foliis sub lanceolatis glabratis. Fl. Dan. t. 979.

C. glabratum. Hartmann.

HAB. Igloodik. Aug. 1822. Fern Island. Duckett Cove. Neerlo-Nakto. β. Duke of York's Bay.

15. STELLARIA.

22. *Stellaria lata*. Richardson in Franklin's Journ. App. p. 738.

HAB. Duckett Cove. Igloodik.

The specimens of this plant coincide precisely with those which I have received through the kindness of Dr. Richardson.

It seems to hold a middle station between *S. glauca* and *S. nitida*.

23. *Stellaria Edwardsii*. Br. in Parry's 1st Voy. App. p. ccxxi. Richardson in Franklin's Journ. App. p. 738.

S. nitida. Hook. in Scoresby's E. C. of West Greenl. App. p. 411.

β caule foliisque glaberrimis. *St. Edwardsii* β. Br. in Parry's 1st Voy. loc. cit.

HAB. β. Igloodik. Barrow River. Neerlo-Nakto. Duke of York's Bay. Upper Savage Island. Winter Island 1822.

I find myself much at a loss to distinguish some individuals of this species from *S. lata* of Dr. Richardson. The relative length of the corolla and calyx appears to me to vary in different specimens; and the uppermost and younger leaves are often more attenuated and more thin and glaucous and less shining than the lower ones. All the specimens of this collection are glabrous, like the smaller of two under this name, which Dr. Richardson has given me, and thus according with the var. β. above quoted from Melville Island.

My learned and valued friend Mr. Brown has separated his *S. Edwardsii* from my *S. nitida*, upon the ground that I have described the "leaves" as "lanceolate, somewhat three-nerved when dry, the flowers subpaniculated, and anthers yellow;" whereas he has characterized the "leaves" as "ovato-lanceolate, nerveless, the peduncles one-flowered or trifid, and the anthers purple."

The form of a lanceolate leaf may be so easily understood to pass into the ovato-lanceolate, that no great stress should perhaps be laid on this character. Besides I find that in both Dr. Richardson's specimens and mine, there are some leaves linear-lanceolate, and, on the other hand, some ovato-lanceolate, and I have adopted the medium term. By the expression, somewhat three-nerved, I meant to imply that, besides the central nerve, (which indeed is evident in Dr. Richardson's specimen as well as mine), there is, in the thickness of the leaf, a lateral linear impression, owing to its shrinking in drying, and which gives the appearance of three obscure nerves. If I have described the inflorescence as subpaniculated, I have also said that the flowers are sometimes "solitary;" and a "trifid peduncle," in this kind of inflorescence, will be found not to be far removed from a panicle. In Dr. Richardson's flowering specimens in my possession, the anthers are unquestionably of a deep purple colour; and upon looking again at the only specimen in flower which I received from Captain Scoresby, the anthers are of an orange yellow, at the back even approaching to purple. If however this character is of importance, then I fear some of the individuals in the present collection will have to be removed altogether from *S. nitida*, as the anthers are, in many instances,

of a pale straw-colour.—Notwithstanding that the specific appellation, *nitida*, has the right of priority in it favour, I have great pleasure in adopting that of *Edwardsii*, in order that the name of a gentleman may be thereby commemorated, who has rendered most essential service to the Flora of the Arctic regions,* and to myself, individually, in the preparation of the present Catalogue.

24. *S. humifusa*. “Rottb. in Act. Hafn. v. 10. p. 447. t. 4. f. 14. Retz. Prodr. Fl. Scand. n. 488.” Fl. Dan. t. 978. Grev. Pl. of W. Greenl. p. 429.

S. crassifolia. β . Wahl. Lapp. p. 125.

HAB. Neerlo-Nakto.

It is singular that Wahlenberg should have confounded this species, which has very much indeed the habit of *Arenaria peploides*, with the *Stellaria crassifolia*, which is quite a different plant, as is likewise the *Arenaria humifusa* of the same author. I have, in my herbarium, specimens from Dr. Swartz, which were gathered at the river Varanska, near the North Cape, and others from Greenland, sent me by Professor Hornemann. Captain Sabine has brought it from the E. Coast of W. Greenland.

16. ARENARIA.

25. *Arenaria rubella*.

Alsine rubella. Wahl. Lapp. p. 128. t. 6*.

Arenaria quadrivalvis. Br. in Parry's 1st Voy. App. p. cclxxi.

HAB. Igloolik. Neerlo-Nakto. South side of the Strait of the Fury and Hecla.

As I can find no difference between the specimens of this plant in the collection, and individuals of *Alsine rubella* which I have received from Professor Hornemann, I have retained the specific name of Wahlenberg: indeed Mr. Brown seems to consider the two species may be the same. It is plentiful on the E. Coast of W. Greenland (Captain Sabine).

26. *Arenaria Rossii*. Br. in Parry's 1st Voy. App. p. cclxxii. Richardson in Franklin's Journ. App. p. 738.

HAB. Barrow River. Duckett Cove. Duke of York's Bay.

This species has the habit of *A. rubella*, but it is admirably distinguished by its blunt, nerveless, shorter leaves, which are like those of *Sagina maritima*.

The plant agrees better with Mr. Brown's description than with Dr. Richardson's specimens. Those differences are noticed by the first author, *loc. cit.*

26*. *A. Pumilio*, glaberrima caespitosa, foliis lineari-subulatis obtusis carnosius enerviis flore longioribus margine ciliato, flore solitario subsessili, petalis oblongo-spathulatis calyces trinervios obtusissimos duplo longioribus.

A. Pumilio. Br. MSS.

A. arctica. “Stev. MSS.?” D. C. Prodr. v. 1. p. 404?

Habitus, speciminum nanorum *Silenis acaulis*. *Radix*, pro ratione plantulae, longa, descendens, subfusiformis, vix fibrosa. *Caulis* plurimi ex eadem puncto, breves, uniaes, caespitosi, subdichotomi, foliosi. *Folia* opposita, basi dilatata, connata, densissime imbricata, caulem obtegentia, inferiora marcescentia, superiora viridia, nunc purpureo tincta, patentia, lineari-subulata, glabra, enervia, obtusissima, carnosia, supra planiuscula subtus semicylindrica, margine ciliato, ciliis brevibus albis subrecurvis. *Pedunculi* vix ulli. *Flores* solitarii terminalis, foliis subimmersi. *Calyx* 5-partitus, viridi-flavescens, vel purpurascens, foliolis ovatis,

* Since this Appendix was written, the *Arenaria rubella* has been found upon the Breadalbane Mountains in Scotland, and a figure and description of it will appear in the next Number of the New Series of *Flora Londinensis*.

concavis, trinerviis, obtusissimis, carnosiusculis, marginibus submembranaceis, albis. *Petala* 5, subunguiculata, angusta, oblongo-spathulata, calyce duplo longiora, alba. *Stamina* 10. *Filamenta* subulata, alba, germine paulo longiora. *Anthera* rotundata, flavæ. *Germen* ovatum, sessile, calyce brevius. *Stigmata* 3, filiformia, breviuscula, pubescentia, alba.

HAB. One of the Islands in the Strait of the Fury and Hecla, *Lieutenant James Ross*.

For the opportunity of adding this interesting plant to the list, I am indebted to the kindness of my friend, R. Brown, Esq., who sent me a specimen for inspection, marked *A. Pumilio* of his MSS. It will rank near *A. Rossii*, but is abundantly different in habit, as well as in essential characters, and approaches still nearer to the *A. arctica* of De Candolle, according to his character in the *Prodromus*. "Parvula cæspitosa foliis linearibus obtusis caulibus unifloris, pedunculis piloso-glandulosis, sepalis oblongis obtusis vix nervosis, petalis obovatis calyce duplo longioribus:" an inhabitant of the shores of the Icy Sea in Siberia, and which, that Author further remarks, has the habit of *Silene acaulis*. Had the ciliæ upon its leaves been described, I should hardly have entertained a doubt of their being the same; and these, it must be confessed, are minute, and only visible under the microscope.

27. *Arenaria propinqua*, cæspitosa glanduloso-pilosa, foliis lineari-subulatis acutis trinerviis, calyce acuto trinervi petalis vix longiori capsula breviori. Rich.

A. propinqua. Richardson in Franklin's Journal. App. p. 738.

A few specimens, and only in Mr. Edwards's collection. It perfectly accords with Dr. Richardson's description and specimens, which were gathered on the Barren Grounds between Point Lake and the Arctic Sea.

V. SAXIFRAGÆ.

17. SAXIFRAGA.

28. *Saxifraga oppositifolia*. Linn. Sp. Pl. p. 515. Smith Fl. Brit. p. 450. Engl. Bot. t. 19. Fl. Dant. t. 34. Hook. Icel. Tour. App. p. 323. Br. in Ross's Voy. ed. 2. v. 2. p. 192. Br. Spitzb. Pl. in Scoresby's Arctic Reg. v. 1. App. p. 75. Pursh Fl. N. Amer. v. 1. p. 316. Grev. Pl. of W. Greenl. p. 428. Hook. Fl. Scot. p. 1. p. 129. Hook. in Scoresby's Pl. of E. C. of W. Greenl. p. 411. Br. in Parry's 1st Voy. App. p. cclxxiii. Don. in Linn. Soc. Trans. p. 400. Richardson in Franklin's Journ. App. p. 737.

HAB. Igloolik. 1822. Repulse Bay. Winter Island. Upper Savage Island. Hudson's Strait.

In Mr. Edwards's collection are some specimens of this with a pure white flower, such as are found occasionally in the Highlands of Scotland.

29. *S. Hirculus*. Linn. Sp. Pl. p. 576. Richardson in Franklin's Journal. App. p. 737.

β. petalis obovatis, ungue nudo, caule unifloro. Br. in Parry's 1st Voyage. App. p. cclxxiii.

S. propinqua. Br. in Ross's Voyage. ed. 2. v. 2. p. 192.

Hirculus propinquus. Haw. Sax. Enum. p. 41.

HAB. β. Igloolik. 1822 and 1823. Neerlo-Nakto. Duke of York's Bay. Southampton Island.—Island, 1822. Barrow River.

In all the specimens the stem is single-flowered, and the claw of the petal is naked; but the petal of many can scarcely be called obovate. They accord with Dr. Richardson's plants and others gathered in England. It abounds on the E. Coast of W. Greenland*.

* It is worthy of remark, that the curious *S. flagellaris*, so common in Melville Island and on the E. Coast of W. Greenland, and found likewise on the N. W. Coast of America, should not have been met with in this voyage, nor by Dr. Richardson.

30. *S. aizoides*. Linn. Sp. Pl. p. 576. Fl. Dan. t. 72. (*S. autumnalis*). Smith Fl. Brit. p. 452. Eng. Bot. t. 39. Wahl. Lapp. p. 115. Hook. Icel. Tour. App. p. 323. Fl. Scot. P. I. p. 129. Pursh Fl. N. Am. v. 2. p. 312. Richardson in Franklin's Journ. App. p. 737.

HAB. Igloodik, 1823.

31. *S. tricuspidata*. "Röttb. in Act. Hafn. v. 10. p. 446. t. 6. n. 21." Fl. Dan. t. 976. Sternb. Saxifr. p. 54. Pursh Fl. N. Am. v. 1. p. 312. Br. in Ross' Voy. ed. 2. v. 2. p. 192. Hook. Icel. Tour. App. p. 323. Br. in Parry's 1st Voy. App. p. cclxxiv. Richardson in Franklin's Journ. App. p. 737.

HAB. Igloodik, 1822. Duke of York's Bay. Southampton Island. South side of the strait of the Fury and Hecla. Repulse Bay.

32. *S. rivularis*. Linn. Sp. Pl. p. 577. Fl. Dan. t. 118. Smith Fl. Brit. p. 454. Eng. Bot. t. 2275. Wahl. Lapp. p. 117. Gmel. Siber. v. 4. p. 170. Hook. Fl. Scot. P. I. p. 130. Icel. Tour. App. p. 323.

S. hyperborea? Br. in Parry's 1st Voy. App. p. cclxxiv.

HAB. Igloodik, 1822 and 1823. Eastern entrance of the Frozen Strait. Upper Savage Island. Duckett Cove. S. side of the strait of the Fury and Hecla.

The various specimens perfectly accord with my individuals of *rivularis* from Scotland and Norway, and what I have seen of the Melville Island plants, which I presume to be *S. hyperborea*, appear to be not different.

33. *S. caespitosa*, Linn. Sp. Pl. p. 578. Hook. Fl. Scot. P. I. p. 131.

Var. Surculis nullis, foliis plerumque trifidis subciliatis, caule uni-trifloro, calyce nigro-pubescente glanduloso.

S. uniflora? Br. in Parry's 1st Voy. App. p. cclxxiv.

HAB. Igloodik, 1822 and 1823. Five Hawser Bay. Neerlo-Nakto Bay. Barrow River. Fern Island.

Gunner's figure of *S. caespitosa*, t. 7. f. 4, is an excellent representation of this plant, as far as regards the inflorescence; but the leaves are more frequently quinquefid than trifid. This state of the plant is exactly similar to what Captain Sabine has brought from the E. Coast of W. Greenland.

The more common varieties of this plant are to be found upon most of the northern mountains of Europe.

34. *S. foliolosa*, foliis radicalibus cuneatis subdentatis, (scapis divisis) ramis apice unifloris infra tectis foliolis nanis fasciculatis, calycibus inferis obovatis, petalorum laminis cordato-lanceolatis. Br.

S. foliolosa. Br. in Parry's 1st Voy. App. p. cclxxv.

S. stellaris. γ . Linn. Lapp. ed. Sm. p. 144. t. 2. f. 3.

S. stellaris. β . comosa. Willd. Sp. Pl. v. 2. p. 644.

Three specimens only of this plant exist in Mr. Edwards's collection; and I have no hesitation in referring them, as that gentleman had already done, to Mr. Brown's *S. foliolosa*. The scape indeed is not divided; nor is there a single perfect flower upon the spike; nothing but tufts of small ovate thick succulent reddish green leaflets; bearing, as it appears to me, the same relationship with *S. stellaris* that my variety, noticed below, of *S. nivalis* does to that species. These leaflets are probably a kind of gemmæ which, on falling off, become new plants. This is found on the E. Coast of West Greenland, as well as in Spitzbergen, by Captain Sabine.

S. nivalis. Linn. Sp. Pl. p. 573. Fl. Dan. t. 28. Smith Fl. Brit. p. 449. Engl. Bot.

t. 440. Wahl. Lapp. p. 113. Hook. Icel. Tour. App. p. 323. Fl. Scot. P. I. p. 129. Hook. in Scoresby's E. C. of W. Greenl. App. p. 411. Pursh. Fl. N. Am. v. 1. p. 310. Br. in Parry's 1st Voy. App. p. cclxxv.

HAB. Igloodik. 1822 and 1823. Barrow River. South side of the strait of the Fury and Hecla. Repulse Bay. Duckett Cove. Neerlo-Nakto.

One of the individuals of this species, from Duckett Cove, has the scape branched at the top, and, instead of flowers, it bears clusters of small leaflets, exactly similar to those of *S. foliolosa*.

36. *S. plantaginifolia*; (nov. sp.) pubescens, foliis elliptico-rhomboideis nervosis grosse dentatis in petiolum decurrentibus, scapo nudo, panicula interrupte spicata foliacea, petalis ligulatis calyce brevioribus.

HAB. Igloodik. 1823. Neerlo-Nakto.

Radix crassa, fibrosa. *Caulis* nullus. *Folia* pauca, in orbem disposita bi-triuncialia, elliptico-rhomboidea, viridia vel ad marginem purpurascens, pubescentia, ad marginem præcipue, superne grosse serrato-dentatis, inferne integerrimis in petiolum decurrentibus, petiolo pubescente ciliato. *Scapus* uncialis ad spithamæam, nudus, teres, pubescens. *Panicula* in spicam oblongam interruptam, bracteata. *Bractea* oblonga, foliacea, dentata, superiores minores, purpureæ. *Pedicelli* perbreves, fere nulli. *Calyx* atro-sanguineus, semi-inferus, quinquefidus, segmentis patentibus, obtusiusculis. *Petala* parva, ligulata, purpurea, uninervia, segmentis calycinis breviora. *Stamina* decem. *Anthera* intense crocæ. *Capsula* semisupera, birostrata.

A species in appearance more nearly allied to *S. pennsylvanica* than to the common state of *S. nivalis*, especially resembling the former in its leaves, which have their central rib very conspicuous, and are also furnished with two lateral nerves, which are more or less evident. A striking character of this plant may be found in its generally interrupted leafy spike, which is almost entirely of a deep purple colour, and which is, as it were, speckled, with the orange-red coloured anthers.

37. *S. cernua*. Linn. Sp. Pl. p. 577. Fl. Dan. t. 390. Smith Fl. Brit. p. 453. Engl. Bot. t. 664. Gmel. Siber. v. 4. p. 163. Wahl. Lapp. p. 116. Hook. Icel. Tour. App. p. 323. Fl. Scot. P. I. p. 130. Br. in Ross' Voy. ed. 2. v. 2. App. p. 192. Br. Spitz. Pl. in Scoresby's Arctic Reg. v. 1. App. p. 75. Grev. Pl. of W. Greenl. p. 428. Hook. in Scoresby's E. C. of W. Greenland. App. p. 411. Br. in Parry's 1st Voy. App. p. cclxxv. Richardson in Franklin's Journ. App. p. 737.

HAB. Igloodik. 1822 and 1823. Fern Island. Duckett Cove. Five Hawser Bay.

18. CHRYSOSPLENIUM.

38. *Chrysosplenium alternifolium*. Linn. Sp. Pl. p. 569. Fl. Dan. t. 366. Smith Fl. Brit. p. 447. Eng. Bot. t. 54. Gmel. Siber. v. 3. p. 29. Wahl. Lapp. p. 111. Hook. Fl. Scot. P. I. p. 128. Br. in Parry's 1st Voy. App. p. cclxxv. Richardson in Franklin's Journ. App. p. 737.

HAB. Igloodik. 1823.

VI. ROSACEÆ.

19. DRYAS.

39. *Dryas integrifolia*. "Vahl. in Act. Hafn. v. 4. P. II. p. 172." Fl. Dan. t. 1216. Br. in Ross' Voy. ed. 2. v. 2. p. 193. Br. in Parry's 1st Voy. App. p. cclxxvi. Richardson in Franklin's Journ. App. p. 740. Goldie, Pl. of Canad. in Edin. Phil. Journ. v. 6. p. 328. *D. tenella*. Pursh. Fl. N. Am. v. 1. p. 350.

HAB. Igloodik. 1822 and 1823. Barrow River. Duke of York's Bay. Repulse Bay. South side of the Strait of the Fury and Hecla. Duckett Cove. Neerloo-Nakto.

This elegant little plant has been found as far south as the White Hills of N. Hampshire, N. America. I fear, however, that it is not sufficiently distinct from *D. octopetala*.

20. POTENTILLA.

40. *Potentilla pulchella*. Br. in Ross' Voy. App. p. cclxxvii.

P. sericea? Grev. in Pl. of W. Greenl. p. 430.

HAB. Igloodik. 1822 and 1823.

Flowers small; petals scarcely longer than the calyx, of a pale and dingy yellow colour.

41. *P. nivea*. Linn. Sp. Pl. p. 715. Fl. Dan. t. 1035. Wahl. Lapp. p. 146. Gmel. Siber. v. 3. p. 183. t. 36. f. 1. Nestl. Potent. p. 73. Lehmann Potent. p. 184. Pursh. Fl. C. N. Am. v. 1. p. 353. Richardson in Franklin's Journ. App. p. 740.

α. foliis super villosiusculis viridibus subter niveo-tomentosis. Br.

β. foliis utrinque villosiusculis paginis concoloribus. Br.

P. nivea. β. Wahl. Lapp. p. 147.

P. grænländica. Br. in Ross' Voy. ed. 2. v. 2. p. 193.

P. frigida? Grev. Pl. of W. Greenl. p. 430. (*fide* Br.)

P. Jamesoniana? Grev. loc. cit.

P. hirsuta. (Vahl mss.) Fl. Dan. t. 1390.

P. vahliana. Lehm. Potent. p. 172.

P. verna. Hook. in Scoresby's E. C. of W. Greenl. App. p. 413. (*fide* Br.)*

HAB. *α.* Repulse Bay. Barrow River. South shore of the strait of the Fury and Hecla.

β. Repulse Bay. Winter Island. Five Hawser Bay. South side of the strait of the Fury and Hecla.

Flowers large, handsome, deep yellow. Plentiful on the E. Coast of W. Greenland. (Captain Sabine.)

VII. LEGUMINOSÆ.

21. ASTRAGALUS.

42. *Astragalus alpinus*. Linn. Sp. Pl. p. 1070. Fl. Lapp. p. 218. t. 9. f. 1. Fl. Dan. t. 51. Gmel. Siber. v. 4. p. 45. Wahl. Lapp. p. 190. t. 12. f. 5. (fruit.) Wahl. Fl. Helv. p. 131. Wahl. Fl. Carpat. p. 228. Pursh Fl. N. Am. v. 2. p. 472.

* Unfortunately, I possess no specimens to verify the observation of Mr. Brown, that the *P. verna* of my account of Scoresby's plants is the same as *P. nivea*. I certainly ought to have known *P. verna*, and to have been able to have distinguished *P. nivea* from it.

Phaca astragalina. De Cand. Astrag. p. 52. Richardson in Franklin's Journ. App. p. 745.

A single specimen in Mr. Edwards's collection.

22. OXYTROPIS.

43. *Oxytropis campestris*. De Cand. Astrag. p. 74. Richardson in Franklin's Journal. App. p. 745.

Astragalus campestris. Linn. Sp. Pl. p. 1072. Smith Engl. Bot. t. 2532. Hook. Fl. Scot. P. I. p. 216.

A. uralensis. Fl. Dan. t. 1041?

HAB. Repulse Bay. Duke of York's Bay. South shore of the Strait of the Fury and Hecla.

In most of the specimens the calyx is clothed with shaggy black hairs, and the teeth are black.

44. *Oxytropis uralensis*. De Cand. Astrag. p. 69. Richardson in Franklin's Journal. App. p. 746.

Astragalus uralensis. Linn. Sp. Pl. p. 1071. Smith Fl. Brit. p. 780. Eng. Bot. t. 466. Hook. Fl. Scot. P. I. p. 216.

HAB. Repulse Bay.

45. *Oxytropis arctica*. Subcaulis sericea, stipulis petiolaribus, foliolis oppositis alternisque ovali-oblongis, capitulo subumbellato paucifloro, leguminibus erectis oblongis acuminatis calycibusque nigro-pubescentibus. Br.

α. subumbellata, major, floribus plerumque quaternis.

O. arctica. Br. in Parry's 1st Voy. App. p. cclxxviii.

β. uniflora, minor, floribus plerumque solitariis.

HAB. *α. β.* Barrow River.

Two specimens in Mr. Edwards's collection, both in fruit, of *var. α.*

This variety (*β.*) is noticed by Mr. Brown at the end of his valuable *Remarks on the Flora of Melville Island*, as discovered by the gentlemen of the present expedition; and he says of it, "Varietas notabilis, vix enim distincta videtur species, statura minore, scapo sæpe unifloro passimque umbella biflora, dentibus calycis respectu tubi paulo longioribus, foliolis sæpe 7, quandoque 9, villis persistentibus utrinque argenteo-sericeis." Br. in Parry's 1st Voy. App. p. cccix. To these remarks I may add, that the plants are not above half the size of *α.*, the stems less woolly, the leaflets fewer, denser, and covered with short, very white, silky hairs. The peduncle scarcely rises above the leaves, and rarely bears more than one flower, occasionally two; and each subtended by a small bractea. The corolla is of a most beautiful deep purplish blue: the calyx and legume black, from the quantity of black hairs; but these are mixed with several longer white ones. The contrast between the deep blue of the corolla and the dense, white, and silvery leaves renders this a most lovely little plant.

VIII. ONAGRARIÆ.

23. EPILOBIUM.

46. *Epilobium latifolium*. Linn. Sp. Pl. p. 494. Gmel. Siber. v. 3. p. 164. Oed. Fl. Dan. t. 565. Pursh Fl. N. Am. v. 1. p. 259. Richardson in Franklin's Journ. App. p. 736. Hook. in Scoresby's Pl. of the E. C. of W. Greenl. App. p. 410.

Chamænerium halamifolium. Salisb. Hook. in Icel. Tour. App. p. 320.

HAB. Lyon-inlet. 9th September, in fruit. Duckett Cove. Five Hawser Bay.

IX. COMPOSITÆ.

24. LEONTODON.

47. *Leontodon palustre*. Smith Fl. Brit. p. 823. Engl. Bot. t. 553. Fl. Dan. t. 1708. Richardson in Franklin's Journal. App. p. 746. Br. in Parry's 1st Voy. App. p. cclxxviii. Hook. Fl. Scot. P. I. p. 227.

L. lividus. Waldstein and Kitaibel Pl. Rar. Hungar. v. 2. t. 115.

L. Taraxacum? Br. in Ross' Voy. ed. 2. v. 2. p. 194.

HAB. Duckett Cove.

25. CREPIS.

48. *Crepis nana*, glaberrima, foliis ovatis integerrimis, pappo sessili. Richardson in Franklin's Journ. App. p. 746. (APP. TAB. I.)

HAB. Repulse Bay. Five Hawser Bay. Lyon Inlet.

There are but few specimens of this singular plant, of which an excellent description is given by Dr. Richardson, in the page above quoted. The only station assigned for it by that gentleman is the Copper-mine River.

26. CINERARIA.

49. *Cineraria congesta*, capitulo lanato, foliis lineari-lingulatis undulatis, caule simplicissimo. Br. in Parry's 1st Voy. App. p. cclxxix.

HAB. Igloodik. 1822, 1823. Neerlo-Nakto.

This plant varies from three to seven inches in height. The leaves are sometimes merely undulated; at other times furnished with long, spreading, sharp, unequal, tooth-like processes. Generally the flowers are collected into a remarkably compact head; but in two of the specimens several of its flower-stalks spring singly from the axils of the leaves up the whole length of the stem; they are mostly single-flowered in that case, bracteated, and leafy; but always clothed, as well as the involucre, with a beautiful long and dense silky wool, by which character this species appears to be principally distinguished from *C. palustris*. Whether or not this be really a species, specimens exactly according with the individuals in this collection were gathered by Dr. Richardson in Bathurst Inlet, on the shore of the Arctic Sea, on the 25th July*.

27. ANTENNARIA.

50. *Antennaria alpina*. Br. in Linn. Trans. v. 12. p. 123. Br. in Parry's 1st Voy. App. p. cclxxx.

Gnaphalium alpinum. Linn. Sp. Pl. p. 1199. Fl. Dan. t. 1512. Richardson in Franklin's Journ. p. 743. Wahl. Fl. Lapp. p. 202. Grev. Pl. of W. Greenl. p. 431. Hook. in Scoresby's Journ. of E. C. of W. Greenl. App. p. 413. Hook. Icel. Tour, App. p. 331. Pursh. Fl. N. Am. v. 2. p. 520.

* Mr. Edwards is of opinion that those specimens of this plant, in Captain Parry's collection, which have elongated flower-stalks, were drawn out by having been made to grow on board ship; at least he has seen such treatment produce this effect. He observes, too, that he never saw the plant, in its native place of growth, otherwise than remarkably dense and crowded in its inflorescence.

HAB. Duckett Cove. South shore of the Strait of the Fury and Hecla.

These specimens, like those which were brought from Melville Island, are all female plants.

28. ERIGERON.

51. *Erigeron uniflorum*. Linn. Sp. Pl. p. 1211. Fl. Lapp. ed. Sm. p. 250. t. 9. f. 3. Smith Eng. Bot. t. 2416? Fl. Dan. t. 1397. Wahl. Fl. Lapp. p. 207. Hook. in Scoresby's E. C. of W. Greenl. App. p. 413. Richardson in Franklin's Journ. App. p. 747.

HAB. Five Hawser Bay. Lyon Inlet. Repulse Bay.

29. CHRYSANTHEMUM.

52. *Chrysanthemum integrifolium*, pilosum, foliis linearibus integerrimis, caule subaphyllo unifloro. Richardson in Franklin's Journ. App. p. 749.

HAB. Duke of York's Bay. Five Hawser Bay.

53. *C. grandiflorum* (nov. sp.), foliis (omnibus) bipinnatifidis, laciniis linearibus acutis, caule unifloro.

HAB. Repulse Bay. Fern Bay. Neerlo-Nakto.

Radix perennis, lignosa, subfusiformis, fibrosa. *Caulis* digitalis ad palmarem, simplex, basi plerumque decumbens, dein erectus, glaber, foliosus. *Folia* biuncialia et ultra, pinnatifida, glabra, segmentis iterum pinnatifidis, laciniis paucis, omnibus linearibus acutis. *Flos* terminalis, sesquiunciam latus. *Involucrum* planohemisphaericum e squamis numerosis imbricatis, viridibus, margine lato, scarioso, nigro. *Corollæ* radii albæ, ligulatæ, apice tridentatæ, disci planæ, luteæ, tubulosæ.

Evidently allied to the *Pyrethrum Halleri* and *alpinum* of Willdenow (*Chrysanthemum auct.*), but differing from them in its more numerous leaves, and in having all the foliage, that of the stem as well as of the root, equally cut into numerous bipinnatifid, linear and acute segments, and also in the great size of the flower as considered in proportion to that of the plant. In one specimen, there appear to be one or two abortive flowers in the axils of the leaves, besides the terminal perfect inflorescence. From the *Chrysanthemum* (or *Pyrethrum*) *inodorum* it is distinguished by its diminutive stature, simple stem, with the much narrower, more regularly pinnatifid leaves, and the broad black scarioso margin to the scales of the involucre.

X. CAMPANULACEÆ.

30. CAMPANULA.

54. *Campanula uniflora*. Linn. Sp. Pl. p. 231. Fl. Lapp. ed. Sm. t. 9. f. 5, 6. Wahl. Lapp. t. 3. Fl. Dan. t. 1512. Svensk. Bot. t. 526. Richardson in Franklin's Journ. App. p. 733. Br. in Parry's 1st Voy. App. p. cclxxx.

HAB. Five Hawser Bay.

Found on the E. Coast of W. Greenland by Captain Sabine.

XI. MONOTROPEÆ.

31. PYROLA.

55. *Pyrola rotundifolia*. Linn. Sp. Pl. p. 567. Smith Fl. Brit. p. 444. Engl. Bot. t. 213. Fl. Dan. t. 110. Hook. Fl. Scot. P. I. p. 127. Wahl. Lapp. p. 110. Gmel. Siber. v. 4.

p. 128. Br. in Ross' Voy. ed. 2. v. 2. p. 192. Hook. Icel. Tour, App. p. 322. Richardson in Franklin's Journ. App. p. 737. Pursh. Fl. N. Am. v. 1. p. 299. Goldie, Pl. of Canad. in Edin. Phil. Journ. v. 6. p. 326.

HAB. Five Hawser Bay.

56. *P. chlorantha*. Swartz Act. Holm. 1810. p. 190. t. 5. Svensk Bot. t. 453. Nutt. Gen. of N. Am. Fl. v. 1. p. 273.

HAB. Duckett Cove.

As far as the form of the style is concerned, both of the above species, if they may be called distinct, come between the *P. rotundifolia* and *P. media* of our country.

XII. VACCINEÆ. D.C.

32. VACCINIUM.

57. *Vaccinium uliginosum*. Linn. Sp. Pl. p. 499. Smith Fl. Brit. p. 415. Engl. Bot. t. 581. Fl. Dan. t. 231. Hook. Fl. Scot. P. I. p. 118. Wahl. Lapp. p. 96. Grev. Pl. of W. Greenl. p. 428. Hook. Icel. Tour, App. p. 321. Richardson in Franklin's Journ. App. MSS. Pursh Fl. N. Am. v. 1. p. 288.

V. pubescens. Fl. Dan. t. 1516. Hook. in Scoresby's E. C. of W. Greenl. App. p. 410.

HAB. Five Hawser Bay. Repulse Bay. South side of the strait of the Fury and Hecla.

XIII. ERICINEÆ.

33. RHODODENDRON.

58. *Rhododendron lapponicum*. Wahl. Fl. Lapp. p. 104. Grev Pl. of W. Greenl. p. 427. Richardson in Franklin's Journ. App. p. 737.

Azalea lapponica. Linn. Sp. Pl. p. 214. Fl. Lapp. t. 6. f. 1. Pall. Ross. p. 52. t. 7. f. 1. A. B. Fl. Dan. t. 966.

HAB. Five Hawser Bay. Lyon Inlet.

Found, by Mr. Boott, on the summit of White Mountains, N. America.

34. LEDUM.

59. *Ledum palustre*. Linn. Sp. Pl. p. 561. Fl. Dan. t. 1031. Pursh Fl. N. Am. v. 1. p. 300. Richardson in Franklin's Journ. App. p. 737.

HAB. Five Hawser Bay. Duckett Cove.

According to Dr. Richardson, this plant is noticed in Hearne's expedition, under the name of Wishia-Kapucea, and is found to be a better substitute for tea than *L. latifolium*.

35. AZALEA.

60. *Azalea procumbens*. Linn. Sp. Pl. p. 215. Smith Fl. Brit. p. 231. Engl. Bot. t. 865. Gmel. Siber. v. 4. p. 136. Hook. Icel. Tour. App. p. 317. Wahl. Lap. p. 62.

Fl. Dan. t. 9. Hook. Fl. Scot. P. I. p. 73. Pursh Fl. N. Am. v. 1. p. 154. Richardson in Franklin's Journ. App. p. 733.

HAB. Upper Savage Island.

It has been found on the N. W. Coast of America by Mr. Menzies, and on the summit of the White Mountains by Mr. Boott.

36. ARBUTUS.

61. *Arbutus alpina*. Linn. Sp. Pl. p. 566. Smith Fl. Brit. p. 442. Fl. Dan. t. 73. Eng. Bot. t. 2030. Lightf. Scot. v. 1. p. 215. t. 11. f. a. b. Hook. Fl. Scot. P. I. p. 126. Iceland Tour, App. p. 322. Pall. Siber. v. 3. p. 24, 27, 33. Pursh Fl. N. Am. v. 1. p. 283. Wahl. Lapp. p. 109. Wahl. Helv. p. 75. Richardson in Franklin's Journ. App. p. 737.

HAB. Five Hawser Bay.

There is only one specimen of this plant in Captain Parry's collection, and it bears but a single fully-formed fruit. Another specimen is in Mr. Edwards's collection.

62. *A. Uva Ursi*. Linn. Sp. p. 566. Lightf. Scot. p. 216. t. 11. Linn. Fl. Lapp. ed. Sm. v. 2. p. 129. t. 6. f. 3. Sm. Fl. Brit. p. 443. Eng. Bot. t. 714. Hook. Fl. Scot. P. I. p. 126. Wahl. Lapp. p. 109. Hook. Icel. Tour, v. II. App. p. 322. Wahl. Helv. p. 75. Wahl. Carpat. p. 115. Richardson in Franklin's Journ. App. p. 737.

One specimen in Mr. Edwards's collection. The N. American Indians are accustomed to smoke this plant; and because it is carried in the smoking-bags of the trading clerks, Dr. Richardson tells us it has got the name of *sac à Commis*. In Lapland, the leaves are used for tanning and dyeing, as they are in Iceland: and Linnæus, in his interesting *Lachesis Lapponica*, says, that many barrels of them were annually sent for sale to Stockholm.

37. ANDROMEDA.

63. *Andromeda tetragona*. Linn. Sp. Pl. p. 563. Fl. Lapp. ed. Sm. p. 135. t. 1. f. 4. Fl. Dan. t. 1030. "Pall. Ross. v. 2. p. 56. t. 73. f. 4. (haud in Sibirica." Wahl.) Wahl. Lapp. p. 107. Pursh Fl. N. Am. v. 1. p. 290. "Brown Spitz. Pl. in Scoresby's Arctic Reg. v. 1. App. p. 75." Br. in Ross' Voy. ed. 2. v. 2. App. p. 192. Grev. in Pl. of W. Greenl. p. 428. Hook. in Scoresby's E. C. of W. Greenl. App. p. 410. Br. in Parry's 1st Voy. App. p. cclxxxi. Richardson in Franklin's Journ. App. p. 737.

HAB. Barrow River. Duke of York's Bay. Repulse Bay.

38. EMPETRUM.

64. *Empetrum nigrum*. Linn. Sp. Pl. p. 526. Sm. Fl. Brit. p. 1072. Eng. Bot. t. 526. Fl. Dan. t. 975. Lightf. Scot. p. 612. Pall. Siber. v. 3. p. 33 and 285. Wahl. Lapp. p. 274. Pursh Fl. N. Am. p. 93. Bieberst. Tauric. Caucas. v. 2. p. 415. Wahl. Carp. p. 320. Wahl. Helv. p. 186. Hook. Fl. Scot. P. I. p. 287. Br. in Ross' Voy. ed. 2. v. 2. p. 194. Hook. Icel. Tour, App. p. 335. Hook. in Scoresby's E. C. of W. Greenl. App. p. 413. Grev. in Pl. of W. Greenl. p. 432. Richardson in Franklin's Journ. App. p. 753.

HAB. Barrow River. Duckett Cove.

Wahlenberg observes that the berries of this plant are of a very diminutive size when produced upon the Swiss Alps. In Lapland, they attain a larger growth upon the mountains than in the woods, and are by no means despised by the Laplanders. Dr. Richardson assures us that in high northern latitudes, this fruit, after the first frost, becomes very juicy and pleasant, and that it is hoarded up by the different species of Marmots, and forms the autumnal food of the *Anas hyperborea*. It is found on the summit of the White Mountains, N. America.

XIV. BORAGINÆ.

39. LITHOSPERMUM.

65. *Lithospermum maritimum*. Lehm. Asperif. p. 291. Hook. Fl. Scot. Pl. I. p. 68. *Pulmonaria maritima*. Linn. Sp. Pl. p. 195. Lightf. Fl. Scot. v. 1. p. 134. t. 7. Smith Fl. Brit. p. 218. Eng. Bot. t. 368. Hook. Icel. Tour, App. p. 316. Fl. Dan. t. 25. Gunner Fl. Norveg. p. 17. Wahl. Lapp. p. 57. Richardson in Franklin's Journ. App. p. 733.

P. parviflora. Pursh Fl. N. Am. v. 1. p. 131.

HAB. Eastern entrance of the Frozen Strait.

The specimens of this plant are very small; not exceeding three or four inches in length.

XV. SCROPHULARINÆ.

40. PEDICULARIS.

66. *Pedicularis flammea*. Linn. Sp. Pl. p. 846. Fl. Lapp. ed. Sm. p. 210. t. 4. f. 2. Fl. Dan. t. 30. Gmel. Siber. v. 3. p. 212. Hook. Icel. Tour, v. 2. App. p. 318. Pursh, Fl. N. Am. v. 2. p. 426. Grev. in Pl. of W. Greenl. p. 430. (excl. syn. Hall.) Richardson in Franklin's Voy. App. p. 742.

HAB. Five Hawser Bay.

"Corolla flavissima, galea sanguinea." (Rich. MSS.)

The Swiss *P. flammea* of De Candolle, Wahlenberg considers to be a distinct species.

67. *Pedicularis sudetica*. Willd. Sp. Pl. v. 3. p. 209? Richardson in Franklin's Journ. App. p. 742.

HAB. Duke of York's Bay.

"*Radix* fibrosa. *Caulis* plerumque solitarius, spithamæus et ultra, sæpe tortus, inferne glaberrimus. *Folia radicalia* circumscriptione lineari-lanceolata, acuta, profunde pinnatifida, elongato-petiolata, pinnis alternis oppositisve, lineari-lanceolatis, regulariter serratis, serraturis fuscis. *Folia caulina* interdum petiolata, interdum sessilia, juniora pubescentia. *Spica* pilis intricatis nitentibus obvoluta, bracteata. *Calyx* florens, sessilis, villosissimus, segmentis quinque linearibus, serratis, acutis. *Corolla* erecta, roseo-rubra: *fauce* aperta, subventricosa, purpureo-maculata; *lobi* calycem æquanti; *galea* columbino-rubra, obtusissima, brevissime rostrata, rostro deciso, leviter eroso, crenata et dentibus duobus subulatis deorsum directio munito; labio inferiori profundius trilobato, lobis repandis crosis, dentatisve. *Stylus* exsertus." Rich. MSS.

The three specimens of this plant which exist in the collection, accord perfectly with the above description by Dr. Richardson of *P. sudetica*. That gentleman expresses a doubt, in his manuscript notes, if it be really the *P. sudetica* of Willdenow. Mr. Brown's observation upon it is "*P. sudetica*, Richardson in Franklin's Journal, p. 742, à *sudetica vera* vix diversa est nisi corollæ labio superiore brevior, denticulo longior caule subunifolio, nec species distincta videtur." The same author remarks that the true *P. sudetica* comes very near

to his *P. arctica* *, being however of larger stature, having the stems glabrous, the lobes of the leaves linear, inciso-pinnatifid; those of the stem not dilated in the petiole, and the lower lip of the corolla manifestly toothed.

68. *P. hirsuta*. Linn. Sp. Pl. p. 847. Fl. Lapp. ed. Sm. p. 211. t. 4. f. 3. "Pall. Sib. v. 3. p. 34." Fl. Dan. t. 1105. Br. in Ross' Voy. ed. 2. v. 2. App. p. 192. Br. in Spitz. Pl. (fide Grev.) Grev. in Pl. of W. Greenl. p. 431. Hook. in Scoresby's E. C. of W. Greenl. p. 413. Richardson in Franklin's Journ. App. p. 742.

HAB. Igloodik, 1822, 1823. Five Hawser Bay. South shore of the Strait of the Fury and Hecla. Neerlo-Nakto. Repulse Bay. Savage Island. Hudson's Strait. Barrow River.

"Corolla tota rosea." Rich. MSS.

69. *Pedicularis Nelsonii*, subpubescens, caule brevi subaphyllo, foliis pinnatifidis pinnis ovatis incis, floribus (2-4) capitatis corolla calyce quadruplo longiore, galea obtusa, pistillo brevior. (APP. TAB. I.)

P. Nelsonii. Br. MSS. in Herb. Banks. Richardson in Franklin's Journ. App. p. 743.

P. verticillata. Pursh. Fl. N. Am. v. 2. p. 426 (fide Rich.)

P. capitata. Fischer, MSS. in Herb. Hook.

HAB. Duke of York's Bay. Igloodik. Duckett Cove.

Radix parva, subfusiformis, parum fibrosa. *Caulis* solitarius, nunc duo ex eadem radice, erectus, digitalis ad palmarem, vel "spithameam," (Rich. MSS.), fere semperaphyllus, nunc unifolius, pubescens, viridis vel purpureus. *Folia* fere omnino radicalia, ad basin squamis ovatis, fuscis, imbricatis circumdata, pierumque bina, nunc terna vel quaterna ad singulum caulem, una cum petiolum longiusculum, bi-triuncialia, circumscriptione lanceolata, profunde pinnatifida, pinnis ovatis, dentatis incis, nunc iterum subpinnatifidis, pubescentibus precipue subtus margineque. *Bractea* foliaceae, floribus breviores. *Calyx* quinquelobus, obo superiore brevior, omnibus ovato-lanceolatis, crenatis, pubescentibus. *Corolla* calyce quadruplo longiore, curvata, "primulaceo-flava, edentula" (Rich. MSS.), labio superiore, seu galea, fornicato, obtusissimo, pistillo brevior, marginibus clausis, labio inferiore dilutissime carneo-rubro, trilobato, tricarinato, superiore multum brevior.

The specimens of this plant coincide precisely with those of *P. Nelsonii*, which I have received from Dr. Richardson, and also with individuals which Dr. Fischer had sent me from Unalaska under the name of *P. capitata*. The latter appellation, however, as far as I can discover, has never been published.

To the *P. verticillata* of Willdenow and Jacquin (Fl. Austr. t. 206.), with which Pursh appears to have confounded this species, it seems to bear little or no resemblance. Its nearest affinity, especially when we consider the large size of its flowers and their situation, is with *P. Sceptum Carolinum*. That plant, however, is three or four times the size of the present individual, has the leaves far less deeply pinnatifid, the lower lip of the corolla longer, the style included, and the whole plant is glabrous.

XVI. PRIMULACEÆ.

41. DIAPENSIA.

70. *Diapensia lapponica*, Linn. Sp. Pl. p. 302. Fl. Lapp. p. 57. t. 1. Fl. 1. Fl. Dan. t. 47. Wahl. Fl. Lapp. p. 58. t. 9 (fruct.) "Rottb. Pl. Greenl. in Act. Hafn. v. 10." Svensk. Fl. t. 517.

* *P. arctica*; caule simplici lanato, foliis pinnatifidis, lobis subovatis dentato-incis: adultis glabris; caulinis petiolo dilatato; calycibus quinquefidis lanatis, galea obtusa truncata bidentata, filamentis longioribus hirsutis." Br. in Parry's 1st Voy. App. p. cclxxx.

D. obtusifolia. Pursh. Fl. N. Am. v. 2. p. 147.

HAB. Upper Savage Island.

This plant seems to be of rare occurrence, as it has not been noticed by any of our recent Arctic Voyagers, and as only one individual of it exists in the present collection.

It occurs on the summit of the White Mountains, N. America, where it has been gathered by Mr. Boott.

XVII. PLUMBAGINEÆ.

42. STATICE.

71. *Statice Armeria*, Linn. Sp. Pl. p. 394. Lightf. Scot. p. 173. Sm. Fl. Brit. p. 340. Engl. Bot. t. 226. Pall. Sib. v. 3. p. 33. Wahl. Lapp. p. 76. Hook. Icel. Tour, v. 2. p. 319. Hook. Fl. Scot. P. I. p. 97. Grev. in Pl. of W. Greenl. p. 427. Pursh. Fl. N. Am. v. 212. Richardson in Franklin's Journ. App. p. 735.

HAB. Repulse Bay. Duckett Cove. Five Hawser Bay.

XVIII. POLYGONEÆ.

43. OXYRIA.

72. *Oxyria reniformis*. Hook. Fl. Scot. P. I. p. 111. Richardson in Franklin's Journ. p. 735. Br. in Parry's 1st Voy. App. p. cclxxxii.

Rumex digynus. Linn. Sp. Pl. p. 480. Lightf. Scot. v. i. p. 190. Sm. Fl. Brit. p. 395. Engl. Bot. t. 910. Fl. Dan. t. 14. "Pall. Sib. v. 3. p. 33. Mart. Spitzb. Phipps Pol." Hook. Icel. Tour. App. p. 320. Br. in Ross' Voy. ed. 2. v. 2. p. 192. Pursh. Fl. N. Am. v. 1. p. 248.

Rheum digynum. Wahl. Lapp. p. 101. t. 9. f. 2. (fruit). Wahl. Helv. p. 74. Fl. Carp. p. 114. Grev. Pl. of W. Greenl. p. 427.

HAB. Igloodik. Duckett Cove. Eastern entrance of the Frozen Strait. South side of the Strait of the Pury and Hecla.

This grows on the summit of the Rocky Mountains, N. America, at an elevation of 10,000 feet, according to Dr. Torrey, in the Annals of the Lyceum of Nat. Hist. of New York.

44. POLYGONUM.

73. *Polygonum viviparum*. Linn. Sp. Pl. p. 516. Lightf. Scot. p. 206. Sm. Fl. Brit. p. 428. Engl. Bot. t. 669. Fl. Dan. t. 13. Fl. Kamtsch. in Arct. Zool. p. 195. Mart. Spitzb. Pl. Cap. b. t. 1. f. a. Gmel. Siber. v. 3. p. 44. t. 7. f. 2. Wahl. Lapp. p. 99. Hook. in Fl. Lond. cum fig. Hook. Fl. Scot. P. I. p. 120. Hook. Icel. Tour, App. p. 321. Pursh. Fl. N. Am. v. 1. p. 271. Bieb. Fl. Tauric. Cauc. v. 1. p. 301. Wahl. Helv. p. 73. Wahl. Carpath. p. 114. Grev. in Pl. of W. C. of Greenl. p. 427. Hook. in Scoresby's E. C. of W. Greenl. p. 410. Svensk. Bot. p. 336. Br. in Parry's 1st Voy. App. p. cclxxxi. Richardson in Franklin's Journ. App. p. 737.

HAB. Duckett Cove.

Mr. Boott has found it on the summit of the White Mountains.

XIX. AMENTACEÆ.

45. SALIX.

74. *Salix reticulata*. Linn. Sp. Pl. p. 1446. Fl. Lapp. ed. Sm. p. 296. t. 8. f. 1. t. 7. f. 1, 2. Fl. Dan. t. 212. Lightf. Scot. p. 601. Sm. Fl. Brit. t. 1057. Engl. Bot. t. 1968. Wahl. Lapp. p. 262. Wahl. Helv. p. 184. Wahl. Carpath. p. 313. Hook. Icel. Tour, App. 335. Hook. Fl. Scot. P. 1. p. 283. Pursh. Fl. N. Am. v. 2. p. 610. Richardson in Franklin's Journ. App. p. 752.

HAB. Duckett Cove.

Only one specimen, and probably a rare plant. The present individual is a variety, with the leaves small, almost orbicular, thick, rigid, and deeply reticulated.

75. *Salix arctica*. Br. in Ross' Voy. ed. 2. v. 2. App. p. 194. Br. in Parry's 1st Voy. App. p. cclxxxii. Richardson in Franklin's Journ. App. p. 752. *Salix*, No. 37. Hook. in Scoresby's E. C. of W. Greenl. App. p. 414 (descr. sine nom.) *Salix*, Grev. in Pl. of W. Greenl. p. 432. (fide Br.)

HAB. Igloodik. Barrow River. South shore of the Strait of the Fury and Hecla. Upper Savage Island. Hudson's Strait.

This is the only species of Willow noticed in Mr. Brown's List of the Plants of Melville Island. Dr. Richardson, in a MS. note to his Appendix, observes that Professor Hornemann is said to have referred some specimens of Willow, collected in Captain Parry's 1st Voyage, to the *S. versifolia* of Wahlenberg, from which it appears that this plant is the one intended. The *S. versifolia* of *Flora Lapponica* differs not only in its much narrower leaves (folia oblonga oblique acuminate), but also in the very small and lanceolate scales of the catkin, which are represented as shorter than the pedicel of the germen. *S. arctica* is however an extremely variable plant: one specimen in Mr. Edwards's collection has the underside of its leaves thickly covered with a white silky pubescence, like that of *S. arenaria*.

76. *S. herbacea*. Linn. Sp. Pl. p. 1445. Fl. Lapp. ed. Sm. p. 294. t. 8. f. 2. t. 7. f. 3, 4. Lightf. Scot. p. 600. Fl. Dan. t. 117. Sm. Fl. Brit. p. 1066. Engl. Bot. t. 1907. Pall. Sib. v. 3. p. 33. Pall. Fl. Ross. v. 2. p. 85. Wahl. Lapp. p. 260. Wahl. Carpat. p. 315. Wahl. Helv. p. 184. Pursh. Fl. N. Am. v. 2. p. 617. Hook. Icel. Tour, App. p. 334. Hook. Fl. Scot. P. 1. p. 283. Grev. Pl. of W. Greenl. p. 432.

HAB. Duckett Cove.

MONOCOTYLEDONES.

XX. JUNCÆ.

46. JUNCUS.

77. *Juncus biglumis*. Linn. Sp. Pl. p. 467. Lightf. Scot. p. 1100. Smith Fl. Brit. p. 382. Engl. Bot. t. 898. Fl. Dan. t. 120. Br. in Parry's 1st Voy. App. p. cclxxxii. Hook. Icel. Tour. App. p. 319. Hook. Fl. Scot. P. 1. p. 106.

One specimen in Mr. Edwards's collection.

47. LUZULA.

78. *Luzula hyperborea*, spicis multifloris subumbellatis pedunculatis sessilibusque (nunc omnibus sessilibus), bractea umbellæ foliacea; partialibus omnibus fimbriatis, capsulis obtusis perianthia acuta subæquantibus, caruncula basilari seminis obsoleta, foliis planis. Br.

α. major, foliis angustioribus, bracteis partialibus insigniter albo-fimbriatis.

L. hyperborea, Br. in Parry's 1st Voy. App. p. cclxxxiii.

L. campestris, Br. Spitzb. Pl. in Scoresby's Arct. Reg. 1. App. p. 75.

Juncus arcuatus. Hook. in Scoresby's Greenl. App. p. 410 (fide Br.)

J. campestris. Soland. in Phipps' Voy. (fide Br.)

β. minor, foliis latioribus, bracteis partialibus vix fimbriatis.

HAB. *α.* Duke of York's Bay, Southampton Inlet. Duckett Cove.—*β.* Igloodik. S. shore of the Strait of the Fury and Hecla. Neerlo-Nakto. Duke of York's Bay.

It is very easy, with the numerous specimens which I have seen both in Captain Parry's and Mr. Edwards's collections, to separate the individuals which I have indicated above as constituting the varieties *α* and *β* of this species; and it is possible, when the perfect fruit of the latter shall be discovered, that it may furnish more important characters than any I have yet detected, and enable us to make of it a new species. The broad-leaved variety, indeed, appears more distinct from *α*, than the latter does from the *Luzula arcuata* of Flora Londinensis (*Juncus arcuatus* of Wahlenberg). In their deeply fimbriated partial bractes the two plants agree; and the *L. hyperborea*, from the single head or spike which it bears, often throws out two, more or less pedunculated spikelets; but then, however long these peduncles may be, I have never seen them in an arcuate state, nor bearing so small a number of flowers as does *L. arcuata*.

It must be confessed that the difficulty of distinguishing these, as well as the *L. sudetica* of Willdenow and the *L. congesta* of Flora Danica, from *L. campestris*, is very great; and perhaps all of them might, without much impropriety, be united together under the same head*.

XXI. CYPERACEÆ.

18. CAREX.

* *Spicis divis.*

79. *Carex scirpoidea*. Mich. Fl. Bor. Am. v. 2. p. 171. Pursh. Fl. N. Am. v. i. p. 34. Richardson in Franklin's Journ. App. p. 750.

C. Wormskioldiana. Fl. Dan. t. 1528.

HAB. Duke of York's Bay. Southampton Inlet. Five Hawser Bay. Lyon Inlet. South shore of the Strait of the Fury and Hecla.

* Since the above was written, I find in Captain Sabine's collection from the E. Coast of W. Greenland some specimens of *Luzula hyperborea* with the pedicels curved, and in no respect differing from the true *Luzula arcuata* but in having a greater number of flowers in each spikelet; thus very nearly indeed agreeing with the "*Juncus campestris*, var." of Fl. Dan. t. 1386, found in alpine moors in Norway.

* * *Spicis androgynis pedunculatis.*

80. *Carex atrata*. Linn. Sp. Pl. p. 1386. Lightf. Scot. p. 555. Fl. Dan. t. 158. Smith Fl. Brit. p. 987. Engl. Bot. t. 2044. De Cand. Fl. Gall. Syn. p. 141. Wahl. Helv. p. 174. Wahl. Carpath. p. 302. Hook. Icel. Tour. App. p. 333. Hook. Fl. Scot. P. 1. p. 266.

HAB. South shore of the Strait of the Fury and Hecla.

There is but one imperfect specimen of what I consider to be this species; but its fructification is in too young a state for me to feel certain on the point.

81. *Carex fuliginosa*. Sternb. and Hopp. in Act. Bot. Soc. Ratisb. v. i. p. 159. t. 3. Richardson in Franklin's Journ. App. p. 750.

C. misandra? Br. in Parry's 1st Voy. App. p. cclxxxii.

β. *squamis*. Capsulisque pallide fuscis.

HAB. Duke of York's Bay. Southampton Island.—β. Five Hawser Bay. Duckett Cove.

* * * *Spicis plurimis, sexu distincto.*

† *Mascula solitaria.*

82. *Carex ustulata*. Will. Sp. Pl. v. 4. p. 293. Smith Engl. Bot. t. 2404. Hook. Fl. Scot. P. 1. p. 266.

C. atro-fusca. Schkuhr. Caric. p. 106. t. Y. n. 82.

HAB. Repulse Bay.

83. *Carex cæspitosa*. Linn. Sp. Pl. p. 1388. Smith Fl. Brit. p. 1000. Engl. Bot. t. 1507. Lightf. Fl. Scot. p. 560. De Cand. Fl. Gall. Syn. p. 141. Wahl. Helv. p. 175. Wahl. Carpath. p. 304. Hook. Fl. Scot. P. 1. p. 268.

β. foliis latioribus, bracteis foliaceis, spicis cylindraceis, culmo lævi.

C. concolor? Br. in Parry's 1st Voy. App. p. cclxxxiii. et p. cccix.

HAB. Igloodik.

This species is found on the summit of the White Mountains, N. America, by Mr. Boott.

84. *Carex membranacea*, spica mascula subsolitaria, femineis magis minusve pedicellatis, oblongo-cylindraceis erectis obtusis (atro-fusis nitidis), fructu lævi rotundato inflato breviter acuminato bifido pedicellato, vaginis perbrevibus.

HAB. Duke of York's Bay.

Caulis 6-10 pollicaris erectus, obtuse triquetus, superne quandoque, non semper, foliaceus, scaber. *Folia* longitudine caulis, lineari-acuminata, duas vel etiam tres lineas lata, plana, lævia, vel ad marginem minutissime scabra, siccitate margine subincurvo; vaginis longis glaberrimis, ore integerrimo. *Bractea* inferior foliacea, spicas æquans, basi breviter vaginata exauriculata; superiores multoties minores fere subulatæ, basi subauriculatæ, suprema squamæ ovatæ, fuscæ; auriculæ breves, fuscæ.

Spicae masculæ terminales, solitariae vel binæ, clavato-cylindraceæ; squamis obovatis obtusis intense purpureo-fuscis, margine versus apicem tenuissime hyalinis, nervo pallidiore.

Spicae femineæ 2 vel 3, oblongo-cylindraceæ, unciam ad duas uncias longæ, 4 lineas latæ, obtusæ, omnino purpureo-fuscæ, nitidæ; inferior plerumque sublonge pedunculata; reliquæ fere vel omnino sessiles; squamæ obovato-oblongæ, longitudine fructus, atro-sanguineæ, nitidæ, tenerrimæ, concolores. *Fructus* rotundatus, inflatus, lævis, (siccitate rugosus) nitidus, intense purpureo-fuscus, basi solummodo pallidiore, viridi, apice in

acumen breve, bifidum, concolorum productus, basi pedicellatus. *Stigmata* 3, pubescentia. *Achenium* circumscriptione late ovatum vel fere obovatum, triangulare, pallide flavo-fuscum, sessile, cupula dimidio brevius, apice stylo duro persistente terminatum.

I know of no species of *Carex* which, for peculiarity of fructification, can be compared to the present one. Its most striking character consists in the deep purple brown colour and the shining surface of its spikes. Both the scales and fruit, or at least the covering of the fruit, (cupula or urceolus), are singularly membranaceous and thin; not retaining their form when dry, but becoming shrivelled. The achenium is small when ripe, not occupying above half of the urceolus, and the urceolus itself is placed upon a most decided, though short, footstalk. In this peculiarity, the *C. membranacea* approaches the *C. podocarpa* of Brown, in the Appendix to Franklin's Journal, (a species very closely allied to *C. rariflora* of English Botany), but it resembles it in no other respects. I may add, that in *C. podocarpa* the fruit tapers down gradually into the footstalk; whereas here the base of the fruit is almost truncated, and is set upon the decided peduncle.

49. ERIOPHORUM.

85. *Eriophorum capitatum*. Host Gram. Aust. t. 38. Schrad. Fl. Germ. v. i. p. 152. Smith Engl. Bot. t. 2387. Wahl. Fl. Lapp. p. 18. Fl. Dan. t. 1502. De Cand. Fl. Gall. Syn. p. 145. Br. in Parry's 1st Voy. App. p. cclxxxiv. Hook. Icel. Tour, App. p. 313. Hook. Fl. Scot. P. 1. p. 20. Hook. in Scoresby's E. C. of West Greenl. App. p. 410. Wahl. Helv. p. 11.

E. Scheuchzeri. Roth. in Sims' and Koen. Ann. of Bot. v. 1. p. 149.

In Mr. Edwards's collection is one specimen of this plant.

86. *E. gracile*. Roth. in Sims' and Keen. Ann. of Bot. v. 1. p. 150. Smith Engl. Bot. t. 2402. Wahl. Fl. Lapp. p. 19. De Cand. Fl. Gall. Syn. p. 145. Hook. Fl. Scot. P. 1. p. 20.

E. triquetrum. Hoppe Taschenbuch for 1800, p. 106; 1801, p. 133; 1802, p. 62 (fid. Wahl.) Fl. Dan. t. 1441.

HAB. Duke of York's Bay. Southampton Inlet.

87. *E. angustifolium*. Hoffm. Fl. Germ. ed. 1. v. i. p. 19. Smith Engl. Bot. t. 564. Pursh. Fl. N. Am. v. i. p. 58. Fl. Dan. t. 1442. De Cand. Fl. Gall. Syn. p. 145. Br. in Parry's 1st Voy. App. p. cclxxxiv. Hook. Fl. Scot. P. 1. p. 22. Richardson in Franklin's Journ. App. p. 731.

E. polystachion. Curt. Fl. Lond. ed. 1. Wahl. Fl. Lapp. p. 18. Wahl. Carpath. p. 15. Wahl. Helv. p. 11. Grev. Pl. of W. Greenl. p. 426.

HAB. Duke of York's Bay. Southampton Inlet. Igloodik. Duckett Cove. Repulse Bay.

XXII. GRAMINEÆ.

50. ALOPECURUS.

88. *Alopecurus alpinus*. Smith Engl. Bot. t. 1126. Fl. Brit. p. 1386. Hook. Fl. Scot. P. 1. p. 22. Br. in Ross. Voy. ed. 2. v. 2. p. 91. Br. in Parry's 1st Voy. App. p. cclxxxiv. Richardson in Franklin's Journ. App. p. 731. Grev. Pl. of W. Greenl. p. 427. Hook. in Scoresby's E. C. of W. Greenl. App. p. 410.

A. ovatus. Fl. Dan. t. 1565.

A. antarcticus. Gieseke Greenl. in Brewster's Edin. Encycl. (fid. Brown.

HAB. Igloodik. Duckett Cove. Barrow River. Duke of York's Bay. Southampton Inlet.

It is most abundant on the E. Coast of W. Greenland. (Capt. Sabine.)

51. COLPODIUM.

89. *Colpodium latifolium*, panicula coarctata lanceolata, foliis planis lato-linearibus, Br. (APP. TAB. II.)

C. latifolium, Br. in Parry's 1st Voy. App. p. cclxxxvi. et p. cccix.

Agrostis paradoxa. Br. in Ross' Voy. App. ed. 2. v. 2. p. 192.

HAB. Igloodik. Duke of York's Bay.

52. POA.

90. *Poa angustata*, panicula simplici coarctata lineari-lanceolata, locustis 4-5 floris, gluma inferiore dimidio minore, perianthiis apice erosis: valvula inferiore basi lanata lateribus glabriusculis, foliis angusto-linearibus. Br.

P. angustata. Br. in Parry's 1st Voy. App. p. cclxxxvij. et p. cccix.

HAB. Igloodik: and two specimens in Mr. Edwards's collection, mixed with *Poa arctica*.

This is plentiful in Captain Sabine's collection from the E. Coast of W. Greenland.

91. *P. abbreviata*; panicula simplicissima coarctata subovata, locustis 4-5 floris, glumæ valvulis subæqualibus acutissimis perianthia basi lanata lateribus pubescentia æquantibus, foliis involuto-setaceis. Br.

P. abbreviata. Br. in Parry's 1st Voy. App. p. cclxxxvii. et p. cccix.

HAB. Igloodik. A few specimens in Mr. Edwards's collection.

92. *P. arctica*; panicula effusa: ramis paucifloris capillaribus lævibus locustisque coloratis ovatis 3-4 floris, glumis subæqualibus, perianthii valvula inferiore basi lanata carina lineaque submarginali sericeis: interstitiis pubescentibus, foliis linearibus: ligula subquadrata erosa. Br.

P. arctica. Br. in Parry's 1st Voy. App. p. cclxxxviii.

HAB. Igloodik. Repulse Bay. Duke of York's Bay. Southampton Inlet, plentiful.

Found on the E. Coast of W. Greenland, by Captain Sabine.

53. FESTUCA.

93. *Festuca brevifolia*, racemo subsimplici erecto, flosculis teretibus supra scabriusculis arista duplo longioribus, foliis setaceis vaginisque lævibus: culmeo supremo multoties brevior vagina sua laxiuscula. Br.

F. brevifolia. Br. in Parry's 1st Voy. App. p. cclxxxix. et cccix.

HAB. Duke of York's Bay. Duckett Cove. Igloodik.

54*. PLEUROPOGON.

94. *Pleuropogon Sabini*. Br. in Parry's 1st Voy. App. p. cclxxxix. TAB. D.
HAB. Duke of York's Bay. Southampton Inlet.

55. ELYMUS.

95. *Elymus arenarius*. Linn. Sp. Pl. p. 122. Smith Fl. Brit. p. 152. Eng. Bot. t. 1672. Pallas Itin. Sib. v. 3. p. 316. Wahl. Fl. Lapp. p. 45. Fl. Dan. t. 847. De Cand. Fl. Gall. Syn. p. 137. Hook. Icel. Tour. App. p. 315. Hook. Fl. Scot. P. I. p. 46.

HAB. Duke of York's Bay. Five Hawser Bay.
The whole plant is not above six or eight inches high.

56†. DUPONTIA.

96. *Dupontia Fisheri*. Br. in Parry's 1st Voy. App. p. ccxci.
There are but two specimens of this grass; which are in Mr. Edwards's collection.

57. DESCHAMPSIA.

- * 97. *Deschampsia brevifolia*; panicula coarctata lanceolata: pedicellis lævibus, locustis bi-trifloris, arista stricta valvulum subæquante, foliis involutis: caulinis abbreviatis. Br.
* *D. brevifolia*. Br. in Parry's 1st Voy. App. p. ccxci.
In Mr. Edwards's collection.

58. TRisetum.

98. *Trisetum subspicatum* Palisot Agrostogr. p. 88. Br. in Parry's 1st Voy. App. p. ccxcii.
* *T. airoides*. Rœm. et. Schult. Syst. Veg. v. 2. p. 666.
Aira spicata. Linn. Sp. Pl. p. 95. Fl. Dan. t. 228. Wahl. Fl. Lapp. p. 33. Hook. in Scoresby's E. C. of W. Greenl. p. 410. Richardson in Franklin's Journ. App. p. 731.
A. subspicata. Willd. Sp. Pl. v. 1. p. 377. Wahl. Helv. p. 15. Hook. Icel. Tour. App. p. 314.
Avena airoides. De Cand. Fl. Gall. Syn. p. 147.
HAB. Duckett Cove.

* Mr. Brown's character of *Pleuropogon* is as follows; CHAR. GEN. *Locustæ* multifloræ, cylindracæ. *Gluma* abbreviata, inæqualis, mutica. *Perianthii* valvula inferior mutica, obtusa, concava, nervosa, apice scarioso; superior nervo utroque lateraliter biseto! *Lodiculæ* distinctæ. *Styli* 2. *Stigmata* plumosa. *Caryopsis* libera, lateribus compressis.

† The following is Mr. Brown's generic definition of *Dupontia*. "*Gluma* subæqualis, scariosa, concava, mutica, locustam 2-3-floram subæquans. *Perianthia* mutica, scariosa, (basi barbata,) altero pedicellato; valvulis integris, inferiore concava. *Lodiculæ* 2. *Ovarium* imberbe. *Stigmata* subsessilia."

59. HIEROCHLOE.

99. *Hierochloe alpina*. Rœm. et Schult. Sys. Veg. v. 2. p. 515. Br. in Ross' Voy. ed. 2. v. 2. p. 194. Richardson in Franklin's Journ. App. p. 731. Br. in Parry's 1st Voy. App. p. cexcii.

Holcus alpinus. Fl. Dan. t. 1508. Svensk. Bot. t. 438. Wahl. Lapp. p. 31. t. 2.

HAB. Repulse Bay. South side of the strait of the Fury and Hecla.

This has been found by Mr. Boott on the summit of the White Mountains in N. America.

100. *Hierochloe pauciflora*, racemo simplici, flosculo masculo superiore brevissimo setigero, foliis culmi brevissimis; radicalibus involutis. Br. APP. T. II.

H. pauciflora. Br. in Parry's 1st Voy. App. p. cexcii.

HAB. Igloodik. Neerlo-Nakto.

ACOTYLEDONES.

XXIII. FILICES.

60. ASPIDIUM.

101. *Aspidium fragrans*. Willd. Sp. Pl. p. 253.

Nephrodium fragrans. Richardson in Franklin's Journ. App. p. 754.

Polypodium fragrans. Linn. Sp. Pl. p. 1550. (excl. Syn. Huds.)

HAB. Duckett Cove.

102. *Aspidium fragile*. Swartz Syn. Fil. p. 58. Wahl. Lapp. p. 283. Wahl. Helv. p. 191. Fl. Carpat. p. 329. Hook. Fl. Scot. P. II. p. 155.

Athyrium fragile. Richardson in Franklin's Journ. App. p. 755.

Cyathea fragilis. Sm. Fl. Brit. p. 1139. Eng. Bot. p. 1587.

Polypodium fragile. Linn. Sp. Pl. p. 1139.

Dr. Graham and Mr. Greville inform me that they have observed this species in some collections made during this expedition; but I have not had the opportunity of seeing the plant myself.

XXIV. LYCOPODINEÆ.

61. LYCOPODIUM.

103. *Lycopodium Selago*. Linn. Sp. Pl. p. 1565. Lightf. Scot. p. 687. Smith Fl. Brit. p. 1111. Eng. Bot. t. 233. Richardson in Franklin's Journ. App. p. 754. Wahl. Fl. Lapp. p. 291. Fl. Dan. t. 104. Hook. Icef. Tour, App. p. 336. Hook. Fl. Scot. P. II. p. 159.

HAB. Upper Savage Island. South side of the strait of the Fury and Hecla.

XXV. EQUISETACEÆ.

62. EQUISETUM.

104. *Equisetum variegatum*. Schleich. Cat. Pl. Helv. p. 21. Willd. Sp. Pl. p. 7. Smith Eng. Bot. t. 1987. Richardson in Franklin's Journ. App. p. 754. Hook. Fl. Scot. P. II. p. 161.

E. reptans. Wahl. Fl. Lapp. p. 298.

HAB. Igloodlik.

XXVI. MUSCI.

63. BRYUM.

* *Capsulis sulcatis*.

105. *Bryum palustre*. Sw. Smith Eng. Bot. t. 391. Hooker and Tayl. Musc. Brit. p. 11. t. 28. Hook. Fl. Scot. P. II. p. 149.

Mnium palustre. Linn. Sp. Pl. p. 1574. Mich. Fl. Am. Sept. p. 305. Richardson in Franklin's Journ. App. p. 756.

HAB. Duke of York's Bay. Southampton Island.

No fructification on the few specimens of this moss which exist in the collection.

106. *Bryum turgidum*.

Mnium turgidum. Wahl. Fl. Lapp. p. 351. Br. in Ross' Voy. ed. 2. v. 2. p. 194. Br. in Parry's 1st Voy. App. p. ccxcv. Richardson in Franklin's Journ. App. p. 756.

HAB. Igloodlik (barren.)

** *Capsulis lævibus, (esulcatis.)*

* *Dentibus peristomii externi interiore brevioribus.* (MEESIA, Hedw.)

107. *Bryum trichodes*. Linn. Sp. Pl. p. 1585. Smith Eng. Bot. t. 1517. Hooker and Tayl. Musc. Brit. p. 116. t. 28. Hook. Fl. Scot. P. II. p. 149.

Meesia uliginosa. Hedw. Stirp. Crypt. v. 1. t. 1, 2. Richardson in Franklin's Journ. App. p. 756. Wahl. Fl. Lapp. p. 357.

HAB. Duke of York's Bay. Southampton Island.

** *Dentibus peristomii externi interioris longitudine.*

108. *Bryum crudum*. Huds. Angl. p. 494. Sm. Fl. Brit. p. 1361. Engl. Bot. t. 1604. Hook. Fl. Scot. P. II. p. 150. Hooker and Tayl. Musc. Brit. p. 119. t. 28.

Mnium crudum. Linn. Sp. Pl. p. 1576. Wahl. Lapp. p. 355. Fl. Carpat. p. 351. Richardson in Franklin's Journ. App. p. 756.

In Mr. Edwards's collection.

109. *Bryum cæspitium*. Linn. Sp. Pl. p. 1586. Engl. Bot. t. 1904. Hooker and Tayl. Musc. Brit. p. 121. t. 29. Hook. Fl. Scot. P. II. p. 150. Richardson in Franklin's Journ. App. 756. Hook. Tour in Icel. App. 340. Wahl. Fl. Lapp. p. 300.

Amongst the numerous individuals of this species, the most striking varieties are:

Foliis acuminatis, capsulis elongatis.

HAB. Duke of York's Bay. Southampton Island. Igloolik. Neerlo-Nakto. N. E. Coast of America, lat. $67\frac{1}{2}$ north. Barrow River.

Foliis rotundato-ovatis acuminatis concavis, capsula brevi-pyriformi.

HAB. Duke of York's Bay. Southampton Island.

It is not improbable that among the plants which I have placed under the name of *Bryum caespitium*, there may be found Mr. Brown's three new species, viz. *Pohlia bryoides*, *Pohlia arctica* and *Pohlia purpurascens*: "omnes," as Mr. Brown observes. "*Br. caespitium* quam maxime affines." I confess, indeed, that the peristome of several of these arctic mosses appears to be that of a *Pohlia*; yet in their whole habit, and in all the essential characters, they so precisely accord with *B. caespitium*, that I am unwilling to separate them. In some of the specimens, although I have examined them with the greatest care, I can find no internal peristome at all; in others, only imperfect ciliae, more or less completely attached and adhering to the outer peristome, and very closely resembling the figure of *Ptychostomum compactum*, given in t. 115 of Schweigrichen's Suppl. v. 3; a moss which in no respect, saving the structure of its internal peristome, differs from our *Bryum caespitium*. The *Ptychostomum* is a very alpine plant, and it seems probable that climate may have the effect of rendering occasionally imperfect the inner peristome of this moss.

110. *B. turbinatum*. Sw. Musc. Suec. p. 49. Engl. Bot. t. 1572? Hooker and Tayl. Musc. Brit. p. 122. t. 20. Hook. Fl. Scot. P. II. p. 151. Hook. Icel. Tour. App. p. 340.

Mnium turbinatum. Hedw. St. Cr. v. 3. t. 8.

HAB. Igloolik.

β. *Foliis brevioribus.*

HAB. Duke of York's Bay. Southampton Island.

111. *B. nutans*. Schreb. Fl. Lips. p. 81. Smith Engl. Bot. t. 1240. Hooker and Tayl. Musc. Brit. p. 123. t. 29. Hook. Fl. Scot. P. II. p. 151. Wahl. Fl. Lapp. p. 358.

Webera nutans. Hedw. Stirp. Cr. v. 1. t. 4. Richardson in Franklin's Journ. App. p. 756.

HAB. Barren. Duke of York's Bay. Southampton Island.—Var. *minuta*. fr. Neerlo-Nakto. Igloolik.

112. *B. alpinum*. Linn. Mant. v. 2. p. 309. Engl. Bot. t. 1623. Schwaegr. Suppl. v. 2. t. 73. Hooker and Tayl. Musc. Brit. p. 124. t. 28. Hook. Fl. Scot. P. II. p. 151. Wahl. Fl. Lapp. p. 360.

In Mr. Edwards's collection.

113. *B. punctatum*. Schreb. Fl. Lips. p. 85. Engl. Bot. t. 1183. Hooker and Tayl. Musc. Brit. p. 124. t. 30. Hook. Fl. Scot. P. II. p. 151.

Mnium punctatum. Hedw.

M. serpyllifolium. α. Linn. Sp. Pl. p. 1577.

M. serpyllifolium. Wahl. Fl. Lapp. p. 353.

A small specimen in Mr. Edwards's collection.

114. *Bryum calophyllum*; foliis ovatis obtusis concavis, marginibus simplicibus integerrimis. Br. in Parry's 1st Voy. App. p. ccxcvii.

HAB. Igloolik.

115. *B. cuspidatum*. Schreb. Fl. Lips. p. 84. Smith Engl. Bot. t. 1474. Hooker and Tayl. Musc. Brit. p. 127. t. 31. Hook. Fl. Scot. P. II. p. 152.

Mnium cuspidatum. Hedw. Sp. Musc. t. 45. f. 5—8. Richardson in Franklin's Journ. App. p. 756.

M. serpyllifolium. β . Linn. Sp. Pl. p. 1577.

In Mr. Edwards's collection.

64. CINCLIDIUM.

116. *Cinclidium stygium*. Sw. in Schrader's Diar. Bot. 1802. p. 12. t. 2. Schwaegr. Supp. v. 2. p. 85. Wahl. Fl. Lapp. p. 355.

Meesia stygia. Brid. Musc. II. 3. p. 172.

HAB. Without fructification, at Igloolik; along with *Hypnum moniliforme* and other mosses.

65. HYPNUM.

* *Sarcularis planis*.

117. *Hypnum denticulatum*. Linn. Sp. Pl. p. 1588. Engl. Bot. t. 1260. Hooker and Tayl. Musc. Brit. p. 92. t. 24. Hook. Fl. Scot. P. II. p. 141. Richardson in Franklin's Journ. App. p. 756. Hook. Tour in Icel. App. p. 341. Wahl. Fl. Lapp. p. 371.

HAB. With other mosses, Neerlo-Nakto.

** *Sarcularis cylindraceis*.

Foliis directione aequali.

118. *H. serpens*? Linn. Sp. Pl. p. 1396. Smith Eng. Bot. t. 1037. Wahl. Fl. Lapp. p. 375. Hooker and Tayl. Musc. Brit. p. 94. t. 24. Hook. Fl. Scot. P. II. p. 142.

H. contextum et *H. spinulosum*. Hedw. Richardson in Franklin's Journ. App. p. 756.

H. subtile. Eng. Bot. t. 2496.

Among Mr. Edwards's collection.

119. *H. Schreberi*. Willd. Fl. Berol. p. 325. Smith Engl. Bot. t. 1621. Hooker et Tayl. Musc. Brit. p. 96. t. 24. Hook. Fl. Scot. P. II. p. 143. Richardson in Franklin's Journ. App. p. 756.

H. purum. Ehrhart.

H. compressum. Schreber.

H. muticum. Swartz.

HAB. Barrow River.

120. *H. moniliforme*. Wahl. Fl. Lapp. p. 376. t. 24. Hooker and Tayl. Musc. Brit. p. 96. t. 24. Hook. Fl. Scot. ed. 2. (ined.)

Leskea julacea. Mohr.

Hypnum julaceum. Schwaegr. Suppl. t. 89.

Pterogonium julaceum. Smith Eng. Bot. t. 2525.

HAB. Igloolik; with *Cinclidium stygium*, and other mosses. It exists in this collection only in a barren state.

121. *Hypnum trifarium*. Web. et Mohr. St. Suec. t. 2. f. 2. a—d. Crypt. Germ. p. 319. Wahl. Fl. Lap. 381. Hook. Fl. Scot. ed. 2. (ined.)

H. stramineum β . *viridarium*. Schwaegr. Suppl. v. 2. p. 213.

HAB. With other mosses, Nerlo-Nakto.

122. *H. nitens*. Schreb. Fl. Lips. p. 92. Smith Eng. Bot. t. 1646. Hooker and Tayl. Musc. Brit. p. 100. t. 25. Hook. Fl. Scot. P. II. p. 144. Hooker Tour in Icel. App. p. 341. Wahl. Fl. Lapp. p. 381. Richardson in Franklin's Journ. App. p. 756. Br. in Parry's 1st Voy. App. p. ccxcv.

In Mr. Edwards's collection, without fructification.

123. *H. albicans*. Neck. Meth. Musc. p. 180. Hedw. St. Cr. v. 4. t. 5. Smith Engl. Bot. t. 1300. Hooker et Tayl. Musc. Brit. p. 100. t. 25. Hook. Fl. Scot. P. II. p. 144.

HAB. Barrow River.

124. *H. abietinum*. Linn. Sp. Pl. p. 1590. Hedw. St. Cr. v. 4. t. 32. Eng. Bot. t. 2037. Hook. Fl. Scot. ed. 2. (ined.) Mich. Fl. N. Am. p. 316. Hooker et Tayl. Musc. Brit. p. 104. t. 25. Richardson in Franklin's Journ. App. p. 756.

Among Mr. Edwards's plants.

125. *H. cuspidatum*. Linn. Sp. Pl. p. 1595. Eng. Bot. t. 2407. Hooker et Tayl. Musc. Brit. p. 107. t. 26. Hooker Fl. Scot. P. II. p. 146. Hook. Tour in Icel. App. p. 341. Wahl. Fl. Lapp. p. 376.

Mr. Edwards's collection: no fructification.

126. *H. cordifolium*. Hedw. St. Cr. v. 4. t. 37. Eng. Bot. t. 1147. Hooker and Tayl. Musc. Brit. p. 107. t. 26. Hook. Fl. Scot. P. II. p. 146. Br. in Parry's 1st Voy. App. p. ccxcv.

HAB. Igloodik: no fructification.

127. *H. stellatum*. Schreb. Fl. Lips. p. 92. Eng. Bot. t. 1302. Hooker and Tayl. Musc. Brit. p. 108. t. 26. Hook. Fl. Scot. P. II. p. 146.

HAB. Duke of York's Bay. Southampton Island. Igloodik.

Small barren specimens mixed with other mosses.

Folius falcato-secundis.

128. *H. fluitans*. Linn. Fl. Suec. ed. 2. p. 399. Hedw. St. Cr. v. 4. t. 36. Engl. Bot. t. 1448. Hooker and Tayl. Musc. Brit. p. 93. t. 24. Hook. Fl. Scot. P. II. p. 147. Wahl. Fl. Lapp. p. 378. Richardson in Franklin's Journ. App. p. 757.

In Mr. Edwards's collection.

129. *H. aduncum*. Linn. Sp. Pl. p. 1592. Sm. Fl. Brit. p. 1327. Eng. Bot. t. 2073. Br. in Parry's 1st Voy. App. p. ccxcv. Hooker and Tayl. Musc. Brit. p. 111. t. 26. Hook. Fl. Scot. P. II. p. 147. Hooker Tour in Iceland. App. p. 341. Wahl. Fl. Lapp. p. 378.

HAB. Duke of York's Bay, and Southampton Inlet, mixed with other mosses, but without fruit.

130. *H. cupressiforme*. Linn. Sp. Pl. p. 1592. Hedw. St. Cr. v. 4. t. 23. Eng. Bot. t. 1860. Hooker et Tayl. Musc. Brit. p. 113. t. 27. Hook. Fl. Scot. P. II. p. 148. Hook. Tour in Icel. App. p. 341. Wahl. Fl. Lapp. p. 377.

Small specimens in Mr. Edwards's collection.

66. ORTHOTRICHUM.

131. *Orthotrichum speciosum*; "peristomio externo et interno dentibus 8, vel 16 per paria approximatis, theca exserta, calyptra et vaginula pilosis." Nees ab Esenb. in Sturm Fl. Germ. No. 17. Funck Deutsch. Moose. p. 34. t. 23. f. 4. Richardson in Franklin's Journ. App. 757. Hook. Fl. Scot. ed. 2. (ined.)

Fine specimens in Mr. Edwards's collection.

In almost all the specimens, the capsule is raised upon a footstalk, which is considerably longer than the leaves; in which respect this moss appears chiefly to differ from the *O. rupicola* of Funck. The plants are two and three inches long, and of that rich brown colour which is so common to the tropical *Orthotrichoid* species.

The *O. speciosum*, figured by Sturm, seems entirely to agree with this; as do the specimens which bear the same name in the Appendix to Franklin's Journal. In Germany, however, this moss inhabits trees, as it probably does in the situation where Dr. Richardson found it, since it was discovered in the woody country. The eight teeth, when recurved, divide into sixteen.

67. DIDYMODON.

132. *Didymodon purpureum*. Hooker and Tayl. Musc. Brit. p. 65. t. 20. Hook. Fl. Scot. P. II. p. 135.

Dicranum purpureum. Hedw. Sp. Musc. t. 36. Eng. Bot. t. 2262. Hook. Tour in Icel. App. p. 339. Wahl. Fl. Lapp. p. 341. Richardson in Franklin's Journ. App. p. 755.

Mnium purpureum. Linn.

Dicranum strictum. Eng. Bot. t. 2294.

Bryum bipartitum. Eng. Bot. t. 2357.

Trichostomum papillosum. Eng. Bot. 2533.

HAB. Repulse Bay.

133. *Didymodon capillaceum*. Schrad. Spic. p. 64. Sw. Musc. Suec. p. 28. Wahl. Fl. Lapp. p. 314. Hooker et Tayl. Musc. Brit. p. 67. t. 20. Hook. Fl. Scot. P. II. p. 136. Richardson in Franklin's Journ. App. p. 755. Br. in Parry's 1st Voy. App. p. ccxcvii.

Swartzia capillacea. Hedw. St. Cr. v. 2. p. 26.

Cynoptodium capillaceum. Hedw. Sp. Musc.

Trichostomum capillaceum. Engl. Bot. t. 1152.

β . *Statura humiliori, foliis strictioribus et brevioribus*. Br.

Didymodon subulatum. Schkuhr Deutsch. Moos. p. 65. t. 28.

HAB. Igloodik. Nearlo-Nakto. N. E. Coast of America. lat. 67 $\frac{1}{2}$ north.

The variety β , unquestionably the *Didymodon subulatum* of Schkuhr, is the more common of the two kinds in this collection; at the same time, there are intermediate states of it, which prove that Mr. Brown is correct in considering the two as but different appearances of the same species. The variety β is also common in Switzerland, and I have lately found it upon the Breadalbane Mountains of Scotland.

68. TRICHOSTOMUM.

134. *Trichostomum lanuginosum*. Hedw. St. Cr. v. 3. t. 2. Eng. Bot. t. 1348. Hooker et Tayl. Musc. Brit. p. 60. t. 19. Hook. Fl. Scot. P. II. p. 134. Richardson in Franklin's Journ. App. p. 755. Br. in Parry's 1st Voy. App. p. ccxcvii. Wahl. Fl. Lapp. p. 329.

Bryum hypnoides. α. Linn. Sp. Pl.

HAB. Duke of York's Bay. Southampton Island: no fructification.

135. *T. ellipticum*. Hooker et Tayl. Musc. Brit. p. 63. t. 19. Hook. Fl. Scot. ed. 2. (ined.)

Dicranum ellipticum. Turner Musc. Hib. p. 76. t. 6. Eng. Bot. t. 1901. Schwaegr. Suppl. v. 1. t. 47.

HAB. South shore of the strait of the Fury and Hecla.

The specimens are without fruit, yet I have no doubt that they are plants of *Trichostomum ellipticum*.

69. DICRANUM.

136. *Dicranum virens*. Hedw. St. Cr. v. 3. p. 32. Engl. Bot. t. 1462. Hooker et Tayl. Musc. Brit. p. 54. t. 17. Hook. Fl. Scot. P. II. p. 132. Richardson in Franklin's Journ. App. p. 755. Wahl. Fl. Lapp. p. 338.

HAB. Repulse Bay. Upper Savage Island.

137. *D. strumiferum*. Eng. Bot. t. 2410. Hooker et Tayl. Musc. Brit. p. 54. t. 17. Hook. Fl. Scot. P. II. p. 132. Richardson in Franklin's Journ. App. p. 755.

Fissidens strumifer. Hedw. St. Cr. v. 2. t. 32. Wahl. Lapp. p. 335.

Bryum inclinans. Dicks.

HAB. South shore of the strait of the Fury and Hecla.

138. *Dicranum flavescens*? Eng. Bot. t. 2263.

D. gracilescens. Web. et Mohr. Schwaegr. Suppl. v. 1. t. 46.

D. rupestre. Wahl. Lapp. p. 339. t. 21.

Bryum flavescens. Dicks.

HAB. Duke of York's Bay. Southampton Island.

The specimens are barren, on which account I am rather uncertain of the species.

139. *Dicranum scoparium*. Hedw. Sp. Musc. p. 172. Hooker et Tayl. Musc. Brit. p. 58. t. 18. α. Hook. Fl. Scot. P. II. p. 133. Hook. Tour in Icel. App. p. 339. Richardson in Franklin's Journ. App. p. 755.

Bryum scoparium. Linn. Sp. Pl. p. 1582. Eng. Bot. t. 1490.

HAB. Barrow River.

Very imperfect and barren specimens.

140. *Dicranum fuscescens*. Turn. Musc. Hib. p. 60. Eng. Bot. t. 1597. Richardson in Franklin's Journ. App. p. 755.

D. congestum. Schwaegr. Suppl. v. 1. t. 42.

D. scoparium. β . fuscescens. Hooker and Tayl. Musc. Brit. p. 58. t. 18. Hook. Fl. Scot. P. II. p. 133.

In Mr. Edwards's collection.

141. *Dicranum elongatum*. Schleich. Pl. Helv. Crypt. Enum. Cat. III. p. 27. Schwaegr. Supp. p. 171. t. 43.

D. sphagni. Richardson in Franklin's Journ. App. p. 755. Wahl. Fl. Lapp. p. 337.

HAB. Duke of York's Bay. Southampton Island.

70. PTEROGONIUM.

142. *Pterogonium filiforme*. Hedw. St. Cr. v. 4. p. 7. Eng. Bot. t. 2297. Hooker and Tayl. Musc. Brit. p. 41. t. 14. Hook. Fl. Scot. P. II. p. 129. Wahl. Lapp. p. 319.

Grimmia filiformis. Web. et Mohr. Crypt. Germ. p. 150.

HAB. With *Trichostomum ellipticum* in Captain Parry's collection.

71. WEISSIA.

143. *Weissia crispula*. Hedw. Sp. Musc. t. 12. f. 1—6. Hooker and Tayl. Musc. Brit. p. 46. t. 15. Hook. Fl. Scot. P. II. p. 131.

Grimmia crispula. Turn. Musc. Hib. Eng. Bot. t. 2203.

HAB. South shore of the strait of the Fury and Hecla. Neerlo-Nakto.

A large quantity of this moss in Mr. Edwards's collection.

144. *Weissia recurvirostra*. Hedw. St. Cr. v. 1. t. 7. Wahl. Lapp. p. 321. Hook. Fl. Scot. P. II. p. 130.

W. recurvirostra. Hooker et Tayl. Musc. Brit. p. 46. t. 14.

Grimmia recurvirostra. Turn. Musc. Hib. p. 29. Eng. Bot. t. 1438.

HAB. Duke of York's Bay. Southampton Island.

Mixed with *Brya*.

72. ENCALYPTA.

145. *Encalypta affinis*. Hed. fil. in Web. et Mohr. Beitr. v. 1. p. 121. t. 4. Schwaegr. Supp. p. 58. t. 16.

E. alpina. Eng. Bot. t. 1419. Wahl. Lapp. p. 312. Hook. Four in Icel. App. p. 329.

E. ciliata. β . Hooker et Tayl. Musc. Brit. p. 35. Hook. Fl. Scot. P. II. p. 128. Fl. Dan. t. 1425.

HAB. South shore of the strait of the Fury and Hecla. Igloodik.

So constant does this plant appear to its characters, not only in the specimens of the present collection, but also in several individuals which I lately gathered in the Breadalbane Mountains, of Scotland; that I feel anxious to restore to it the old name of *affinis*.

73. TORTULA.

146. *Tortula ruralis*. Ehrh.—Sw. Musc. Suec.—Engl. Bot. t. 2070. Hooker et Tayl. Musc. Brit. p. 31. t. 12. Hook. Fl. Scot. P. II. p. 127. Richardson in Franklin's Journ. App. p. 755.

Barbula ruralis. Hedw. Spec. p. 112. Wahl. Fl. Lapp. p. 318.

Syntrichia ruralis. Web. et Mohr. p. 215. Br. in Parry's 1st Voy. App. p. ccxcviii. Hook. Tour in Icel. App. p. 339.

HAB. Neerlo-Nakto.

This plant grows frequently in alpine situations in Britain, as well as upon the roofs of houses near the sea coast. Upon the Mont Cenis, I have seen it just on the limits of perpetual snow.

147. *Tortula mucronifolia*. Schwaeg. Suppl. v. 1. p. 136. t. 35. Wahl. Lapp. p. 31.

Syntrichia mucronifolia. Br. in Parry's 1st Voy. App. p. ccxcviii.

In Mr. Edwards's collection, abundant.

74. POLYTRICHUM.

148. *Polytrichum juniperinum*. Hedw. Sp. Musc. t. 18. Engl. Bot. t. 1200. Menzies in Linn. Trans. v. 4. t. 6. f. 4. Hooker et Tayl. Musc. Brit. p. 25. t. 10. Wahl. Fl. Lapp. p. 344. Hook. Fl. Scot. P. II. p. 126.

P. juniperifolium. Hoffm. Mohr.

P. strictum. Menzies in Linn. Trans. v. 4. t. 7. f. 1.

P. alpestre. Hoppe.—Schwaeg. Suppl. t. 97.

Mr. Edwards's collection.

149. *P. septentrionale*. Sw. Musc. Suec. t. 9. f. 18. Menzies in Linn. Trans. v. 4. t. 7. f. 5. Hooker et Tayl. Musc. Brit. p. 25. t. 10. Hook. Fl. Scot. P. II. p. 126. Wahl. Fl. Lapp. p. 347.

P. sexangulare. Hoppe.—Engl. Bot. t. 1906. Hook. Tour in Icel. App. p. 340.

P. norvegicum. Hedw. Sp. Musc. t. 22.

P. crassisetum. De Cand. Fl. Fr.

HAB. South shore of the Strait of the Fury and Hecla.

The specimens in Captain Parry's collection are all barren, in which state it is mostly found in Scotland. Among Mr. Edwards's plants, are a few in fructification.

150. *P. alpinum*. Linn. Sp. Pl. p. 1593. Menzies in Linn. Trans. v. 4. p. 83. Engl. Bot. t. 1905. Hooker et Tayl. Musc. Brit. p. 27. t. 11. Hook. Tour in Icel. App. p. 340. Wahl. Fl. Lapp. p. 346. Hooker Fl. Scot. P. II. p. 126.

P. sylvaticum. Menzies in Linn. Trans. v. 4. t. 7. f. 6.

P. arcticum. Swartz. Musc. Suec. t. 8. f. 17.

In Mr. Edwards's collection.

75. * APLODON.

151. *Aplodon Wormskioldii*. Br. in Parry's 1st Voy. App. p. ccxcix.

Splachnum Wormskioldii. Fl. Dan. t. 1659. Schwaegr. Suppl. v. 3. p. 27. t. 108.

α. "*Folia acuminata*." Br.

HAB. Igloolik.

* Mr. Brown's character of the genus *APLODON* stands runs:—"Peristomium simplex; dentibus 16, æquidistantibus, indivisis, reflexilibus. Capsula apophysata, erecta. Calyptra lævis. Flores terminales: masculi discoideo-capituliformes."

β. "*Folia acutiuscula*." Br.

HAB. Repulse Bay. Igloolik. N. E. coast of America, lat. 67½ north.

This moss varies in the colour of its capsules, which are of a paler or deeper brown, as well as in the form of its leaves. The columella, when perfect, is much protruded and capitate; the seta singularly pale and succulent, much resembling that of a *Sphagnum*. It is the most beautiful moss in the whole collection, forming dense tufts of many inches in diameter.

76. SPLACHNUM.

152. *Splachnum mnioides*.

α. *minus, caule brevi*. Hooker et Tayl. Musc. Brit. p. 20. t. 9.

S. mnioides. Linn. fil. Meth. Musc. p. 6. Hedw. St. Cr. v. 2. t. 11. Eng. Bot. t. 1539. Hook. Fl. Scot. P. II. p. 124. Hooker Tour in Icel. App. p. 338. Richardson in Franklin's Journ. App. p. 755. *S. urceolatum* β. Wahl. Lapp. *S. urceolatum* Dicks. Crypt. fasc. 2. p. 2.

β. *majus, caule elongato*. Hooker et Tayl. Musc. Brit. p. 20. t. 9.

S. fastigiatum. Dicks. Crypt. fasc. 3. p. 2. Eng. Bot. 786.

S. Brewerianum. Hedw. St. Cr. v. 2. t. 38. Dill. Musc. t. 44. f. 5. Richardson in Franklin's Journ. App. p. 755.

HAB. Igloolik.

*The leaves are here more concave, than they are in my British and European specimens of this moss; and those of *S. urceolatum* are less so; thus, as it were, uniting the two species.

153. *Splachnum urceolatum*. Hedw. St. Cr. v. 2. t. 13. Richardson in Franklin's Journ. App. p. 755. Hooker Tour in Icel. App. p. 338. Wahl. Fl. Lapp. (α.)

β. *pallidum*.

HAB. South shore of the strait of the Fury and Hecla. Repulse Bay. Igloolik. Neerlo-Nakto. N. E. coast of America, lat. 67½ north.

It grows in Lapland, Greenland, and Iceland; but not in Scotland, as it has been said to do.

A remarkable variety exists in Mr. Edwards's collection, with the capsules of the same pale colour as those of *S. Frélichianum*, and frequently of the very same shape. Others of the capsules, again, in the same tufts, are similar to those of *S. urceolatum* and *S. mnioides*, in their form; so that I am induced to refer it to the present species. In all these *Splachna*, although the suture of the operculum, (or the mark where it is set upon the capsule) is very indistinct, yet the operculum is readily removed entire; and I can detect among them no specimens according with the curious *Splachnum paradoxum* of Brown.

154. *Splachnum pusculosum*. Hedw. St. Cr. v. 2. p. 15. Hooker et Tayl. Musc. Brit. p. 21. Suppl. t. 1. Hook. Fl. Scot. P. II. p. 125. Richardson in Franklin's Journ. App. p. 755. Hook. Tour in Icel. App. p. 339. Br. in Parry's 1st Voy. App. p. ccc. Wahl. Fl. Lapp. p. 338.

HAB. Neerlo-Nakto.

Very variable in the more or less remote insertion of its leaves, and in the length of the fruit-stalk.

77. VOITIA.

155. *Voitia hyperborea*. Grev. and Arn. in Wern. Trans. v. 4. t. 7. f. 19, capsula; et f. 2. folium. Br. in Parry's 1st Voy. App. p. ccciv.

HAB. N. E. coast of America, in latitude 67½ north.

78. ANDRÆA.

156. *Andræa rupestris*. Hedw. Sp. Musc. p. 47. t. 7. f. 2. Eng. Bot. t. 1277. Hooker in Linn. Trans. v. 10. p. 391. t. 31. f. 2. Hooker et Tayl. Musc. Brit. p. 2. t. 8. Hook. Tour in Iceland. App. p. 338. Wahl. Fl. Lapp. p. 306. Hook. Fl. Scot. P. II. p. 121.

Jungermannia rupestris. Linn.

In Mr. Edwards's collection.

XXVII. HEPATICÆ.

79. MARCHANTIA.

157. *Marchantia polymorpha*. Linn. Sp. Pl. p. 1603. Eng. Bot. t. 210. Hook. Fl. Scot. P. II. p. 119. Richardson in Franklin's Journ. App. p. 758. Br. in Parry's 1st Voy. App. p. cccv. Wahl. Fl. Lapp. p. 397. Fl. Dan. t. 1427.

HAB. Igloodik.

Fructification in Mr. Edwards's collection.

80. JUNGERMANNIA.

158. *Jungermannia byssacea*. Hooker Monog. Brit. Jung. t. 12.—Fl. Scot. P. II. p. 113.—Tour in Iceland, App. p. 342.

HAB. Barrow River. Imperfect specimens, creeping upon *Peltidea aphthosa*.

159. *Jungermannia setiformis*. Hooker Monog. Brit. Jung. t. 20.—Fl. Scot. P. II. p. 114. Richardson in Franklin's Journ. App. p. 758. Wahl. Fl. Lapp. p. 385.

From Mr. Edwards's collection.

160. *Jungermannia minuta*. Hook. Monog. Brit. Jung. t. 44.—Fl. Scot. P. II. p. 115. Schreb. in Crantz Grönl. p. 285. Wahl. Fl. Lapp. p. 393. Eng. Bot. t. 225. Br. in Parry's 1st Voy. App. p. cccv.

J. bicornis. Fl. Dan. t. 888. f. a. Richardson in Franklin's Journ. App. p. 757.

In Mr. Edwards's collection.

161. *J. scalaris*. Hook. Monog. Brit. Jung. t. 61.—Fl. Scot. P. II. p. 115.—Tour in Icel. App. p. 342.

In Mr. Edwards's collection.

162. *J. barbata*. Hooker Monograph. of Brit. Jung. t. 70. Fl. Scot. P. II. p. 116.

J. quinquedentata. Huds. Ang. p. 571. Eng. Bot. t. 2517. Wahl. Lapp. p. 395. Richardson in Franklin's Journal App. p. 757.

Amongst mosses.

163. *J. ciliaris*. Hooker Monog. Brit. Jung. t. 65.—Fl. Scot. P. II. p. 117.—Tour in Icel. App. p. 342. Wahl. Fl. Lapp. p. 385.

J. pulcherrima. Schwaegr. Prodr. p. 21. Richardson in Franklin's Journ. App. p. 758.

In Mr. Edwards's collection.

164. *J. pinguis*. Hooker Monog. Brit. Jung. t. 46. Fl. Scot. P. II. p. 118. Eng. Bot. p. 185.

Amongst mosses, growing in wet places.

XXVIII. FUNGI.

81. CANTHARELLUS.

165. *Cantharellus muscigenus*. Fries. Syst. Mycol. v. I. p. 323.

Merulius nigrescens. Bull. Champ. t. 288.

Helvella dimidiata. Bull. Champ. t. 498. f. 2.

HAB. Igloodik.

82. LYCOPERDON.

166. *Lycoperdon Bovista*. Pers. Syn. Fung. p. 141. Hook. Fl. Scot. P. II. p. 11. Wahl. Fl. Lapp. p. 526.

HAB. Upper Savage Island. Hudson's Bay Straits.

XXIX. LICHENES.

83. LECIDEA.

167. *Lecidea confluens*. Ach. Syn. p. 16. Hooker Fl. Scot. P. II. p. 37. Richardson in Franklin's Journ. App. p. 757.

Lichen confluens. Engl. Bot. t. 1964.

HAB. South shore of the Strait of the Fury and Hecla.

168. *Lecidea sabuletorum*. Ach. Syn. p. 20. Wahl. Fl. Lapp. p. 470. Hook. Fl. Scot. ed. 2. MSS. Richardson in Franklin's Journ. App. p. 757.

Lichen muscorum. Engl. Bot. t. 626.

HAB. Igloodik.

169. *Lecidea fusco-lutea*. Ach. Syn. p. 42. Hook. Fl. Scot. P. II. p. 39.

Lichen fusco-luteus. Dicks. Crypt. Foss. Engl. Bot. t. 1007.

HAB. With *Dufourea ramulosa*, Igloodik.

84. GYROPHORA.

170. *Gyrophora tessellata*. Ach. Syn. p. 64.

HAB. Igloodik. South shore of the Strait of the Fury and Hecla. Repulse Bay.

171. *G. erosa*. Ach. Syn. p. 69. Engl. Bot. t. 2066. Hook. Tour in Icel. App. p. 343. Br. in Scoresby's Arctic Regions (*vide Grev.*) Hook. Fl. Scot. P. II. p. 42.

Gyromium erosum. Wahl. Fl. Lapp. p. 482.

HAB. Upper Savage Island. Hudson's Bay Straits.

172. *Gyrophora deusta*. Ach. Syn. p. 65. Hooker, Tour in Icel. App. p. 343. Hook. Fl. Scot. P. II. p. 42.

Lichen flocculosus. Wulfen in Jacq. Coll. Bot. v. 3. p. 99. t. 1. f. 2.

In Mr. Edwards's collection.

173. *Gyrophora vellea*. Ach. Syn. p. 68. Fl. Dan. t. 1354. Richardson in Franklin's Journ. App. p. 759.

Gyromium velleum. Wahl. Fl. Lapp. p. 484.

From Mr. Edwards's collection.

85. LECANORA.

174. *Lecanora Epibryon*. Ach. Syn. p. 155. Wulf. in Jacq. Coll. Bot. v. 4. t. 7. f. 2. Richardson in Franklin's Journ. App. p. 760.

Lichen *Epibryon*. Wahl. Fl. Lapp. p. 408.

HAB. Upon mosses, Igloodik.

175. *Lecanora ventosa*. Ach. Syn. p. 159. Hook. Fl. Scot. P. II. p. 46. Richardson in Franklin's Journ. App. p. 760.

Lichen *ventosus*. Engl. Bot. t. 906. Wahl. Fl. Lapp. p. 406.

HAB. South shore of the Strait of the Fury and Hecla.

176. *L. illimata*. Ach. Syn. p. 148.

L. illimatus. Wahl. Fl. Lapp. p. 413.

Mr. Edwards's collection.

177. *L. tartarea*. Ach. Syn. p. 172. Grev. in Pl. of W. Greenl. p. 432. Hook. Fl. Scot. P. II. p. 49. Richardson in Franklin's Journ. App. p. 760.

Parmelia tartarea. Hook. Tour in Icel. App. p. 344.

Lichen *tartareus*. Eng. Bot. t. 156. Wahl. Fl. Lapp. p. 403.

α. gonatodes. Ach. Wahl. Fl. Lapp. 403.

Isidium gonatodes. Ach. Meth. Lich. p. 137.

I know of no lichen whose crust is so variable as this is. It is sometimes simply granulated, sometimes it throws out *spiculae*, whilst, at other times, it forms itself into a mass of cylindrical, erect, branched processes, so exactly resembling, when in that state, those of an *Isidium*, that it is no wonder that Acharius once ranked this appearance in that genus. Indeed, had I not seen on it the shields of *L. tartareus*, I should hardly have ventured to remove it from *Isidium*. Fructification I have, in abundance, upon specimens given me by my friend, Charles Mackintosh, esq., of Glasgow, who imported it from Corsica, and by whom it is used as cudbear.

178. *Lecanora elegans*. Ach. Syn. p. 182. Richardson in Franklin's Journ. App. p. 760. Br. in Parry's 1st Voy. App. p. cccv.

Lichen *elegans*. Wahl. Fl. Lapp. p. 417.

HAB. Igloodik. Barrow River. South shore of the Strait of the Fury and Hecla. Fern Island.

Inhabits the E. Coast of W. Greenland. Captain Sabine.

86. PARMELIA.

179. *Parmelia omphalodes*. Ach. Syn. p. 203. Hook. Fl. Scot. P. I. p. 53.

Lichen *omphalodes*. Engl. Bot. t. 604. Wahl. Fl. Lapp. p. 428.

Parmelia omphalodes. Hook. Tour in Icel. App. p. 344.

HAB. Winter Island.

180. *P. saxatilis*. Ach. Syn. p. 203. Hook. Fl. Scot. P. II. p. 53. Hook. Tour in Icel. App. p. 344. Richardson in Franklin's Journ. App. p. 761.

Lichen saxatilis. Eng. Bot. t. 603. Wahl. Fl. Lapp. p. 428.

HAB. Igloodik.

181. *Parmelia stygia*. Ach. Syn. p. 204. Hooker Fl. Scot. P. II. p. 54. • Hook. Tour in Icel. App. p. 344. Brown in Scoresby's Arct. Reg. Richardson in Franklin's Journ. App. p. 761.

Lichen stygium. Wahl. Fl. Lapp. p. 427.

HAB. Igloodik.

182. *Parmelia conspersa*. Ach. Syn. p. 209. Richardson in Franklin's Journ. App. p. 761.

Lichen conspersus. Wahl. Fl. Lapp. p. 42.

L. centrifugus. Engl. Bot. t. 2097.

HAB. South shore of the Strait of the Fury and Hecla.

87. CETRARIA.

183. *Cetraria nivalis*. Ach. Syn. p. 228. Hook. Tour in Icel. App. p. 345. Br. in Scoresby's Arctic Reg. Hook. Fl. Scot. P. II. p. 57. Richardson in Franklin's Journ. App. p. 761. Br. in Parry's 1st Voy. App. p. cccvi.

Lichen nivalis. Engl. Bot. t. 1094. Wahl. Fl. Lapp. p. 433.

HAB. Igloodik. Upper Savage Island. Hudson's Bay. Winter Island. Barren specimens.

184. *C. cucullata*. Ach. Syn. p. 228. Richardson in Franklin's Journ. App. p. 761. Br. in Parry's 1st Voy. App. p. cccvi.

Lichen cucullatus. Smith in Linn. Trans. v. 1. p. 84. t. 4. f. 7. Wahl. Fl. Lapp. p. 438.

HAB. Igloodik.

185. *C. islandica*. Ach. Syn. p. 229. Hooker Tour in Icel. App. p. 345. Grev. Pl. of W. Greenl. p. 43. Hook. Fl. Scot. P. II. p. 58. Richardson in Franklin's Journ. App. p. 768. Br. in Parry's 1st Voy. App. p. cccvi.

Lichen islandicus. Wahl. Fl. Lapp. p. 434. Engl. Bot. t. 1330.

Var. *Thallo opaco, ramulis numerosissimis*.

HAB. Igloodik.

186. *C. juniperina*. Ach. Syn. p. 226. Hook. Fl. Scot. P. II. p. 57. Richardson in Franklin's Journ. App. p. 761. Br. in Parry's 1st Voy. App. p. cccv.

• *Lichen juniperinus*. Engl. Bot. t. 2111. Wahl. Fl. Lapp. p. 432.

HAB. Igloodik.

All the specimens of this lichen prove to be the same variety which Mr. Brown has noticed among the Melville Island plants, having the margin of its thallus neither crisped nor pulverulent.

88. PELTIDEA.

187. *Peltidea aphthosa*. Ach. Syn. p. 238. Hook. Tour in Icel. App. 345. Br. in Scoresby's Arct. Reg. Hook. Fl. Scot. P. II. p. 57. Richardson in Franklin's Journ.

App. p. 761. Engl. Bot. t. 1119. Br. in Parry's 1st Voy. App. p. cccvi. Wahl. Fl. Lapp. p. 446.

HAB. Barrow River.

89. DUFOUREA.

188. *Dufourea arctica*. Richardson in Franklin's Journ. App. p. 762.

D. rugosa. Br. in Ross' Voy. ed. 2. v. 2. App. p. cccvi.

HAB. Duckett Cove. Barrow River. Igloolik.

This fine lichen, which Dr. Richardson found in fructification rather abundantly, exists both in Capt. Parry's and Mr. Edwards's collections, but quite in a barren state.

The *D. rugosa* of Brown in Ross' Voyage, appears to be a small and somewhat lacunose variety of this plant.

189. *D. ramulosa*: thallo fuscescente fistuloso tereti compresso vix lacunoso valde ramoso, ramis tuberculato-ramulosis obtusiusculis.

HAB. Igloolik.

Planta singularis, caespites laxos diametro bipollicares efformans. *Thallus* erectus, uncialis, fistulosus, inferne nudiusculus, flavo-fuscescens (siccitate glaucescens), superne valde ramosus, olivaceo-fuscus, tereti-compressus, sublacunosus, ramis subdichotomis ramulis parvis vel tuberculis obtusis instructis. *Substantia* tænea, submembranacea, siccitate fragilis. *Fructificatio* ignota.

In habit this plant comes nearest to *D. madreporiformis* of the Swiss Alps; but is of a very different colour, much more branched, beset with small ramuli, or tubercles, and internally quite fistulose, like the thallus of *Dufourea arctica*; in which latter peculiarity, according to the character given by Acharius, this plant differs from the genus *Dufourea*.

There is no appearance of fructification; and the species appears to be rare, as Captain Parry's collection contains but three individuals of it, and these were all found at Igloolik.

90. CENOMYCE.

190. *Cenomyce alpicornis*. Ach. Syn. p. 251. Hook. Fl. Scot. P. II. p. 62.

Lichen alpicornis. Eng. Bot. t. 1392.

Mr. Edwards's collection.

191. *Cenomyce pyxidata*. Ach. Syn. p. 252. Hook. Fl. Scot. P. II. p. 62. Richardson in Franklin's Journ. App. p. 762. Br. in Parry's 1st Voy. App. p. cccvii.

Lichen pyxidatus. Eng. Bot. t. 1393.

Bæomyces pyxidatus. Wahl. Fl. Lapp. p. 453. Hook. Tour in Icel. App. p. 345.

HAB. Igloolik. South shore of the strait of the Fury and Hecla. Island off Cape Wilson.

192. *Cenomyce gracilis*. Hook. Fl. Scot. P. II. p. 63.

C. ecmocyna. α . *gracilis*. Ach. Syn. p. 261. Richardson in Franklin's Journ. App. p. 762.

Lichen gracilis. Eng. Bot. t. 1264.

Bæomyces gracilis. Wahl. Fl. Lapp. t. 455.

Mr. Edwards's collection.

193. *Cenomyce rangiferinus*. Ach. Syn. p. 177. Grev. in Pl. of W. Greenl. p. 433. Hooker Fl. Scot. P. II. p. 65. Richardson in Franklin's Journ. App. p. 762.

Lichen rangiferinus. Eng. Bot. t. 173.

Bæomyces rangiferinus. Wahl. Fl. Lapp. p. 458. Hook. Tour in Icel. App. p. 346.
HAB. Upper Savage Island. Hudson's Bay.

194. *Cenomyce vermicularis*. Ach. Syn. p. 278. Hook. Fl. Scot. P. II. p. Richardson
in Franklin's Journ. App. p. 762.

Lichen vermicularis. Engl. Bot. t. 229.

Cenania vermicularis. Br. in Parry's 1st Voy. App. p. cccvii.

Bæomyces vermicularis. Wahl. Fl. Lapp. p. 458. Hook. Tour in Icel. App. p. 346.

HAB. Barrow River.

91. ISIDIUM.

195. *Isidium oculatum*. Ach. Lichen. Univ. p. 570.

Lecanora oculata. Ach. Syn. Lich. p. 148. Hook. Fl. Scot. P. II. p. 47. Richardson
in Franklin's Journ. App. p. 760.

Lichen oculatus. Dicks. Crypt. fasc. 2. p. 17. t. 6. f. 5.

Lichen dactyliferum. Wahl. Fl. Lapp. p. 414.

HAB. Igloodik.

92. STEREOCAULON.

196. *Stereocaulon paschale*. Ach. Syn. p. 284. Hook. Tour in Icel. App. p. 348.
Grev. Pl. of W. Greenl. p. 433. Hook. Fl. Scot. P. II. p. 66. Richardson in Franklin's
Journ. App. p. 762. Br. in Parry's 1st Voy. App. p. cccvii.

Lichen paschalis. Eng. Bot. t. 282.

Bæomyces paschalis. Wahl. Fl. Lapp. p. 450.

HAB. Igloodik, Winter Island.

93. SPHEROPHORON.

197. *Sphærophoron fragile*. Ach. Syn. p. 287. Hook. Fl. Scot. P. II. p. 67.

Lichen fragilis. Eng. Bot. t. 2479. Wahl. Fl. Lapp. p. 448.

HAB. Igloodik.

94. ALECTORIA.

198. *Alectoria jubata*. *β. chalybeiformis*. Ach. Syn. p. 291. Br. in Scoresby's Arc.
Reg. Hook. Fl. Scot. P. II. p. 67. Richardson in Franklin's Journ. App. p. 762.

Lichen chalybeiformis. Linn. Fl. Suec. p. 1127. Wahl. Fl. Lapp. p. 437.

Mr. Edwards's collection.

95. CORNICULARIA.

199. *Cornicularia aculeata*. Ach. Syn. p. 299. Hook. Fl. Scot. P. II. p. 69.

Lichen aculeatus. Wahl. Fl. Lapp. p. 439.

β. spadicea. Ach. Br. in Scoresby's Arc. Reg. Hook. Fl. Scot. P. II. p. 68.

Lichen hispidus. Eng. Bot. t. 452.

δ. muricata.

Lichen muricatus. Ach. in Nov. Act. Holm. v. 22. p. 544. t. 4. f. 5.

HAB. Igloolik.

200. *Cornicularia ochroleuca*. Ach. Syn. p. 301. Hook. Fl. Scot. P. II. p. 69. Richardson in Franklin's Journ. App. p. 762. Br. in Parry's 1st Voy. App. p. cccvi.

Lichen ochroleucus. Wahl. Fl. Lapp. p. 438. Engl. Bot. t. 2374.

Parmelia ochroleuca. Hook. Tour in Icel. App. p. 345.

β. nigricans. Ach.

HAB. Igloolik. Upper Savage Island. South shore of the Strait of the Fury and Hecla. (*β.* with *α.*)

201. *Cornicularia divergens*. Ach. Syn. p. 300. Meth. p. 305. t. 6. f. 1. (male.) Rich. in Franklin's Journ. App. p. 762.

Lichen divergens. Wahl. Lapp. p. 439. Fl. Dan. t. 262.

In Mr. Edwards's collection.

202. *Cornicularia bicolor*. Ach. Syn. p. 301. Hook. Fl. Scot. P. II. p. 69.

Lichen bicolor. Eng. Bot. t. 1853.

In Mr. Edwards's collection.

203. *Cornicularia lanata*. Ach. Syn. p. 302. Hook. Tour in Icel. App. p. 345. Hook. Fl. Scot. P. II. p. 69. Br. in Parry's 1st Voy. App. p. cccvi.

Lichen lanatus. Engl. Bot. t. 3846. Wahl. Fl. Lapp. p. 440.

HAB. Igloolik.

204. *Cornicularia pubescens*. Ach. Syn. p. 302. Hook. Tour in Icel. App. p. 345. Hook. Fl. Scot. P. II. p. 69. Richardson in Franklin's Journ. App. p. 762.

Lichen pubescens. Engl. Bot. t. 2318. Wahl. Fl. Lapp. p. 441.

HAB. Igloolik.

96. ULVA.

205. *Ulva compressa*. Linn. Sp. Pl. p. 1632. Engl. Bot. t. 1739. Wahl. Lapp. p. 508. Hook. Fl. Scot. P. II. p. 91.

Received by Mr. Greville from some gentleman of the Expedition; but without any station being assigned to it. It was, probably, picked up in Hudson's Strait, as no Marine Alga appears to have been found further to the westward by this Expedition; and the only species gathered by Dr. Richardson on the shores of the Arctic Sea were *Fucus ceranoides*, a *Conferva*, and the fragment of a *Floridea* of Laman.

XXX. ALGÆ.

97. FUCUS.

206. *Fucus vesiculosus*. Linn. Sp. Pl. p. 1626. Eng. Bot. t. 1066. Wahl. Fl. Lapp. p. 490. Hook. Fl. Scot. P. II. p. 94.—Tour in Icel. p. 346. Turner Hist. Fuc. t. 88. Syn. Fuc. n. 24. Lyngb. Hydroph. Dan. p. 5.

HAB. Floating in the Sea about the middle of Hudson's Straits: also found in the Esquimaux Canoes. Upper Savage Island.

98. ODONTHALIA.

207. *Odonthalia dentata*. Lyngb. Hydroph. Dan. p. 9. t. 3.

Sphærococcus dentatus. Agardh. Syn. p. 22. Hook. Fl. Scot. P. II. p. 102.

Delesseria dentata. Lam. Thal. p. 36.

Fucus dentatus. Linn. Mant. p. 135. Fl. Norv. v. 2. p. 91. Turn. Syn. Fuc. p. 149. Hist. Fuc. t. 13. Hook. Tour in Icel. App. p. 347.

F. pinnatifidus. Fl. Dan. t. 354.

Floating on the Sea about the middle of Hudson's Strait: in fructification in July.

99. SPHÆROCOCCUS.

208. *Sphærococcus laciniatus*. Hook. Fl. Scot. P. II. p. 104. Lyngb. Hydroph. Dan. p. 12. t. 4.

Fucus laciniatus. Lightf. Scot. p. 947. Turn. Syst. Fuc. n. 161. Hist. Fuc. t. 69. Engl. Bot. t. 1068.

F. miniatus. Fl. Dan. t. 769.

HAB. Floating on the Sea about the middle of Hudson's Strait.

100. LAMINARIA.

209. *Laminaria Saccharina*. Lam. Thal. p. 22. Agardh. Syn. p. 17. Hook. Fl. Scot. P. II. p. 98.

Fucus saccharinus. Linn. Sp. Pl. p. 1630. Lightf. Scot. p. 940. Engl. Bot. t. 1331. Fl. Norv. t. 52. Turn. Syn. Fuc. n. 37.—Hist. Fuc. t. 163. Hooker Tour in Iceland, App. p. 347.

HAB. Floating on the Sea about the middle of Hudson's Strait.

210. *Laminaria Agarum*. Lam. Thal. p. 22. Agardh. Syn. Alg. 17.

Fucus Agarum. Gmel. Hist. Fuc. p. 210. t. 32. Fl. Dan. t. 1542. Turner Hist. Fuc. t. 75.

F. Clathrus. Esper Hist. Fuc. 128.

HAB. Found on the surface of the Sea, about the middle of Hudson's Strait.

This remarkable *Alga* was likewise detected by Dr. Richardson, at the mouth of Hayes River, Hudson's Bay.

101. DESMIA.

211. *Desmia aculeata*. Lyngb. Hydroph. Dan. p. 34. t. 44.

Sporochneus aculeatus. Agard. Syn. p. 10. Hook. Fl. Scot. P. II. p. 96.

Fucus aculeatus. Lightf. Scot. p. 924. Turn. Syst. Fuc. n. 48.—Hist. Fuc. t. 187. Fl. Dan. t. 355.

F. muscoides. Hook. Tour in Icel. App. p. 347.

Desmarestia aculeata. Lam. Thal. 25.

HAB. Found in the Esquimaux Canoes, Lower Savage Island, Hudson's Strait.

102. PTILOTA.

212. *Ptilota plumosa*. Agardh. Syn. 39. Hook. Fl. Scot. P. II. p. 106. Lyngb. Hydroph. Dan. p. 38. t. 9.

Fucus plumosus. Lightf. Scot. p. 955. Fl. Dan. t. 350. Fl. Norv. v. 2. p. 91. Turn. Syn. Fuc. p. 296.—Hist. Fuc. t. 60. Hooker Tour in Icel. App. p. 347.

F. pectinatus. Fl. Norv. v. 2. p. 122. t. 2. f. 8.

F. pilotus. Fl. Norv. v. 2. p. 135. t. 2. f. 15.

Plocamium plumosum. Lam. Thal. p. 50.

Floating on the sea about the middle of Hudson's Strait.

103. GIGARTINA.

213. *Gigartina confervoides*. Lam. Thal. p. 48. Lyngb. Hydroph. Dan. p. 43.

Fucus confervoides. Linn. Sp. Pl. p. 1629. Fl. Norv. v. 2. p. 92. Engl. Bot. t. 1688.

Turn. Syn. Fuc. p. 328.—Hist. Fuc. t. 84. Hook. Tour in Iceland, App. p. 347.

F. elongatus. Fl. Norv. v. 2. p. 143.

Floating on the sea about the middle of Hudson's Strait.

104. PALMELLA. *Lyngbye*.

Massa gelatinosa, subhyalina, granulis solitariis globosis farcta. *Lyngb.*

214. *Palmella nivalis*, massa tenuis, superficiē sporulis sphaericis parvis, sed magnitudine inaequalibus, numerosis, intense rubris granulata.

Uredo nivalis. Bauer in Brande's Quarterly Journ. of Sciences and the Arts. v. 7. t. 222. t. 7.

Algarum species, Brown in Ross' Voy. ed. 2. v. 2. App. p. 195.

HAB. Igloolik, &c. On snow; and also attached to stones and covering mosses with a thin gelatinous crust.

After the admirable history and figures of this curious substance (so well known to our Arctic navigators by the name of *Red Snow*), that are given by Mr. Bauer, both in the Quarterly Journal of Science, and in the Philosophical Transactions for 1820, p. 165, t. 17, scarcely any thing is left for me to say upon the subject of its structure and mode of growth. Mr. Bauer has satisfactorily proved the red snow to be a vegetable, and if other naturalists had, like myself, possessed the advantage of seeing it covering stones and mosses, like many other Cryptogamic vegetables, there would have been no cause for discussion relative to the kingdom of Nature to which this subject should belong.

That a plant should vegetate, in and upon snow, and that it should do so, too, to such an extent as to cover a tract of eight miles in length, and frequently to a depth through the snow of ten or twelve feet, must, indeed, excite our astonishment. Growing upon stones and turf, it assumes an appearance very similar to that of some of our own vegetables; and there is one plant particularly familiar to the Cryptogamic Botanist of this country, to which this individual, in its general structure, may well be compared, which is the *Tremella cruenta* of *English Botany* (unquestionably a true *Palmella*.) Its similarity to this did not escape my acute friend, Mr. Brown, who, in a note in the Appendix to Ross' Voyage, expresses his opinion that it is nearly allied to it. Mr. Bauer is disposed to agree with Mr. Brown, although unacquainted with the plant in question, upon the ground that (according to the description given by the author of *Eng. Bot.*) the *T. cruenta* is formed of a "congeries of extremely minute, pellucid, globular granulations, all equal in size;" whence Mr. Bauer infers, that the plant is an *Uredo*. The true nature of the *T. cruenta* is not, in *English Botany*, correctly defined; it forms, in reality, a thin gelatinous stratum, or mass, in which (entirely immersed and imbedded) are numerous extremely minute, spherical granules, all equal in size, and of a dull purplish red colour. From these circumstances we may perceive, that our present plant differs in nothing from *T. cruenta*, except in its granules being *external*, and in their size and colour.

In regard to its right to a place in the genus *Uredo*, where the able Mr. Bauer has placed it, unquestionably, in looking at the figure above quoted of his *U. nivalis*, ff. 1—8, *U. Graminis*, 9—10, and *U. fetida*, f. 11, these would all appear to belong to one and the same genus. I do not possess, at this time, any specimens of *U. fetida*, but I presume that it denotes the *Stinking* or *Bladder Brand* of the Norfolk farmer, the *U. Caries* of De Candolle, of *Hopker's Fl. Scotica*, and Greville's *Fl. Edinensis*; the *U. sitophila* of Ditmar in *Sturm's Fungi of Germany*, tab. 34. If this be the case, then, setting aside the different places of growth, which I must yet allow to be of some consequence in these minute vegetables, there is the remarkable distinction that the extremely minute *sporules* are themselves enclosed in a *sporidium* or kind of capsule, which is not the case with our plant. The *Uredo Segetum* I take to be that of Persoon, and most authors; and, to quote figures, the *Reticularia Segetum* of Bulliard's *Champignons*, t. 472, the *Ustilago Segetum* of Link, in *Sturm's Fungi of Germany*, t. 33, what is commonly called the *Smut* or *Pepper Brand* by agriculturists. I am aware that most authors, and amongst them I myself in the *Flora Scotica*, have described this species as having its *sporules* forming a copious black dust, *naked*, attached within the fruit or glume of grasses; in other words, *destitute of sporidium*; and, on again looking casually at my specimens, I find such to be the case in a great many instances; but, on a more strict investigation, I clearly discover a number of *sporidia*, which have not yet shed their dust*; so far according with the character of *U. Caries* (or *fetida*), but differing in the shape of their *sporidia*. Mr. Bauer has, perhaps, only observed the *sporidia* before they were burst, and I am the more inclined to this supposition from the circumstance of his having given that tuberculated appearance to his plants (f. 9.), which indicate their containing *sporules*. Nothing of this kind is observable in the Arctic plants.

Upon a consideration of all these circumstances, I cannot but think that the *Red Snow*, although not decidedly a *Palmella*, since the granules are not immersed, yet approaches much nearer to it than to *Uredo*†; and, perhaps, Lyngbye's generic character might, without inconvenience, be modified so as to include it.

On a subject, however, of such minuteness, and which has excited so much attention, I was not willing to rest satisfied with the result of my own unaided investigations. Mr. Greville, who has examined the plant, quite agrees in the above remarks; and Captain Carmichael, to whom I communicated specimens, was kind enough to write to me as follows respecting it:—"I was anxious to see the *Red Snow*, having read a great deal of discordant opinion respecting its nature; I have examined it with some care, and from all I know of *Uredo*, it does not appear to have the slightest affinity with that genus. The *Uredos* are all parasitical, and the *sporidia* are attached by more or less of a pedicel to the matrix. But there cannot be parasites upon snow, any more than on water; and, as you have remarked, the *sporules* of this plant are merely imbedded in gelatine, without any kind of attachment. A *Palmella* it may be, according to the present loose construction of that genus, but surely very far removed from *P. cruenta*. In the latter, the *sporules* are all of the same size, and buried in the gelatine; whereas in this plant, they are of twenty different sizes, and the larger of them are twenty times the size of those of *P. cruenta*. They are, besides, protruded in such a manner as to render the whole surface granular. Of all the plants I am acquainted with, it comes the nearest, in general habit, to *P. botryoides*; but its internal structure is widely different. On the whole, I should think, as you have asked me to give my opinion, that you may safely arrange the *Red Snow* among the *Palmellæ*. It has, at least, a better title to rank there than *P. botryoides*. The great diversity in the size of the *sporules*, peculiar, I believe, to the Arctic plant, cannot be considered as a generic objection, though it will form a good specific distinction."

* If a fully formed *sporidium* be put into water, it bursts after a little time, and the numerous *sporules*, which have been considered to form the entire plant, will float about in great numbers upon the table of the microscope.

† Professor Agardh, of Lund, has, since the above account was written, described the *Red Snow* as a new genus, under the name of *Rotococcus nivalis*.

REFERENCE TO THE BOTANICAL PLATES.

APP. TAB. I.

PEDICULARIS NELSONII, p. 402.

- FIG. 1. Plant, *natural size*.
 2. Calyx and bractea, *magnified*.
 3. Corolla, *magnified*.
 4. Anther, *magnified*.
 5. Pistil, *magnified*.

CREPIS NANA, p. 397.

- FIG. 1. Plant, *natural size*.
 2. Single flower, *magnified*.
 3. Floret, *magnified*.
 4. Involucre, with the ripe fruit, *magnified*.
 5. Pericarp, *magnified*.
 6. Hair of the pappus, *magnified*.
 7. Involucre and receptacle, as seen after the falling away of the seeds, *magnified*.

APP. TAB. II.

COLPODIUM LATIFOLIUM, p. 408.

- FIG. 1. Plant, *natural size*.
 2. Spikelet, *magnified*.
 3. Spikelet, before the expansion of the flower, *magnified*.
 4. Superior valve of the Corolla, *magnified*.

HIEROCHLOE PAUCIFLORA, p. 410.

- FIG. 1. Plant, *natural size*.
 2. Spikelet, shewing the florets, *magnified*.
 3. Inferior valve of a lateral floret, *magnified*.
 4. Superior floret, *magnified*: from which are removed and represented at
 5. The two stamens, the pistil, and the hypogynous scales or lodiculæ, *magnified*.

LIST OF ZOOPHYTES,

BY

JOHN FLEMING, D.D., F.R.S.E., &c. &c.

ZOOPHYTES.

ALL the species are marked as having been "found on the surface of the sea, about the middle of Hudson's Strait, 29th July 1821." They appear to have floated about in the sea for some time, as they are generally in a bleached state.

1. *FLUSTRA pilosa*. (Solander.) Ellis's Corallines, p. 73. No. 4. Table xxxi. Investing, sparingly, the *Cellaria loriculata*.

2. *CELLARIA loriculata*. (Sol.) Ellis's Cor. p. 40. No. 7. Tab. xxi. fig. b. B. In the form of a large tuft.

3. *C. ciliata*. (Sol.) Ellis's Cor. p. 38. No. 5. Tab. xx. fig. d. D. A single small branch adhering to the preceding.

4. *TUBULARIA*? In the single tuft of this which has been preserved, there are several slender tubes, with a few scattered branches. But the absence of wrinkles on the stalks, the canal of the branches being closed at the base, and the soft decomposed aspect of the inner surface, lead to the suspicion, that it is an altered sea weed, and not a subject of the animal kingdom.

5. *SERTULARIA argentea*. (Sol.) Ellis's Cor. p. 6. No. 4. fig. c. C. The specimens exhibited the remains of the vesicles or ovaria.

6. *S. cupressina*. (Sol.) Ellis's Cor. p. 7. 1105. Tab. iii. fig. a. A. In the examples of this variable species, the lateral branches are, for the most part, simple, a character resulting from its growth in deep water.

7. *S. repens*. (Sol.) Ellis's Cor. p. 25. Tab. xiv. fig. b. B. Creeping on the surface of *Sphaerococcus laciniatus*.

8. *PLUMULARIA* (Lamarck) *bullata*. N. S. This coralline is irregularly branched; each branch arises from a cell (or denticle) which has enlarged into an ovate vesicle, slightly wrinkled across. From the top of this vesicle a tubular stem proceeds, thinly covered, on one side, with a row of cells, some of which are enlarged into vesicles supporting other branches. The base of the vesicle is united with the mouth of the cell; but the line of separation is distinct, in consequence of the cell and branch with which it is connected, being of a denser substance. In the younger branches, the communication between the central tube of the stem and the cavity of the vesicle is free; in the older portions, however, this connexion ceases. At the external base of the vesicle, from one to three tubular radicles take their rise, and descend along the supporting stem and others which are inferior to it, closely adhering to their surface. These tubes are, like the stems and branches, destitute of joints.

Each cell is short, scarcely the diameter of the stem which supports it, with a horizontal or slightly oblique mouth, and destitute of lateral or inferior processes. In all the cells, I observed portions of a thin membrane, connected or continuous with the margin, and more or less cup-shaped, which appeared to be the remains of vesicles, similar to those which give rise to the branches. Their nature was likewise pointed out by the remains of the tubular radicles, still in connexion with some of the largest portions. To some of the cells cylindrical bodies were attached, which, after maceration, appeared of the consistence of the body of the polypi of several sertulariæ; but instead of terminating in a tentacular head, became contracted, and gave rise to branches bearing cells. In some cases, two contiguous cells supported each a vesicle bearing a branch.

The preceding description will suffice to show that this coralline differs from all those described by Ellis, among his vesiculated corallines; by Lamarck, in his genus *Plumularia*; or by Lamouroux, in his genus *Aglaophenia*. But the mutilated condition of the specimen leaves much to be desired in the characters of the species. I have observed in other vesiculated corallines (Edinburgh Philosophical Journal, vol. ii. p. 86) a capability, when placed in circumstances unfavourable for ordinary growth, of converting the polypi, in the cells, into branches bearing cells. The anomalous appearances of this species seem to indicate that it had recently been placed in a condition where the exertion of similar energies was requisite, in converting polypi and ovaria into branches; thus exhibiting a curious example of viviparous reproduction or extension.

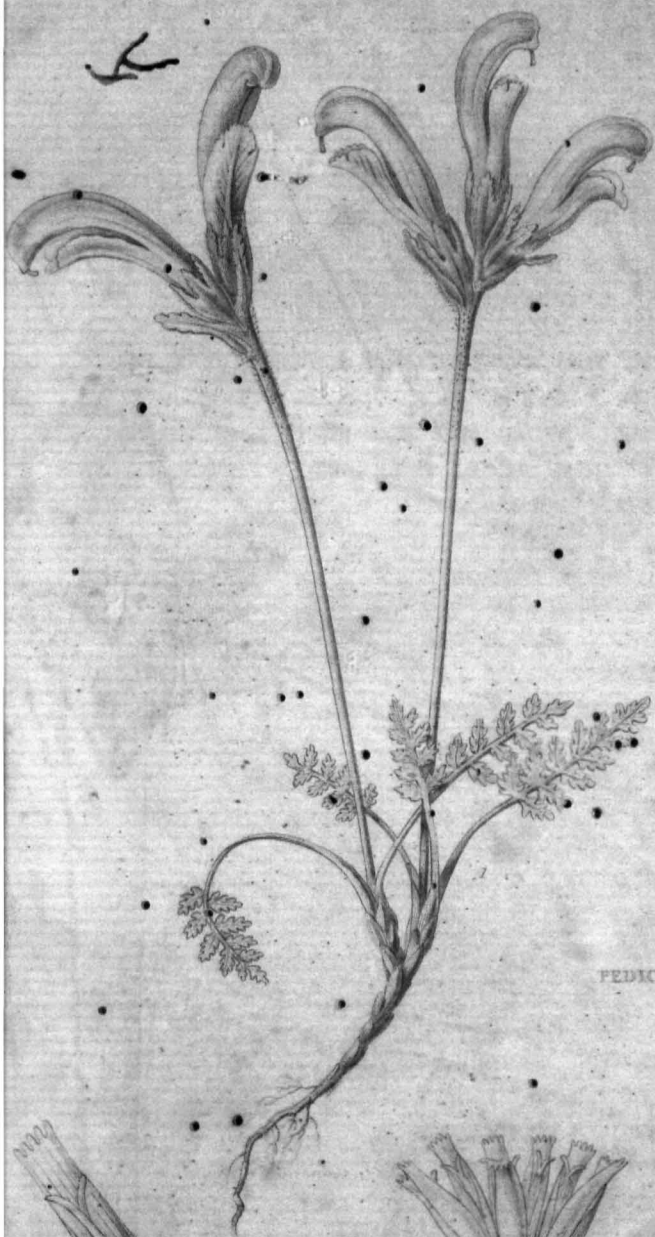
9. *MILLEPORA pumicosa*. (Sol.) Ellis' Cor. p. 75. No. 7. Tab. xxx. fig. d. D. A small mass adhering to *Cellaria loriculata*.

10. *M. tubulosa*. (Sol.) Ellis's Cor. p. 74. No. 6. Tab. xxvii. fig. e. E. A small portion only adhering to the *ODONTHALIA dentata*. I observed, resting on the same plant, a microscopic shell agreeing with the *NAUTILUS umbilicatus* of Montagu's Testacea Britannica Supp. p. 78. Tab. xviii. f. 1.

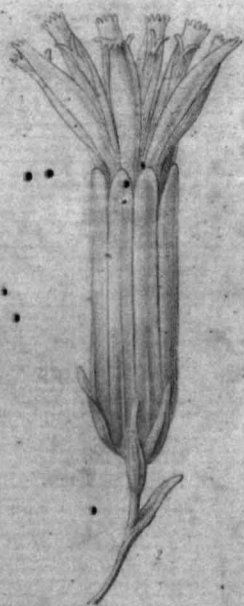
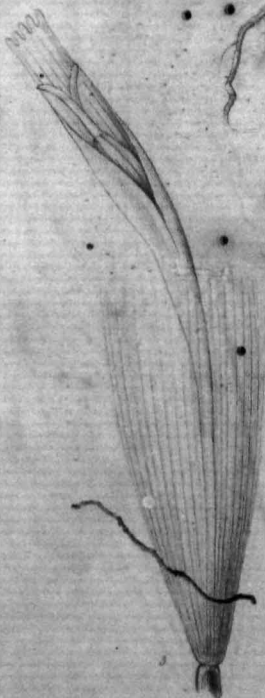
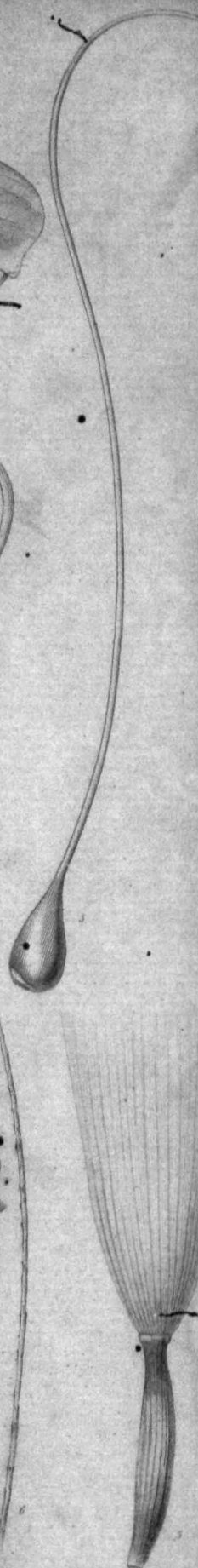
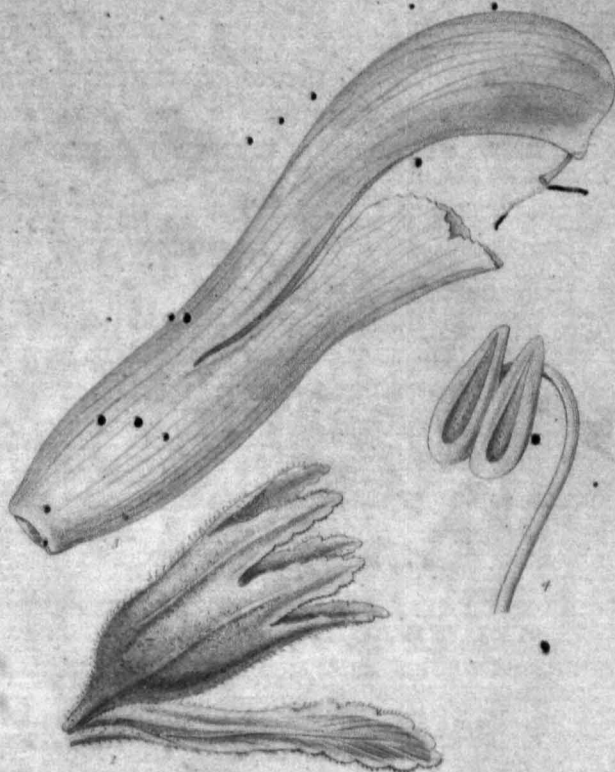
11. *SPONGIA infundibuliformes*, of Linnæus. A single, young, bleached, worn and damaged specimen. By comparing its skeleton, under the microscope, with a portion of the same species from Orkney, I could not discover any definite distinguishing character. The latter, being in a more perfect state, exhibited the spiculæ held in closer connexion by the gelatine.

12. *S. parasitica*, of Montagu: "Memoirs of the Wernerian Society of Edinburgh, Vol. ii. p. 114. No. 34. A small macerated portion of this sponge adhered to the *ODONTHALIA dentata*. Under the microscope the skeleton corresponded with the species to which we have referred.

THE END.

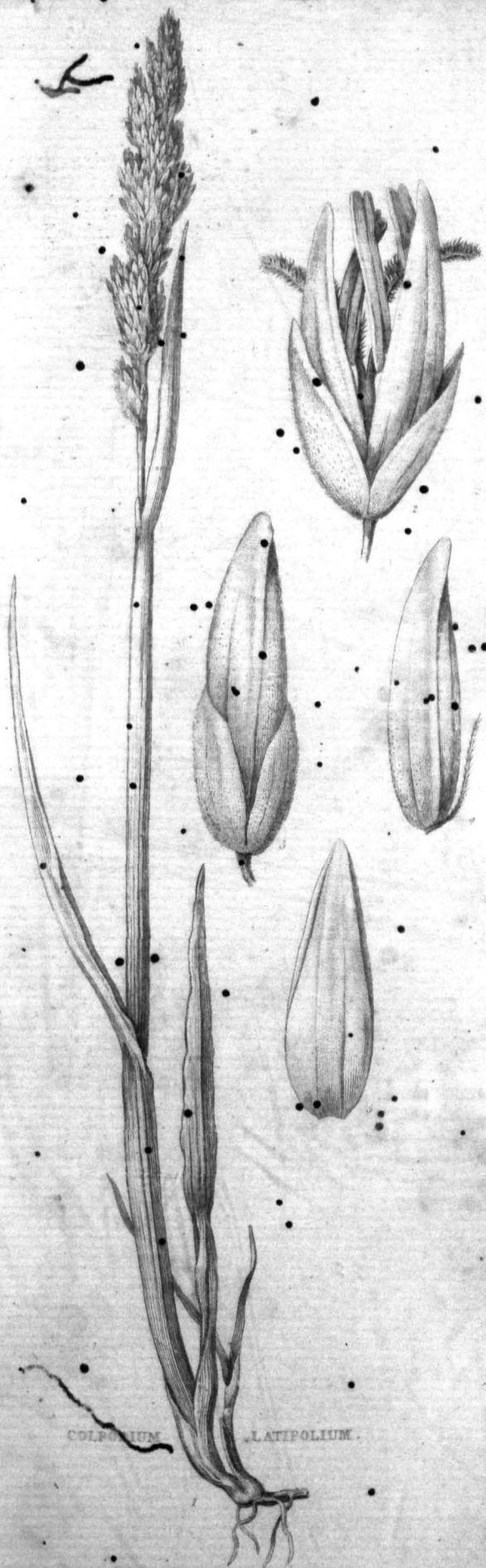


PEDICULARIS NELSONII.



CREPIS NANA.





COLPODIUM

LATIPOLIUM.



HIEROCLOE PAUCIFLORA.