

are confessedly garden plants, (Ex.: *Lycopersicum esculentum*, *Ruscus androgynus*.) By thus printing a list of such species, I may call the attention of Mr. Hunt and other botanists more particularly to them, and so eventually lead to their confirmation or rejection in any future Flora of the Islands.

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ALGÆ TASMANICÆ: being a Catalogue of the Species of ALGÆ collected on the shores of TASMANIA by Ronald Gunn, Esq., Dr. Jeannerett, Mrs. Smith, Dr. Lyall, and Dr. J. D. Hooker; with characters of the new species, by J. D. HOOKER, M.D., and W. H. HARVEY.

In the 3rd. vol. of this Journal, p. 430 et seq., Dr. Harvey described a considerable number of the species now to be enumerated. Since the publication of his paper much time has elapsed, and other collections have reached us, which afforded several new species, whose characters are here given. Full descriptions of the whole, with figures of several of the more interesting, have further appeared in Dr. Harvey's "NEREIS AUSTRALIS," in the press.

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Ser. I. RHODOSPERMÆ, or FLORIDÆ.

Fam. 1. RHODOMELEÆ, *J. Ag.*

1. *Claudea elegans*, Lam.—*Harv. l. c. p.* 430.

HAB. George Town, *Mr. Gunn.*

2. *Dictymania tridens*, Grev.—*Harv. l. c. p.* 430. *Ner. Austr. t.* 7.

HAB. George Town, *Mr. Gunn.*

3. *Dictymania conferta*, Harv.—*Fucus confertus*, *Br. in Turn.*

*Hist. t.* 184. *Delesseria conferta*, *Ag. Sp. Alg. 1. p.* 177.

*Harv. Ner. Austr. t.* 8.

HAB. Tasmania, *Mr. Gunn.* A single specimen.

4. *Pollexfenia pedicellata*, Harv. l. c. p. 431. Harv. Ner. Austr. t. 5.

HAB. George Town, *Mr. Gunn*.

JEANNERETTIA, Hook. fil. et Harv.

*Frons* prolifera. *Phyllodia* plana, membranacea, costa evanescenti percursâ, striis curvatis e costa ad marginem oblique proficientibus notata, e cellulis quadratis coloratis formata. *Ceramidia* ignota. *Stichidia* lanceolata fasciculata per totam frondem dispersa, tetrasporas duplici serie foventia.—Alga Australasica, *speciosa, purpurea, foliacea, phyllodiis lobatis*.

5. *Jeannerettia lobata*, Hook. fil. et Harv. in Harv. Ner. Austr. p. 20. t. 4.

HAB. Port Arthur, *Dr. Jeannerett*.

6. *Lenormandia marginata*, Hook. fil. et Harv.; phyllodiis tenui-membranaceis lato-lineari-oblongis obtusissimis subemarginatis ciliatis, e margine limboque proliferis, stichidiis marginalibus sparsisque, nervo tenui.—*Harv. Ner. Austr. p. 19. t. 2*.

HAB. Mouth of the Tamar, *Mr. Gunn*.

7. *Polyphacum Smithiæ*, Hook. fil. et Harv.; phyllodiis anguste linearibus basi cuneatis obtusissimis subemarginatisve ramulis lanceolatis simpliciusculis minutis obsitis, stichidiis solitariis pedicellatis corymboso-multipartitis secus marginem frondis ordinatis.—*Harv. Ner. Aust. p. 17. t. 3*.

8. *Polyzonia incisa*, J. Ag. in Linn. 15. p. 24.

HAB. Tasmania, parasitical on various Algæ; common.

9. *Polysiphonia Hookeri*, Harv. Ner. Aust. p. 40. t. 12. *Polacanthophora*, Harv. in *Lond. Journ. Bot.* 3. p. 441. (*not of Kütz.*)

HAB. George Town, *Mr. Gunn*.

10. *Polysiphonia Hystrix*, Hook. fil. et Harv.; fronde setacea cartilaginea inarticulata vage ramosa vel subdichotoma, ramis majoribus distantibus secundis alternisve longissimis arcuatis parum divisis, minoribus patentibus similibus, omnibus per totam longitudinem ramulis multifidis

onustis, ramulis articulatis brevissimis subulatis junioribus basi tantum spinulosis adultis glomerato-spinosissimis apiculatis, articulis diametro sublongioribus bistriatis.—*Harv.*

*Ner. Austr. p. 41. t. 14.*

HAB. Tasmania, *Mr. Gunn.*

11. *Polysiphonia frutex*, *Harv. Lond. Journ. Bot. l. c. p. 439.*

HAB. Tasmania, *Mr. Gunn.*

12. *Polysiphonia fuscescens*, *Harv. l. c. p. 439.*

HAB. Tasmania, *Mr. Gunn.*

13. *Polysiphonia cancellata*, *Harv. l. c. p. 440. Ner. Austr. t. 15.*

HAB. Very common; parasitical on *Sargassum paradoxum*, &c.

14. *Polysiphonia mollis*, *Hook. fil. et Harv.*; frondibus articulatis pellucidis basi setaceis mox capillaribus supra tenuissimis flaccidis gelatinosis, caule irregulariter dichotomo decomposite ramosissimo, ramis ramulisque gradatim tenuioribus erecto-patentibus, axillis acutis, ceramidiis numerosissimis ovatis, articulis bistriatis inferioribus diametro æqualibus mediis duplo-triplove ultimis sesqui-subduplo longioribus. *Harv. Ner. Austr. p. 43.*

HAB. Parasitical on the larger Algæ, *Mr. Gunn.*

15. *Polysiphonia versicolor*, *Hook. fil. et Harv.*; majuscula, coccinea madefacta aurea, fronde e filis repentibus orta ramosissima setacea parum attenuata, caule indiviso furcatove per totam longitudinem ramis lateralibus ramulisque subulatis onusto, ramis patentibus simplicibus v. divisis, ramulis simplicibus subacutis patentibus alternis secundisve subdistichis, articulis diametro sesquolongioribus, siphonibus subdecem, ceramidiis infra apices ramulorum sessilibus ovatis. *Harv. Ner. Austr. p. 48. t. 16.*

HAB. Tasmania, *Mr. Gunn.*

16. *Polysiphonia monilifera*, *Hook. fil. et Harv.*; majuscula, coccinea, fronde (e filis repentibus orta?) capillari flaccida decomposite ramosa, caule parum diviso ramis lateralibus ramulisque filiformibus ornato, ramis alternis v. sæpe secundis erecto-patentibus simplicibus, ramulis simplicissimis

capillaceis gracilibus secundis alternisve, articulis diametro subtriplo longioribus, siphonibus 10-12, tetrasporis elongatis juxta ramulorum basin in seriem moniliformem ordinatis magnis internis rubris. *Harv. Ner. Austr. p. 49. t. 16.*

17. *Polysiphonia ericoides*, Harv.; pusilla, fronde e filis repentibus orta, erecta articulata parum ramosa, ramulis subulatis simplicibus quadrifariis imbricatis densis vestita, ramis similibus, articulis diametro triplo brevioribus multistriatis, siphonibus 16, geniculis omnibus hyalinis. *Harv. Ner. Austr. p. 50.*

HAB. Tasmania, *Rev. Mr. Ewing.*

18. *Polysiphonia cladostephus*, Mont.—*P. byssoclados*, *Harv. l. c. p. 436.*

HAB. Tasmania; very common. Parasitical on *Sargassa*.

19. *Dasya Gunniana*, Harv. *Ner. Austr. t. 17.*—*Pol. Gunniana*, *Harv. l. c. p. 437.*

HAB. George Town, *Mr. Gunn.*

20. *Dasya Laurenciana*, Harv. *Ner. Austr. t. 18.*—*Pol. Laurenciana*, *Harv. l. c. p. 438.*

HAB. George Town, *Mr. Gunn.*

21. *Dasya capillaris*, Hook. fil. et Harv.; punicea, cæspitosa, caulibus capillaribus intricatis perflaccidis sensim attenuatis decomposite ramosis, ramis primariis basi inarticulatis pluries alterne ramosis, ramulis multifidis in fila arachnoidea tenuissima dichotoma desinentibus, articulis ramorum diametro 3-5-plo, ramellorum multiplo longioribus, stichidiis pedicellatis lanceolatis attenuatis.—*Harv. Ner. Austr. p. 60. t. 19.*

HAB. Tasmania, *Mr. Gunn.*

22. *Dasya villosa*, Harv. *l. c. p. 433. Ner. Austr. t. 20.*

HAB. George Town, *Mr. Gunn.*

23. *Dasya naccarioides*, Harv. *l. c. p. 432. Ner. Austr. t. 22.*

HAB. George Town, *Mr. Gunn.*

24. *Dasya verticillata*, Harv. *l. c. p. 434. Ner. Austr. t. 24.*

HAB. George Town, *Mr. Gunn.*

25. *Dasya bolbochæte*, Harv. *c. p. 434. Ner. Austr. t. 25.*

HAB. George Town, *Mr. Gunn*.

26. *Dasya hormocladus*, J. Ag. in Linn. 15. p. 32. Harv. Ner. Austr. *ined.*

HAB. George Town, *Mr. Gunn*. The Tasmanian specimens are much larger and more luxuriant than those described by Agardh, which we have examined in the Herbarium of Senator Binder, of Hamburgh, but otherwise the same.

27. *Dasya ceramioides*, Harv. l. c. p. 435. Ner. Austr. *ined.*

HAB. George Town, *Mr. Gunn*.

Fam. 2. CHONDRIÆ, *J. Ag.*

28. *Cladhymenia Gunnii*, Harv.—*Laurencia?* membranacea, *Harv. l. c. p. 443.*

HAB. George Town, *Mr. Gunn*.

29. *Laurencia elata*, Harv.—*L. pinnatifida*,  $\beta$ . *elata*, *Ag. Sp. Alg.*

HAB. Tasmania, *Mr. Gunn, Dr. Jeannerett, &c.*—A common form in Tasmania, perhaps worthy of specific distinction. The frond is 12-18 inches high, 3-4 times pinnated, and becomes a fine pinky red in fresh water.

30. *Laurencia obtusa*, Lamour.—*Harv. l. c. p. 444.*

HAB. Tasmania, *Mr. Gunn*.

31. *Laurencia botryoides*, Gaill.—*Harv. l. c. p. 444.*

HAB. Tasmania, *Mr. Gunn*.

32. *Laurencia papillosa*, Grev.—*Harv. l. c. p. 444.*

HAB. Tasmania, *Mr. Gunn*.

33. *Laurencia Forsteri*, Grev.

HAB. Tasmania, *Mr. Gunn*.

34. *Laurencia dasyphylla*, Grev.—*Harv. l. c. p. 444.*

HAB. Tasmania, *Mr. Gunn*.

35. *Laurencia tenuissima*, Grev.—*Harv. l. c. p. 444.*

HAB. Tasmania, *Mr. Gunn*.

36. *Laurencia fusifolia*, Hook. fil. et Harv.; fronde circumscriptione conico-ovata dense ramosa robusta, caule indiviso v. vage ramoso, ramis lateralibus crebris alternis quadrifariis basi et apice attenuatis simplicibus pinnatis

bipinnatisve, pinnulis fusiformibus plus minus attenuatis obtusiusculis.

HAB. Sullivan's Cove, *Dr. Lyall*.—*Dr. Lyall's* specimens, of which we have seen but two, are young, and possibly, at a later period of growth, would have presented a very different aspect. They are much more robust than *L. tenuissima*, with the branches and ramuli remarkably fusiform, but may possibly be connected with that species.

37. *Delisia elegans*, Hook. fil. et Harv. — *Bonnemaisonia elegans*, *Ag. Sp. Alg.* 1. p. 198. *Harv. l. c.* p. 442.

HAB. Tasmania, *Mr. Gunn*.

38. *Lictoria taxiformis*, J. Ag. in Linn. 15. p. 22.—*Asparagopsis Delille*, *Mont. Fl. Can.* p. 8. t. 6. *Chondria taxiformis*, *Ag. Sp.* 1. p. 368.

HAB. Tasmania, *Mr. Gunn*, (1283.)—A very widely distributed plant, being found in the Mediterranean, at the Canary Islands, and on the S. American coast, as well as in Tasmania. *Mr. Gunn's* specimens are remarkably fine.

39. *Champia Tasmanica*, Harv. l. c. p. 407. t. 19.

HAB. Port Arthur, *Mrs. Smith*; Circular Head, *Mr. Gunn*.

40. *Chylocladia Tasmanica*, Harv. l. c. p. 444.

HAB. Tasmania, *Mr. Gunn*. Perfect specimens are still wanting to complete the history of this species.

41. *Chylocladia affinis*, Hook. fil. et Harv.; majuscula, caule distincto subsimplici; ramis ramulisque articulato-constrictis oppositis v. verticillatis sparsive elongatis iterum divisis, articulis ramulorum diametro brevioribus, ceramidiis magnis ovatis. *C. kaliformis*, *Harv. l. c. Excl. Syn.* —var.  $\beta$ . *arcuata*; ramis ramulisque sparsis arcuatis apice sæpe hamatis.

HAB. George Town, *Gunn*.—Nearly related to *C. kaliformis*, which it greatly resembles, but from which it is essentially distinguished by the differently shaped ceramidia, which are also, proportionably, much larger.  $\beta$ . is a remarkable variety, distinguished by its arching branches, whose tips curl round other *Algæ* in their neighbourhood.

42. *Chrysimenia clavellosa*, J. Ag.

HAB. Sullivan's Cove, *Dr. Lyall*; George Town, *Mr. Gunn*.

Fam. 3. DELESSERIEÆ, *J. Ag.*

43. *Delesseria crassinervia*, Mont.

HAB. Sullivan's Cove, *Dr. Lyall*.

44. *Delesseria endiviæfolia*, Hook. fil. et Harv.; fronde lineari vage dichotoma membrana crispatisissima alata, margine lobato, lobis demum dichotomo-multifidis obtusis, soris in lobulorum apicibus sparsis circularibus.

HAB. Tasmania, *R. Gunn. Esq.*—A very distinct species, having many essential characters in common with *D. alata*, but immediately distinguished by the excessively curled and finally lobed margin. The frond is 6-8 inches high, or more, with a strong costa, which gradually becomes faint in the younger segments.

45. *Delesseria (Hemineura) frondosa*, Hook. fil. et Harv.; fronde tenui-membranacea late ovata pinnatifida v. bitripinnatifida, pinnulis lobatis obtusis subserratis, costa angustissima interrupta basi et apice laciniarum evanescente, coccidiis conico-cornutis in costa lorum sessilibus solitariis, soris marginalibus sparsis. *Nitophyllum uninode, Harv. in Herb.*

HAB. Tasmania, *Mr. Gunn*.—This is a remarkable plant in many respects, and possibly may become the type of a new genus, for which we would propose the name *Hemineura*, in allusion to the curious interruption in the *costa* of the frond, which becomes obsolete toward the base and apex of all the lobes, primary as well as secondary. The form of the conceptacles is also singular. We are not sufficiently acquainted with *D. interrupta*, Ag., and are unable to say whether it should rank in the same group with this or not.

46. *Nitophyllum affine*, Harv. l. c. p. 447.

HAB. Tasmania, *Mr. Gunn*.

47. *Nitophyllum punctatum*, Grev.—*Harv. l. c. p. 446.*

HAB. Tasmania, *Mr. Gunn*.

48. *Nitophyllum Gunnianum*, Harv.; fusco-purpurea (?) sic-

citare fuscescens, fronde latissima basi crassiore stipitata avenia flabellatim fissa, laciniis lato-cuneatis plus minus furcatis incisisque, margine minute eroso-crispatulo, soris minutis punctiformibus densissime apicem versus sparsis.—*Harv. in Herb.* 1840.

HAB. Tasmania, *Mr. Gunn*.—*Fronde* 8-12 inches or more in expansion, with a very short stem, which is rapidly dissolved into the thickened, but veinless, base of the leaf. *Colour* in the dry state a deep brown, probably a dull purple when recent.

49. *Nitophyllum multipartitum*, Hook. fil. et Harv.; fronde stipitata flabelliformi multipartita, laciniis angustis linearibus dichotomis obtusis, margine plane integro ciliatove, soris minutis punctiformibus densissime apicem versus sparsis.—*Nitophyllum*, n. sp. *Harv. l. c.* p. 446.

HAB. George Town, *Mr. Gunn*; Sullivan's Cove, *Dr. Hooker*.

50. *Plocamium procerum*, nobis.—*Thamnophora procera*, *J. Ag. in Linn.* 15. p. 10.

HAB. Tasmania, *Mr. Gunn*, &c.

51. *Plocamium costatum*, nobis.—*Thamnophora costata*, *J. Ag. l. c.* p. 10.

HAB. Tasmania. We fear that *T. Cunninghamii*, Grev., can only be considered a narrow variety of this species.

52. *Plocamium angustum*, nobis.—*Tham. angusta*, *J. Ag. l. c.* p. 10.

HAB. Tasmania. Very common.

53. *Plocamium coccineam*, var. *flexuosum*, nobis; fronde valde flexuosa subdichotoma fulcris hamatis hic illic instructa, ramis elongatis, ramulis angustissimis fere capillaribus.

HAB. Tasmania, *Mr. Gunn*, (1835). This has a very peculiar aspect, owing to the great difference in breadth between the branches, and the pectinate ramule which they bear; but the ramulification is essentially the same as that of the common state of *P. coccineam*, which every one allows to be a very variable species.



Fam. 4. SPHÆROCOCCHOIDÆ, *J. Ag.*

54. *Rhodymenia (Calophyllis) coccinea*, Harv.—*Sphærococcus australis*, *Harv. l. c. p. 445.*

HAB. Tasmania, *Mrs. Smith* and *Mr. Gunn*. I am obliged to alter the specific name, as there is another *R. australis*, *Sond.*, a different species.

55. *Rhodymenia (Calophyllis) Lamberti*, Grev.

HAB. Tasmania, *Mr. Gunn*. A single specimen only.—This is a very little understood plant, and known to few; the specimens which commonly pass under this name belonging very frequently to *R. variegata*, which greatly resembles it, but which is a thinner and more membranous species.

56. *Rhodymenia (Calophyllis) fimbriata*, *Hook. fil. et Harv.*; fronde purpurea tenuissime membranacea venulis ramosis tenuissimis percursa flabelliformi profunde laciniata, laciniis cuneatis vage furcatis, margine ramentis creberrimis pusillis dentatis polymorphis fimbriato, apicibus laceris.

HAB. George Town, *Mr. Gunn*, (1328.)—This has strikingly the habit of *R. Hombroniana*, but a much thinner frond, composed of fewer layers of cells, and the system of internal veinlets, resembling those of *Pollexfenia pedicellata*, distinguish it from any state of that species. Unfortunately the fruit is unknown.

57. *Rhodymenia corallina*, Grev. ?

HAB. Port Arthur, *Dr. Jeannerett*. Imperfect specimens.

58. *Rhodymenia palmata*, var. *Sarniensis*, Grev.

HAB. Port Arthur, *Dr. Jeannerett*, *Dr. Lyall*.

59. *Rhodymenia membranacea*, Harv.—*Halymenia membranacea*, *Harv. l. c. p. 448.*

HAB. Tasmania, *Mr. Gunn*.

60. *Gracilaria lichenoides*, Grev. ?—*Harv. l. c. p. 445.*

HAB. Tasmania, *Mr. Gunn*. Imperfect specimens.

61. *Hypnea (Dicranema) furcellata*, nobis; fronde compressa pluries dichotoma, axillis angustis rotundatis, ramis erectis, apicibus obtusis.

HAB. Port Arthur, *Dr. Jeannerett*; Tasmania, *Rev. Mr. Ewing*.

62. *Hypnea charoides*, Lamour.

HAB. Tasmania, *Mr. Gunn*, 1314.

63. *Hypnea divaricata*, Grev.?

HAB. Port Arthur, *Dr. Jeannerett*.—The specimens are scarcely sufficient to determine the species.

64. *Hypnea episcopalis*, Hook. fil. et Harv.; fronde coccinea parum divisa, ramis primariis elongatis, secundariis lateralibus crebris basi attenuatis apice subulatis sæpissime nudis hamatis, ramulis longiusculis erectis basi et apice attenuatis.

HAB. Tasmania, *Mr. Gunn*.—Probably a large growing species, but our specimens are not very perfect.

Fam. 5. CRYPTONEMEE, *J. Ag.*

65. *Dasyphlæa Tasmanica*, Hook. fil. et Harv.; caule crasso subindiviso, ramis lateralibus creberrimis patentibus basi et apice subattenuatis obtusis, ramulis densis quadrifariis iterum ramulosis anguste-linearibus vix attenuatis, ramulis fructiferis perbrevibus fusiformibus.

HAB. Tasmania, *Mrs. Smith*.—We have only seen a single specimen of this plant, which is very different in appearance from the figure given by M. Montagne of his *D. insignis*; but in every essential character there is a close affinity.

66. *Ctenodus Billardieri*, Kutz.

HAB. Tasmania, very common.

67. *Melanthalia abscissa*, Mont.

HAB. Port Arthur, *Dr. Jeannerett*.

68. *Iridæa micans*, Bory. (?)

HAB. Sandy Cove, *Dr. Lyall*.—Imperfect scraps only, of what may be this species.

69. *Gelidium glandulæfolium*, nobis; radice ramosa, fronde filiformi angustissima elata vage pinnatim v. flabellatim ramosa flexuosa, pinnis distantibus oppositis aut alternis nunc apicem ramorum versus fasciculatis flagelliformibus

longissimis simplicibus furcatisve attenuatis, ramulis setiformibus plus minus vestitis, setis brevibus patentibus crebris subulatis clavatisque apice fructiferis.

HAB. Circular Head, *Mrs. Smith*.—A very beautiful and distinct species.

70. *Gelidium corneum*, var. *crinale*.

HAB. Tasmania.

71. *Ginannia furcellata*, Mont.

HAB. George Town, *Mr. Gunn*.

72. *Acropeltis phyllophora*, nobis; caule (vix noto) filiformi ramoso, ramis flabelliformibus planis basi obsolete costatis pluries dichotomis, laciniis linearibus sæpe proliferis, axillis rotundatis, margine integerrimo, peltis terminalibus.

HAB. Port Arthur, *Dr. Jeannerett*.—The habit of this is very similar to that of *Rhodymenia flabelliformis*, or *R. corallina*, but the structure is different, and the fructification resembles that of the typical species.

73. *Gigartina livida*, Grev.

HAB. Sandy Cove, *Dr. Lyall*, *Dr. Hooker*.

74. *Gigartina acicularis*, var. *pinnata*.

HAB. Sandy Cove, *Dr. Lyall*.—More branching, and more regularly pinnated than the European form, and possibly distinct; but without seeing more numerous specimens we are unwilling to multiply species.

75. *Gigartina chondroides*, nobis; livida, fronde stipitata apice flabellatim ramosa disticha cartilaginea, ramis plano-compressis linearibus basi cuneatis pluries dichotomis patentibus fastigiatis, axillis latissime rotundatis, apicibus obtusis.

HAB. Sandy Bay, *Dr. Lyall*.—In habit this closely resembles the narrow form of *Chondrus crispus*, but the structure is widely different, and exactly similar to that of *G. livida*, from which it differs in ramification.

#### MYCHODEA, *Nov. Gen.*

*Frons* cylindræa, carnosomembranæa, intus lacunis magnis ellipticis vacuis alveata, tota e filis tenuissimis axin versus

densioribus reticulatim anastomosantibus intricatis constituta, peripheriam versus in fila brevissima moniliformia desinentibus. *Tetrasporæ* zonatim partitæ, inter fila peripherica nidulantes, per frondem dispersæ.—Algæ Australasicæ, *fusco-rubescentes, membranaceæ, decomposite ramosa*; ramis *pluries alterne divisis*.

67. *Mychodea carnosa*, nobis; fronde carnosa flacca ramosissima, ramis horizontalibus flexuosis crassis pluries divisis, minoribus setaceis filiformibus acutis, ramulis paucis subulatis; lacunarum parietibus crassis.

HAB. Tasmania, *Mr. Gunn*.

77. *Mychodea membranacea*, nobis; fronde membranacea elata ramosissima ramis patentibus sensim attenuatis pluries divisis minoribus subdichotomis, axillis rotundatis, ramulis elongatis attenuatis acuminatis; lacunarum parietibus tenuibus.

HAB. George Town, *Mr. Gunn*.—Greatly resembling the former in general habit, but here the walls of the internal cavities or lacunæ are membranaceous and thin, though the membrane is traversed by filaments. In *M. carnosa* they are much more gelatinous, very thick, supported by a large network of filaments.

#### RHABDONIA, *Nov. Gen.*

*Frons* membranacea, filiformis, ramosissima, e filis longitudinalibus intertextis ramosis anastomosantibus frondem percurrentibus extus in strato cellulari peripherico desinentibus formata; cellulæ periphericæ interiores magnæ uni-pluriseriatæ, exteriores coloratæ minores, uniseriatæ. *Tetrasporæ* oblongæ, zonatim partitæ, inter cellulas exteriores nidulantes.—Algæ Australasicæ, *graciles, purpureæ, pluries alterne ramosa*; ramis *virgatis*.

78. *Rhabdonia coccinea*, Harv.; fronde purpurea demum coccinea ultra setacea decomposite ramosa pyramidali ovatove, ramis virgatis iterum divisis erecto-patentibus, ramulis erectis basi angustatis acutis.—*Chrysimenia coccinea*, Harv. l. c. p.

HAB. George Town, *Mr. Gunn*, 1301.  
 79. *Rhabdonia nigrescens*, nobis; fusco-rubra, siccitate nigrescens, fronde setacea decomposite ramosissima rigida, ramis iterum divisis erecto-patentibus, ramulis basi angustatis acutis.

HAB. Tasmania, *Mr. Gunn*.—A more slender, and far more rigid plant than the last, and of a much darker colour; but in other respects nearly allied. Their aspect is very different, and yet it is not easy to fix on a good specific distinction.

Fam. 6. CERAMIEÆ, *J. Ag.*

80. *Thamnocarpus Gunnianus*, Harv. in Hook. Ic. Pl. t. 662.

HAB. Port Arthur, *Mr. Gunn*.

81. *Thamnocarpus? Laurencia*, nobis; purpureo-coccinea, fronde cartilaginea filiformi basi cylindræa apicem versus subcompressa ramosissima, ramis alternis erecto-patentibus distichis iterum divisis ramulis lanceolatis.

HAB. George Town, *Mr. Gunn*.—Until the fruit of this plant be observed, its position must be considered doubtful. The structure of the stem is very similar to that of the *Thamnocarpi*.

82. *Thamnocarpus Ptilota*, nobis; fronde plano-compressa lineari costata vage pinnatim composita disticha, ramis erectis ancipitibus pinnatis bipinnatisve, pinnulis basi vix angustatis erectis falcato-incurvis sæpe secundis, glandulis marginalibus, favellis pedicellatis minutis involucri ramulis simplicibus incurvis.

HAB. Port Arthur, *Dr. Jeannerett*, *Dr. Lyall*. In habit this greatly resembles a *Ptilota*, especially *P. corallina*; but the structure of the stem is different; in the fructification there is very little difference.

83. *Ptilota articulata*, *J. Ag.* in Linn. p. 36.

HAB. Tasmania, *Mr. Gunn*.

84. *Spyridia filamentosa*, Harv. l. c. p. 449.

HAB. Tasmania, common, *Mr. Gunn*.

85. *Ceramium rubrum*, *Ag.*—Harv. l. c. p. 449.

HAB. Tasmania, common.

86. *Ceramium Deslongchampsii*, Gaill.

HAB. Tasmania, *Mr. Gunn*.

87. *Ceramium nodosum*, Kutz.—*C. diaphanum* var., *Harv.*  
*l. c. p. 449.*

HAB. Tasmania, *Mr. Gunn*.

88. *Ceramium ramulosum*, nobis; fronde capillari sensim attenuata dichotoma, axillis inferioribus distantibus superioribus approximatis, ramis ad fere omnia articula ramulos tenues breves patentes simplices furcatosve emitentibus, apicibus strictis acutis; articulis inferioribus diametro 3-4-plo longioribus, zoni distinctis angustis, interstitiis pellucidis elongatis; tetrasporis unilateralibus erumpentibus; favellis subterminalibus involucre polyphyllo subtensis.

HAB. Tasmania, *Mr. Gunn*. Nearly allied to *C. nodosum*.

89. *Ceramium* (*Echinoceras*) *monile*, nobis; fronde setacea elata dichotoma moniliformi, ramulis lateralibus tenuicapillaribus pluris dichotomis fastigiatis, apicibus patentibus obtusis, articulis inferioribus diametro duplo longioribus zonis decurrentibus interstitiisque angustissimis, mediis superioribusque zonis distinctis interstitiisque diametro equalibus, aculeis paucissimis brevissimis biarticulatis in ramulis ultimis solitariis unilateralibus externis; tetrasporis solitariis inarticulis turgidis aculeatis immersis; favellis involucre polyphyllo subtensis.

HAB. Tasmania, *Mr. Gunn*.—With the size and much of the habit of *C. rubrum*, this species approaches *C. acanthotum* in character. It is a very handsome and distinct plant.

90. *Ballia Brunonis*, Harv.

HAB. Tasmania, *Mr. Gunn*, &c.

91. *Wrangelia plumosa*, Harv. *l. c. p. 450.*

HAB. George Town, *Mr. Gunn*.

92. *Wrangelia crassa*, nobis; fronde pellucide articulata crassa pinnata v. bipinnata, pinnis pinnulisque oppositis e quoque geniculo ramellos binos oppositos pinnatim com-

positos emittentibus, articulis ramorum diametro triplo ramellorum sextuplo longioribus.

HAB. Tasmania, *Mr. Gunn*.—Allied to *W. multifida*, but the diameter of the frond is thrice as great, and the ramelli proportionably thicker.

93. *Wrangelia comosa*, Harv.—*Callithamnion?* *comosum*, *Harv. l. c. p. 451*.

HAB. George Town, *Mr. Gunn*.—The *favellæ* of this plant are involucrate, but not terminal. In this last respect, therefore, it departs from the character of the typical species.

94. *Wrangelia nobilis*, nobis; caule elato crasso opaco hirsuto bi-tripinnatim ramoso, ramis alternis virgatis, pinnis inæqualibus simplicissimis plus minus articulatis e quoque geniculo ramellos tenues binos oppositos emittentibus, ramellis purpureis pellucide articulatis monosiphoniis pinnatis subbipinnatisve strictis patentibus, articulis ramorum diametro sesquolongioribus pinnarum æqualibus brevioribusve ramellorum diametro 4-6plo longioribus.

HAB. George Town, *Mr. Gunn*.—The fruit is unfortunately a desideratum, and the genus may therefore be questioned. The habit is very similar to that of *Dasya bolbochaete*, while the structure and mode of branching are more like those of *W. comosa*, on a much larger scale. The stems are 6-12 inches long, and as thick as small twine; the ramelli 2-3 lines in length.

95. *Wrangelia Jeannerettii*, nobis; fronde ultrasetacea hirta inarticulata nodosa cartilaginea laxè pinnato-dichotoma, ramis subsimplicibus hirtis junioribus e nodis superioribus ramellos binos oppositos minutissimos crassos tri-quadrupinnatos emittentibus, articulis ramellorum diametro equalibus.

HAB. Port Arthur, *Dr. Jeannerett*.—Fruit unknown. Stem 4-6 inches long, thicker than a hog's bristle, irregularly branched. Ramelli exceedingly minute, 3-4 times pinnated, very beautiful.

96. *Griffithsia (Halurus) radiceformis*, nobis; fronde crassa inarticulata opaca pinnatim bipinnatimve ramosa, ramis

filiformibus distichis sensim attenuatis ramellis brevissimis simplicibus furcatisve incurvis densissime velatis, involucris pedicellatis e foliis dichotomis arcte conniventibus constantibus tetrasporas ad fila multifida affixa foveantibus, articulis ramellorum diametro equalibus v. sesquolongioribus.

HAB. Tasmania, *Mr. Gunn*.—Stems 6-8 inches high, as thick as small twine, twice pinnated. Colour dark-red. It resists fresh water much better than any other species of the genus.

97. *Griffithsia setacea*, Ag.

HAB. Tasmania, abundant. *Mr. Gunn*.

98. *Griffithsia corallina*, Ag.—*G. flabelliformis*, Harv. l. c. p. 450.

HAB. Tasmania, *Mr. Gunn*.—We fear that the Tasmanian form, constituting the *G. flabelliformis*, Harv., is not sufficiently distinct from some European states of the species.

99. *Callithamnion pellucidum*, Harv. — *Spyridia pellucida*, Harv. l. c. p. 449.

HAB. Tasmania, *Mr. Gunn*.

100. *Callithamnion cruciatum*, Ag.—Harv. l. c. p. 453.

HAB. Tasmania, *Mr. Gunn*.

101. *Callithamnion Plumula*, Ag.

HAB. Tasmania, *Mr. Gunn*. Parasitical on *Lictoria taxiiformis*.

102. *Callithamnion latissimum*, Harv. l. c. p. 452.

HAB. Tasmania, *Mr. Gunn*.

103. *Callithamnion angustatum*, nobis; filis capillaribus dense cæspitosis pellucide articulatis tenuibus pluries bipinnatim decomposite-ramosissimis roseis, divisuris omnibus alternis, plumulis (v. ramulis penultimis) virgatis strictis longissimis circumscriptione anguste-lanceolatis pinnatis erectis, pinnulis abbreviatis patentibus furcatis v. secunde pinnulatis, tetrasporis globosis solitariis apicem versus pinnularum sessilibus, articulis primariis diametro 6-8plo, secundariis 5plo, ultimis triplo longioribus.

HAB. Tasmania, *Mr. Gunn*.—Densely tufted, 2-4 inches long, capillary, in all parts pellucidly jointed.



## Series II. MELANOSPERMÆ, or FUCOIDEÆ.

## Fam. 1. FUCEÆ.

104. *Scaberia Agardhii*, Grev. (1830).—*Castraltia salicornioides*, Rich. (1834.)  
 HAB. Abundant on rocks, near low water mark at George Town, Mr. Gunn. (1349)
105. *Phyllospora comosa*, Ag.  
 HAB. George Town, Mr. Gunn.
106. *Hormoseira Billardieri*, Mont.—*Fucus moniliformis*, Labill. t. 262.  
 HAB. George Town, Mr. Gunn.—We fear that authors make too many species in this genus.
107. *Seirococcus axillaris*, Grev.—*Fucus axillaris*, Turn. t. 146.  
 HAB. George Town, Mr. Gunn.
108. *Xiphophora Billardieri*, Mont.—*Fucus gladius*, Labill.  
 HAB. Port Arthur, Dr. Jeannerett and Dr. Lyall.
109. *Fucus confluens*, Br. (?)—Turn. t. 141.  
 HAB. Tasmania, Dr. Lyall.—A single very imperfect specimen, which we refer to this species with some doubt.
110. *Sargassum paradoxum*, nobis.—*Fucus paradoxus*, Turn. t. 156. *Cystoseira paradoxa*, Ag.  
 HAB. George Town, Mr. Gunn. Very common.—This plant is paradoxical in many ways. Its male receptacles, represented in Turner's figure, are cylindrical and smooth, and larger than the *females*, which are three-angled, the angles armed with conical protuberances. Mr. Gunn's specimens are numerous, and in a very perfect state, otherwise we should not venture to refer those which bear such opposite-looking receptacles to one species, and we cannot help fearing that too much stress has been laid on the *form* of the receptacles in the *Sargassa*.
111. *Sargassum Raoulianum*, nobis in Lond. Journ. 4.  
 HAB. Sandy Cove, Dr. Lyall and Dr. Hooker.

112. *Sargassum flaccidum*, Sond. in Bot. Zeit. 1845.

HAB. Tasmania, *Mr. Gunn*.

113. *Sargassum capillaceum*, nobis; caule compresso flexuoso pinnato bipinnatove, pinnis longissimis filiformibus apice longe attenuatis setaceis, foliis capillaribus pluries dichotomis crebris alternis superioribus in pinnulas foliosas mutatis, vesiculis globosis muticis supra axillaribus; receptaculis . . . ?

HAB. Tasmania, *Mr. Gunn*.—Nearly related to *S. flaccidum*, but with a somewhat different habit and larger muticous vesicles. It also comes near the variety *capillifolium* of *S. pennigerum*.

114. *Sargassum heterophyllum*, Ag.

HAB. Tasmania, *Mr. Gunn*. A single, imperfect specimen.

115. *Blossevillea torulosa*, Dne.—*Fucus torulosus*, *Turn. t.* 157.

HAB. George Town, *Mr. Gunn*.

116. *Blossevillea retroflexa*, Dne.—*Fucus retroflexus*, *Labill. t.* 260. *Turn. t.* 155.

HAB. Cape Van Diemen, *Labillardière*. George Town, *Mr. Gunn*.

117. *Blossevillea retorta*, (?) Dne.—*Fucus retortus*, *Turn.*

HAB. Tasmania, *Mr. Gunn*.—The specimens are imperfect, and hardly sufficient.

118. *Blossevillea uvifera*, nobis; caule gracili subcylindraco angulato subinarticulato basi nudiusculo muricato supra bipinnatim ramoso, pinnis stipitatis circumscriptione ovatis alternis pinnulatis, pinnulis crebris patentibus filiformibus pinnato-dichotomis fastigiatis laciniis erectis elongatis simplicibus, axillis rotundatis, vesiculis e pinnis primariis ortis breve pedicellatis globosis ellipticisve muticis creberrime inter pinnulas sparsis, receptaculis terminalibus lanceolatis acutis nec torulosis.

HAB. George Town, *Mr. Gunn*.—A very handsome and distinct species.

119. *Blossevillea caudata*, nobis; caule ignoto, ramis (pin-

nis?) gracilibus flexuosis compressis pinnatim compositis subarticulatis, articulis uncialibus, pinnulis patentibus alternis flexuosis pinnato-dichotomis, laciniis erectis filiformibus elongatis attenuatis simplicibus, receptaculis elongatis torulosis longe acuminatis vel in filum setaceum excurrentibus, vesiculis ellipticis muticis sparsis.

HAB. Tasmania, *Dr. Sinclair*. Sandy Cove, *Dr. Lyall*.

Fam. 8. LAMINARIÆ.

120. *Macrocystis pyrifera*, Ag.

HAB. George Town, *Mr. Gunn*.

121. *Capea biruncinata*, Mont.

HAB. George Town, *Mr. Gunn*.

Fam. 9. SPOROCHNOIDÆ.

122. *Sporochnus radiformis*, Ag.—*Fucus radiformis*, *Turn.*

HAB. Tasmania, *Mr. Gunn*.

123. *Carpomitra inermis*, Kutz.—*Fucus inermis*, *Br.*—*Turn.*  
Herb.

HAB. Tasmania, *Mr. Gunn*.

Fam. 10. DICTYOTÆ, *Grev.*

124. *Haliseris polypodioides*, Ag.

HAB. Port Arthur, *Dr. Jeannerett*.

125. *Dictyota paniculata*, J. Ag. in Linn. 15. p. 5.

HAB. Tasmania, *Mr. Gunn*.—The ramification of the main stem and branches is somewhat pinnate; the branches furnished with lateral, alternate, dichotomo-multifid fastigate segments, whose laciniaë are very narrow.

126. *Stilophora rhizodes*, J. Ag.

HAB. Sandy Cove, *Dr. Hooker*.

127. *Stilophora? australis*, Harv. l. c. p. 453.

HAB. George Town, *Mr. Gunn*.—Scarcely a *Stilophora*, and possibly a *Nereia*, Zanard. It would be desirable to examine a more perfect specimen.

Fam. 11. SPHACELARIEÆ, *J. Ag.*

128. *Sphacelaria hordeacea*, Harv. in Hook. Ic. Pl.  
 HAB. Tasmania, *Mr. Gunn.*

## Series III. CHLOROSPERMEÆ, or ZOOSPERMEÆ.

Fam. 12. SIPHONÆ, *Grev.*

129. *Caulerpa hypnoides*, Ag.—*Fucus hypnoides*, *Turn. t.*  
 173.

HAB. Tasmania, *Mr. Gunn.*

130. *Caulerpa sedoides*, Ag.—*Fucus sedoides*, *Turn. t.* 172.

HAB. George Town, *Mr. Gunn.* (1357.)

131. *Caulerpa Brownii*, Endl.; surculo nudo, frondibus erectis vage ramosis, ramis paucis gracilibus simplicibus ramentis cylindræis tenuibus quadrifariis patentibus dense obsitis basi nudis.

HAB. Tasmania, *Mr. Gunn.*—A single, not very perfect specimen.

132. *Caulerpa furcifolia*, nobis; surculo vestito crasso, frondibus erectis crebris longissimis simplicissimis undique ramentis furcatis cylindræis incurvis imbricatis mucronatis vestitis.—*C. Selago*, nobis, *Lond. Journ. v. 4. (excl. Syn.)*

HAB. Tasmania, *Mr. Gunn.* Also at New Zealand.—At first sight, this strongly resembles *C. Selago*, but is a much larger and stronger plant, with its *surculi*, as well as fronds, densely clothed with *forked* ramenta, the latter character admirably distinguishing it from every other described species.

133. *Codium tomentosum*, Stack.—*Ag. syst. p.* 177.

HAB. Common in Tasmania.

## Fam. 13. CONFERVÆ.

134. *Conferva clavata*, Ag. Syst.

HAB. Tasmania, *Mr. Gunn.*

135. *Conferva valida*, nobis; filis simplicibus longissimis

ultrasetaceis crassis nitentibus membranaceis læteviridibus crispatis implexis, articulis diametro 3-5plo longioribus ad genicula constrictis.

HAB. Tasmania, *Mr. Gunn.* (1345.)—Filaments twice as thick as those of *C. crassa*, loosely bundled together, glossy but not mucous, bright green.

Fam. 14. ULVACEÆ.

136. *Enteromorpha compressa*, Grev.

HAB. Tasmania.

137. *Ulva latissima*, Linn.

HAB. Tasmania; both very common.

*Contributions towards a FLORA OF BRAZIL, being the Characters of several new species of COMPOSITÆ, belonging to the tribes VERNONIACEÆ and EUPATORIACEÆ, from the Province of Goyaz;\* by GEORGE GARDNER, ESQ., F.L.S. Superintendent of the Royal Botanic Gardens, Ceylon.*

(Continued from Vol. V. p. 491.)

VERNONIACEÆ, Less.

VERNONIA, Schreb.

Sect. LEPIDAPLOA, DC.

3255. *V. chrysophylla*; tota rufo-sericeo-villosa, caulibus e rhizomate lignoso pluribus simplicibus teretibus sulcatis apice compressis subnudis, foliis sessilibus obovato-oblongis obtusis subcrenatis, cymis scorpoideis contractis oligoce-

\* When my former papers on these two tribes were prepared, I could not lay my hands on my Goyaz collections, the bundles containing them having been lost during my removal from England to Ceylon. I have, however, been fortunate enough to obtain, by purchase, at the sale of Professor Graham's Herbarium, his set of my plants from that Province, which, although an early one, I find to be deficient in nearly one hundred species of *Compositæ* alone.