Aspidium Oreopteris
*Ranunculus alpestris; but rare
Azalia procumbens
Gnaphalium supinum; and a variety
" sylvaticum; but rare
Betula nana
Veronica alpina
" humifusa
*Eriophorum gracile
Arbutus Uva ursi
Pyrola rotundifolia
" uniflora; but rare
Thalictrum alpinum
Tofieldia palustris
Hedypnois taraxaci
Salix herbacea
Vaccinium uliginosum
" Vitis-Idæa
Trientalis europæa
Rubus Chamæmorus
Silene acaulis
Cerastium alpinum
" latifolium
* " nivale, *nova species*
Malaxis paludosa
Lycopodium annotinum

On mountains to the eastward of Clova, I discovered the beautiful Potentilla tridentata, new to our British Flora.

On the rocks among the Clova mountains, are to be found the following interesting plants:

Pteris crispa
Aspidium Lonchitis
Epilobium angustifolium
Ilex Aquifolium
Sonchus cœruleus of Fl. Brit.; truly a rare plant. The Sonchus Canadensis of Linnæus, although given by Dr. Smith as a synonym, is a very different plant. S. cœruleus is now lost at Howden Pans, in England; and at present we know of no other habitat for it but the Clova mountains, and their vicinity
Draba incana; and likewise var. β
Poa flexuosa
" glauca
Melica nutans
Pyrola secunda
Potentilla aurea
*Salix rupestris
" prunifolia
" Andersoniana
Salix arenaria
" incubacea
" glauca
*Hieracium divaricatum
" cerinthoides
* " amplexicaule; besides several non-descript species
*Tussilago alpina
*Cochlearia grœnlandica of Linn.
* " alpina, *nov. sp.*
*Lychnis alpina
*Potentilla opaca
*Arenaria fasciculata of Jacquin; the fastigiata of English Botany
Serratula alpina
*Carex laxa of Whalenberg
" atrata
" pallescens; and several non-descripts of that genus
Cyathea dentata

On the upland pastures grow the Satyrium albidum and Satyrium viride.

Among the rarer Mosses to be found among these mountains, may be mentioned the following:

Hypnum pulchellum
" denticulatum
" undulatum
" alpinum
" plumosum
" myosuroides
" implexum
" molle
" Schreberi
" rufescens
" fluitans
" stellatum
" rugosum
" revolvens; and some non-descripts of this genus

Bartramia gracilis
" arcuata
" Merchiana
" Halleriana
" crispa
" ithyphylla

Tortula brevifolia
" tortuosa

Trichostomum fontinaloides; and var. β
" lineare
" glaucescens
" microcarpon
" rigidulum
" capillaceum
" trifarium
" ericoides

Grimmia cirrata
" striata
" conostoma
" nigrita
" Schisti
" Donniana
" heteromalla
" recurvata
" acuta
" rivularis

Polytrichum hercynicum
" strictum
" alpinum
" attenuatum

Bryum compactum
" bimum
" crudum
" Zierii

Bryum julaceum
" alpinum
" trichodes
" dealbatum
" elongatum

Neckera curtipendula
" crispa
" pumila

Gymnostomum microstomum
" lapponicum
" fasciculare
" stelligerum
" curvirostrum

Buxbaumia foliosa

Splachnum rugosum
" gracile
" tenue
" angustatum
" mnioides
" fastigiatum
" ovatum

Dicranum fuscescens
" flagellare
" uncinatum
" falcatum
" fulvellum
" rufescens
" ovale
" patens
" montanum, rare
" squarrosum
" flexuosum
" polyphyllum
" strumiferum
" virens

Dicranum crispum
" osmundioides
* " pygmæum
Jungermannia bifida
" ciliaris
" divaricata
" setiformis
" emarginata
Jungermannia reptans
" adunca
" julacea
" cochleariformis
" trilobata
" curvifolia
" resupinata

Besides many others of the foliaceous mosses.

The species of the genus Lichen are, as might be expected, very numerous in these mountains. This extensive Linnæan genus has lately undergone a change in arrangement, and a subdivision into several genera, by the eminent Dr. Acharius. In mentioning the most remarkable, I shall adopt the new nomenclature.

Lecidea Muscorum
" petræa
" miscella
" rivulosa
" confluens
* " fumosa
* " fusco-ater
" dendritica
" atro-alba
" silacea
" Œderi
" niveo-ater
" pruinosa
" cupularis
" Dicksonii
" tricolor
" icmadophila
" luteola
* " atrata
" granulosa
" cinereo-fusca
" calva
" cæsio-rufa
" orosthea
" polytropa
" atro-rufa
" lurida
" canescens
" vesicularis
" pustulata
Gyrophora glabra
" erosa
" proboscidea
Gyrophora cylindrica
" pellita
Verrucaria nitida
" stigmatella
" epidermidis
" umbrina
Endocarpon smaragdulum
" miniatum
" complicatum
" Weberi
Thelotrema hymenium
" pertusum
Sphærophoron coralloides
" compressum
Isidium corallinum
" Westringii
Urceolaria calcaria
" cinerea
" fimbriata
" Hoffmanni
" scruposa
" Acharii
" cirtaspys
" ostracadermis
* " diamarta of Acharius
Parmelia ventosa
" perella, var. 3. Upsaliensis
" tartarea, var. 2. frigida
" dispersa
" cerina

Parmelia vitellina
" hypnorum
" brunnea
" candelaria
" gelida
" circinata
" epigea
" miniata
" cæsia
" recurva
" fahlunensis
" conspersa
" hæmatomma
" pulverulenta
" stygia
" affinis
" plumbea
" caperata
" herbacea
" glomulifera
" scrobiculata
" pulmonacea
" saturnina
" lacera
" nigrescens

Parmelia crispa
" fascicularis
" furfuracea
" jubata, var. 4. chalybeiformis
Sticta limbata
" sylvatica
Peltidea aphthosa
" resupinata
" crocea
" saccata
Cetraria nivalis
" islandica
Cornicularia aculeata
" tristis
" spadicea
" lanata
" pubescens
Stereocaulon paschale
Bæomyces roseus
" rupestris
" Papillaria
" bellidiflorus
" cenoteus
" spinosus

The plants, natives of the Clova mountains, which have the chief claim to the farmer's notice, are the Gramina. Of the rarer grasses, the first is the Alopecurus alpinus, a new species which I discovered many years ago. This grass I have cultivated for several seasons, and I am convinced it is but little inferior to the A. pratensis, so much taken notice of by agricultural writers. It has the advantage of the latter, in so far as it increases more freely in the roots, and readily produces perfect seeds, the want of which is sometimes complained of in the A. pratensis. The next is Phleum alpinum, which forms a considerable part of the pasture on the mountains of some of the northernmost parts of Europe, and seems a grass well calculated for pasture in alpine districts. Poa nemoralis, Poa glauca, and Poa alpina, and the variety vivipara, are all good grasses; the P. alpina is one of our best pasture grasses on poor soil, with a bad climate. Lately I discovered three other grasses, new to Britain, viz. the Avena plano-culmis of Schræder, Fl. Germanica, producing a great quantity of foliage; the Aira lævigata; and the Phleum Meichelii, the Phalaris alpina of the German authors: these grasses grow on the very summit of the highest mountains.

The pasture on the mountains, particularly on the summits, is composed of the following grasses:

Eriophorum vaginatum
" angustifolium
Scirpus cæspitosus
" pauciflorus
Melica cœrulea
Nardus stricta
Aira flexuosa
" cæspitosa; together with var. vivipara
Agrostis vulgaris, several varieties
Festuca vivipara
" ovina
" duriuscula; and also var. dumetorum
" cæsia
Poa humilis
" decumbens
Carex binervis
" rigida
" fulva
" Oederi
Carex dioica
" cæspitosa
" recurva
" ampullacea
" Micheliana
" limosa; but rare
" panicea
" pilulifera
" præcox
" flava
" teretiuscula; but rare
" curta
" stellulata
" pauciflora; but sparingly
" pulicaris
Juncus trifidus
" squarrosus
" articulatus
" uliginosus
" spicatus
" campestris

The pasture in the valleys in the high lands is the same as in the low lands, only with the addition of the Meum athamanticum.

Angusshire has some of the best grasses growing native by the sides of the rivers and rivulets: such as the Alopecurus pratensis, Festuca elatior, Festuca pratensis, Festuca triflora; the latter but rare. I have observed, although sparingly, the Festuca loliacea. I have of late discovered a non-descript species of Festuca, which seems to be equal, if not superior, to almost all the known species. We have also a number of the genus Poa, and some non-descript species of that genus. The poa furnishes some of the best grasses we are acquainted with, viz.:

Poa trivialis
" glauca
" alpina
Poa pratensis
" nemoralis
" humilis

The P. alpina and P. humilis form excellent pasture in alpine or barren districts.

As we descend from the high lands, the vegetables are, with few exceptions, the same as in the neighbouring counties: some, how-

ever, are rather of rare occurrence. In several of the woods are to be found the Ophrys cordata and ovata, Trientalis europæa, Hieracium molle, prenanthoides, sabaudum, and paludosum; and in the fir woods near Forfar grow the Hieracium paniculatum, var. maculatum, not yet found in any other part of Britain; together with the beautiful Trollius europæus, Pyrola minor and rotundifolia; and also Juncus Forsteri, Melica uniflora, Carex pallescens, remota, sylvatica, lævigata and pendula, Triticum caninum, and Festuca gigantea. Milium effusum likewise occurs: this grass, although never noticed by agricultural writers, promises to be useful, producing abundance of foliage, which is grateful to cattle. By the side of the Isla grow the beautiful Orobus sylvaticus; and Ribes petræum, which may prove equal, if not superior, to the R. rubrum: also Ribes Grossularia; Vicia sylvatica, one of the most beautiful of all the British plants; Lonicera periclymenum, var. quercifolium, and Viburnum Opulus, and Paris quadrifolia. Likewise the uncommon Allium carinatum; this is also found among the rocks; it is of rare occurrence in other parts of Britain. Besides these occur the Allium ursinum, Adoxa Moschatellina, Melampyrum sylvaticum and pratense, Chrysosplenium alternifolium, Lysimachia nemorum, Campanula latifolia, Satyrium repens, and Equisetum hyemale. This last is the plant brought from Holland for polishing wood, and sold to cabinet-makers under the name of *rushes*. There are, further, some rare cryptogamous plants, among which are the following: In the fir woods near Forfar, is the Dicranum undulatum and Hypnum crista-castrensis, not found any where else in Britain. And in the order Fungi, is Hydnum auriscalpium, repandum, sublamellosum and imbricatum, Helvella caryophyllæa, Agaricus cinnamomeus, elephantinus, and deliciosus; together with the very poisonous one called by Linnæus A. muscarius, and its var. verrucosus, with many others. As cattle sometimes eat these, it is possible that they may bring on disease. The singular fungus called Phallus impudicus, occasionally appears. Helvella spathulata and Clavaria militaris are to be found in General Hunter's woods at Burnside, besides a great many others. I may also add the Boletus perennis, versicolor, abietinus, suberosus, and igniarius: the latter is called *touchwood*, being used for tinder. Also the Riccia fruticulosa, with Jungermannia scalaris, albicans, ovata trichomanes, and excisa.

When the botanist traverses the marshes, and examines the lakes, he will find his trouble amply repaid. In the lakes of

Forfar, Rescobie, and Balgavies, he will meet with the Typha latifolia; this is also in a rivulet not far from Pitmues, by the side of the turnpike-road that leads from Forfar to Arbroath. In the lakes of Rescobie and Balgavies, are likewise to be found Nymphæa lutea and alba, and Ceratophyllum demersum; and on their margins Lysimachia thyrsiflora: the latter plant, though rare in other parts of Britain, is not uncommon in Angusshire. Potamogeton perfoliatum, lucens, crispum, pectinatum, compressum, gramineum, pusillum, likewise occur in these lakes. Cicuta virosa, which is one of the most virulent of all the vegetable poisons, grows on their margins. Cattle, when allowed to browse by the sides of the lakes in the winter months, are sometimes deceived, by its smell being very weak at that season; and when once they have eaten it, it generally proves fatal in two or three hours. The late Mr. Dickson of Cloak's-bridge lost three cows in one afternoon by this plant. When the summer is a little advanced, the odour of the plant warns the cattle, and then they carefully avoid it. The Scirpus lacustris, the well known rush, so much used for making rush-bottomed chairs, is common; and in the lake called Loch Feithie, is to be found the Isoetes lacustris, generally supposed only to be found in alpine lakes. In the lake at Forfar is the Stratiotes aloides, which I brought from a great distance, and introduced there about the year 1792: it is now (1811) in great abundance. Lemna trisulca is frequent. Hippuris vulgaris is also very common; the latter being somewhat interesting to the botanist, as it belongs to the Monandria, or first class of the Linnean system, there being only four other plants indigenous to Britain that belong to that class. At the east end of the Lake of Forfar, in small pools, is to be found the Utricularia vulgaris and minor, both beautiful plants, and rather of rare occurrence: likewise Sparganium natans and simplex, Veronica anagallis, Chara hispida and var. β, and Ranunculus Lingua.

In the lake called the Loch of Lintrathen, the beautiful Lobelia Dortmanna is in abundance; and the rare Potamogeton lanceolatum, only of late known to be indigenous to Britain.

In the marshes are to be found the Scirpus pauciflorus, acicularis, sylvaticus, and fluitans; with the beautiful Parnassia palustris, so much taken notice of by botanists, on account of its singular nectary, which is figured in every elementary book. The following also occur:

Poa aquatica; but not common
Carex stricta
" paludosa
" Micheliana
" Oederi
" limosa
" paniculata
" teretiuscula
" intermedia
" curta
Scutellaria galericulata
Eriophorum vaginatum
Pilularia globulifera
Hydrocotyle vulgare
" inundata
Galium Witheringii
" uliginosum
Littorella lacustris
Centunculus minimus occurs, but is rare
Radiola millegrana
Viola palustris
Drosera rotundifolia
Alisma ranunculoides
Peplis portula
Vaccinium oxycoccus, or cranberry, the fruit of which is brought in quantity from the north of Europe, and used for making tarts

In the Moss of Restennet formerly grew the Schœnus mariscus, the only place I have seen it in Angusshire; but it is now entirely lost there. The Chara hispida grows in pools in the same moss; and there I discovered, in 1791, that truly rare and beautiful grass, the Eriophorum alpinum, the first and only time it has been found in Great Britain. I am sorry, therefore, to say, it has been extinct there for these several years past, and that at present we know of no British habitat for it: it is found on the mountainous heaths of Germany, Denmark, Sweden and Norway.

In the marsh called the White Mire, near Forfar, I discovered in 1807 the Arundo stricta of Schræder's F. Germ., and the Arundo neglecta of Ehrart, being the only place where it has been found in Britain; but I am sorry to say it will be soon entirely lost, by the draining of the marsh. This reed produces a great quantity of foliage, and might prove a grass of considerable utility to the farmer in marshy grounds; it is much more promising in its appearance than the rest of the reed family. There is also the Eriophorum polystachion, the only place I have seen it in Angusshire; and the Carex filiformis and Galium Witheringii. In the ditches are the Potamogeton fluitans and heterophyllum, both only of late years known to be natives of Britain; and in the marshes grows also the Saxifraga aizoides.

Some rare mosses also occur, among which are the following:

Polytrichum aloides
" gracile
" attenuatum
" nanum
Bryum dealbatum
Bryum ventricosum
" turbinatum
" sericeum
" hornum
" bimum

Bryum compactum
Dicranum heteromallum
" strictum
" glaucum
" pellucidum
" adiantoides
" flexuosum, var. fragile
" osmundioides
Hypnum stellatum
" revolvens
" cuspidatum
" cordifolium
Hypnum dendroides. This is every year to be found with fruit near Forfar, though the fruit is accounted rare
" scorpioides
" molluscum
" commutatum
" rugosum
Splachnum ampullaceum
" ovatum
" fastigiatum

In a marsh, near Colonel Kinloch's of Logie, I discovered in 1810 the Iris xiphioides, new to Britain: it was growing among Carices and Juncus effusus and articulatus, in a situation where it had never been cultivated.

In the Moss of Cassens is the Polytrichum strictum of the Banksian Herbarium, the same as Sir Joseph Banks had from Iceland: it is not the species described by British authors, which is probably no more than a variety of P. commune or juniperinum, as Dr. Smith informs me, who is in the possession of the Linnean Herbarium, and has access to the Banksian also.

The following is a list of the more remarkable plants to be found in the low parts of Angusshire.

Ligustrum vulgare; near Tannadice
Circæa alpina; and var. β intermedia
" lutetiana; near Finhaven
Veronica officinalis, var. β of Linnæus; perhaps the allionii of Smith
" montana; on the banks of the Esk
Salvia verbenaca; near Dundee
Valeriana locusta
Aira scabro-setacea of Knapp's Gramina Britannica
Poa alpina; by the side of the rivers Esk and Isla
" glauca
" compressa
Briza media, var. with a white panicle
Festuca myurus
Bromus multiflorus
" secalinus
" pratensis
" arvensis; but rare
* " tectorium
Avena strigosa
" flavescens
" pubescens
" pratensis
Lolium temulentum
" arvense
Galium erectum

Galium mollugo
" boreale
" verrucosum of Smith's Prodromus Floræ Græcæ; new to Britain
" spurium; near Forfar: it has been found in no other place in Scotland
I have also found another species of Galium near Kinnaird, which seems a non-descript, coming near the Galium Austriacum of Jacquin's Flora Austriaca
Cuscuta Europæa; generally on flax, and seems a very destructive weed; it mats it altogether like a parcel of matted hair
Sagina apetala; but rare in Angusshire, though common in some other parts of Scotland
Lithospermum officinale
" arvense, seems to be brought along with the seed of wheat, as it is become very common of late years, since the culture of wheat became more general
Anchusa sempervirens
Cynoglossum officinale; but chiefly near to the sea
" sylvaticum; west from Dundee, rare
Symphytum officinale; and var. fl. rubro
" tuberosum
Primula elatior; near Glammis
Anagallis arvensis
Convolvulus arvensis; common near Dundee
" sepium
Campanula glomerata
Viola hirta
" odorata
" lutea
Verbascum Thapsus; and var. flore albo; the latter near Airly Castle
Atropa belladonna; this is to be found in the Den of Bonnetown, near Montrose: it is one of our strongest vegetable poisons. Its beautiful shining black berries, about the size of a small cherry, and not disagreeable to the taste, often allure children and unwary people to eat them, and they sometimes prove fatal. Dr. Smith assures us, that when it has been for any length of time in the stomach, it is impossible to save the unhappy patient from falling a victim, as no antidote is yet known; he adds, that all acids and alkalies, milk and oils, are alike ineffectual, as it makes its principal attack on the nervous system
Solanum Dulcamara
Chironia centaurium; to the west of Dundee
Chenopodium murale; rare
" Bonus-Henricus
" polyspermum; rare

Ulmus montana
" campestris
Gentiana amarella
" campestris
Daucus Carota
Oenanthe fistulosa; to the west of Dundee
Scandix odorata; but always near houses
" pecten Veneris
" anthriscus; but rare
Chærophyllum temulum; but rare
* " aureum. I discovered this plant some years ago by the side of corn fields between Arbroath and Montrose; it was till then unknown to be a native of Great Britain
" aromaticum. I discovered this plant in summer 1810, by the side of the river called Lunan and Vennie, not far from Guthrie, in a truly wild state; new to Britain
Carum Carui. The most common umbelliferous plant near Arbroath: there is no doubt of the plant being indigenous there
Pimpinella saxifraga; and also var. β dissecta
Viburnum Opulus
Sambucus Ebulus
Allium arenarium
" vineale; near Dundee, hard by the sea side
Tulipa sylvestris; not far from Brechin
Convallaria majalis; near Inchewen, parish of Tannadice
Juncus glaucus
Rumex sanguineus
" palustris
" acutus
Trientalis europæa
Epilobium angustifolium
" hirsutum; but rare
Vaccinium Vitis-Idæa
Polygonum Bistorta
" viviparum
" minus
Adoxa Moschatellina
Dianthus Armeria; on fields near the seat of Charles Gray, Esq., of Carse, the only place I have seen it in Scotland: I believe, indeed, it has been found nowhere else
" deltoides. This beautiful plant grows on the north bank of the Lake of Forfar, as also on dry ground near the north-west corner of the Lake; and on banks by the sea, to the east of Arbroath
Silene anglica; but rare
" noctiflora; in sandy corn fields near the Havens or Hains, by the sea side, the only known habitat in Scotland, where it can be reckoned truly indigenous

Stellaria nemorum
Sedum Telephium
" villosum
" album; and
" reflexum; both on roofs of houses in Forfar
" anglicum; on rocks near Dundee
Lychnis Flos-Cuculi, flore albo
" Viscaria, and var. flore albo; on dry banks near Airly Castle
Cerastium tetrandrum; on roofs of houses in Forfar; common on the sea coast
" arvense
" aquaticum; near Dundee, but rare
*Spergula maxima; *nova species*
subulata
Sempervivum tectorum; on house-tops
Prunus Padus
" domestica; hedges
" insititia
Pyrus communis
" Malus; both in hedges near Glammis
Spiræa salicifolia
Rosa tomentosa
" scabriuscula
" collina
" cæsia
Rubus saxatilis
" corylifolius
And a new species. It grows near the waterfal called the Reeky Linn, on the water of Isla
Potentilla argentea. I observed this plant on rocks not far from the Loups of Kenny, near Airly Castle, but very rare; but common on rocks on Seedlay Hills
Potentilla reptans; near Arbroath, rare
" verna; on rocks near Dundee
Geum rivale, var. β of Flora Brit. the Geum intermedium of Withering; certainly a distinct species
Comarum palustre var. β
Aquilegia vulgaris
Thalictrum minus; in sandy stony places in the high lands, and by the sea side
Ranunculus auricomus
" bulbosus, flore pleno. I found this on the south bank of the Lake of Forfar
" acris, flore pleno; in meadows; this variety rare
Caltha radicans. I found this about the year 1790, in a ditch that runs from the farmhouse called Haltoun, on the estate of Charles Gray, Esq., of Carse. Considering it as a var. of C. palustre, I sent it afterwards to London, where it was ascertained to be a distinct species
Teucrium Chamædrys; but always near houses
Lamium nova species, which I propose to call *intermedium:* it is perfectly

distinct from all the known species: in cultivated fields
Galeopsis versicolor
Origanum vulgare, and likewise var. flore albo
Thymus Acinos; near the village called Welltown, about one mile south of Forfar
Scrophularia vernalis; near Lower
Myagrum sativum; by some botanists called Alyssum sativum
" orientale; in corn fields, and along with the other among flax. These two plants belong to the genus Alyssum, on account of their inflated and many-seeded silicles. New to Britain
" paniculatum; near the village of Crichie: I discovered it there several years ago; it has never been met with any where else in Britain. This is a true myagrum, and not an alyssum
Thlaspi arvense; in corn fields, but rare, as near Brechin and Arbroath
" campestre
" hirtum, var. with smooth silicles, according to Dr. Smith. See *Flora Britannica*. There is little doubt, however, of this being a distinct species, and not a mere variety; it is very distinct in its appearance and in its silicles, which are of a different form. I have cultivated both varieties for several years past, and am convinced they are permanently distinct. Grows opposite to a mill on the south side of the river Esk, near Kinnaird
Iberis nudicaulis. This beautiful little plant grows on the estate of Pitruchie, about one mile south of Forfar; it is of rare occurrence in Scotland
Cardamine amara; in dens by the sides of rivulets
Sisymbrium terrestre
" Sophia; near the confines of Angusshire, on the Perth road
Cheiranthus fruticulosus adorns the ruins of several antient buildings; such as the Abbey of Arbroath, and one near the Baikie; also on rocks by the sea shore
Hesperis inodora; on banks near Airly Castle
Turritis glabra; near Kinnaird
" hirsuta; on rocks and dry banks

*Turritis nov. sp.; near Lochlee, in Glen Esk, growing on rocks. I observed it in 1801. Having shewn specimens to Mr. J. T. Mackay of Dublin, when he paid me a visit at Forfar in 1811, he recognised it as the same which he had found in Ireland, and which Dr. Smith has considered as T. alpina, Lin.
Brassica campestris; corn fields near Forfar
Geranium sylvaticum, var. flore albo
" pusillum
" sanguineum
Fumaria capreolata
" claviculata
Genista anglica
Ulex nanus
Orobus tenuifolius of Roth; near Kinnaird
Ornithopus perpusillus; near Newtyle, but rare
Astragalus glycyphyllus
" hypoglottis
Trifolium scabrum
" striatum
" medium. This last species produces a number of leaves, and as it thrives well on cold tilly pastures, unfavourable to most other vegetables, it deserves a trial, as its appearance is very flattering, and cattle and horses are fond of it
Botus corniculatus
" major
" lathyroides; near Forfar, but rare in other places. All these three thrive well on poor soils, and in cold till, and if they were properly attended to, they would make a valuable addition to our pasture grasses. I named this latter species some years ago
Medicago sativa; near Dundee
Leontodon palustre
Hyoseris minima. There is a remarkable circumstance occurs with regard to this plant: when any muir ground is broken up, although there is no symptom of its having been ever ploughed, this plant never fails to make its appearance the first year; but after the field has been cultivated for some time, it begins to disappear
*Crepis pulchra; among the debris of the rocks of the hills of Turin and Pitsandly, but very rare
Hypochæris glabra
Carduus heterophyllus
" marianus
" tenuiflorus
Tanacetum vulgare
Senecio saracenicus; but always near houses
Doronicum Pardalianches; near Kinnaird

Pyrethrum Parthenium
Anthemis Cotula
" tinctoria
" arvensis
Centaurea Scabiosa, and var. flore albo
" nigra, var. flore albo
" jacea; found by Mr. Young near New-Tyle
Orchis conopsea
" mascula, var. flore albo
" bifolia
" latifolia, var. flore incarnato
Satyrium albidum
" viride
Ophrys ovata
" cordata
Malaxis paludosa
Littorella lacustris
Salix purpurea
" helix
" Lambertiana
" rubra
" triandra
" lanceolata.—All these are good basket willows
† " Russelliana, or Bedford willow. The bark of this species is the best adapted for tanning of any of the willows
" pentandra
†Salix nigricans
" bicolor
" petioloris. This forms a fine tree, and one of our best hoop willows
" vitellina. A good basket willow
" fragilis. The bark is sometimes used for tanning
" malifolia
" argentea
" fusca
† " cinerea
" aurita
† " aquatica
† " oleifolia
" hirta
† " caprea
† " stipularis
† " alba
" viminalis. This is the one most used for hoops in this country
" mollissima
Those marked thus †, form good trees
Myrica gale
Populus nigra
" tremula
Osmunda lunaria
Anethum fœniculum; on rocks on the foreside of Seedlay Hills, the only habitat I know for it in Scotland

Among the pastures in wet soils, and by the sides of rivers, a considerable number of the different species of Equisetum, or horse-tail, are to be met with, particularly,

Equisetum arvense
" palustre
" sylvaticum.—These plants are known to be hurtful to cattle that browse upon them, probably from the rough angle of their stems acting upon the intestines and injuring them. May not this help to account for some of the diseases which prove fatal to cattle, hitherto not satisfactorily explained?

The genus Agrostis, or Bent-grass, is abundant. A Dr. Richardson of Ireland, has written strongly in favour of this family of grasses; but from his publications, which I have of late fallen in with, it pretty evidently appears, that this writer knows not one family of grasses from another, far less is able to distinguish the different species of each family; for his *fiorin grass*, as is evident from his own words, palpably includes every species and variety of British agrostis, with couchy roots, or trailing shoots; for he says that it grows in every bog or marsh, and in every soil and situation, from marshes to the tops of hills, and on heaths. How any one could suppose the fiorin grass to be exclusively the Agrostis stolonifera, I am at a loss to understand; for I had three specimens sent me from gentlemen, who had their plants from Dr. Richardson himself: one of them proved to be the Agrostis stolonifera, another the Agrostis vulgaris, and a third the Agrostis canina. Still more lately, I have received a dried specimen of the Fiorin grass, procured from Dr. Richardson's own hands, and sent me from Ireland; and this proves to be another species, viz. Agrostis alba. This was nothing else than I would have expected, after reading the Doctor's books. I may here observe, that I have never seen the Agrostis stolonifera on dry elevated pastures. Now, what is this celebrated *fiorin grass* of Dr. Richardson? It seems to be a mixture of all the tribe of couchy grasses, held equally in detestation by the farmers and their cattle; and we in Angusshire are apt to judge of the industry of the farmer, in proportion as he has eradicated these grasses, the abundance of which tends so much to depreciate the value of the ground he possesses. In the west of England, the Agrostis stolonifera is held in equal detestation by the farmers, and stigmatized by the name of *Black squitch.*

The agrostides are the worst to eradicate of any grasses I am acquainted with. Indeed, when they get possession of wettish clay soils, it is the next thing to impossible to get clear of them.

I am bold to say, that if these grasses, so strongly recommended by Dr. Richardson, come really to be introduced among farmers, it will prove the greatest barrier in the way of improvement to agriculture that has ever yet taken place. But when a man like Dr. Richardson, who is plainly neither a botanist nor an agriculturist, comes forward with confidence, recommends to intelligent Scots farmers to lay down their arable fields with a grass which it has been their constant study through life to eradicate, the absurdity is so great, that there is reason to hope that little harm will ensue. The agrostides are grasses that totally

destroy rye-grass about the third year after sowing: the fields then become overrun with these grasses, and nothing but necessity ever compels the cattle to eat them. Dr. Richardson adds, that he supposes that the fiorin grass possesses an antiseptic quality, which prevents it from running into putrefaction so soon as other grasses. But I can assure that gentleman, that the agrostides on this side of the Irish Channel possess no such quality; they being here as ready to run into putrefaction as any grass whatever. He likewise adds, that Irish cattle give fiorin the preference to all other grasses: Our cattle, on the contrary, give every other grass the preference to the agrostides.

In digging in dry banks, about two or two and a half feet below the surface, if the soil is good, will be found the Lycoperdon tuber, the truffle, or solid puff-ball, so much esteemed by people of rank in England. In trenching up my garden lately, I found several of them. In England, dogs are trained for the purpose of finding them.

PLANTS TO BE FOUND ON THE SEA SHORE.

If the botanist, in taking his tour, begins at the North Water Bridge, the first thing that will arrest his attention is the beautiful grass called Elymus arenarius, and along with it he will find the Festuca rubra, one of our best grasses; also Triticum junceum, Carex arenaria, and the Arundo arenaria, commonly called Sea-bent: this grass, although much neglected, is not destitute of utility; it is the grass which of all others possesses in an eminent degree the advantage of being furnished with strong running roots, and of growing in loose dry sand, and, by means of these roots, arresting the blowing sands so destructive in some parts of the kingdom. In some counties in England, accordingly, which have a considerable quantity of sandy sea coast, the pulling or destroying of this grass is prohibited. The botanist will also find, though sparingly, the Phalaris arenaria. There is also what I take to be a non-descript species of Aira, or else the Aira cristata β of Linnæus. The sandy beach is here adorned with the delicate flowers of the Bunias cakile, the Cakile maritima of Willdenow's Species Plantarum.

As the collector comes nearer to Montrose, he meets with the Thalictrum minus; and also the Eryngium maritimum, whose singular foliage seldom fails to attract the notice of every man of curiosity. In cultivated fields near Montrose, he will find the Carduus tenuiflorus and Lamium incisum, rather of rare occurrence

in Angusshire. By the road side, in coming from the North Water Bridge, he will find the Carex divisa, one of the rarest carices. Near what are called the Back Sands, he will at ebb-tide find plants of the Zostera marina; and on those sands, and in salt-marshes among them, Chenopodium maritimum, Triglochin maritimum, Scirpus maritimus, and a variety of Scirpus lacustris, Carex distans and vulpina, Salicornia herbacea, and two varieties, which may possibly prove distinct species; also Arenaria marina and peploides, Poa maritima and Poa distans, and Juncus bulbosus. I have there observed likewise the Aster tripolium which had a magnificent appearance, the flower-stems being eighteen inches high, and strongly resembling some of the beautiful species of that genus from North America.

As the botanical inquirer proceeds along the coast towards Arbroath, he will find the rare moss called Grimmia maritima, and among the rocks, he will observe the Artemisia Gallica and maritima, Silene nutans, Vicia lutea, and Reseda lutea; and in marshes Schœnus rufus; and in dens near the shore, is the rare Allium ampeloprasum, the only place where it is known to grow in Scotland. Near the promontory called the Red Head, on rocks, is the Lathyrus sylvestris, which is a rare plant; Carlina vulgaris, Asplenium marinum, and Scolopendrum vulgare. Near to the town called Achmithie, is the Asperugo procumbens, which grows also at the village called Westhaven. Near the village called Torenshaven, is that truly beautiful plant, the Pulmonaria maritima, whose elegant glaucous leaves, and bright blue and purple flowers, form a fine contrast among the stones of the beach. Here also grows Mentha hirsuta of Linnæus, and the Gymnostomum obtusum, which is a rare moss in Scotland. On the beach in several places occurs the Salsola kali, one of the plants employed to produce barilla. The elegant Glaux maritima is common in many places.

To the eastward of Arbroath, plenty of the Allium carinatum, and Eryngium maritimum are found; and the Parietaria officinalis is in plenty about the rocks and old buildings. The Eupatorium cannabinum is not uncommon. Near to Wormiehills, Poa procumbens appears, and also a non-descript species of Festuca. On the tops of houses at Wormiehills I observed plenty of the Saxifraga tridactylites. The Carum carui, known by the name of Caraway, is common, but is generally considered as a doubtful native: the botanist will, however, be fully satisfied of its being truly indigenous to this coast; it is indeed by far the most common umbelliferous plant in the neighbourhood of Arbroath; its seeds are often put into loaf-

bread and also among the oatmeal baked into cakes by the peasants; they are also sometimes used for giving a flavour to cheeses. The Scabiosa columbaria is plentiful; and the beautiful Convolvulus soldanella, whose large rose-coloured flowers makes a fine appearance among the arid sand, will not fail to attract the botanist's notice: this is the only place I have observed these two plants in Scotland. That elegant plant, the Gentiana amarella, is common; and Erigeron acre, Phalaris arenaria, Pyrethrum maritimum, Chenopodium maritimum, are not unfrequent. The beach is covered everywhere with the Atriplex laciniata; and around Arbroath, as well as Dundee, grows plenty of the Hordeum murinum.

In proceeding a little further to the westward, the tourist arrives at the Sands of Barrie, which offer an ample field for botanical pursuits. There he will find most of the coast-plants already taken notice of. The Phalaris arenaria, and Erigeron acre, are there in the greatest abundance. Some years ago I observed there the Equisetum variegatum, new to Britain; and about the same time, I discovered a rare moss, which I take to be the Meesia longeseta of Hedwig, hitherto unnoticed in Britain: this moss is easily distinguished, from the great length of its pedicles. I have likewise observed on the down, the Grimmia nigrita and Grimmia inclinata, both rare mosses. Carex incurva, and Ophioglossum vulgatum, occur here; and this is the only place where I have observed them in Angusshire. A very singular variety of the Gentiana campestre, without any flower-stem, is found here. Sagina maritima may also be added to the list of Barry rarities; it is a rare species, which I first observed in the Isle of Skye, and on the summit of Bennevis, in 1794.

As the botanist approaches to Broughty Castle, he will observe the Sedum villosum and Sedum anglicum, the former by no means common in Angusshire; and the Trifolium ornithopodioides, a rare plant in Scotland; and between Broughty Castle and Dundee, on the rocks, he will notice the Spirea filipendula, and Potentilla verna, being the only place I have observed them in Angusshire; together with the Carduus Marianus, and a variety with green leaves: Grimmia maritima, and Asplenium ruta muraria, occur on the same rocks. By the sea side, in marshes, he will find, though sparingly, Oenanthe crocata, or hemlock dropwort: this is a strong vegetable poison; several instances are on record of its fatal effects; its roots consist of small round tubers, in bundles, like skirrets, and children and the unwary sometimes take them for the roots of the Bunium

flexuosum, the earth nuts or earth chesnuts, in Scotland called by the name of *Arnots*.

In the fields by the shore, in several places, is found the Centaurea intybacea of Willdenow's Species Plantarum. I first distinguished this beautiful and rare plant some years ago: it is new to Britain, and must have been confounded with the Centaurea scabiosa, which it very much resembles, and often grows intermixed with. On walls about Dundee is found a variety of Poa compressa. On the walls of the old Tower of Dundee, is plenty of the Asplenium ruta-muraria, the only place where this little plant is to be found in plenty in Angusshire.

Along the side of the Tay, to the westward of Dundee, may be seen the Sagina maritima, Allium viniale, Triglochin maritimum, Aster tripolium, Poa maritima, and a new species, which I propose to call *Poa depauperata*, from its starved-like appearance. There likewise grows on the banks of the Tay an uncommon species of Aira, which may perhaps prove to be a non-descript. In the woods, Paris quadrifolia occurs; and on rocks we find Asplenium septentrionale. Saxifraga nivalis grows on the higher hills, and should have been formerly mentioned.

The larger plants contained in this List are to be seen in a growing state in my Botanic Garden at Forfar, where I have now the most extensive collection of hardy plants in Scotland.

SEA PRODUCTIONS.

The first to be noticed is the genus Fucus, not only on account of the great number of species, but because they are the most conspicuous marine plants, and those generally understood by the term Sea-weeds. The following is a list of such as I have observed in the course of my botanical excursions along the shore:

Fucus sinuosus
" sanguineus
" ruscifolius
" membranifolius
" ovalis
" siliquosus
" ligulatus
" esculentus; *hen-ware* of Angusshire
" serratus
" vesiculosus; and var. spiralis
" cerinoides

Fucus alatus
" dentatus
" laceratus
" laciniatus
" ciliatus
" bifidus
" palmatus; the *dulse* of this country
" edulis
" phyllitis
" saccharinus
" digitatus
" bulbosus

Fucus rubens
„ crispus
„ mamillosus
„ canaliculatus
„ loreus
„ nodosus
„ pygmæus
„ aculeatus
„ coccineus
„ plumosus
„ rotundus
„ lumbricalis
„ plicatus

Fucus confervoides
„ flagelliformis
„ filum
„ lycopodioides
„ subfuscus
„ purpurascens
„ califormis
„ articulatus
„ opuntia
„ amphibius
„ hypoglossum
„ pinnatifidus

The following species of Ulva occur:

Ulva purpurascens
„ latissima
„ lactuca
„ compressa
„ lanceolata

Ulva laciniata
„ linza
„ umbilicalis
„ fistulosa
„ intestinalis

Of the genus Conferva, many species are found, a few of which may be named:

Conferva polymorpha
„ pilosa
„ rubra
„ comoides
„ rupestris
„ glomerata
„ confervicula
„ littoralis
„ æruginosa
„ scoparia
„ purpurea

Conferva verticillata
„ capillaris
„ funicula
„ elongata
„ nodulosa
„ diaphana
„ fucoides
„ coccinea
„ villosa
„ repens
„ atro-rubescens

The following species are also to be met with in fresh water, and on damp walls, or on the ground:

Conferva velutina
„ atro-virens
„ fracta
„ gelatinosa
„ atra
„ fluviatilis
„ purpurea
„ aurea
„ rubiginosa
„ frigida
„ flexuosa

Conferva amphibia
„ ocracea
„ sordida
„ lucens
„ decorticans
„ limosa
„ fontinalis
„ nitida
„ rivularis
„ muralis

This latter species grow on damp walls in crowded cities, and sends forth a fragrant smell. Dr. Smith thinks it may have a tendency to correct the bad air in such places; it colours the wall of a green colour, but its filaments are so fine as hardly to be seen with the naked eye.

The marine plants, although many of them are extremely beautiful, are neglected or overlooked by the greater part of mankind; yet they most certainly are highly useful in the economy of Nature, although we may be ignorant of their uses. We evidently see that they give shelter to many of the smaller tribes of marine animals, and a number of others are spawned upon them, and receive from them their nourishment during the first stages of life. Others, again, seem to depend almost entirely upon them for nourishment, as they are attached to them through life: Such, for instance, is the Lepas striata, some of the genus Serpula, and some of the Zoophyta, as the Flustra, Sertularia, &c. The beautiful Patella pellucida I have often observed on the larger species of fuci; the animal that inhabits that shell seems to derive a great part of its nourishment from that tribe of vegetables. The following are esculent, viz. the Fucus palmatus, known by the name of *dulse* or *dilse:* The crispus and mamillosus are eaten among it: the F. pinnatifidus, known by the name of *pepper-dulse:* the F. esculentus, which is known by the name of *hen-ware* on the Angusshire coast: F. edulis, which is eaten promiscuously along with F. palmatus; and the stems of the F. digitatus and F. saccharinus, which are sold under the name of *tang* or *tangle*. Many of the fuci are eaten by cattle; and the whole of them are known to make excellent manure.

In some parts of Scotland, where they are extremely abundant on the shores, they are manufactured into kelp. The F. vesiculosus, nodosus, and serratus are principally used for that purpose; and on that account, Dr. Garnet, in his Tour through the Highlands, informs us, that in the Isle of Mull, some small farms which a very few years ago were let for L. 40 are, now let for L. 300 *per annum*.

The F. vesiculosus is strongly recommended by Dr. Russell in diseases of the glands. He says it is extremely serviceable in dispersing all scorbutic and scrofulous swellings. He recommends rubbing these with the vesicles, bruised in the hand till the mucus has thoroughly penetrated the parts, and afterwards washing the parts with sea water. He also says that scirrhosities in the mammæ have sometimes been dispelled by this treatment.

The many Confervæ growing in stagnated pools and ditches, give out a great deal of oxygenous air from their extremities, and hence tend to prevent putrescency in the waters during the summer months; and it is probable that the numerous Fuci, Confervæ and Ulvæ, are placed by the hand of Providence in the deep, in order to assist in preventing that vast collection of water from becoming putrid.

I shall conclude my observations on these tribes of vegetables, with the words of the celebrated Mr. Turner of Yarmouth, who has written a Synopsis of the British Fuci, and is publishing a more extensive work, with highly finished figures of all of them. "I can assure the philosophic naturalist (he says), that while the more stupenduous works of the Divine Hand arrest the attention of even the most careless observer, and in a language equally understood by all ages and all nations, declare the glory of God; these humble vegetables will, by the inquisitive mind, be found by no means wanting in affording additional proofs, both of the wisdom and beneficence of the Great Creator."

Having thus taken notice of the vegetables which are to be found in Angusshire, and such as are natives of the sea which washes it, or are thrown occasionally on the shore, (at least such of them as have fallen under my observation), I shall next take notice of the *Zoophyta*, which are the connecting link between the vegetable and animal kingdom. The chief of these are:

Sertularia thuja
" halecina
" loricata
" pumila
" operculata
" geniculata
" lendigera
" falcata
" eburnea
" rosacea
" tamarisca
" abietina
" cupressina
" argentea
" rugosa
" pluma
" antennina
" volubilis
" cuscuta
" filicula

Sertularia muricata
" uva
" myriophyllum. Of this I have only found one specimen on this coast
" dichotoma
" setacea
" spinosa
" polyzonias
" fastigiata
" syringa
" avicularia
" scruposa
" reptans
" frutescens
Pennatula phosphorea
Corallina officinalis
" elongata

Corallina rubens
Tubularia ramosa
" indivisa
" muscoides
" fistulosa
Cellepora pumicosa
Millepora foliacea
" polymorpha
Alcyonium digitatum; called *dead mens' toes*
" schlosseri
" gelatinosum. This, by some authors, is made an Ulva
" ascidioides
Spongia tomentosa
" stuposa
" oculata
" palmata
" lacustris. This is not unfrequent near Forfar. I have observed it in the Lake of Rescobie, and also near Brigtown
Flustra foliacea
" truncata
" pilosa
" chartacea
" carbasea
" dentata
" bullata
" membranacea
Hydra viridis, and
" grisea; the common polypi. These two species are to be found in ditches in the neighbourhood of Forfar

Of the order *Infusoria*, among many, the following may be noticed:

Vorticella rotatoria
Trichoda cometa
Paramecium aurelia
Cyclidium glaucoma
Librio aceti
Veucophra fluida
Volvox globator. This animal is remarkably common in the summer months in the old tan-pits near what is called the Dam at Forfar: it is only visible to the naked eye when the sun shines, and then the water seems tinged of a green colour with these minute animals
Monas lens
Enchelis seminulum

It is scarcely necessary to mention, that the animals belonging to this order for the most part require a microscope to detect them, being so small as to elude the naked eye.

MAMMALIA.

Of the *Mammalia* class we have no animals of the order *Primates*, but two, viz.

Vespertilio auritus; eared bat
Vespertilio murinus; common bat

Of the order *Feræ*, we have the following:

Phoca vitulina; common seal
" barbata; great seal
Mustela lutra; common otter: is not unfrequent on the banks of some of the rivers
" foina; common martin. This is rather a rare animal in Scotland; one of them was shot in the Wood-hill of Glammis in the year 1808
" putorius; *foumart*, or polecat
" erminea. This animal is rare in Angusshire: I never saw but one, which was near the Mill of Brathens, about four miles north of Brechin; this was upwards of thirty years ago
Mustela vulgaris; common weesel, or *Whitret*; not unfrequent
Ursus meles; the badger, or *Brock*, is rather rare in Angusshire
Talpa europæa; common mole. I have seen a beautiful variety of a pure white colour, and another variety of a dun colour: both varieties may be considered as of rare occurrence
Erinaceus europæus; hedgehog. This animal was formerly rare in Angusshire, but of late years it has appeared in tolerable plenty

Of the Order *Glires*, we have the following:

Mus rattus; the black rat. This is the only species I have seen in the town of Forfar, and it is not rare in all the inland parts of Angusshire; but it has become very rare in most parts of Britain, and is still becoming scarcer, as the brown rat has nearly extirpated it in many parts of the island
" decumanus; brown rat, or Norway rat. Common in the sea-port towns in Angusshire; a very destructive animal
Mus musculus; common mouse. I have seen a variety of this of a pure white colour
" sylvaticus; field mouse.
" amphibius; water rat; common
" agrestis; short-tailed field mouse. I have seen this species in my garden in Forfar: the female seem very much attached to her young, and will brave

every danger in order to protect them

Lepus variabilis; alpine or white hare. Mountains of Clova: it is not near so timid as the common hare

Lepus cuniculus; rabbit; it is rare in Angusshire; perhaps hardly a native

Of the Order *Pecora*, we possess but three species belonging to one genus:

Cervus elaphus; the stag: sometimes to be found on Clova mountains, but rare; and in the wood of the Forest Muir, near Forfar

" dama; fallow deer: it is rare in a wild state in Angusshire, but is in a tamed state at Kinnaird and Panmure

Cervus capreolus; the roebuck: sometimes to be found in the woods near Forfar. I have seen two or three of them in these woods some years ago: I have also seen them on the Seedlay Hills, and in the woods around Glammis

Of the Order *Cete*, we occasionally find the following:

Balæna mysticetus; common whale; sometimes on the coast

" physalus; the finfish. I observed a skeleton of this species to the east of Dundee two years ago

Delphinus phocæna; the porpesse

" delphis; the dolphin

As to the whales that were stranded up the Frith of Tay, I cannot positively say what species they belonged to, as I had no opportunity of seeing them. From the description given of them, they appear to have been of the kind first distinguished by Mr. P. Neill, (in his Tour to Orkney), by the name of *Ca'ing whale*, and afterwards figured and described by Dr. Traill of Liverpool, (in Nicolson's Journal), under the title of *Delphinus melas*.

BIRDS.

The *Ornithology* of Angusshire might furnish materials for a volume. I shall, however, very much compress my remarks on the subject.

Of the Order *Accipitres*, we find a considerable number:

Falco albicilla; the erne: on the mountains of Clova, and by the head of the West water: there is a rock near the head of it called the *Erne skellie*, where these birds generally breed

" ossifragus; the sea eagle, is to be seen sometimes on the coast

" chrysaëtos; golden eagle: mountains about the head of Clova

" fulvus; ring-tailed eagle. I observed one of these on Wirron Hill, about twelve miles north from Brechin in 1797

" milvus; the kite, or *Gled*

" ater; black eagle: on heaths and low hills

" buteo; the buzzard. In a nest of one of these birds in the wood at Newmill, belonging to Colonel Kinloch, on breaking an egg, the bird contained in it had two heads

" apivorus; honey buzzard

" æruginosus; moor buzzard: on heaths. I have seen this species on the hills of Turin and Pitscandly

Falco palumbarius; the gosshawk. This bird is not very common in Angusshire

" gentilis; gentle falcon: on our high mountains

" peregrinus; peregrine falcon. I remember of seeing one of this species in the possession of the Laird of Balnamoon's grandfather, and of his servants hunting with it about the year 1771. It is recorded of one of this species that eloped from its master in the vicinity of Forfar, on the 24th of October 1772, with four heavy bells on its feet, that it was killed on the morning of the 26th at Mostyn in Flintshire. This shews the great rapidity of its flight

" candicans; gyr-falcon. I observed one of this species on the estate of Mr. Robertson Scott of Hedderwick in September 1810; but I rather think it is rare

" cyaneus; hen-harrier. I have seen this species several times in the neighbourhood of Forfar

Falco pygargus; the ring-tail: not unfrequent
" tinnunculus; the kestril. This species is called often in Angusshire, by the country people, *Willie whip the wind*
" nisus; the sparrow-hawk: not unfrequent
" subbuteo; the hobby: it is rather rare

Strix otus; horned owl
" brachyotus; short-eared owl: on the mountains of Angusshire
" flammea; white owl: common
" ulula. I saw this species in the woods at Balnamoon, where they used to hatch every season
Lanius rufus; wood-chat

Of the Order *Picæ*, there occur the following:

Corvus corax; the raven: on the mountains
" corone; carrion crow
" frugilegus; the rook: common
" cornix; the hooded crow. These birds were much more common some years ago than they are now
" monedula; the jackdaw
" glandarius; the jay. Within these few years they have frequented the woods about Forfar, but formerly they were not to be seen: they are common about the woods of Glammis, Brigtown, and Kinnettles
" pica; the magpie

Corvus graculus; the Cornish chough: on the mountains of Clova
Cuculus canorus; cuckoo
Picus viridis; green wood-pecker
" medius; middle spotted wood-pecker
" minor; lesser spotted wood-pecker
Sitta europæa; nut-hatch. One of this was brought me from the woods near Tannadice in 1807
Alcedo ispida; the common king's-fisher. This beautiful bird is sometimes seen in the wood of Glammis and in the wood of Newmill
Certhia familiaris; creeper. I have seen this bird among the woods by the side of the water of Esk

Of the *Anseres*, we can boast a considerable number:

Anas cygnus; wild swan. A few pairs of these visit the lakes in the neighbourhood of Forfar; at least I have observed them in 1809 and 1810: they are often to be seen in the lake called the Loch of the Garth, between Forfar and Kirriemuir

" olor; tame swan: they are occasionally kept by gentlemen: two of them were long kept in a lake called Loch Feithie, by George Dempster, Esq. of Dunnichen

" tadorna; shieldrake: not unfrequent in the winter season near the river Esk

" fusca; velvet duck: sometimes to be seen on our coast

" anser; wild goose

" segetum; bean goose

" bernicla; the brent goose

" mollissima; eider duck, or *Dunter*

" clypeata; shoveler

" streptera; the gadwall, or grey. I have seen this species in the lakes of Rescobie and Balgavies

" clangula; the golden-eyed duck

" penelope; the wigeon: in the lakes of Rescobie and Balgavies

Anas glacialis; long-tailed duck: on the coast

" ferina; the pochard: this is rare

" querquedula; the garganay, or summer teal: in the lake of Forfar

" crecca; teal duck: lake of Forfar

" boschas; wild duck

" fuligula; tufted duck: in the lakes

Mergus merganser; the goosander: on the coast

" serrator; red-breasted goosander: coast

Alca arctica; puffin: on the shore

" torda; razor-bill: on the coast

Procellaria pelagica; stormy petrel, called by the sailors *Mother Carey's chicken*

Pelecanus carbo; the corvorant, or scart: some of these birds occasionally visit the lake of Forfar, and sometimes sit for a whole day on the stakes driven into the lake for dragging marl

" graculus; the shag: on the coast

" bassanus; the gannet, or *Solon goose*. This is sometimes to be

seen on the coast
Colymbus grylle; the spotted guillemot
" minor; lesser ditto
" troile; the scout, or foolish guillemot
" arcticus; black-throated diver: on the coast
" stellatus; speckled diver
" minor; little grebe. One of these was taken in my garden at Forfar in winter 1807
Larus rissa; kittiwake
" tridactylus; the tarrock, or three-toed gull
" hybernus; winter gull
" canus; common gull
" erythropus; brown-headed gull
Larus nævius; the wagel
" marinus; black-backed gull
" fuscus; the herring gull. This species is easily tamed: I once kept one of them for three years
" ridibundus; black-headed gull. In Angusshire it is called *pictarny*
" parasiticus; the arctic gull
" crepiditatus; black-toed gull
Sterna hirundo; the sea swallow. In Scotland, particularly in Angusshire, it is called *Willie Fisher:* common on the water of Esk
" minuta; the lesser sea swallow
" fissipes; the black tern: common on the sands of Barry

Of the Order *Grallæ*, we have the following:

Ardea major; common heron. This bird builds on trees in the wood of Newmill
" stellaris; the bittern. One of these was shot in the White Mire, near Forfar, in 1789: it is sometimes to be seen in the lake of Rescobie, but it is a rare bird
Scolopax arquata; curlew: breeds on the mountains
Scolopax phæopus; whimbrel. Along with the curlew
" rusticola; woodcock
" gallinago; the snipe
" gallinula; jack-snipe
" glottis; greenshank: sometimes on the coast
" calidris; redshank: breeds on heaths near Forfar

Scolopax lapponica; red godwit; a rare bird with us
" ægocephala; common godwit
Tringa vanellus; the lapwing: called in Angusshire *Teuchet;* they are not near so numerous as they were some years ago
" interpres; the turnstone
" cinerea; ash-coloured sandpiper
" hyperborea; red phalarope
" hypoleucos; common sandpiper, or sand lark
" cinclus; the purre
" islandica; red sandpiper
" squatarola; grey sandpiper
Charadrius hiaticula; the ringed plover
" pluvialis; golden plover: breeds on the hills
Charadrius himantopus; long-legged plover. I once saw one bird of this species on the mountains of Clova: I have never observed but another, which was on Ben-Lawers, in Perthshire, in August 1793: it is a rare bird, and I believe but few naturalists have seen it alive
Hæmatopus ostralegus; the sea-pie: frequent by the side of the Esk
Fulica chloropus; common water-hen
" atra; common coot
" aterrima; greater coot. The above three in the lake at Forfar
Rallus crex; the rail, or *Corncraik*
" aquaticus; water rail

Of the *Galline* or *Grous* tribe, Forfarshire possesses,

Tetrao tetrix; the black cock. Two of these birds were shot on Turin Hill in the winter of 1794; they occur also on Clova mountains, but rare
" lagopus; the ptarmigan: on the high mountains of Clova
Tetrao attagen; red grous or *muirfowl.* This species is becoming very rare of late years, and if gentlemen do not fall upon means to prevent their destruction, they will certainly very soon become extinct. I have seen more of them

about twenty years ago in walking two or three miles, than I have of late in walking sixty miles

Tetros perdix; the partridge

Of the Order *Passeres*, a great variety occurs:

Columba œnas; common pigeon: frequent on the rocks by the sea side

" palumbus; the ring-dove, or wood pigeon. This bird is easily tamed: I have one of them which for the most part lives in my house; it is so tame as to eat out of one's hand

Alauda arvensis; the sky-lark

" pratensis; the tit-lark

" arborea; the wood-lark: in woods near Forfar

Sturnus vulgaris; the starling: frequent on the mountains

" cinclus; water ouzel, or *Water craw*

Turdus viscivorus; the missel-thrush

" pilaris; the field-fare

" iliacus; red-wing

" musicus; the *mavis*, or throstle

" merula; blackbird

" torquatus; ring-ouzel: on the mountains

Ampelis garrulus; the Bohemian chatterer

Loxia curvirostra; the cross-bill; and

" enucleator; pine cross-beak. These two species of Loxia have come in great numbers to the woods of Glammis and Lindertis, and totally destroyed the whole larch, and fir cones for these two years past

" pyrrhula; the bulfinch

" chloris; the green-finch. A few years ago I observed a white variety of this species near Forfar: I observed it for two winters

Emberiza nivalis; snow bunting, or *snow flake*. I once tamed one of these birds: it seemed to live very well in confinement, and was cheerful; it lived with me for four years

" mustellina; the tawny bunting

Emberiza miliaria; common bunting
" citrinella; the yellow hammer. This beautiful and innocent bird is terribly persecuted by the young children in many parts of Scotland, under the name of *Yellow-yite*, or *Yaldring*
" schœniclus; reed bunting: common near the lake of Rescobie
Fringilla cœlebs; chaffinch
" montifringilla; the brambling
" carduelis; the goldfinch. This bird has never been plentiful since the hard winter of 1795, which destroyed many
" linota; the linnet
" domestica; the sparrow
" montana; mountain sparrow: on the mountains of Angusshire
Motacilla modularis; hedge-sparrow
" salicaria; reed sparrow: among reeds by the sides of the lakes; but not common
Motacilla alba; the white wagtail
" flava; the yellow ditto
" œnanthe; the wheat-ear
" rubetra; whinchat
" rubicola; stone-chatterer
" atrocapilla; the black-cap
" rubicula; the red-breast
" troglodytes; the wren
" regulus; the golden-crested wren. This is a rare bird in Angusshire
" trochilus; yellow wren
" baarula; grey wagtail. I have seen this near Forfar
Parus major; great tit-mouse, or *ox-eye*
" cœruleus; the blue tit-mouse. This bird hatches in my garden every year
" ater; the cole-mouse
" biarmicus; the bearded tit-mouse
Hirundo rustica; the chimney swallow
" urbica; the martin
" riparia; the sand martin
" apus; the swift
Caprimulgus europæus; the goat-sucker: woods near Forfar

AMPHIBIA.

In Angusshire we have but few of the class *Amphibia*.

Of the Order *Reptilia*, we have:

Rana bufo; the common toad

" temporaria; common frog. I have seen numbers of a beautiful variety of this species in the alpine rivulets on the mountains of Clova: they appeared as if trimmed with silver lace. I once observed one of this variety in my garden in Forfar some years ago

" esculenta; the eatable frog. I have seen a few of this species about the lakes, but rather rare

" gigantea; the gigantic frog of Lightfoot. I observed one of these about five miles east of Arbroath, in June 1797; it was about three times the size of the Rana temporaria. I suppose it is an inhabitant of salt marshes, and rare

Lacerta palustris; the warty lizard

" aquatica; the water ditto

" agilis; the nimble lizard; common on the Highland mountains, where it sometimes grows to a large size

" vulgaris; common ditto: this species, as also the others, is called in Angusshire by the name of *Ask*

Of the *Serpentes*, there occurs only the following, and none of them are common.

Coluber berus; the viper, or *Adder*. This animal is now becoming very rare: we have it near the West Water, as at the foot of Wirron Hill, twelve miles north of Brechin, and the hills of Glenugg

" prester; the black viper. I observed one of this species at the foot of the rocks at the head of Lochlee, in Glenesk, in 1795, the only one I have seen

Anguis eryx; the blue-bellied snake, or adder; on the mountains, but rare

" fragilis; the blind-worm. Several of this species were found in the Moss of Restennet, near Forfar

Of the Order *Nantes*, the sea and rivers afford the following:

Tetrodon truncatus; the oblong sun-fish: sometimes on our coast
" mola; the short sun-fish: on the coast, but rare
Syngnathus ophidion; the little pipe-fish
" acus; the longer pipe-fish: on the coast, but very rare
Cyclopterus lumpus; the lump-fish
" liparis; the unctuous sucker
Lophius piscatorius; the toad fish, or fishing frog, or sea devil
Squalus canicula; the greater dog-fish
" catulus; the lesser ditto
" galeus; the tope
" vulpes; the sea fox
" acanthus; the piked dog-fish
Raia batis; the skate
" clavata; thornback
Raia oxyrhinchus; sharp-nosed ray
Petromyzon marinus; the lamprey: in the sea, and sometimes in rivers
" fluviatilis; lesser ditto: in lakes and rivers
" branchialis; the pride: in clear water. Lampreys were more common some years ago than at present: a number of the common people were much afraid of them, and many a strange story was told of them. They are called *Nine-eyed eels*

FISHES.

I now proceed to give a sketch of the *Ichthyology* of Angusshire. Of the *Apodal* order, we find:

Muræna anguilla; the common eel
" conger; conger eel; seemed to be much better known some years ago than at present: the name seems familiar even to the common people; they call it *Eve-eel*
Anarichas lupus; the sea-wolf: in Scotland called *Sea Cat.*
Ammodytes tobianus; the sand-eel

Of the *Jugulares*, the following occur:

Callionymus lyra; the gemmeous dragonet
" dracunculus; sordid ditto
Gadus æglefinus; the haddock
" morhua; the cod
" luscus; the bib
" barbatus; the whiting-pout
" minutus; the poor
" merlangus; the whiting
" carbonarius; the coal-fish
" pollachius; the pollack
" merlucius; the hake
Gadus molva; the ling
" mustela; five-bearded cod
" tricirratus; three-bearded cod
" brosme; the torsk
Blennius galerita; the crested blenny. One of these was lately taken at Acmithie, six miles east of Arbroath
" pholis; smooth blenny
" viviparus; the viviparus blenny

A considerable number of *Thoracici* occur, particularly

Gobius niger; the miller's thumb
Cottus cataphractus; the pogge
" scorpius; the father-lasher
" gobio; the bull-head. This species is sometimes to be found in the Esk
Zeus luna; the opah. I observed one of this splendid species cast ashore on the sands of Barry
Pleuronectes hippoglossus; the holibut. This species is sold in Forfar by the name of *Turbot*
" platessa; the plaise
" flesus; the flounder
Pleuronectes limanda; the dab
" solea; the sole
" punctatus; the whiff
" maximus; the turbot
Sparus auratus; the gilt-head
" pagrus; the red gilt-head. I bought a few of this species in Forfar market in the year 1798; they were taken near Westhaven
" dentatus; toothed gilt-head
Labrus tinca; the wrasse
" cornubicus; the goldsinny
Perca fluviatilis; the perch
" marina; the sea perch
Gasterosteus aculeatus; the banstickle

Gasterosteus pungitius; the lesser stickle-back
" spinachia; the greater stickle-back. I have seen several of these on the coast
Scomber scomber; the mackrel
" thynnus; the albicore, or tunny: by some called the *mackrel-sture*, or great mackrel
Scomber trachurus; the scad, or horse mackrel
Trigla lyra; the piper
" gurnardus; the grey gurnard
" cuculus; the red gurnard. I observed one of this species cast a-shore on the Sands of Barry; and they are taken frequently off Montrose

Of the Order *Abdominales*, we have the following:

Cobitis barbatula; the loche: in rivers common
Salmo salar; the salmon
" eriox; the grey. This fish is not near so common as the salmon: it is indeed rather a rare species
" trutta; the sea trout
" fario; the common trout
" alpina; the char: in some of our alpine lakes, but rather rare
" eperlanus; the smelt: in Scotland it is known by the name of *Spirling* or *sparling*
" thymallus; grayling
Esox lucius; the common pike. This is often taken in the Lake of Forfar of a large size; one was taken in spring 1812, 27 pounds in weight and 4 feet long
Esox belone; sea pike
" saurus; the saury pike
Mugil cephalus; the mullet
Clupea harengus; the herring
" pilchardus; the pilchard
" sprattus; the sprat
Cyprinus phoxinus; the minow. The roach, dace, tench, or carp, which belong to this genus, and are so common in fish-ponds in England, I have never seen in Angusshire

INSECTS.

The following are a few of the *Insects* which I have observed in this country, but they are only a few of those to be found.

Scarabæus typhæus
" nuchicornis
" fimetarius
" scrutator
" conspurcatus
" granarius
" terrestris
" sylvaticus
" stercorarius; the dor-beetle: When it flies in the evening with a loud humming noise, it is thought by the country people to presage a fine day
" testudinarius: very rare
" melolontha; the cock-chaffer: flies in the evening. In flying it often strikes against persons and other objects, as if blind; and hence comes the common proverb, As blind as a beetle
" solstitialis. This species is often hurtful to the leaves of the elm
" nobilis
Lucanus parallelipipedus
" caraboides. In the wood of the Forest-mui near Forfar
Dermestes lardarius
" pellio. This insect is destructive to books
" domesticus
Bostricus polygraphus
" typographus: on fir trees near Forfar
" scolytus; often destructive to elms
" piniperda; on trees near Forfar, which it often destroys
Ptinus cerevisiæ
" mollis; destructive to dried plants
" fur; it is a most destructive insect in museums, and I have often experienced its mischievous effects
Hister unicolor
" æneus
Gyrinus natator
Cistela pilula
Byrrhus scrophulariæ
Silpha vespillo
" atrata
" thoracica
Nitidula bi-pustulata
Cassida viridis
" nobilis
Coccinella annulata
" bi-punctata
" 5-punctata
" 6-punctata
" 7-punctata

Coccinella 9-punctata
" 13-punctata
" 14-punctata
" 22-punctata
" conglobata
" 14-guttata
" oblongo-guttata
" bi-pustulata
Chrysomela graminis
" nemorum
" euphorbiæ
" tabida
" transversa
" cardui
" fastuosa
" vitellinæ. This species often destroys the leaves of the willow trees in my garden
" polygoni
" polita
" populi
" marginella
" 20-punctata
" anglica
" aleracea
Limnius æneus of Müller
" Volckmari
" tuberculatus, Müller
Cryptocephalus sericeus
Auchenia asparagi
" cyanella
Curculio cerasi; found on the cherry and pear trees, destroying their leaves
" granarius; a destructive insect in granaries; the weevil
" dorsalis
" capreæ
" ulicis
" pomorum; hurtful to apple trees
" pini. This species has destroyed a large plantation belonging to Mr. Meason of Lindertis, consisting of the Scots fir and larch
Curculio pyri. This insect is very common on the fruit trees of the garden walls of the garden at Kinnardy, and does a considerable degree of damage
Attelabus coryli
Clerus formicarius
Cerambyx bajulus. The larva of this insect perforates furniture made of fir
" arcuatus
" coriarius
Leptura aquatica
" simplex
Lampyris noctiluca; the common glow-worm
Cantharis viridissima
" fusca
" livida
" ænea
" bi-pustulata
Elater sputator
" elongatus
" pectinicornis
" obscurus
Cicindela campestris
" riparia
Buprestis viridis
Dytiscus marginalis
" cinereus
" semistriatus
Carabus hortensis
" catenulatus
" ruficornis

Carabus vulgaris; and several others of this genus
Tenebrio molitor
Blaps mortisaga
Mordella bi-color
Staphylinus murinus
" maxillosus
" chrysomelinus
" hypnorum
Staphylinus riparius; and some others
Forficula auricularia; the earwig: in Angusshire called by the country people *Horned gollich*
" minor. This is rather rare

Of the *Hemiptera*, may be mentioned the following:

Blatta orientalis; found in some of the bake-houses in the seaport towns
Gryllus bi-punctatus
" gryllotalpa
" domesticus. These are sometimes found near bakers' ovens, but rare
" campestris
" viridissimus
" varius
" cœrulescens
" stridulus
" bi-guttulus
" grossus
Cicada cornuta
" spumaria. The larva of this species is the inhabitant on plants of the Cuckoo spit, or as it is called in Angusshire *Frog's spittle*
" viridis
" ulmi
" rosæ; and some others
Notonecta glauca
" striata
Nepa cinerea
Cimex lectularius; the bed bug: very common in some of the seaport towns, but happily not so common in the inland towns
Cimex littoralis
" clavicornis
" corticalis
" betulæ
" scaraboides
" baccarum
" juniperinus
" prasinus
" bicolor
" hyoscyami
" apterus
" campestris
" pratensis
" pini
" urticæ
" ulmi
" lacustris
" stagnorum
" personatus: and some others
Aphis; a great number of different species
Chermes; a great number of species
Coccus ulmi
" pilosellæ
" capreæ
" salicis. These two latter very common on some of the willows in my garden, particularly on the Salix viminalis and carinata

Coccus abietis.—A great many other species are to be found in Angusshire
Thrips physapus
" juniperina

Of the Order *Lepidoptera*, we have the following:

Papilio napi
" rapæ
" brassicæ. The larvæ of these three are very destructive to cabbage plants in gardens, and render them very unsightly
" cardamine. This beautiful species I have sometimes seen in my garden at Forfar
" adusa. This beautiful and rare species I have seen in my garden: I have one preserved which was taken in it
" hyale
" hyperanthus
" pamphylus
" ægeria
" jurtina
" cardui
" urticæ
" atalanta
" lucina
" paphia
" aglaja. I have one of these preserved which I found on the Sands of Barry; it is rare in Angusshire
" argus
Papilio rubi
" phlæas
" linea; with several other species
Sphinx filipendulæ
" atrapos
" ligustri
Sphinx convolvuli
Phalæna bractea. This beautiful species is frequent in my garden
" viridana
" fagana
" clorana
" scabrana
" quercana
" obliquana
" rosana
" cynosbana
" nemoralis
" pallens
" pronuba
" segetis
" maura. I observed this species at Westhaven in 1807
" brassicæ
" oleracea
" citrosa
" cerosa
" euonymella
" pratella
" pascuella
" tapezella
" pellionella
" fascitella. These two latter destructive to woollen clothes
" dodecella
" cembrella
" granella
" quercus
" caja
" coryli
" erminea
" lapricipeda; and many others of this numerous family

Of the *Neuroptera*, we find a number, particularly,

Libellula quadrimaculata
" vulgata
" depressa
" vulgatissima
" juncea
" puella
" virgo. This beautiful species I have seen several times in Angusshire
Ephemera vulgata; May-fly
" vespertina
" marginata
" horaria. This species is very common about the Lake of Forfar; they live but for a single night
Phryganea nebulosa
" grisea
" flavicornis
" rhombica
" variegata; and some others
Hemerobius lutarius
" perla
Panorpa communis

Of the Order *Hymenoptera*, the following are found:

Cynips rosæ
" glechomatis
" quercus-folii
" quercus-petioli
" quercus-gemmæ
" fagi
" viminalis
Tenthredo salicis; and several others
Sirex gigas
Ichneumon. Several species of this genus are to be found
Sphex sabulosa
" fusca
Vespa vulgaris; wasp
" parietum
" muraria
" arvensis
Vespa bifasciata
" vaga; and others
Apis centuncularis
" rufa
" mellifica; common hive bee
" conica
" annulata
" terrestris
" virginalis
" lapidaria
" muscorum
" hypnorum
" acervorum
Formica herculanea
" rufa
" fusca
" rubra

Of the Order *Diptera*, many species occur:

Oestrus bovis
" equi, &c.
Tipula rivosa
" crocata
" oleracea
" hortorum
" triangularis
" pratensis
" regelationis
" punctata
Tipula plumosa
" motitatrix
" littoralis
" monilis
" pusilla
" marci
" febrilis
" vernans
" phalanoides
" palustris

Musca chamæleon
„ chalybeata
„ similis
„ vallata
„ Cæsar
„ pellucens
„ cadaverina
„ vomitoria
„ domestica
„ argentata. I observed this species near Panmuir
„ grossa
„ tremula
„ lateralis
„ canicularis
„ pluvialis
„ cellaris
„ meteorica
„ putris
„ pumilionis. The larva of this species is sometimes hurtful to wheat
„ frit. The larva of this is hurtful to barley
„ cupraria
„ aurata
„ angulata
„ cursitans
„ stercoraria
„ vibrans

Musca hyoscyami
„ germinationis
„ onopordinis
„ nemorum
„ tenax
„ fastuosa
„ pipiens
„ albimana; and several others of this extensive genus

Tabanus bovinus
„ tropicus
„ pluvialis
„ cæcutiens
„ autumnalis. These are known by the name of *Cleggs* in Angusshire

Culex pipiens
„ ciliaris
„ pulicaris

Stomoxys calcitrans
„ irritans
„ rostrata

Conops flavipes

Asilus forcipatus; and several others of this genus

Bombylius medius

Hippobosca equina
„ hirundinis
„ ovina

Of the Order *Aptera*, likewise, a number occur:

Lepisma saccharinum

Podura nivalis
„ aquatica
„ fimetaria; and others of this genus

Termes pulsatorium; the death-watch

Pediculus. Of this disgusting genus fifty-three or more species are reckoned natives; they are named by the animals they inhabit

Pulex irritans. This troublesome little insect is well known by the name of *Flea:* it is reported by some authors that it has been tamed, and has lived six years. Its muscular strength is so great, that it can leap 200 times its own length, and drag a weight 8 times heavier than itself

Acarus reduvius; the tick
" ricinus; dog-tick
" telarius; often hurtful to plants kept in hot-houses
" scabiei. This is the insect which causes itching in the disease called the itch
" lactis
" muscorum
" fungorum; and several others of this genus
Hydrachna globator
" grossipes; and some others
Phalangium hirsutum
" grossipes
" opilio
Aranea diadema
" redimita
" montana
" domestica
" viatica
" saccata
" extensa
" latens
Acarus senoculata
" holosericea
Cancer pisum
" longicornis
" mænas
" depurator
[1] " pagurus; crab, or *parten*
" araneus
" horridus. This is rather a rare species
" bernhardus
" araneiformis
" corrugatus
[1] " gammarus; the lobster
" squilla; the prawn
" crangon; the shrimp

Cancer Norvegicus
" pulex
" locusta
" atomos
" stagnalis
" phalangium. This is the Cancer scorpio of Stewart. I have found several of these near the Sands of Barrie; it is reckoned a rare species
" platychelas of Pennant, a rare species: I also found one of this on the Sands of Barrie
Monoculus quadricornis
" rubens
" pulex
" longispinus
" simus; and several others of this genus
Oniscus asilus
" entomon
" œstrum
" aquaticus
" oceanicus
" assimilis. This species is often to be found among the Fuci or dulse, when sold at the cross in Forfar
" asellus
" armadillo
Scolopendra electrica
" forficata
Julus terrestris
" complanatus
" sabulosus
" oniscoides; among stones on the hill of Finhaven

[1] Both these species are called in Angusshire by the name of *Firy tangs*, or *Meg wi' the mony feet.*

WORMS.

Of the Order *Intestina*, the following occur:

Ascaris. There are many of this genus to be found; they inhabit the intestines of every kind of animals

Scolex lophii. I have a specimen of this animal which was found in the fishing-frog

Strongylus. Of this genus there are two species; one of them found in the horse and the other in sheep

Echinorhynchus, and likewise the genera Cucullanus and the Tænia, are found in the intestines, and other parts of many animals, and often get their names from the parts or the peculiar animals they inhabit

Fasciola is a very numerous family: the Fasciola hepatica is found in the liver of oxen, swine, horses, and sheep, and is said to cause a dropsical swelling of the abdomen

Gordius aquaticus: in ditches

Lumbricus terrestris: earthworm

" marinus; on the sandy shores

Planaria fusca

" lactea; both in the Lake of Rescobie

Hirudo sanguisuga

" vulgaris

" complanata. This species is found common in a spring called the South Running Well, near Forfar

" hyalina

" bi-oculata. These two latter I observed in the Loch of Lintrathen

" muricata; inhabits the sea

Of the Order *Mollusca*, we observe the following:

Limax ater; black slug

" succineus; red

" cinereus; great spotted

" agrestis; small grey

" flavus; amber ditto

Doris verrucosa. I have seen this not unfrequent on the coast. I have a specimen of it preserved

" papillosa. I have also a specimen of this

" argo. I have seen this species thrown ashore at the Sands of Barrie

Aphrodita aculeata; cast on the shore, not unfrequent

" squamata

" lepidota

Amphitrite auricoma. I have seen several of this on the shore

Nereis noctiluca. These animals illuminate the sea, with a brighter splendor than the glow-worm's

Nereis pelagica; not unfrequent; I have a specimen of this preserved
Nais serpentina; common in the small pools of water at the east end of the loch at Forfar, among the Lemna minor and trisulca
" proboscidea; in marshes,—ponds and ditches near Forfar
Ascidia rustica; in the sea not unfrequent: I have a specimen of this preserved
" mentula
Actinia rufa
" crassicornis; and some others of this genus
Lernæa salmonea
" asellina
" pectoralis. I have a specimen of this preserved
Sepia media
" loligo. I have seen this species often driven ashore near Montrose
Medusa cruciata
" capillata
" aurita
" octopus. They are not unfrequent in the sea; the greatest quantity I ever observed of them was at the village of Achmithie, six miles east of Arbroath
Asterias papposa
" lacertosa
" rubens
" seposita; rare
" glacialis. I observed what I take to be a nondescript species at Achmithie
Echinus spatagus
" esculentus

Of the Order *Testacea*, we have the following:

Multivalves.

Chiton albus. I observed one of this species on the shore at the Sands of Barrie
" marginatus
Lepas balanus
" balanoides
" anatifera
" striata
Pholas dactylus
" crispata

Bivalves.

Mya truncata
" arenaria
" margaritifera; common in Water of Esk
Solen vagina
" siliqua
" ensis
" legumen
" pellucidus
Tellina fragilis
" planata
Tellina radiata
" donacina
" ferroensis
" rhomboides
" cornea
" rivalis
" carnaria
" rugosa
Mactra stultorum
" solida
" lutraria

Univalves.

Cardium aculeatum
" echinatum
" edule. This is the common cockle
Venus gallina
" islandica
" exoleta
" undata
Ostrea varia
" opercularis
" edulis. The shells of this are sometimes thrown on the shore
" maxima; but rare
Anomia ephippium
" cepa
" squamula
Mytilus rugosus
" barbatus
" edulis; the common muscle
" pellucidus
" modiolus
" cygneus
" anatinus
" discors; a rare species
Cypræa pediculus; at Lunan Bay
Buccinum lapillus
" undatum
" reticulatum
" minutum
Strombus pes-pelecani. I observed this shell on the Sands of Barrie
Murex clathratus; it is rare with us
Trochus cinerarius
" zizyphinus; but rare
Turbo neritoides
Turbo littorcus; *wilk*, or periwinkle
" rudis
" cimex; on the Back Sands at Montrose, not unfrequent
" terebra
" perversus
" muscorum
" fontinalis; White Mire, near Forfar
Helix striatula
" planorbis
" lapicida
" arbustorum
" aspera
" ericetorum
" turturum
" virgata
" rufuscens
" nemoralis
" stagnorum
" stagnalis; in Crook water, but rare
" palustris
" putris
" limosa
" auricularia
Nerita glaucina
Patella vulgata
" ungarica
" lacustris
" fluviatilis
" pellucida
Sabella alveolata
" lumbricalis
Dentalium entalis. I found this shell, with the animal in it, on the sand at Lunan Bay
Serpula spirorbis
" triquetra
" contortuplicata

I have observed a great number of minute shells, of different species, on the moist places on the Sands of Barrie, which would require a magnifier to distinguish them, but never had time sufficient to examine them.

APPENDIX G.

LETTERS OF GEORGE DON.

As in the case of John Mackay, who, like George Don, maintained a correspondence with Sir James Edward Smith, there are no letters in the Smith correspondence in the possession of the Linnean Society from George Don. Don's letters to Mr. N. J. Winch have been referred to several times, and by the kind permission of the President and Council of the Linnean Society, in whose care the Winch correspondence is, I am able to present here copies of these letters, which I do from the standpoint of "Le style est l'homme même." I would like to add that in their reproduction I have been greatly assisted by Mr. B. Daydon Jackson, Secretary of the Linnean Society, who has not only himself transcribed for me some of the MS., but has also collated and corrected the proofs. I make no apology for quoting here (with his consent) his comments, in a letter to me accompanying the collated sheets, for they tell of Don's workmanship as it appears in the letters and also convey his impression of Don after perusal of them—an impression which readers generally will share. He says:—"I have just completed the collation of Don's letters, and am sending them with this. There still are some words which I cannot make out, after long study of them, Don's letters are so badly formed—a, o, u are practically the same, and so on. The letter dated Feb. 18, 1810, is an especially bad specimen; you have seen it, and remember that he has closely packed both sides of a sheet of foolscap with names of plants and remarks, wherever he could find half an inch of blank paper. The task of copying was a hard one, hence the blunders that arose; I hope I have corrected all, but nothing short of a photo. could do justice to the writer. His letters show him eager and enthusiastic, clamorous for help; like all collectors, far from bashful in asking favours, but also unmethodical and careless to the last degree. He is constantly excusing his want of attention to Winch's requests by his having mislaid the last letter."

George Don to N. J. Winch.

Forfar, May 11th, 1802.

Sir,—I received your letter a few days ago, and shall be very glade to exchange plants and speciments—no one likes a faithfull correspondent more than I doe. You mention some good things that is to be found in your neighbourhood, although I have all them except Ribes petraeum and Bartsia Alpina, although I have found Bartsia about 50 miles from Forfar, but could not remove it to grow. But I should be obliged to you to pot and plant it and 2 of G[entiana] Verna and try to establish them in 2 pots as the only way, and save seeds of Thalictrum major and Cistus marifolius and speciments, as I have but a weak plant of Gentiana verna and Cistus marifolius. I should be obliged to you to send a catalogue of all the rare plants within your reach, I mean your botanical excursions, and not to forget the cryptogamous famely, as I think you could assist me in speciments of some of the English hypnoms that I have not found in Scotland, and if I remember I seed some speciments of Lichens that I suspect came from you. When I was on a visit to Mr. Mackay about Sept. last, a new one you had discovered, and imersus, both which I should be glad to have, or any other you may judge rare. But I shall see by your catalogue what is in your power to assist me with. I have laboured hard for this last winter and have made several new discoveries in that intricat part of the science, among which is a new hypnum. I call it in my herbarium fontenaloides, and another alpinum which Dr. Smith is to adopt my names for in his Flora Britanica, as he by letter informs me, and 3 or 4 new hypnoms which I have affixed no name to as yet. One of them I think of calling mimosiodes and another trichomonoides as they both belong to the first division, and 2 more I have not thought of names that would be applicable as yet, and a new bryum that comes nearest the Grimmia cribrosa of Hedweg, and a new Gymnostomon I call maritima from its growing near the sea, and a new Orthotrichum Dr. Smith is to call obtusifolium. I found this on the Bark of a willow tree in the Botanic Gardens while on a visit to our mutual friend Mr. J. Mackay who is no more. In calling back to my mind that worthy man excites painfull sensations in my breast and wound my feelings deeply. Besides this Orthotrichum obtusifolium I have 4 or 5 more I believe are non Descripts and I have sent them to Dr. Smith but have received no answer from him as yet, but I suppose from them and some other Cryptogama I have sent him, he will require some little time to determine some of them. I have also Discovered a new Spergula I call maxima and a new Carex that comes nearest limosa but wants the strong creeping roots that are so characteristic in limosa. Dr Smith declares it new to him also, and Stellaria scapigera of Wildenow, Dr. Smith informs me that neither he nor Wildenow knew its proper habitat, and Potamogeton hetrorophullum, Fl. sesilis and another one I have not

been able to Determine as yet. I have found a number of Dickson's new mosses also. I was the first finder of Convallaria verticillata, Carex pulla, Festuca calamaria having found them in 1789 and 90 and Eriophorum alpinum, and Juncus castaneus and the Spergula Sag[ina mariti]ma and Saxifraga rivularis, but giving information or speciments they took the libberty to Declare themselves the Discoverers which was ungenerous in some Degree. If I remember Thlaspi alpestre, and montana, and Hypochoris maculata, and Cypripedium calceolus and Serapas grandiflora, and ensifolia are found not far Dystant from you which is plants I want much and as I lived in Yorkshire half a year at Broadsworth near Doncaster where were found the rare plants Ophyrs apifera, and insectifera, and spiralis, and Orchis ustulata, and pyramidalis, all plants I want much, I shall be glad to hear from you soon and the catalogue as soon as convenient. If I am wrong in your address pray put me right—you seem to have forgot it.

I am, sir,

Yours humble servant,

(Sgd.) G. DON.

George Don to N. J. Winch.

Sir,—I have sent you a number of your Desiderata and I shall send you the rest or as many as I can furnish you with in the Autumn along with a collection of Cryptogamia. I would a sent you more cryptogamic speciments had I not been tyed Down to time for I am going a long Botanical excursion to the north in a part of the highlands that has not yet been Investigated by any scientific men so that I flatter myself with some new Discovery.—As you observe my neighbourhood is excellent for cryptogamia particularly musci and especially the Genus Bryum and a number of the Salix and by no means contemptible in ether Carex or any of the genera of cryptogames though it Does not abound with old Forrests as many parts of England do.

I will be obledged to you to save as many speciments and seeds and procure as many plants as possible you can by the Autumn or at least by the time I return and I shall writ you upon my return and I shall let you know what success I have met with in my excursions.

Believe me Dear sir your obedient and humble servt.

(Sgd.) G. DON.

Forfar June 29th 1802.

N.B.—The figuers is the number of plants I would wish of each sort thos with no figuer I only wish a good plant or 2 of a kind.

PLANTS.

Equisetum fluviatile+
4 Orchis pyramidalis+
6 „ ustulata+
6 Ophrys muscifera+
4 „ apifera+
2 Serapas longifolia+
4 Cypripedium calceolus+
Schoenus compressus+
4 Calomagrostis epigejos+
Potamogeton marinus+
6 Primula farinosa+
4 Hottonia palustris+
Ribes petraeum+
„ spicatum
Atriplex portulacoides
6 Gentiana verna+
Sium latifolium+
Œnanthe pimpinelloides+
Frankenia laevus
Euphorbia paralis
Rosa tomentosa+
„ villosa+
4 Dryas octopetala+
4 Cistus marifolius
Thalictrum majus
Statice lemonium+
4 Orobanche major
Trifolium hybridum
„ ochroleucum
Carduus acaulus
+Carex capillaris
„ muricata

I will be oblidged to you to send me speciments of those contained in this list and if to spair send 3 speciments of each sort. But those marked with a cross thus I have speciments of that will Do for my herbarium.

SEEDS.

Trifolium striatum+
„ glomeratum+
„ scabrum
„ maritimum
„ ochroleucum
Cripis biennis
Cichorium intybus+
Carduus eriophorus+
„ acaulus
Erigeron canadense
Senecio tenuifolius+
„ squalidus
+Centaurea calcitrapa
Matricaria maritima
Zannichellia palustris
Panicum viride
„ dactylon
Poa distans
+Rottbolia incurva
Amaranthus blitum
Potamogeton Densus
Ruppia maritima
Hottonia palustris
Anagallis tenella
Samolus Valerandi
Chenopodium olidum
„ hybridum
Atriplex littoralis
„ pedunculata
Beta maritima
Beta tenuissimum
Sison amomum
Pastinaca sativa
Smyrnium olusatrum
Pimpinella magna
Apium graveolens
Myosurus minimus
Frankenia Laevis
Rumex aureus
+Saxifraga trydactylites
Arenaria verna
Resida lutea
Euphorbia paraliis
Papaver hybridum
Cistus marifolius
Statice limonium
Lamium desctum
Melissa calamintha
Bartsia alpina
Antirrhinum minus

Antirrhinum spurium
+———— elatine
Lepadium didymum
Thlaspe alpestris
Sisymbrium terestre

Erysimum cheiranthoides
Brassica minosis [monensis?]
oleracea
Lathyrus hirsuta
picris echioides

SPECIMENTS WANTED.

Hypnum sciuroides+
If in fructification dendroides+
If in do. proliferum+
If in do. lutescens
If in do. sericeum
If in do. velutinum
cylindricum
Fucus subfuscus
varabilus [variabilis]
plicatus
lichenoides
mamillosus
loreus
natans
repens
Conferva spongiosa
gelatinosa
elongata
pennata
parasitica
Splachnum ovatum
" ampullaceum
Polytrichum aloides
" alpinum
Mnium heteromalum+
If in flower glaucum
pellucens
If in flower arcuatum
Bryum paludosum
If in fruct. laterale+
aestivum
Only if in fructification alpinum
fontinelis
antipyraticum

Lichen +albus
+jolithus
+atro-albus
calcareus
+immersus
muscorum
confluens
canescens

Lichen +coeruleo-nigrescens
+niger
+Baeomyces
+sphaerocephalus
+calvus
vernalis
concentricus
+punctatus
scruposus
+atro-cinereus
+Dicksoni
+tricolor
+cerinus
+floridus
+multifidus
cartilagineus
lanatus
torrefactus
Deustus
perlatus
+granulatus
+cristatus
+sinuatus
+fascicularis
+simplex
crenulatus
+crenularius
+subimbricatus
+carnosus
+lacustris
+frigidus
+exanthematicus
+quadricolor
+rimosus
+psora
gelidus
+laevigatus
+anincus
If in fruct. fragilis
papillaris
muscicola
exilis
saturninus

If in fruct. inclusus
haematomma
If in fructification send
Jungermannia furcata
pinguis
asplenioides
polyanthos
asplenifolia
platyphylla
ciliaris
Byssus aeruginosa
aurea
fulva
barbata
Merulus cornucopioides
membranaceus
Fistulina pectinata
Boletus nummularius
nigripes
substrictus
betulinus
medulla panis
suaveolens
cryptorium
labyrinthiformis
rubeolarius
sulphureus

Hydnum Barbajovis
Auricularia nicotiana
papyrina
If any of the pezizas will make speciments you may add any of them.
Nidularia campanulata
laevis
Clavaria phacorhiza
Lycoperdon epidendrum
Sphaeria mori
sanguinea
mammosa
fraxinea
Or any other you find in your neighbourhood.
You can add seeds of the following
Phalaris phleoides
Bromus madritensis
Euphorbia tithymaloides
Ranunculus muricatus
" arvensis
Vicea bengalensis
Medicago prostrata
Chrysanthemum Italicum
Centaurea galactites

I wish as many of the Cryptogames speciments as possible you can particularly Fucii and any of the fungia that will make speciments and particularly the genus lichen and if possible all those marked with a cross thus + as I have speciments of several of the others though some of them not good ones and wish to see what Difference is in those in your part of the country by those produced in our more northerly situation.

George Don to N. J. Winch.

Sir,—Pardon me for being so long in writing you for owing to my removal which I no doubt you have heard off is in a great measure the cawse of my long silence—— I shall send you the habitats of the plants sent and continue sending you the rest of your dissiderata as soon as I can fall in with your letter which owing to me being but a short time removed I am at a loss where to lay my hand on a many articles as yet. I shall also send you speciments of my new discovered plants and Cryptogamae but it will be 2 week yet before I can yet begin to make them out as our hothouses is all to take threw hand [?] as non of the pots is turned as yet which owght to been done 6 weeks before—as it is but 2 week since I come to the

Edinburgh Botanic Garden—I will be oblidged to you to send the speciments and plants and seeds as soon as convenient and send them by sea Directed to me at the Edinr. Botanic Gardens Leath Walk with a line of information—and any of the cryptogamia you can spair I should be glad to have 2 or 3 of each as I intend cultivating all them I can in the Garden particularly muscii a number of which I have planted already ..... for from repeated tryals I have made myself wil not be dificult.

I am, Sir your humble servt.

(Sgd.) G. DON,

Botanic Gardens, Leath Walk.

Decr. 26th, 1802.

Mr. Nath. J. Winch.

[1][Answd. & Desiderata sent 29th Decr. 1802.]

G. Don to N. J. Winch.

Sir,—I received your letter and after that some specimens which I return you my herty thanks —— I would have answered yours in course but my youngest son was in a bad state of health for some time which ended in his dissolution that being the common tribute of nature—that so embarassed my feelings that I found myself very unfit for some time to pursue my favourite pursuit of Botany. — I herewith enclose you a specimen of Alopecurus alpinus which I found on wet rocks on a high mountain in Aberdeenshire called Loch.na.gare. I would be oblidged to you to send me the names of the specimens I sent you before and I will send you the habitats of them for I have mislayed your letter where I had them marked and therefore have forgot what I sent you I should be much oblidged to you for any other specimens of Lichins and as soon as our Class is over I shall send you some in return but at this time I am so throng that it is impossible for me to do anything in that at present.

I am sir your humble servt.

(Sgd.) G. DON.

Botanic Gardens L. Walk, Edinb.,

June 7th, 1803.

G. Don to N. J. Winch.

[1][Recd. in Jany. 1804.]

Dear Sir,—I should begin all my letters with confession of sins but it will be better to amend my ways—I have been much engaged

[1] In Mr. Winch's writing.

in aranging my cryptogame specimens this winter as I have never got that done before which you may see is a very unconvenient thing to lay my hand on any thing I want however I have got throw a many of them and I will have your collection completed as soon as possible — I will be much oblidged to you for specimens of the Hypnum crenulatum and your Lichin glaber or lævus but I have mislayed your letter so cannot lay my hand upon it and any of your other Cryptogamae specimens that is to spare — the following is the habitats of the Cardamine hastulata the Mountain called Ben ibllech in the Isle of Skye, Isle of Rum else where I never observed it — Stellaria scapigera on mountain to the North of a Lake called Loch Errech in Badanoch and by the side of a Rivulet upon the side of a mountain by the side of a Lake called Loch nevis in the District of Knadert in Invernessshire but in both places truly rare — I will be oblidged to you to send me a specimen of all you Discovered in your last years excurtion as I cannot find your letter last sent and any of them I may have the carriage can be no object if you have them to spaire as on the other side is a list of plants and mosses and Lichens I want which is as follows. viz :—

A list of plants wanted for the Bot. Gardens viz.—

Zannichellia palustris
+Orchis pyramidalis
+ ustulata
+Ophrys nidus-avis
cordata
+ muscifera
+ apifera
+Malaxis paludosa
+Serapias longifolia
+Cypripedium calceolus
+Schoenus compressus
+Panicum viride
+Specimens only, dactylon
Amaranthus blitum
+Galium spurium
Ruppia maritima
+Hottonea palustris
Ribus petraeum
spicatum
+Atriplex pedunculata
+Beta maritima
+Sison amomum
+Smyrnium olusatrum
Drosera longifolia
+Ornithogalum luteum
Carex pedata
+Euphorbia paralias
+Rosa tomentosa

Geum rivale
2 and 3 var.
Thalictrum major
Bartsia alpina
+Antirrhinum spurium
+Orobanche major
+ officinale
+Thlaspi alpestris
+Brassica muralis
+Lathyrus hirsutus
+Trifolium hybridum
+ glomeratum
+ scabrum
+ strictum
+Picris echioides
+Crepis biennis
+Senecio tenuifolia
+Matricaria maritima
+Centaurea calcitrapa
+Equisetum fluviiatile.

I wish specimens of the following if wild ones as I can easily get garden ones viz.—

Veronica montana
Panicum dactylon
Calamagrostis epigejos
Rotboelia incurvata
Primula farinosa

Campanula hybrida
Bupleurum tenuissimum
Caucalis daucoides
Sium latifolium
Statice limonium
Linum perenne
+Myosurus minimus
+Narcissus biflora
+Frankenia laevis
+Rumex aurens
+Saponaria officinae
+Dianthus armeria
+Rubus chamaemorus
+Dryus octopetala
+Papaver hybridum
Cistus marifolia
Helleborus viridis
Melissa calamintha
Bartsia alpina
Antirrhinum spirium
minus
elatine
orontium
Isatis tinctoria
Lepidium didymum
Brassica oleracea
Lathyrus hirsutus
aphaca
Trifolium ochroleucum
maritimum
strictum
Hypericum montanum
Carduus acaulis
Erigeron canadensis

And those marked thus + I wish specimens of if wild and some of them I wish to compare with others I have collected in Scotland and in the South of England.

Plants and specimens (continued)—

+Phalaris paradoxa
+Bromus madritensis
+Euphorbia tithymaloides
+Vicia berigalensis
+Medicago pratensis
+Chrysanthemum italicum
+Centaurea galactites.

The following is specimens of the cryptogama class which I wish much for in order to compare with some of mine and several of your lichins I have not specimens of.

Those marked thus + you need not send unless in fructification. I wish the Lichens much to compare with my own ones and where any of mine differs in the smallest degree from yours I shall send you a specimen of them in your collection.

Lichen albus
Jolithos
atro-albus
calcareus
immersus
sanguinarius
muscorum
confluens
canescens
niger
Oederi
geographicus
flavo-virescens
sepincola [?]
Baeomyces
sphaerocarpus
Lichen calvus
vernalis
concentricus
paralus
punctatus
scruposus
atrocinerus
Dicksoni
pezizoides
tricolor
tartareus
cerinus
upsaliensis
luridus
multifidus
radiatus

Lichen carnosus
lanatus
+glaucus
+Islandicus
+pulmonarius
+furfuraceus
+glomuliferus
+caperatus
+scrobiculatus
torrefactus
deusta
polyrhizos
proboscideus
polyphyllus
omphaleus
perlatus
orostheus
resupinatus
+tessellatus
tremella
granulatus
nigrescens
cristatus
incurvatus
fascicularis
simplex
crenulatus
exanthematicus
subimbricatus
canescens
lacustris
hypnorum
quadricolor
rimosus
psora
gilidus
leucopheus
caeruleo-nigrescens
carnosus
rappilosus
muscicola
exilis
saturninus
inclusus
acarii
haematoma
Splachnum ampullaceum
ovatum
Mnium heteromalum

Mnium +glaucum
pallacens [?]
+arcuatum
+proliferum
B paludosum
+tortuosum
Fontinalis +antipyretica
+alpina
Hypnum crenulatum
sciuroides
+crispum
+viticulosum
+crista-castrensis
+dendroides
+alopecuroides
+proliferum
+parietinum
+palustre
+cylindricum
+riparium
sericeum
serpens
velutinum
Jungermannia +furcata
+pinguis
+asplenioides
polyanthos
platyphylla
ciliaris
Fucus natans
repens
esculentus
sanguineus
mammilosus
lichenoides
plicatus
subfuscus
variabilis
Conferva spongiosa
gelatinosa
elongata
pennata
parasitica
Byssus aruginosa
fulva
barbata
Merulius cornucopioides
membranaceus
Agaricus ostreatus

Agaricus planus
flabelliformis
reniformis
betulinus
glavicans
Fistulina pectinata
Boletus all you can
Hydnum barbajovis
Auricularia nicotiana
papyrina
Piziza punctata
coccinea
epidendra
inflexa
navicula
cochleato
Piziza polymorpha
Nidularia campanulata
laevis
Clavaria phacorhiza
spathula
ophioglossoides
Lycoperdon stellatum
innatum
epidendron
Sphaeria sanguinea
mori
mammosa
fraxinea
and any others you have to spare.

Sir,—You wished to know what is become of the late Mr. Mackay's Herbarium it is in the hand of his brother but I am certain he does not mean to part with it I believe it consists mostly in Foreign plants and what plants he collected the two excurtions he had throw the highlands but I am certain it does not abound in neither lichens nor mosses as he had but little knowledge of that part of botany for in the year 1791 when I first became acquainted with him he knew very little of native or foreign plants so that the time he had to study would not admit of his having a thorow knowledge of every part of Botany althow he might be allowed to have been a very asidious young man—but I expect to see throw it soon an then I shall give you an impartial account—when you have any specimens of mosses or lichens of such as are plantifully about Newcastle I would be oblidged to you for a few of each as I have several applications for some from some of my correspondents which I find I will be unable to supply them with and as I am getting in return such as do not grow plentifully in our Neighbourhood it may be in my pour to send you a part of any I have in return—you wish to know if I have made any new discoverys in my last excurtion the snow was on the high mountains by the time I got 40 miles from Edinbr. so that I was not so fortunate as I could a wished however I find I have the Dicranium varians of Swartz quite new to Britain and also I found the Erigeron alpinum near Perth and also the Linnaea Borealis quite in the lowlands a place one would have little thought of finding them I have also a new Hypnum which I found in 1802 which Dr Smith writes me he has named after me it is somewhat like denticulatum but at same time very Different.

I am yours truly,

(Sgd.) G. DON.[1]

[1] Another untidy letter; the thread is broken and resumed all over the pages. Much of the mis-spelling is lost in transcription, because the writing at times is so hard to read that the letters cannot be distinguished.—*B. D. J.*

P. S. Could you inform me the price of Dicksons Fascicles of Dryed plants the price of each.

G. Don to N. J. Winch.

Sir,—I enclose you a specimen of the Encalypta alpina which I discovered on rocks on the very summit of Ben Lawers in Octr. 1804 I have never found it anywhere else and but sparingly there. I send you this in order to show you I have not forgot you altogether your last letter I have unfortunately mislayed but you can write me your disiderata and where that genus is extensive in specis write me your wants of one famaly at a time and I shall be lickly to send you them not long after I recieve your order and where the genes is not extensive such as Splachnum, Sphagnum &c. you can send 3 or 4 at once—I will be much oblidged to you for specimens of the Hypnums crenulatum—fluitans—alpinum, palustre —cylindricum—riparium—dendroides if in fructification.

Splachnum ovatum & ampullaceum. Neckera viticulosum if in fruct. Dicranum interruptum—sciuroides. Grimmia pusilla or any thing else you may judge rare where you can preserve specimens. I should like specimens for my Herbarium and where you cannot procure so many I beg you will send me what you can with mislaying your last letter I cannot remember what you can furnish me with. I wish much for a plant and specimen of the Scheuchzeria palustris and a plantago you have found. I some time ago sent you my Desiderata of Lichens any of which I will thank you for. I have found near Edinr. lately the Phascum stoloniferum or serratum but which I cannot determine I think them both one. I am going a short botanical excurtion but will be home soon.

N.B. I have found the Valeriana pyrenaica in two other habitats within this last year I have in consequence given it in my 4 Fasciculæ.

I am Sir your most obedt.

(Sgd.) G. DON.

I wish much for a few of each kind of the Mosses.

Royal Botanic Garden, Edinr.
Octr. 15. 1805.

Royal Botanic Garden,
Edinr.
Decr., 3, 1805.

Sir,—In looking over my specimens I have found out your Disiderata last sent about 4 days ago and have lost no time in forwarding what nature specimens I have in my possession of your Disiderata which is as follows—viz.

Veronica fructiculosa	Grimmia Schistii
Campanula rapunculoides	Symphytum tuberosum
Orhys corallorhiza	Linnaea borealis
Hieracium alpinum	Erigeron alpinum of Dicks.
Rosa involuta	Polypodium dentatum
Brassica campestris	Ajuga alpina
Grimmia nuda	Hypnum Donnianum
Donniana	

I have a prospect of getting specimens of the Ajuga pyramidalis for my Fasciculus next summer and I am not sure but I may have a specimen of Gentiana nivalis but I have never found the Arbutus alpina in flower nor have I ever seen the Cardamine bellidifolia in Scotland. I hope also to be able to procure you the Pyrola uniflora to my Desiderata I hope you will add Byrum nigrescens and Bartrammia crispa Shoenus monoecius and Grimmia pusilla, as your not satisfyed with the last being distinct from G. calcareum where it is possible to send me specimens for my Herbarium I beg you will have it in view and where enough cannot be obtained I beg you will let me have as many as you can which will allways be a step to that object I will be glade to hear from you soon and believe me dear sir yours

most obedt and humble servt.

(Sgd.) G. DON.

P.S. I have sent them per Newcastle Waggon any other specimens you may want for your Herbarium you will have the goodness to write me. I subjoin a list of what new plants are published in my Herb. which I can let you have specimens of—viz:—

Valeriana pyrenaica	Gallium spurium
Juncus supinus	Lichen ——— [illegible
Myagrum paniculatum	and blotted].

G. Don to N. J. Winch.

Forfar, December 6th, 1807.

Sir,—Some time ago I Recieved your two volumes of the Botanists guide for which I return you my most gratefull thanks they contain a number of rare plants and especially the Class Cryptogamia the the [*sic*] method you have adopted in the Lichens I have reason to believe will become general your work is a just specimens of your zeal and ardent pursuit of Botany—since my return to Forfar I have made several excursions and found a good many new plants and I am anxious in every opportunity of rendering my colection as numerous as formerly in consequence of which I have sent you my disederata taken from the Botanists guide. Plants or seeds of as many as you can will much oblidge me—your disederata

I am paying particular attention to but it contains several plants doubtfull natives which have not been found for many years I shall send you all that I have native plants of. I have cultivated specimens of nearly all the remainder.

++Schoenus monoicus
++Scirpus multicaulis
Panicum sanguinale
Agrostis spica venti
+Poa procumbens
Cynosurus echinatus
Bromus multiflorus
secalinus
arvensis
Arund. epigejos
++Hordeum maritimum
Triticum loliaceum
Ruppia maritima
Sagina erecta
++Anchusa officinalis
++Primula farinosa fl. albo or any other variety
Hottonia palustris
Anagallis arvensis
+Verbascum nigrum
Chironia littoralis
pulchella
centaurium fl. albo
No. 221 B. G.
Ribes spicatum
petraeum
Chenopodium urbicum
glaucum
++Gentiana verna
Several plants of this if convenient.
++Bupleurum tenuissimum
Daucus maritimus
Sium nodiflorum
Sison amomum
++Statice limonium
++Drosera anglica
++ longifolia
++Juncus acutus
++ maritimus
Rumex acutus
maritimus
palustris
++Pyrola media
++Scleranthus perennis
+Scheuchzeria palustris
++Cerastium pumilum
++Reseda lutea
++Euphorbia paralia
Rosa tomentosa
nova sp.
Rubus crylifolius
Potentilla aurea
+Cistus marifolius
Thalictrum majus
Thymus calamintha
Bartsia alpina seeds.
Antirrhinum spurium
++Orobanches all species.
Lepidium ruderale
++Thlaspi alpestre
++Cochlearia anglica
Sisymbrium sylvestre
++ irio
Brassica oleracea
Lathyrus hirsutus
Ervum tetraspermum
++Trifolium maritimum
subterraneum
scabrum
++ glomeratum
striatum
Picris echioides
++ hieracioides
++Hedypnois hirtus
++Crepis foetida
++ biennis
Senecio tenuifolius
++Anthemis maritima
++Centaurea calcitrapa
++Orchis pyramidalis
++ ustulata
++Ophrys muscifera
++ apifera
++Malaxis paludosa
++Cypripedium calceolus
Carex divulsa
++ extensa
acuta
++Sagittaria sagittifolia

Salix forbyana
rubra
croweana
mas et fem.
russelliana
bicolor
fusca
rosmarinifolia
aquatica
oloefolia
mollisima
decipiens
++Peucedanum silaus
++Atriplex portulacoides
Equisetum fluviatile
Aspidium lobatum
Primula elatior
+Hypericum maculatum
++Tamus communis
Juncus No. 221.
Delphinium consolida
Alopecurus bulbosus
Bromus spiculitenuata
Cuscuta epithymum
Limosella aquatica
Sisymbrium amphibium
+Brassica orientalis
+Erodium maritimum
Artemisia gallica
maritima
Atriplex pedunculata
Salix radicans
Chlora perfoliata

Those that are marked with one cross I have plants of. I only wants a few native specimens of each. Those marked with two crosses I wish a few plants of each particularly those that grow in your vicinity.

I am convinced you can only send me a small quantity at present I want as many as you can conveniently procure in the Spring and those that are anual I will thank you to collect when the season arrives some of the anuals however will remove very well in spring such for instance as the Centaurea calcitrapa it will be requisite to cut off the leaves when they are picked and pack them among Sphagnums they can be sent by a ship to Dundee—Directed to me at the Botanic Garden, Forfar.

Could you informe me how to direct to a Mr. Wilkinson a Botanist in or near Sunderland.

N.B. At some future period I shall be under the necessity of troubling you for some specimens of Cryptogamia but I am convinced the demand at present is sufficient.

Where plants cannot be procured of the Salix and Ribes Cuttings will do very well in so doing you will greatly oblidge.

Your Humble Servant.

(Sgd.) G. DON.

P.S. I wish specimens of them as well as plants I have a specimen but I should wish for 2 or 3 specimens in order to complete some collectors of specimens

Yours as above

(Sgd) G. DON.

G. Don to N. J. Winch.

Forfar, Feb. 18, 1810.

Sir,—I received your letter in due time and I shall lose no time in sending you part of your Disiderata with several valuable and interesting additions they will leave Dundee by the first ship for Newcastle after the 24 instant—I am much oblidged to you for your kindness in saving specimens for my Herbarium as I am now imployed in finishing my 7 and 8 numbers after a stand of nearly 4 years for if I had not got Subscribers to enable me to have carried it on I could a predicted my Discoverys would a have been very limited in future but although my subscribers are not numerous yet I flatter myself they are respectable and likely to continue—and on my part shall exert every endeavour to make them interesting—if I remember right I have sent you the new plants which I have given in my 7 and 8 numbers which are Campanula persicifolia, Sagina maritima, nova species, Potentilla opaca of Linn Rotboella filiformis—I am to send you a package for Mr. Harriman which I beg you will take the trouble of forwarding along with yours if you would have the goodness to send the specimens you have collected for me and I will get some of them to help my 9 and 10 numbers—I formerly sent you a long list of Desiderata particularly of plants of my Garden I beg you will add Rosa collina and your scaberosa. I flatter myself I have the latter but wish to see your plant as also Rosa tomentosa and villosa and Ribes spicatum I have found the Ribes petraeum or spicatum in great plenty in my neighbourhood—I am very anxious to encress my collection of Growing plants as I have several Classes arranged and of consequence a number of blanks which I am making applications to all quarters to get filled up. I wish much for seeds of Bartsia alpina and I should like to have a few plants of Gentiana verna and and if possible Cypripedium calceolus, Tamus communis and if you can observe one variety among them would like them also and if you can send me Primula farinosa, Schoenus monoicus with white flowers which I understand is not uncommon——[illegible] and——[illegible] and Rubus caesius but I do not want Rubus corylifolius as I have got it—Have you ever seen Arenaria verna with double flowers if you have got it pray send me it. I observed it among specimens collected in Derbyshire about 14 years ago. Is it possible to send me Anthemis maritima I have never seen it. I likeways wish much for Juncus acutus and maritimus and your new species and Crepis foetida and Hyderserus hirta can you send me plants or seeds of any of those you collected in Surry, did you not fall in with the following mosses Trichostomum flexifolium, Tortula imberbis, Grimmia starkeana—lanceolata, Dicranum bipartitum—cylindricum, Trichostomum obtusum, Tortula barbata,—aristata, Hypnum medium—inundatum—tenellum as they inhabit the south. I want specimens of all those even for my own private [?] herbarium. I must leave you to collect such specimens as you can with con-

venience get of those which will best answer you are a perfect judge for instance Cistus marifolius, Schoenus monoicus and Pyrola medea as I have specimens of all the other British species and would give the whole in a grop together. I would like also a few specimens of Carex extensa as also plants and plants of Carex acuta both Orobanches plants and specimens and a few specimens of Carex digitata. I have already a few of both C. digitata and extensa. I would likeways be much oblidged to you for specimens of all the Opegraphas as I have got a few specimens of the Opegrapha Lyelli I beieve as many as will answer saved by C. Lyell Esq., New Forrest I would give as many of them togither as possible. I am quite bewildered among them since they were made a separate famely having neither Books nor specimens to study them by. I shall add a list of all the mosses which I want specimens of for my Herbarium and where you cannot send me enough send me what you can in order to compair with some I have which I am not certain of and there is some of them I der say I have non of—they are as follows viz.—

MY DESIDERATA.

Tetraphis pellucida
Grimmia Dicksoni
+hommamala
verticillata
Dicranum undulatum
+ interruptum
fulvellum
rigidulum
+ovale
pulvinatum var B.
squarrosum
taxifolium
flexuosum
+cerviculatum
polyphyllum
Trichostomum +lineare
fontinaloides
+trifareum
Tortula rigida
cunifolia
+barbata
aristata
brevifolia
Orthotrichum affine
pumelum
rivulare
+nudum
+pulchellum
Neckera heteromalla
Hypnum +polyanthos
myosuroides
+crenulatum
+serrulatum
Teesdalii
+riparium
praelongum B
+stokesii
+stramineum
+confertum
murale

I have some specimens of most of the Hypnums but not sufficient to answer my purpose those marked thus + I want much even altho you cannot procure specimens enough for my purpose.

Hypnum velutinum
intricatum
tenellum
implexum
illecebrum
Hypnum Schreberi if in fruit and
fluitans
rugosum
+aduncum

Hypnum +palustre
fluviatile
filicinum
commutatum
+abbreviatum
+chrysophyllum
scorpioides
+nigro-viride
+alpinum
+recognitum
+attenuatum
+polymorphum
Fontinalis capillaca
squamosa
Bartramia crispa
ithyphylla
arcuata
I have plenty spec. of
B. Halleriana
Mnium +androgynum
Bryum nutans
trichodes
+carneum
+capillare
+annotinum
+nigricans
ventricosum
roseum
lanceolatum
cuspidatum
+aristatum
Poletrichum juniperinum
+aloides
nanum
+pumilum
Sphagnum squarrosum
Gymnostomum No. 109
microstomum
Phascum cervicollum
patens
Phascum bryoides
muticum
Schreberianum
crispum
Jungermannia scalaris

Jungermannia qunquedentata
bidentata
nemorosa
If in flower bicuspidata
reptans
If in flower platyphylla
curvifolia
If in flower tomentella
divaricata
minutissima
All the Leprarias, but botryoides and alba.
All the Pulveraria both species of Variolaria.
Lecidea, all but the following viz:—
These are what I do not want.
parasema
petraea
atrovirens
silaceus
cupularis
luteola
incana
icmadophylla
hamatomma
var B.
vernalis
aurantiaca
calva
crenulata
orosthea
atrorufa
lurida
vesicularis
Send
Caliceum claviculare
Gyrophora cylindrica
erosa
Send me all your
Variolaria
Send me
Endocarpum hedwigia
smaragdulum
Weberi

MY DESIDERATA continued.

Thelotrema pertusum
lepadinum
hymeneum

Isidium Westringii
phymatodes
Urciolaria cinerea

Urciolaria calcarea
fimbriata
exanthematica
bryophila
epulotica
cyrtaspis
Parmelia excisa
pinicola
sophodes
ostracadermis
coarctata
amylacea
impolita
glaucoma
diacaspis
Turneri
dispersa
frustulosa
cerina
stillicidiorum
chloroleucum
vitellina
varia
squamulosa
crassa
lepidota
spongiosa
brunnea
epigaea
saxicola
elegans
miniata
murorum
leptalea
virella
recurva
aipolia
affinis
scortea
saturnina
lacera
tuniformis
flaccida
furva
cristata
Scotina
and var. sinuata
melaina
muscicola

Parmelia scopulorum
siliquosa
pollinaria
polymorpha
Sticta limbata
Peltidia rufescens
polydactyla
horizontalis
Citraria juniperina
Citraria var. prunastri
Cornicularia muricata
opuntia
viridis
lanata
aculeata
Usnea florida
Baeomyces placophyllus
caspititius [caes]
digitatus
cornucopioides
diformis
bellidiflorus
cervicornis
fimbriatus
cenoteus
alcicornis
spinosus
Any of tbe Tremella that will preserve
Fucus ruscifolius
hypoglossum
membranifolius
natans
tamarascifolius
bifidus
edulis
phyllitis
ciliatus
laceratus
laciniatus
confervoides
lycopodioides
purpurascens
Ulva asparagoides
clavellosus
articulatus
opuntia
viridis
limosa

Ulva laciniata
lanceolata
lactina
defracta
elminthoides
intestinalis
fistulosa
plumosa
Conferva rivularis
nitida
fontinalis
confervicola

Conferva limosa
decorticans
lucens
sordida
setacea
amphibia
littoralis
aeruginosa
corniculata
scoparia
flexuosa

I would need specimens of all your Conferva as I am not well acquainted with that family.

As also all your
Byssus
And all your
Boletus that will save for specimens
As also all your
Fistulinas
Hydnum auriscalpium barbajovis
All your Helvellas that you can save

As also Peziza and
Auricularia and Clavaria
And Sphaeria and Reticularia
Trichia and the genus Mucus [Mucor?]
Xylostroma gigantea
—— cordis
All your Rhizomorpha and . . . . [illegible]
Variolaria faginea

You will see by this list that I am greatly at a loss with the lichens for although I know the most of Witherings yet from the Great improvements and additions and alterations I am in a manner bewildered among them having neither specimens nor books to assist me. I have little doubt I have a many of those I am asking from you but I would be oblidged to you for 3 or 4 specimens of each sort as many of them as you can and specimens for Herb. Brit. of such as will answer I mean the rarer species you can conveniently and if you could send me them as soon as you can a . . . . . [seal here] making some excurtions early in the summer and that wa . . . [seal here] . . . e to collect not only them but new ones.
and if possible plants of Pyrola medea I have in cultivation all the the other british species. I have seeds of Galium tricorne and spurium, seeds of Chironia pulchella and littoralis and Centaurea fl. albo, Hottonia palustris, Chenopodium glaucus. Atriplex pedunculata, Saxifraga tridactyla and Elymus europeus, Reseda lutea, Plants of Orchis ustulata, pyramidalis, Malaxis paludosa and specimens as also apifera and muscifera and specimens.

If you could send any of my Desiderata of growing plants this spring I mean such as one in your neighbourhood although it were

only one would be a great acquisition to my collection—I have discovered several new mosses and shall send you some in course.

I am Dear Sir your humble
Servt.
(Sd) G. DON.

G. Don to N. J. Winch.

Botanic Garden, Forfar,
Apr. 19, 1812.

Dear Sir,—I received a letter a few days ago by post from you and to Day your Traveller left me another but he was so short time in the place that it was impossible for me to send any thing with him owing to the confused state of my herbarium, but I have a complete Herbarium of all the British plants to make up for a gentleman and the Books is nearly ready to begin to—I expect them from the stationer in 2 or 3 daystime so that I will have occasion to find all my Discoverys and other rare plants—other ways it would a have taken me 3 weeks to a have found out the few contained in your Desiderata—I do not mean to charge you money but you will have the goodness to send me the speciments you mentioned you had collected when in the south of England and I gave you a long Disiderata of Living plants some time ago which I will thank you to send me what you can of my Disiderata among which I beg you will send me the Juncus maritimus and acutus and a new Discovery as also Gentiana verna—Cypripedium Calceolus Schoenus monoicus—and I have all Anthemis maritima and Ribes spicata and Rosa collina—Atriplex portulacoides Serapias grandiflora and palustris pyrola media—Anchusa officinalis picris heracioides Carex depauperata—acuta Schoenus compressus mariscus nigricans Scirpus multicaulis Panicum sanguinale seeds Dactylon Cynosurus echinatus seeds and specimens Hordeum maritimum seeds and specimens Galium tricorne seeds and specimens Sagina erecta seeds and specimens Primula farinosa flore albo Hottonia palustris Chironia pulchella seeds Samolus Valerandi Chenopodium glaucum seeds and specimens Bupleurum tenuissimum Peucedanum silaus Sium nodiflorum Statice limonium Drosera anglica—longifolia Reseda lutea Euphorbia paralias Rosa tomentosa Thymus calamintha Bartsia alpina seeds Antirrhinum spurium seeds and specimens Orobanches all both plants and specimens Thlaspi alpestre Cochlearia anglica Sysimbrium Irio Lathyrus hirsutus seeds Eryum tetraspermum seeds Picris echioides Crepis foetida—biennis Orchis ustulata and specimens—pyramidalis and sp. Ophrys apifera and muscifera Sagittaria sagittifolia Tamus communis Atriplex pedunculata Aspidium lobatum Alopecurus bulbosus Cuscuta epithymum Sysimbrium amphibium Artemisia gallica specimens of the following mosses Bryum nigricans Orthotrichum pulchellum Dicranum interruptum corniculatum Tetraphis pellucida Grimmia Dicksoni—hommomalea Trichostomum fascicularis Tortula falax—cuneifolia—barbata—aristata Hypnum poly-

anthos nigro-viride—crenulatum—serrulatum—Teesdalii—riparium — Stokesii—stramineum — confertum — tenellum — intricatum — illecebrum—alpinum—abreviatum—chrysophyllum Mnium androgynum Bryum an [. . . seal here . . .]—ventricosum—Polytrichum juniperinum [. . . seal here . . .] aristatum — all your rare Phascum Bry[um,] Hypnum polymorphum, Parmelia d [. . . seal here . . .] lepidota — elegans—leptalea — furva — tereformis — spongiosa — stillicidiorum — chloroleucus — frustulosa — lacera — sageni [?] amylacea—sophodes—prunosa—urceolaria—cyrtaspis—bryophylla ?—epulotica—exthanthematica Verrucaria alboatra [?]—acrotella — spongiosa — nitida — geminata — thelostoma, Lecidia carnosa—luteo-alba—rupestris—calva—Jangermannia quadricolor — hypnophila — atroalba — athrocarpa — miscellus some of your Oregraphas Baeomyces caespititium and as many of your Sphaerias and Conferva and Clavaria as you can my Desiderata is taken from your Botanists guide and any of them that you can conveniently fall in with in plenty send me a good many specimens I have done nothing in my herbarium for some time past but means to commence directly and have I 3 reams of paper in the stationers for that purpose.

I am yours truly,

(Sd.) G. DON.

I will thank you to send me what of the growing plants of my disiderata you can as the season is now arrived. G. D.

The following letter to Mr. Sowerby is now in the British Museum, Cromwell Road, and is reproduced here by permission of the Keeper of the Botanical Department. It shows that Don appreciated the importance for botanical purposes of the difference between cultivated and native specimens, and that he endeavoured when contributing to the "English Flora" to prevent misapprehension on the part of its authors as to the source of the specimens he sent to them:—

George Don to Mr. Sowerby.

Forfar May 22, 1709.

Mr. Sowerby

Sir,—I have sent you a few plants as I understood that the speciments that is Dryed will not Answer Drawing. I shall send up Every 2 weeks through the summer if they will answer you a few as they Come into flower as I sent you up at a former piored native speciments. You will find that owing to my soil and situation that they Differ very little from the native ones. Yours

GEORGE DON.

N.B. When I have not sent before native speciments I shall send in course alonge with the green speciments native ones at the same time. G. Don.

[Address on the cover] Mr. Sowerby, No. 2 Mead Place, Lambeth, London.

POSTSCRIPT.

The foregoing sheets had gone to press when Miss M'Nab, with whom I was in communication regarding incidents in the life of her grandfather, William M'Nab, and of her father, James M'Nab, both former chiefs of the Garden staff, brought to my notice some correspondence that had been in the possession of her father between Dr. Neill and George Don, the son of the Forfar Botanist. The letters, with which is preserved the manuscript of Dr. Neill's biographical notice of George Don (No. 19 of the bibliographical list on page 91 of these "Notes"), show us Dr. Neill at the work of preparing this notice, and add to the information conveyed in Mr. Druce's Memoir. By the kind permission of Miss M'Nab I am enabled to reproduce them here:—

Dr. Neill to George Don (son of the Forfar Botanist).[1]

Geo. Don, Esq., 44 Bedford Place, Kensington.

Edin^r, 1st Feb. 1848.

Dear George,—I long to hear it goes well with you and your brothers since I parted with you in the end of August, already nearly half a year ago. I had a letter and some seeds from Patrick since he went to Tooting nurseries, and wrote an apology for not calling for him. I hope you are trying to find a good situation for him. Are James and Charles still in the same situations?

Mr. Gardiner's Flora of Forfarshire came to me the other day; and I am mortified to find the author so much in the dark respecting your Father's history. For example: he says, Mr. Don served an apprenticeship to a *watchmaker* in *Forfar*; whereas it was a clockmaker in Dunblane. He tells us that at Glasgow he became assistant to the Professor of Botany there;—but he never did so; it was your brother David who became assistant at the lectures in Glasgow. He alleges that from Glasgow Mr. Don went to Edinburgh, where Messrs. Dickson introduced him to Sir J. E. Smith &c.; whereas, he went to Forfar from Glasgow, and took a long lease from Gray of Carse of Dovecot-hill, and it was Mr. John

[1] The manuscript of this, in Dr. Neill's writing, is a draft of the letter and unsigned.

Mackay (not Dickson & Co.) who made him known to Sir J. E. Smith. Brodie of Brodie recommended Mr. Don to Dr. Rutherford, and he then sub-let Dovecot-hill, and removed to the Botanic Garden at Edin^r^. Here he spent 4 or 5 years, latterly studying medicine and surgery; and then returned to Forfar, practised as a country doctor, renovated his botanical collection of living plants—and visited Clova Mountains, adding several new plants to his former discoveries, and here he died.

Could you assist my memory as to some dates and places? For instance. 1. Where was Mr. Don born and what was your grandfather? 2. Can you fix in what year it was that I first visited the garden at Forfar?—there were only three children then, yourself, David, and a little sickly sister.[1] 3. Do you recollect in what year the family came to Edinburgh?[2] you were a stout chap—David a little boy, and also James. Patrick and Charles were born in Leith Walk. 4. Do you recollect in what year Mr. Don died and in what month Mr. Brown and I visited Dovehill? 5. Could you point out the spot in Forfar Churchyard where your father was buried? My opinion is that British botanists ought to mark the spot by a simple but massy and enduring monument, and I may add that to my knowledge several are anxious to have an opportunity of testifying their admiration of his zeal and success as a practical botanist, and their deep regret for aspersion cast on his memory, regarding the reality of his discovery of Lychnis alpina, Sonchus cœruleus, &c. now so thoroughly wiped away. Where, it might have been asked, could Mr. Don obtain the seed of Lychnis alpina? It has never been known to produce seed in cultivation. 6. Can you mention other plants, the reality of which was sneered at by some English botanists? and can you state what are the plants mentioned by your Father, and not yet *re*-discovered by searching botanists: I recalled Potentilla tridentata and Hierochloe borealis.

Hierochloe borealis is called by Sir W^m^. Jac. Hooker a "valuable discovery by the late acute Mr. G. Don"; but is now denied. Potentilla tridentata is in the same predicament: but will yet be re-discovered.

Be so good as write me fully on all these points.

Mr. George Don (son of the Forfar Botanist) to Dr. Neill.

44 Bedford Place, Kensington,
Feby. 28 1848.

My dear Sir,—I intended to have written to you long before this, but something always came in the way to prevent it. James and Charles are still in their old situations, the latter got married in Septr or Octr last, but I have not yet seen his wife. As to

[1] See pages 62, 63 of the Memoir in these "Notes."—*I. B. B.*

[2] See page 63, footnote 2, of the Memoir in these "Notes."—*I. B. B.*

Patrick I have no influence with any party who can assist him to a situation, as I am perfectly unknown in the Horticultural world. James and Charles have more influence with nurserymen, both dealing with Mr. Knight in the King's-road for seeds, &c., and even Patrick is much better known among gardeners and nurserymen than either of us, having attended most of the flower-shows, and been very successful in gaining prizes, but the fact is a good situation is difficult of attainment unless the influence be considerable. I hope, however, that he will soon succeed, for very few gardeners have been more successful in the cultivation of plants, besides being a very careful and steady man. Fortune has not used him well.

With regard to my father's history I know but little, but what I do know either personally or from others I will endeavour to give in as consecutive a form as possible. I will therefore begin with my great-grandfather, who was a farmer in Mearns or Kincardineshire and who had two sons and one daughter, the eldest of whom Thomas one of whose sons resides in Lower James Street Golden Square London; the second Alexander my Grandfather who was himself a great cultivator of flowers for amusement, and followed the trade of a *Currier* first in Dundee and latterly in Forfar, but ultimately became a manufacturer of *Brogues* which he disposed of in the Highlands; and thirdly Helen the daughter who was married to a Mr. Miller two of whose sons became gardeners one of which was Mr. Miller gardener at Duplin Castle Perthshire and the other Mr Miller of Belmont Castle Forfarshire. My Grandfather Alexander married Jane Fairweather the daughter of a farmer in Mearnshire by whom he had two sons and several daughters, the eldest George my father, so named after his uncle George Fairweather a *Bayordie* a farm so called in Kincardineshire, the next William my Uncle who became a Clock and Watchmaker in Forfar, many watches bearing his name as maker are still to be found in Forfar and its neighbourhood, but he ultimately emigrated to the United States. My father who must have been born in Dundee[1] and was probably first apprenticed to a Clock and Watchmaker there or he may have gone to Dumblane where I know he did work but whether as an apprentice or journeyman I have no means at present of ascertaining. He went to London I have been led to understand by land following his trade in various towns on the road, until he ultimately reached London where he procured work in a shop I believe in Fleet Street, where his expenditure being much greater than his earnings, my Grandfather had to remit him the means of enabling him to return to Forfar where he had then removed. My father about this time appears to have got tired of the Clockmaking business and went to learn Gardening or Horticulture with his cousin Mr. Miller then gardener at Duplin Castle, and here he appears to have made his first botanical excursions and to have formed the acquaintance of the Brown's of Perth, as also with my mother Carolina Clementina Oliphant Stuart who was then employed in Gask House the seat of Mr.

[1] See page 55 of the Memoir in these "Notes."—*I. B. B.*

Oliphant. Shortly after his marriage he removed to Glasgow and followed his original profession of Clock and Watchmaker, and where he made the acquaintance of Bailie Austin, and Dr. Stuart of Luss &c. still however continuing his botanical excursions, this must have been about the year 1793, where his two first children were born both daughters who died in their infancy. He afterwards returned to Forfar I suppose about 1795 or 1796 where my sister you have seen was the first born, afterwards a son George who died in his infancy, the next myself, then David, and then James Brodie all of whom were living when he went to Edinburgh in 1803 or 1804, but the last James Brodie died from teething soon after our arrival in Leith Walk. In Forfar my father, previous to his taking the lease of the Doo-hillock, rented a piece of ground in the neighbourhood where he cultivated plants, following at the same time his profession of Clockmaker. He then got a long lease 99 years of the Doo-hillock from Gray of Carse at a rent of 5 shillings per annum, where he built two houses to which he must have removed as soon as one of them was habitable. This ground the lease of which has still between 50 and 60 years to run has now become very valuable having been converted into a rail-road station. I consider I have been unfairly robbed by my fathers so called friends in Forfar principally lawyers[1] all of whom, however, are now dead. In the year 1803 or 1804 my father went to Edinburgh, through the recommendation of James Brodie of Brodie, leaving the ground at Forfar in charge of my Grandfather, where Patrick was the first born, then James Edward now Gardener at Knole Park near Sevenoaks, Kent. During my fathers residence in Edinburgh, he attended nearly all the medical classes, with the view ultimately of following that profession, the tickets or cards for these lectures with the names of the professors he attended are now in the possession of Patrick since David's death, and which cards you can have by writing to him should you consider them of any use.[2] In Forfar after our return from Edinburgh in 1807 or

[1] See page 60, footnote.—*I. B. B.*

[2] See page 66 and footnotes 2, 3 of the Memoir in these "Notes." The definite statement in this sentence throws a sidelight upon Don's career in Edinburgh which, flickering in Dr. Neill's remarks quoted at the page cited, I abstained from pointing out when his relations with Profesor Rutherford were referred to. It is obvious that Don's ultimate aim to become a medical practitioner and the attendance upon classes and the work requisite for its attainment would scarcely be compatible with that whole-hearted devotion to the Botanic Garden essential in its Principal Gardener. In this of itself there would be an element which might bring about that "want of cordiality" between Don and Professor Rutherford to which Dr. Neill refers, and which may have been the foundation for Mr. Booth's phrases in his letter to Sir J. E. Smith. Allowing this, one may yet admire Don's efforts to secure a position in which he would be independent and able to prosecute his favourite study uncurbed by routine, and if we regret that for his own material success this did not happen we may also reflect that he must have experienced much real happiness amongst the plants in their native homes, and in this would find some recompense for the frowns of fortune.—*I. B. B.*

1808 there were two sons born the first died in his infancy, the second Charles Lyell born in 1810 now Gardener to Lord Beresford at Bedgebury Park near Goudhurst in Kent. About 1811 my father added the nursery-business to that of the Botanic Garden which turned out anything but profitable, the ground being so bad and the labour so expensive. In Jany 1814, my father died as well as my sister and Grandfather, I imagine his complaint was an internal tumour at least it was a desease which none of the medical men in the neighbourhood understood, my Grandmother having died of Scrofula probably also a tumour in 1802, and ultimately my brother David of a similar desease. In Forfar after my fathers return from Edinburgh he formed an extensive collection of plants principally hardy, as well as a considerable herbarium principally British, making numerous excursions to the mountains at the same time following the profession of a country surgeon which he had qualified himself for in Edinburgh.

Had he then thrown up botany he would have done well in his new profession, for he was very successful at first, but this ultimately dwindled in consequence of his being continually out of the way when wanted in search of new botanical discoveries which is not a pursuit adapted for a poor man with a numerous family. After my fathers death I and David endeavoured to continue the business but we were both too young and [in]experienced, actually knew nothing about the matter whatever, and even if we had we could have done nothing surrounded as we were by the Forfar sharks my fathers so called friends. About the end of the year 1815 my mother left Forfar with Patrick, James and Charles to reside at Newburgh in Fifeshire, and my brother David and myself went to Edinburgh. My mother afterwards left Newburgh and went to live at Gask and from thence to Smithy Haugh where she died about 1836 of a desease of the heart.

After my fathers death the only true friends we had besides (yourself) who countenanced myself as well as all my brothers was General Sir David Leighton of the East India Company's Service a relation (cousin) of my father by my grandmother's side and James Brodie of Brodie who both remitted sums direct to my mother on 2 or 3 different occasions.

My fathers publications were few, they were the 1 "Hortus Siccus"; 2 "Plants and Animals of Forfarshire" published in Hederwicks Statistical Account of Forfarshire; 3 A paper on Fiorin grass *Agrostis stolonifera*, published in some Society's Transactions, 4 Some account of the varieties of Scotch-Fir &c.

Answers to your questions.

My father never became an assistant to a Professor of botany in Glasgow it was David. He went from Forfar to Edinburgh not from Glasgow to Edinburgh. He had a lease of 99 years of the Doo-hillock. I am not aware who made him first known to Sir J. E. Smith, however the thing was perfectly easy perhaps Mr. John

Mackay perhaps Mr. James Dickson of Covent Garden. Sir J. E. Smith, however, made my father known to the then Bishop of Carlisle, who kept up a botanical correspondence with him till his death. He was recommended to Dr. Rutherford by James Brodie of Brodie, who after his return to Forfar used all his influence to procure for him Kensington Gardens after the death of Mr. Forsyth, but the present Mr. W. Aitons' power was too great. The garden at Forfar never was sublet during my father's life, but he left it in the care of my grandfather during his residence in Edinburgh, who resided on the spot.

Patrick and James were born at Leith Walk, not Charles who was born at Forfar after our return from Edinburgh. My father began to practise as a Surgeon immediately on his return from Edinburgh. His last excursion to the Clova mountains must have been in 1812; in 1813 he made some excursions to the West Highlands, went to Glasgow and from thence to Edinburgh for the last time when I believe he remained with you at Canonmills during his stay there. It was in autumn of 1814 you visited Forfar in company with Mr. Brown of Perth[1] my father having died the previous January at which time my mother and five sons were then alive, myself, David, Patrick, James and Charles. My sister having died in January about a fortnight after my father, my grandfather also died in the same month, year and place.

I cannot say when you visited Forfar before we removed to Edinburgh,[2] however we went there in 1803 or 1804. My sister, myself and David must have been the only children in existence at that time.

My Father was buried in Forfar Church-yard about a hundred yards from the Church on the South Side towards the East end of the Church.

I believe the only plants my father discovered which have not yet been rediscovered are as you say the Hierochloe borealis and

[1] We have Dr. Neill's own witness to the date of this visit. "I duly received your letter enclosing the order for £31 for behoof of the family of the late Mr. George Don. I scarce know by what fatality I have so long omitted to acknowledge it. I may state however that I waited till I should be able to send on acknowledgement from some one of the Committee at Forfar. This I procured when there in August last, and since that time I have been a good deal from home, in the North of England and elsewhere.

"I went by Perth and proceeded to Forfar in company with Mr. R. Brown of the Perth nurseries (an ardent Botanist, the discoverer of Menziesia coerulea as I once before told you, and who goes almost yearly to our mountains for living specimens of Gentiana nivalis, Bartsia alpina and other rarities) we found the two grown up sons of Mr. Don to be of the most opposite characters [here follow some remarks not complimentary to the son George Don, who apparently was determined to carry on the nursery in spite of the efforts of the Committee to dissuade him]. I have still about £80 in Sir W. Forbes's bank the Committee having wisely delayed drawing upon this fund as long as possible. *Smith Corresp. Linn. Soc.: Dr. Neill to Sir J. E. Smith, 20th October, 1814.*

[2] See page 62, footnote 2, of the Memoir in these "Notes."—*I. B. B.*

Potentilla tridentata, but that is no reason why they should not yet be refound, as it requires a practised eye to be there at the very time of flowering. But many plants become extinct in localities where they were formerly found in abundance.

Look at the life of my brother David in the Penny Cyclopædia compounded by Dr. Lankester, there is hardly a word of truth in it. He makes him attend lectures in Edinburgh when he could not have been more than 3 or 4 years old. Had he given data the thing would have looked ridiculous.

Believe me my Dear Sir Yours very truly,

GEORGE DON.

P.S. Write and let me know whether you have been able to read this scroll.

Dr. Neill must have written questioning some of the statements of the foregoing letter, for we have the following letter from Mr. George Don:—

Mr. George Don (son of the Forfar Botanist) to Dr. Neill.

44 Bedford Place, Cambden Hill, Kensington,
March 21st 1848.

My Dear Sir,—It may be that my father only learned the clockmaking and not the watch making business that mistake lies with me as I believed them to be the same, at least they are generally combined. It is also very possible that you are correct with regard to my father's excursion to England, and that it was connected with gardening, and that his first profession was that of a gardener, and that getting tired of it after his return from England apprenticed himself to a clockmaker in Dumblane; however you might gain some information on this head from Mr James Miller S.S.C. or Solicitor to the Supreme Court in Edinburgh the son of Mr. Miller of Dupplin my father's first master. All the information I have given on this head does not rest on my authority, it was derived from Mr. James Don my father's cousin in London who probably may have been wrongly informed, had I written entirely from my own knowledge without applying to him, the object of my fathers journey to England would have corresponded with what you have said on the subject.

I think Mr. James M'Nab can give you all the information required on the subject of my father's unrediscovered plants probably as you say there are two or three more such as Chærophyllum aromaticum and aureum, the former very distinct species I have seen growing wild myself near Arbroath, the latter is very difficult to distinguish if at all from Ch. sylvestre, it may be a variety; and possibly an Eriophorum, but of this genus I do not think there are more than three distinct species E. alpinum, angustifolium and polystachion, all the others are merely variations of the two latter, depending entirely on soil and situation for any character they may possess.

I will some day soon look over all the plants first discovered by my father, and give you a list of those that have not since been rediscovered.

And believe me to be remaining Yours sincerely,

GEORGE DON.

Dr. Neill.

In the light of this correspondence and its statements conflicting with some of those in the Memoir, we must conclude that at the present time our data are quite insufficient for the compilation of an accurate story of George Don's early life. It will be observed that the son does not answer Dr. Neill's direct question regarding the date of his father's birth, he conjectures the place was Dundee, and after giving a detailed account of his father's training and visit to London admits, when Dr. Neill doubts it, that much of it came from his father's cousin, with whom he is not prepared altogether to agree. It is evident that Dr. Neill's biographical notice, written in his later years and long after the events to which it refers, drew largely for its information upon the letter given above of George Don's son.

It has been stated[1] that a movement was begun in the middle of last century to collect funds for the purpose of erecting a monument to George Don, and we find Dr. Neill referring to this in his letter to George Don's son. Amongst papers of the late Mr. James M'Nab, to which his daughter has kindly granted me access, is the manuscript of a short communication intended for presentation to the Botanical Society of Edinburgh at its meeting in February, 1851—it may not have been read, for there is no notice of it in the minutes of the Society—in which he gives definite form to the general desire of botanists that a monument should be erected. There is no record of how far this movement went, but the following letters, which are printed by permission of Miss M'Nab, show that enquiries were made as to the position of Don's grave and the possibility of placing a monument in Forfar Churchyard:—

George Henderson (Nurseryman, Brechin) to James M'Nab.

Den Nursery,
Brechin, 17 January 1851.

Dear Sir,—We were speaking last year, on the very subject of your letter, to an old Gardener in Forfar a particular acquaintance of the late Mr. George Dons and who accompanied him on many of his excursions in search of plants in this and the neighbouring

[1] See page 88, footnote 3, of the Memoir in these "Notes."

Counties. This person was also present when he died and attended his funeral in the Church Yard of Forfar. He is moreover, if we mistake not a relation of the Sexton of Forfar who has been a good while in office as he is also of the same name. This persons account was, we are sorry to say of the same tenor as the information you already possess. He said it was now quite impossible to distinguish the exact spot or perhaps within some yards of it, but that he recollected near about the bearing of the place from the east end of the Church.

This is probably all the acuracy that could now be arrived at although we were to proceed to Forfar for the purpose [of] instituting an investigation.

I think I was mentioning to you that we had laid out a New Cemetery at Forfar last year. Prior to the opening of it the Old Church Yard was in a fearfully overcrowded state. For many years past they had been too glad to take possession of every bit which the vigilance of relatives did not keep watch upon. In many places the coffins were piled three or four above each other. Poor Mr. Dons nameless grave has probably, therefore, had several other tenants since his remains were laid there upwards of thirty years ago.

Might not the Monument be fastened on to the Church Wall "*Near this spot*"—There are several Mural Monuments there already. . . . .

Dear Sir
Very truly Yours
(Signed) GEO. HENDERSON.

George Henderson to James M'Nab.

Den Nursery,
Brechin, 10 April 1851.

Dear Sir,—We have been extremely busy this long time past and hope therefore you will excuse us for not having sooner attended to your last communication.—We enclose a letter from one of the Bailies of Forfar which will give you the ideas of the people there about the matter.—What he says as to the identy of the spot is of course just hazarded without ever having been to look for the place, and I much fear that since the grave diggers know nothing about it, and since there have been no relatives about the Town to be looking after the place from time to time, other parties would be sure to search in vain—particularly in a Church Yard where no register was ever kept. . . . .

I remain Dear Sir
Yours truly
(Signed) GEO. HENDERSON.

[Enclosure.]

James Ramsay to Messrs. Henderson.

Forfar, 7th April 1851.

Messrs. Henderson & Sons.

Dear Sirs,—I have communicated your letter of 24th ult. to the Magistrates and others and find there will be no objections to the proposed Monument to the memory of the late Mr. Don.

Some of his acquaintances here say they can point out the spot where he was buried, and if the Monument is not placed over his grave, it may be erected on the Church Wall.

The general impression here, however, is that the latter site would be very disadvantageous on account of the great expense &c., and I am convinced a very slight examination of those already up will satisfy any one of this.

Seeing the Old Church-Yard is now shut up, and not in any way resorted to, being so unfit for a place of recreation, a considerable number of influential people here are of the opinion that the *proper place* for the erection would be the *New Cemetery* where an appropriate site would at once be obtained. You might mention this to the promoters and if they adopt this, an attempt may be made to procure a few subscriptions in addition to the gratuitous site.

I am Dear Sirs

Yours truly

(Signed) JAS. RAMSAY.

For permission to print the following copy of a manuscript in the writing of Mr. William M'Nab I am also indebted to Miss M'Nab. It is interesting as giving us some idea from George Don himself of the extent of his collection of plants at Forfar, and it bears out what I have said in previous pages regarding the valuable information upon horticultural and botanical history that would be available should Dr. Neill's papers be discovered:—

NOTES FROM MR. DONS LETTERS TO MR. NEIL 3 & 4 DEC. 1812.

My Botanic Garden where I keep my Collection of Herbaceous Plants and a plant of each kind of Tree and Shrub is measured one Acre but perhaps it is a large one. I entered to it at Whitsunday 1796. I have a lease for 99 years of Charles Gray Esqr of Carse. My Collection at present consists of the following *viz*

of Grasses including Carexes and the Remarkable varieties	350
Annuals different species	1250

and if the varieties such as are sold in Seed shops were added would amount to 300 or 400 more would be Total .	1600
Species of Shrubs and Trees and the Remarkable varieties . . .	1230
Biennials or short lived Plants not including varieties . .	330
Perennials not including varieties . . .	2588
If the varieties were added would amount to 400 at least more	
Green House Plants besides varieties . .	1200

I have a large collection of Roses perhaps more different species than is to be found in any Collection in Britain.

I have I beleive the most extensive collection of Willows that is to be met with in any collection in Britain. I have several new species I have discovered myself of that Family.

I have a few of the best sort of the Pinus sylvestris since I wrote the report I visited that extensive Forrest at Mar Lodge, and I find that all the most remarkable Trees are of that variety. I measured several of them which measured from 15 feet to 18 feet in circumference and they were from 70 to 100 feet in hight.

Rare Green House Plants.

Oxalis secunda
" tetraphylla
" asinina
" coccinea
" incarnata
" repens
" rosacea
Tulbagea alliacea
Tropaelum hybridum
" pinnatum
Laurus fetans
Sempervivum glutinosum
Mimosa saponaria
Salvia spinosa
" hirsuta
Lobelia minuta
" Bellidifolia
Carex australis
Cyperus Brizoides
Bupleurum coreaceum
Campanula saxatilis

(Hardy). Shrubs.

Pyrus nivalis
" angustifolia
Berberis sibirica
" illicifolia
" chinensis
Ribes dicantha
Rubus virginicus
" sanguinolenta
" Intermedius
Rhamnus alioides [alnoides]
Genista hispanica
" Lusitanica
" sibirica
Cornus sibiricus
" circinata
Cytisus elongatus
" Leucanthus
Viburnum ulmifolium
Juniperus alpinus
" repens
Arbutus thymifolia
Vaccinium pensylvanicum
Andromeda Cassinifolia
Spiræa ulmifolia
" chamædrifolia
Robinia macrophylla
Salix lanata of *Linn*
" glauca
" rupestris
Iva frutescens

Empetrum album
Prunus depressus
" serotina
" chamæcerasus
" Susquhana
" pensylvanica
" semperflorens
Betula odorata
" glabra
Clethra scabra
" acuminata

Rare Roses.

Rosa fenistrata
[1] " × suaveolens
" Teneriffenses
" Camschatense
" lucida
" olympica
" Cheirokensis
" mollis
" caesia
" × nivalis
" × sanguisorbifolia
" multiflora

Rare Herbaceous Plants.

Selinum pyrenaicum
Peucedanum caucasicum
Sison salsum
Bubon rigidus
Daucus rigidus
Thapsia fœtida
Panix quinquifolia
Phytemma campanuloides
Dianthus arenareus
Astrantia minor
Viola pensylvanica
" Rothmagensis
" villosa
Ranunculus abortivus
Pothus fœtida
Polymnea uvadelia
Geranium Ibericum
Geranium argenteum
Salvia nutans
. . . [name cut off].
Pyrethrum ptarmacifolium
" Caucasicum

Rare foreign Carexes.

Carex Cyperoides
" granularis
" flexuosa
" crinata

Rare foreign Grasses.

Melica exasparina
Festuca diandra.
" lævis
" cristata
Poa peruviana
" flava
" laxa
" Mollinerii
" Baldensis
Phleum capense
Avena distophylla
Campanula alliarifolia
Scutellaria pubescens
Achillea distans
" bipinnata
Silene petrea
" repens
Carduus serratuloides
Astragalus dauricus
" aristatus
" austriacus
Trifolium montanum
" bracteatum
" expansum
Plantago alpina
Rubus pistillaris
Lysimachia angustifolia
Justicia americana
Euphorbia epithymoides
" androssæmifolia
Pyrola maculata
" umbellata

[1] those marked thus × are new species of my discovery.

I need not call to your mind that I was 3 Botanical excursion last summer where I discovered among other things the following rarietis—a non-discript species of *Juncus* and the *Carex rariflora* of Walenberg. vide S[t]ockholm Transactions—and the Beautiful Astragalus campestris of *Linn* a valuable acquisition and the True Salix Lanata of *Linn* by far the Beautifulest of that Genus, besides what I take to be the True Ranunculus nivalis of *Linn* and 2 non discript species of Salix—the Astragalus and Carex and Salix are from the Clova Mountains the others from the high mountains which surround the head of Dee.

Of my discoverys I think the following the most remarkable all of which I have growing in my Garden.

Eriophorum gracile
" capitatum
Phleum Michilii
Arundo stricta
" riparia
Poa depauperata, new species
Avena planiculmis
" poæfolia, new species
Triticum cristatum
" alpinum, new sp.
Rottbœllia filiformis
Aira glomerata, new species
" lævigata
Carex ustulata
" rariflora
" salina
" straminea
Juncus, new species
" gracilis
" castaneus
Galium spurium
" verrucosum
and 2 new species
Sagina maritima

Myosotis repens, new species
Cheriophyllum aromaticum
" aureum
Saxifraga elongilla
" pedatifida
Arenaria chlarifolia
" fastigiata
Stellaria scapigera
Lychnis alpina
Spergula saginoides
Rosa sanguisorbifolia
" nivalis
" suaveolens
(all new species)
Potentilla tridentata
" opaca
Ranunculus nivalis
" alpestris
Myagrum paniculatum
Draba elongata, new species
Anthyllis alpina, new species
Astragalus campestris
. . . [name clipped off at bottom of page].