Art. XL.—*On the Flora of the Isthmus of Auckland and the Takapuna District.* By T. Kirk, F.L.S.

[*Read before the Auckland Institute, 29th May,* 1871.]

PART II.*

In preparing the account of the flowering plants and ferns of the Isthmus and North Shore, which was laid before our Institute during its last session, a feeling of satisfaction was experienced at the approximation to completeness which was found attainable in that department of botanical investigation: it was obvious that although a few additional species might from time to time be added to the catalogue as the outside corners of the district were more minutely examined, yet no material additions could be expected to the number of forms enumerated. Our knowledge of the flowerless plants of the district is in a much less satisfactory condition, so that this paper must be taken less as an account of the members of this section, than as a statement showing the actual extent of work accomplished in this department of phytological research; although the number of species enumerated greatly exceeds that of the flowering plants, there can be no doubt that at least an equal number remain to be collected.

So far as I am aware, no attempt has hitherto been made to draw up an account of the cryptogamic plants found in the neighbourhood of any of the seats of settlement in this colony. The only account for any district is that published by Dr. Lindsay in his "Contributions to the Botany of New Zealand," for a portion of the Province of Otago, "sixty miles long by an average of five and a maximum of thirty-five broad," and which includes a part of the vicinity of Dunedin. It cannot, however, be taken as a fair account of the cryptogamic flora of that locality, as all mention is omitted of many Cryptogams known to occur within its limits. Making, however, all needful deductions for this and other defects so freely stated by its author, its rich lists of Lichens and Diatoms are invaluable. It can hardly be expected that lists for these families, equally copious and reliable, will, at present, be compiled for any other locality.

In the following catalogue the orders most defective are the Fungi and Algæ. Of the former, it may safely be said that not a tithe of the actual number of the existing forms has been ascertained. The Marine Algæ are nearly confined to forms deposited on the beach after storms, with the addition of the few kinds found growing between tide-marks in the harbour: no attempt at dredging has yet been made.

* For Part I. see *Trans.* N.Z. Inst., Vol. III., p. 148.

The lists of Mosses and Hepaticæ, as might be expected, are the most complete, and comprise many interesting forms. *Hypnum inflatum*, one of the handsomest mosses in our flora, occurs here, although sparingly. *Campylopus appressifolius*, which appears to be rare in other parts of the colony, is abundant in this limited district. *Didymodon papillatus* is plentiful alike on the scoria hills, the stiff clays, and the sands of the sea shore. *Bryum curvicollum* is common wherever fresh water trickles down the sea cliffs. Several species are extremely local; *Dicranum clathratum* is confined to a solitary habitat: *Hedwigia ciliata*, a common European moss, is restricted to less than a single square yard in its only known habitat in the North Island. *Anomodon Huttoni*, n.s., (originally discovered at Omaha, possesses special interest as being the only member of the genus hitherto discovered in the Australian Colonies. It appears to be confined to New Zealand, but has not been found south of Auckland.

Gales from certain points often deposit particular species of marine Algæ on the shores of the harbour; thus, after easterly gales *Mesogloia intestinalis* is often found in large quantities in Freeman's Bay, accompanied by the curious mollusc, *Solenomya Australis*, northerly gales often bring *Landsburgia quercifolia*, and *Codium tomentosum*. Tidal rocks in the harbour form a favourite habitat for *Hormosira Billardieri*, and rocky tidal pools exhibit a rich growth of *Corallina* and *Jania*. One or two species of *Polysiphonia*, and possibly a *Bostrychia*, are found in situations where they are partially exposed to the influence of fresh water. It must be allowed that the impurities necessarily washed into the harbour from the large city which adorns its banks are unfavourable to the growth of the most attractive members of this order. The terrestrial and fresh-water Algæ are few in number, and unimportant; the paucity of the latter is only what might be expected from the absence of any large streams or canals in the district, and the rarity even of ponds.

Many of the Lichens are extremely local in their habitats. Of the numerous *Graphidæ* collected in the district by Dr. Knight, I have only observed two or three species of *Opegrapha* and *Arthonia*. This is to some extent owing to the destruction of the low-growing shrubs and small trees, which, until within the last six or seven years, adorned many spots on the scoria fields, and partially clothed the base of several of the volcanic hills.

The interesting question of the introduction and diffusion of cryptogamic plants in new countries has been suggested by the occurrence of *Bryum argenteum*, a common European moss, under peculiar circumstances. Although abundant in this district it appears to be extremely rare elsewhere in the colony—the only recorded instance of its discovery being by Dr. Lyall, who obtained a scrap amongst other mosses collected by him in the South Island more than twenty years ago. It is not included in Dr. Lindsay's "Catalogue

of Otago mosses," and Mr. Buchanan, who has paid much attention to the bryology of the South Island, informed me that he had searched for it in vain. It was originally discovered in Auckland by Dr. Knight, and subsequently by Captain Hutton and myself, about four or five years ago. Since that time it has become plentiful by road-sides, walks, and on walls, etc., but has not been found at any great distance from the city. When growing on scoria it usually presents a remarkably dull and depauperated appearance, instead of its normal shining aspect, so that, when not in fruit, it is possible for even a good observer to walk over large patches of the plant without noticing it, but when growing on walls it exhibits the glossy and silvery look from which it derives its trivial name.

Its evident rarity in the South Island, and the restricted area to which it appears to be confined in the North, together with its rapid local increase during the last four or five years, when considered collectively, are certainly calculated to suggest the idea of its exotic origin; an idea which is apparently strengthened by the fact of its comparatively recent recognition in the north, and by its exhibiting no departure from the ordinary European type of the plant; but the slightest examination of these conditions in detail will suffice to show that alone they can afford no support to the theory. Other plants, both Phænogams and Cryptogams, whose nativity here cannot be called in question, occur under exactly similar conditions of abundance in Europe, and rarity in New Zealand; and if it be further urged that the climatal conditions of these islands would lead us to expect a wide distribution of our plant, the same statement would still apply. I will content myself with citing *Hedwigia ciliata*, the rarity of which in the North Island has been already mentioned, as an instance in point. The apparent rapid increase of our plant, as well as its recent recognition in this locality, may be accounted for by the increase of habitats more suitable for its luxuriant growth than the natural scoria, especially if we remember that, from their nature and situation, plants growing upon them are brought prominently into notice.

But even if this plant exhibited a more rapid increase, extending over a wider area, this could not be taken as evidence of its exotic origin; for causes attendant upon the progress of settlement have led to the local increase of many plants whose nativity stands unquestioned, but which would be open to suspicion on exactly the same ground. *Azolla rubra*, which some years ago was stated by Mr. Travers to have increased in the province of Canterbury to such an extent as to impede drainage, affords a marked instance of the local increase of a Cryptogam which is decidedly rare in many districts. *Ceratodon purpureus*, a cosmopolitan moss, has increased largely with the development of settlement in the north, and probably throughout the colony. It is, however, a remarkable fact, that, with the exception of certain moulds

and other microscopic fungi, we have no cryptogamic plants which can fairly be supposed to have been introduced, although there is no evident obstacle to the introduction of many forms, especially of the annual *Phasca, Gymnomitria,* and other genera copiously represented in the northern hemisphere.

From the imperfect state of our knowledge of this section of our local Flora, the important subject of the relation of the number of its species to the Phænogams, and of the various orders of Cryptogams to each other, cannot be touched upon at present; but I may be permitted to indicate the marked contrast afforded by the two sections,—the first comprising species, many or most of which are endemic, while but a few have a wide geographical range, and the last possessing comparatively few endemic species, with many having a wide and even cosmopolitan range.

I have the pleasure of acknowledging my obligations to Dr. Knight, F.L.S., for copious lists of the Mosses and Lichens collected by him in the district. From the following list it will be seen that many of his species have not been observed by me. My thanks are also due to Captain F. W. Hutton, F.G.S., for similar aid with the Mosses.

III.—CRYPTOGAMIA—(*Continued*).*

MUSCI.

Sphagnum.
- cuspidatum, *Ehr.*
- subsecundum, *Nees and Horns.*
- cymbifolium, *Dill.*
- acutifolium, *Ehr.*

Gymnostomum.
- alcareum, *Nees and Horns.*
- tortile, *Schw.*

Weissia.
- controversa, *Hedw.*
- flavipes, *H. f. and W.*
- irroratum, *Mitt.*, Dr. Knight

Symblepharis.
- perichætialis, *W.*

Fissidens.
- asplenioides, *Swartz*
- tenellus *H. f. and W.*
- rigidulus, *H. f. and W.*
- viridulus, *Wahl.*
  - var. acuminatus
- brevifolius, *H. f. and W.*, Dr. Knight
- æruginosus, *H. f. and W.*

Conomitrium.
- Dillenii, *Mont.*

Dicnemon.
- calycynum, *W. and H.*

Leucobryum.
- candidum, *Hampe.*

Dicranum.
- incanum, *Mitt.*, Dr. Knight
- Tasmanicum, *H. f.*
- clathratum, *Mitt.*
- Billardieri, *Brid.*
- Menziesii, *Tayl.*

Dicranodontium.
- flexipes, *Mitt.*

Campylopus.
- introflexus, *Hedw.*
- appressifolious, *Mitt.*
- clavatus, *Br.*, Dr. Knight
- torquatus, *Mitt.*
- leptodus, *Mont.*

Trematodon.
- suberectus, *Mitt.*
- arcuatus, *Mitt.*

Trichostomum.
- mutabile, *Bruch.*
- rubripes, *Mitt.*
- laxifolium, *H. f. and W.*

* See *Trans.* N.Z. Inst., Vol. III., p. 157.

Trichostomum—*continued.*
setosum, *H. f. and W.*
strictum, *Bruch.*
australe, *Mitt.*
Tortula.
Muelleri, *Br. and Schimp.*
australasiæ, *H. f. and W.*
Knightii, *Mitt.*
calycina, *Schw.*
Didymodon.
papillatus, *H. f. and W.*
Ceratodon.
purpureus, *Brid.*
Encalypta.
australis, *Mitt.*, Dr. Knight
Hedwigia.
ciliata, *Ehr.*
Grimmia.
pulvinata, *Sm.*
Schlotheimia.
Brownii, *Schw.*, Dr. Knight
Macromitrium.
longipes, *Schw.*
gracile, *Schw.*
ligulare, *Mitt.*
orthophyllum, *Mitt.*
microphyllum, *H. and Grev.*, Dr. Knight.
prorepens, *Schw.*
Zygodon.
Brownii, *Schw.*
Leptostomum.
gracile, *Br.*
inclinans, *Br.*, Dr. Knight
macrocarpum, *Br.*
Bryum.
truncorum, *Bory.*
campylothecium, *Tayl.*
billardieri, *Schw.*
obconicum, *Horns.*
lævigatum, *H. f. and W.*
argenteum, L.
tenuifolium, *H. f. and W.*, Dr. Knight
blandum, *H. f. and W.*
torquescens, *B. and S.*
curvicollum, *Mitt.*
creberrimum, *Tayl.*
crassum, *H. f. and W.*
cæspiticium, *L.*
chrysoneuron, *C. Muell.*
atro-purpureum, *W. and M.*
Mnium.
rostratum, *Schw.*
Bartramia.
papillata, *H. f. and W.*, Dr. Knight
australis, *Mitt.*
tenuis, *Tayl.*
affinis, *Hook.*
pendula, *Hook.*
sieberi, *Mitt.*
comosa, *Mitt.*
divaricata, *Mitt.*
Funaria.
hygrometrica, *Hedw.*
glabra, *Tayl.*
cuspidata, *H. f. and W.*, Dr. Knight
Physcomitrium.
apophysatum, *Tayl.*
pyriforme, *Bruch. and Schimp.*
Eremodon.
robustus, *H. f. and W.*
octoblepharis, *H. f. and W.*
purpurascens, *H. f. and W.*, Dr. Knight
Polytrichum.
Magellanicum, *Hedw.*
tortile, *Swartz.*
aloides, *L.*
juniperinum, *Hedw,*
commune, *L.*
Cladomnion.
ericoides, *H. f. and* W.
sciuroides, *H. f. and W.*, Dr. Knight
Meteorium.
molle, *H. f. and W.*
cuspidiferum, *Tayl.*
flexicaule, *H. f. & W.*, Dr. Knight
Cryphæa.
Tasmanica, *Mitt.*
Cyrtopus.
setosus, *Brid.*
Phyllogonium.
elegans, *H. f.*
Neckera.
pennata, *Hedw.*
Anomodon.
Huttoni, *Mitt.*, n.s.
Trachyloma.
planifolium, *Brid.*
Isothecium.
sulcatum, *H. f. and W.*
pandum, *H. f. and W.*
arbuscula, *H. f. and W.*
ramulosum, *Mitt.*

Isothecium—*continued*
- angustatum, *Mitt.*
- pulvinatum, *H. f. and W.*
- gracile, *H. f. and W.*
- Menziesii, *H. f. and W.*
- Kerrii, *Mitt.*
- spininervium, *H. f. and W.*
- comosum, *H. f. and W.*
- comatum, *C. Muell.*

Hypnum.
- furfurosum, *H. f. and W.*
- fulvastrum, *Mitt.*
- læviusculum, *Mitt.*
- uncinatum, *Hedw.*
- brachiatum, *Mitt.*
- hispidum, *H. f. and W.*
- umbrosum, *Mitt.*
- amœnum, *Hedw.*
- crassiusculum, *Brid.*
- Jolliffii, *Mitt.*
- homomallum, *C. Muell.*
- leptorhynchum, *Brid.*
- chrysogaster, *C. Muell.*
- pubescens, *H. f. and W.*, Dr. Knight
- cupressiforme, *L.*
- mundulum, *H. f. and W.*
- muriculatum, *H. f. and W.*
- austrinum, H. *f. and W.*
- remotifolium, *Grev.*
- tenuifolium, *Hedw.*, Dr. Knight
- aristatum, H. *f. and W.*
- rutabulum, *L.*
- plumosum, *Swartz.*
- Polygamum, *Br. and Schimp.*
- aciculare, *Lab.*
- cochlearifolium, *Schw.*

Hypnum—*continued.*
- chlamydophyllum, *H. f. and W.*
- inflatum, H. *f. and W.*
- divulsum, H. *f. and W.*
- extenuatum, *Brid.*

Omalia.
- pulchella, H. *f. and W.*
- oblongifolia, H. *f. and W.*, Dr. Knight
- falcifolia, H. *f. and W.*
- auriculata, H. *f. & W.*, Dr. Knight

Rhizogonium.
- Novæ Hollandiæ, *Brid.*
- bifarium, *Schimp.*
- mnioides, H. *f. and W.*

Hypopterygium.
- viridulum, *Mitt.*
- Novæ Zelandiæ, *C. Muell.*
- discolor, *Mitt.*
- tamariscinum, *Sull.*
- struthiopteris, *Brid.*

Cyathophorum.
- pennatum, *Brid.*

Calomnion.
- lætum, H. *f and W.*

Racopilum.
- strumiferum, *C. Muell.*
- lætum, *Mitt.*
- robustum, H. *f. and W.*

Hookeria.
- amblyophylla, H. *f. and W.*
- adnata, H. *f and W.*
- pulchella, H. *f. & W.*, Dr. Knight
- microcarpa, H. *f. and W.*
- quadrifaria, *Sm.*
- nigella, H. *f. and W.*
- cristata, *Arn.*

HEPATICÆ.

Jungermannia.
- monodon, H. *f. and T.*
- colorata, *Lehm.*

Temnoma.
- pulchella, *Mitt.*

Chandonanthus.
- squarrosus, *Mitt.*

Trigonanthus.
- dentatus, *Mitt.*

Solenostoma.
- inundata, *Mitt.*

Plagiochila.
- Stephensoniana, *Mitt.*
- fasciculata, *Lindb.*

Phogiochila—*continued.*
- microdictyum, *Mitt.*
- annotina, *Lindb.*
- Sinclairii, *Mitt.*

Lophocolea.
- pallida, *Mitt.*
- Novæ Zelandiæ, *Nees*
- bidentata, *Nees*
- spinifera, *H. f.*

Gottschea.
- Balfouriana, *H. f. and T.*
- repleta, *H. f. and T.*
- unguicularis, *H. f. and T.*
- appendiculata, *Nees*

Chiloscyphus.
- Billardieri, *Nees*
- fissistipus, *H. f. and T.*
- decipiens, *Gottsch.*
- chlorophyllus, *Mitt.*

Tylimanthus.
- saccatus, *Mitt.*

Balantiopsis.
- diplophylla, *Mitt.*

Saccogyna.
- australis, *Mitt.*

Lepidozia.
- prænitens, *Lehm. and Lindb.*
- spinosissima, *Mitt.*
- capillaris, *Lindb.*

Mastigobryum.
- Taylorianum, *Mitt.*
- Novæ Hollandiæ, *Nees*
- Novæ Zelandiæ, *Mitt.*

Trichocolea.
- tomentella, *Nees*
- lanata, *Nees*

Sendtnera.
- attenuata, *Mitt.*
- flaggelifera, *Nees*

Polyotus.
- claviger, *Gottsch.*

Radula.
- plicata, *Mitt.*
- complanata, *Dum.*
- marginata, *H. f. and T.*

Madotheca.
- Stangeri, *Gottsch.*

Lejeunia.
- lævigata, *Mitt.*
- olivacea, *H. f. and T.*
- papillata, *Mitt.*
- rufescens, *Lindb.*
- tumida, *Mitt.*

Frullania.
- squarrosula, H. *f. and T.*
- pycnantha, H. *f. and T.*
- spinifera, H. *f. and T.*
- reptans, *Mitt.*
- pentapleura, H. *f. and T.*

Fossombronia.
- pusilla, *Nees*

Podomitrium.
- phyllanthus, *Mitt.*

Steetzia.
- Lyellii, *Nees*
- tenuinervis, H. *f. and T.*

Symphyogyna.
- leptopoda, H. *f. and T.*
- hymenophyllum, *Mont.*
- rhizobola, *Nees*
- sub-simplex, *Mitt.*

Metzgeria.
- furcata, *Nees*

Aneura.
- alterniloba, H. *f. and T.*
- palmata, *Nees*
- pinnatifida, *Nees*
- multifida, *Dumort.*

MARCHANTIEÆ.

Plagiochasma.
- australe, *Nees*

Marchantia.
- tabularis, *Nees*

Dumortiera.
- ? hirsuta, *Nees*

Reboulia.
- hemisphærica, *Raddi.*

Fimbriaria.
- australis, H. *f. and T.*

Targionia.
- hypophylla, *L.*

Anthoceros.
- lævis, *L.*
- Jamesoni, *Tayl.*
- Colensoi, *Mitt.*

Riccia.
- natans, *L.*

CHARACEÆ.

Nitella.
- hyalina, *Agardh.*
- Hookeri, *Braun.*

Chara.
- fragilis, *Desv.*

LICHENES.

Collema.
- flaccidum, *Ach.*
- leucocarpum, *Bab.*, Dr. Knight
- plicatile, *Ach.* ,,
- contiguum, *Knight and Mitt.* ,,

Leptogium.
- tremelloides, *Fries.*

Calicium.
- curtum, *Borr.*

Sphærophoron.
- compressum, *Ach.*
- tenerum, *Laur.*

Bæomyces.
- rufus, *DC.*
- roseus, *Pers.*

Cladonia.
- pyxidata, *Fries.*
- fimbriata, *Hoffm.*
- gracilis, *Hoffm.*
- rangiferina, *Hoffm.*
- aggregata, *Gschw.* Dr. Knight
- macilenta, *Hoffm.* ,,

Stereocaulon.
- ramulosum, *Ach.*

Usnea.
- barbata, *Fries.*
  - var. florida
  - ,, articulata
  - ,, ceratina

Ramalina.
- calicaris, *Fries.*
  - var. fraxinea
  - ,, fastigiata
  - ,, farinacea
  - ,, Eckloni, Dr. Knight

Platysma.
- cæpincola, *Hoffm.*

Nephroma.
- australe, *A. Rich.*, Dr. Knight

Peltigera.
- rufescens, *Hoffm.* var. spuria
- polydactyla, *Hoffm.*

Sticta.
- argyracea, *Delise.*
- fragillima, *Bab.*, Dr. Knight
- crocata, *Ach.*
- carpoloma, *Delise.*
- damæcornis, *Ach.*
- variabilis, *Ach.*
- cinereo-glauca, *Tayl.* Dr. Knight
- orygmæa, *Ach.*
- aurata, *Ach.*

Sticta—*continued*
- fossulata, *Duf.*
- Freycinetii, *Delise*, Dr. Knight

Ricasolia.
- coriacea, *Nyl.*, Dr. Knight.
- Montagnei, *Nyl.*

Parmelia.
- caperata, *Ach.*
- perforata, *Ach.*
- perlata, *Ach.*
- saxatilis, *Ach.*
- conspersa, *Ach.*
- olivacea, *Ach.*, Dr. Knight.
- physodes, *Ach.*
- pertusa, *Sch.*, Dr. Knight.
- parietina, *Ach.*
- speciosa, *Ach.*
- stellaris, *Ach.*

Psoroma.
- sub-pruinosum, *Nyl.*, Dr. Knight
- sphinctrinum, *Nyl.* ,,

Pannaria.
- nigrocincta, *Nyl.*, Dr. Knight.

Placodium.
- elegans, *DC.*

Lecanora.
- chyrosticta, *Tayl.*, Dr. Knight
- aurantiaca, *Ach.*, v. lignicola ,,
- vitellina, *Ach.*
- parella, *Ach.*
- subfusca, *Ach.*
- varia, *Ach.*
- atra, *Ach.*, Dr. Knight

Urceolaria.
- scruposa, *Ach.*

Thelotrema.
- lepadinum, *Ach.*

Cœnogonium.
- inflexum, *Nyl.*, Dr. Knight

Lecidea.
- intermixta, *Nyl.*, Dr. Knight
- vernalis, *Ach.*
- rosella, *Ach.*
- mamillaris, *Duf.*
- parasema, *Ach.*
- atro-alba, *Flotow.*
- contigua, *Fries.*

Graphis.
- scripta, *Ach.*, Dr. Knight.
- anguina, *Mont.* ,,
- elegans, *Ach.* ,,
- sculpturata, *Ach.* ,,

Graphis—*continued.*
confinis, *K. and M.*, Dr. Knight
insidiosa, *K. and M.* ,,
inquinata, *K. and M.* ,,
Opegrapha.
varia, *Pers.*
atra, *Ach.*
herpetica, *Ach.*, Dr. Knight
cinerea, *K. and M.* ,,
prominula, *K. and M.* ,,
Platygraphis.
microsticta, *K. and M.* ,,
inconspicua, *K. and* M. ,,
tumidula, *K. and* M. ,,
occulta, *K. and M.* ,,
Plagiographis.
devia, *K. and* M., Dr. Knight
rubrica, *K. and* M. ,,
Arthonia.
lurida, *Ach.*, Dr. Knight
pruinosa, *Ach.*
astroidea, *Ach.*, Dr. Knight
lobulata, *K. and* M. ,,
indistincta, *K. and M.* ,,

Arthonia—*continued.*
albida, *K. and M.*, Dr. Knight
ramulosa, *K. and M.* ,,
ampliata, *K. and M.* ,,
nigro-cincta, *K. and M.* ,,
Melaspilea.
deformis, *Nyl.*, Dr. Knight
Endocarpon.
hepaticum, *Ach.*
Verrucaria.
maura, *Wahl.*
epidermidis, *Ach.*, Dr. Knight
minutella, *Knight* ,,
binucleolata, *Knight* ,,
magnospora, *Schrad.*, *Knight* ,,
glabrata, *Ach.* ,,
var. cinereo-alba
nitida, *Schrad.* ,,
moniliformis, *Knight* ,,
deliquescens *Knight* ,,
pyrenastroides, *Knight* ,,
cellulosa, *Knight* ,,
Haultainii, *Knight* ,,

FUNGI.

Agaricus.
clypeolarius, *Bull.*
umbelliferus, *L.*
adiposus, *Fries.*
campestris, *L.*
arvensis, *Schœff.*
campigenus, *Berk.*
Panus.
stypticus, *Fries.*
Schizophyllum.
commune, *Fries.*
Polyporus.
lucidus, *Fries.*
adustus, *Fries.*
igniarius, *Fries.*
australis, *Fries.*
versicolor, *Fries.*
Thelephora.
vaga, *Berk.*
Stereum.
phæum, *Berk.*
latissimum, *Berk.*
Clavaria.
lutea, *Vitt.*
arborescens, *Berk.*
crispula, *Fries.*

Hirneola.
auricula-Judæ, *Berk.*
polytricha, *Mont.*
Aseroe.
rubra, *Lab.*
Ileodictyon.
cibarium, *Tul.*
Secotium.
erythrocephalum, *Tul.*
Lycoperdon.
Fontanesei, *Dur. and Lér.*
cælatum, *Fries.*
gemmatum, *Fries.*
Scleroderma.
vulgare, *Fries.*
Æthalium.
septicum, *Fries.*
Didymium.
australe, *Berk.*
Cyathus.
Novæ Zelandiæ, *Berk.*
Colensoi, *Berk.*
Crucibulum.
vulgare, *Berk.*
Phoma.
acmella, *Berk.*

Pilidium.
coriariæ, *Berk.*
Puccinia.
graminis, *Pers.*
Uromyces.
scariosa, *Berk.*
Ustilago.
urceolorum, *Tul.*
endotricha, *Berk.*
Æcidium.
Ranunculacearum, *DC.*
disseminatum, *Berk.*
Epicoccum.
pallescens, *Berk.*
Peziza.
endocarpoides, *Berk.*
stercorea, *Fries.*
calycina, *Fries.*
Asterina.
torulosa, *Berk.*
Excipula.
nigro-rufa, *Berk.*
gregaria, *Berk.*
Cordiceps.
Sinclairii, *Berk.*
Xylaria.
Hypoxylon, *Fries.*
Dothidea.
filicina, *Mont.*
Colensoi, *Berk.*
Sphæria.
fragilis, *Berk.*
pullularis, *Berk.*
rasa, *Berk.*
herbarum, *Pers.*
cryptospila, *Berk.*
Chætomium.
amphitrichum, *Corda*
elatum, *Kunze*

ALGÆ.

Sargassum.
plumosum, *A. Rich.*
Sinclairii, *H. f. and W.*
Carpophyllum.
Maschalocarpus, *H. f.*
Phyllospora.
comosa, *Agardh.*
Cystophora.
retroflexa, *J. Agardh.*
Landsburgia.
quercifolia, *Harv.*
Fucodium.
gladiatus, *J. Agardh.*
Hormosira.
Billardieri, *Mont.*
Splachnidium.
rugosum, *Grev.*
Sporochnus.
stylosus, *Harv.*
Desmarestia.
ligulata, *Lam.*
Ecklonia.
radiata, *J. Agardh.*
Dictyota.
Kunthii, *Agardh.*
dichotoma, *Lam.*
Chorda.
lomentaria, *Lyngb.*
Scytothamnus.
australis, *Hook. f. and Harv.*
Mesogloia.
intestinalis, *Harv.*
Sphacelaria.
paniculata, *Suhr.*
Ectocarpus.
granulosus, *Agardh.*
siliculosus, *Lyngb.*
Bostrychia.
mixta, *H. and Harv.*
Polysiphonia.
Colensoi, *H. f.*
dendritica, *H. f. and Harv.*
pennata, *Agardh.*
variabilis, *Harv.*
isogona, *Harv.*
aterrima, *H. f.*
Laurencia.
elata, *Harv.*
virgata, *J. Agardh.*
Cladhymenia.
Lyallii, *Hook. and Harv.*
Corallina.
armata, *Hook. f. and Harv.*
officinalis, *L.*
Jania.
Cuvieri, *Dec.*
Melobesia.
calcarea, *Harv.*
Delesseria.
Leprieurii, *Mont.*

Nitophyllum.
palmatum, *Harv.*
denticulatum, *Harv.*
Phacellocarpus.
Labillardieri, *J. Agardh.*
Gracilaria.
confervoides, *Grev.*
Gelidium.
corneum, *Lam.*
Caulacanthus.
spinellus, *Kuetz.*
Pterocladia.
lucida, *J. Agardh.*
Apophlœa.
Sinclairii, *Harv.*
Rhodymenia.
linearis, *J. Agardh.*
Plocamium.
costatum, *H. f. and Harv.*
angustum, *Hook. f. and Harv.*
coccineum, *Lyngb.*
Stenogramme.
interrupta, *Mont.*
Gigartina.
pistillata, *Gmel.*
Dumontia.
filiformis, *Grev.*
Ceramium.
virgatum, *H. f.*
rubrum, *Agardh.*
uncinatum, *Harv.*
Ptilota.
formosissima, *Mont.*
Griffithsia.
setacea, *Agardh.*
Ballia.
callitricha, *Mont.*
Callithamnion.
Rothii, *Lyngb.*
brachygonum, *Harv.*
Codium.
tomentosum, *Agardh.*
Vaucheria.
Dilwynii, *Agardh.*
Porphyra.
laciniata, *Agardh.*
vulgaris, *Agardh.*
Ulva.
latissima, *L.*
crispa, *Lightf.*
Enteromorpha.
compressa, *Grev.*
Bangia.
ciliaris, *Carm.*
Batrachospermum.
moniliforme, *Roth.*
Cladophora.
pellucida, *Kuetz.*
Conferva.
ærea, *Dill.*
linum, *L.*
Chroolepus.
aureus, *Harv.*

Art. XLI.—*On the Nativity in New Zealand of* Polygonum aviculare, *L.*

By T. Kirk, F.L.S..

[*Read before the Auckland Institute, 26th June*, 1871.]

At page 336 of the *Transactions* of the New Zealand Institute for 1870, Mr. Travers has given prominence to a difference of opinion that exists between us on the question of the nativity of *Polygonum aviculare*, L., in the colony. As his conclusion that it is of exotic origin does not appear to me to be supported by the facts of the case, I purpose briefly stating the conditions under which the plant occurs, and placing on record one or two interesting points connected with its distribution.

The only alleged or inferential reason adduced by Mr. Travers in support of his view is comprised in the following statement:—"The natives, moreover, who suffer much inconvenience from its spread, call it a 'pakeha' or foreigner."