Art. XII.—*Revised List of the Marine* Bryozoa *of New Zealand.*

By Professor F. W. Hutton.

[*Read before the Philosophical Institute of Canterbury, 2nd October, 1890.*]

The first list of New Zealand *Bryozoa*, or *Polyzoa*, was that by Dr. J. E. Gray in the Appendix to Dieffenbach's "New Zealand," which contains only ten species. Many others, collected chiefly by Dr. Lyall, were afterwards described by Mr. Busk in his "Catalogue of the *Polyzoa* of the British Museum" (referred to in the list as B.M.C.), and these, together with others collected by myself, were catalogued first in the "Catalogue of the Marine Mollusca of New Zealand," 1873 (referred to as C.M.M.), and later in the "Manual of New Zealand Mollusca," 1880 (referred to as N.Z. Cat.), both published by the Geological Survey Department at Wellington. Since then several species from New Zealand have been described by Mr. Hincks in the "Annals and Magazine of Natural History," and by Mr. Waters in the Journal of the Geological Society of London, and the classification of the whole has been much modified. A nearly complete collection of my types has also been submitted to Miss Jelly for comparison and identification, and thus many corrections have been made. These I have embodied in the present list, which may therefore be looked upon as generally accurate, but probably several corrections will still have to be made, and no doubt there are many more species as yet unrecorded.

It will be noticed that several of my new species of 1873 have been redescribed and renamed by Mr. Hincks or by Mr. Waters. In all these cases my names must be taken as synonyms, for the descriptions were not accompanied by figures.

In making out this list I have freely used Miss E. C. Jelly's "Synonymic Catalogue of Marine *Bryozoa;*" in fact, I have waited for the publication of this book before attempting to correct my former mistakes.

Sub-order CHEILOSTOMATA.

Catenicella ventricosa, Busk, B.M.C., i., 7.
" hastata, Busk, B.M.C., i., 7; *C. bicuspis*, Gray, in Dieff. N.Z., ii., 293.
" cribraria, Busk, B.M.C., i., 9.
" margaritacea, Busk, B.M.C., i., 9.
" perforata, Busk, B.M.C., i., 9.
" ringens, Busk, B.M.C., i., 10.

CATENICELLA ELEGANS, Busk, B.M.C., i., 10.
" CORNUTA, Busk, B.M.C., i., 11.
" CARINATA, Busk, B.M.C., i., 12.
" SCUTELLA, Hutton, N.Z. Cat., 181; *C. alata*, Hutt., C.M.M., 89; *non* Wyv. Th.
" CRYSTALLINA, Wyv. Th., Nat. Hist. Rev., 1858.
CLAVIPORELLA GEMINATA, Wyv. Th., Nat. Hist. Rev., 1858 (*Catenicella*).
" AURITA, Busk, B.M.C., i., 8 (*Catenicella*).
ÆTEA DILATATA, Busk, B.M.C., i., 31.
CELLULARIA CUSPIDATA, Busk, B.M.C., i., 19; *C. monotrypa*, Busk, Voy. "Rattlesnake."
MENIPEA CIRRATA, Lamx. (*Cellaria*), Busk, B.M.C., i., 21.
" BUSKII, Wyv. Th., Nat. Hist. Rev., 1858.
" CRYSTALLINA, Gray, in Dieff. N.Z., ii., 293 (*Emma*); Busk, B.M.C., i., 28.
" TRICELLATA, Busk, B.M.C., i., 28 (*Emma*).
SCRUPOCELLARIA SCRUPEA, Busk, B.M.C., i., 24.
CABEREA TEXTA, Lamk. (*Cellaria*); *C. grandis*, Hincks, A.M.N.H., 5, viii., 50.
" LYALLII, Busk, "Challenger," xxx., 29; *C. boryi*, Hutt., N.Z. Cat., 185; *non* Audouin.
" ROSTRATA, Busk, "Challenger," xxx., 28; *Selbia zelanica*, Gray, in Dieff. N.Z., ii., 292.
BEANIA ELONGATA, Hincks, A.M.N.H., 5, xv., 244 (*Diachoris*).
" MAGELLANICA, Busk, B.M.C., i., 54 (*Diachoris*).
" INERMIS, Busk, B.M.C., i., 54 (*Diachoris*).
" BILAMINATA, Hincks, A.M.N.H., 5, vii., 44 (*Diachoris*); *Flustra papyracea*, Hutt., N.Z. Cat., 187; *non* Ellis.
BICELLARIA TUBA, Busk, B.M.C., i., 42.
BUGULA NERITINA, Linn. (*Sertularia*); Busk, B.M.C., i., 44.
" DENTATA, Lamx. (*Acamarchis*); Busk, B.M.C., i., 46.
" PRISMATICA, Gray, in Dieff. N.Z., ii., 292; *non* Hutt., N.Z. Cat., 186.
" JOHNSTONIÆ, Gray, in Dieff. N.Z., 292 (*Halophila*).
" AVICULARIA, Linn. (*Sertularia*); Busk, B.M.C., i., 45; *Halophila johnstoniæ*, Hutt., N.Z. Cat., 186; *non* Gray.
CELLARIA MALVINENSIS, Busk, B.M.C., i., 19
" SETIGERA, Desmarest; *S. hirsuta*, Busk, "Challenger," xxx., 87; *Onchopora hirsuta*, Hutt., N.Z. Cat., 184; *non* Lamouroux.
TUBUCELLARIA HIRSUTA, Lamx. (*Cellaria*); Busk, "Challenger," xxx., 100; *C. barbata*, Lamk.; *Margaretta barbata*, Hutt., N.Z. Cat., 196; *Margaretta cereoides*, Gray, in Dieff. N.Z., ii., 293.

TUBUCELLARIA OPUNTIOIDES, Pallas (*Cellularia*); *T. cereoides*, var., Busk, "Challenger," pl. xxiv., fig. 7; *S. farciminoides*, Hutt., N.Z. Cat., 184; *non* Johnston.
FLUSTRA EPISCOPALIS, Busk, B.M.C., i., 52 (*Carbasea*).
" INDIVISA, Busk, B.M.C., i., 53 (*Carbasea*).
" " (Bk.), var. CYATHIFORMIS, McGill, Trans. Phil. Inst. Vict., 1859, 97.
FARCIMINARIA ACULEATA, Busk, B.M.C., i., 33.
" BLAINVILLII, Lamx. (*Elzerina*); Gray, in Dieff. N.Z., ii., 293.
CALWELLIA BICORNIS, Wyv. Th., Nat. Hist. Rev., 1858.
DIMETOPIA SPICATA, Busk, B.M.C., i., 35.
" CORNUTA, Busk, B.M.C., i., 35.
MEMBRANIPORA MEMBRANACEA, Linn. (*Flustra*); Busk, B.M.C., ii., 56.
" PILOSA, Linn. (*Flustra*); Busk, B.M.C., ii., 56.
" LINEATA, Linn. (*Flustra*); Busk, B.M.C., ii., 58.
" SPINOSA, Quoy and Gaimard (*Flustra*); Waters, A.M.H.N., 5, xx., 181.
" TRIFOLIUM, S. Wood (*Flustra*); Busk, Crag. Pol., 32.
" ROBORATA, Hincks, A.M.N.H., 5, viii., 69; *Carbasea pisciformis*, Hutt., N.Z. Cat., 187; *non* Busk.
" SOLIDULA, Hincks, Brit. Mar. Pol., 158; Waters, Quar. Jour. Geol. Soc., 43, 46.
" VALDEMUNIATA, Hincks, A.M.N.H., 5, xv., 248; *M. tessellata*, Hutt., C.M.M., 96; *M. monostachys*, Waters, Quar. Jour. Geol. Soc., 43, 45; *non* Busk.
" HIANS, Hincks, A.M.N.H., 5, xv., 248; *M. cyclops*, Hutt., N.Z. Cat., 190; *non* Busk.
" HIANS (Hks.), var. OCCULTATA, Waters, Quar. Jour. Geol. Soc., 43, 48.
" PURA, Hincks, A.M.N.H., 5, vi., 15.
" ACUTA, Hincks, A.M.N.H., 5, xv., 249.
" BRUNNEA, Hutton, C.M.M., 96.
" MAORICA, Stoliczka, Voy. "Novara," 153 (*Vincularia*).
MONOPORELLA CRASTATINA, Waters, Quar. Jour. Geol. Soc., 38, 270; *Lepralia grandis*, Hutt., C.M.M., 98.
" DISJUNCTA, Manzoni, Bry. Plioc. It., i., 5; *Lepralia urceolata*, Hutt., C.M.M., 97.
STEGANOPORELLA NEOZELANICA, Busk, Quar. Jour. Micro. Soc., n.s., i., 155 (*Vincularia*).

STEGANOPORELLA MAGNILABRIS, Busk, B.M.C., ii., 62 (*Membranipora*).

MICROPORA LEPIDA, Hincks, A.M.N.H., 5, viii., 59; Waters, Quar. Jour. Geol. Soc., 43, 51.

" ELONGATA, Hincks, A.M.N.H., 5, ix., 86; *M. variperforata*, Waters, Quar. Jour. Geol. Soc., 43, 51.

MICROPORELLA CILIATA, Pallas (*Eschara*); *Lepralia ciliata*, Busk, B.M.C., ii., 73.

" DECORATA (Reuss), var. ANGUSTIPORA, Hincks, A.M.N.H., 5, xv., 249.

" MALUSII, Audouin; *Lepralia malusii*, Busk, B.M.C., ii., 83.

" MALUSII (Aud.), var. DISJUNCTA, Hincks, A.M.N.H., 5, xv., 249.

" YARRAENSIS, Waters, Quar. Jour. Geol. Soc., 37, 331; *Eschara lichenoides*, Busk, B.M.C., ii., 90; *non* Milne-Edwards.

" PELLUCIDA, Hutton, C.M.M., 97.

MUCRONELLA PRÆSTANS, Hincks, A.M.N.H., 5, x., 99; *L. angela*, Hutt., C.M.M., 96; *M. duplicata*, Waters, Quar. Jour. Geol. Soc., 37, 328.

" BIINCISA (Wts.), var. BICUSPIS, Hincks, A.M.N.H., 5, xi., 110.

" DIAPHANA (McGill), var. ARMATA, A.M.N.H., 5, x., 98.

" TRICUSPIS, Hincks, A.M.N.H., 5, viii., 66.

" VARIOLOSA, Johnston, Brit. Zooph., 278 (*Lepralia*); Busk, B.M.C., ii., 75.

SMITTIA NAPIERII, Waters, A.M.N.H., 6, iv., 17.

" RETICULATA, J. McGill, A.M.N.H., ix., 467 (*Lepralia*), 1842.

" UNISPINOSA, Waters, A.M.N.H., 6, iv., 15; *Hemeschara fairchildi*, Hutt., C.M.M., 100.

PORELLA MALLEOLUS, Hincks, A.M.N.H., 5, xiii., 361.

LEPRALIA CINCTA, Hincks, A.M.N.H., 5, xv., 254; *L. pertusa*, Hutt.; *non* Busk.

" FLEXUOSA, Hutton, C.M.M., 99 (*Eschara*).

" FORAMINIGERA, Hincks, A.M.N.H., 5, xi., 109; *non* Heller.

" LYALLII, Busk, B.M.C., ii., 75.

" POISSONII, Audouin (*Flustra*); Hincks, A.M.N.H., 5, viii., 63.

" RECTILINEATA, Hincks, A.M.N.H., 5, xi., 110; *Lepralia vellicata*, Hutt., C.M.M., 98.

RETEPORA CELLULOSA, Linn.; Busk, C.M.M., ii., 93. (?)

MEMBRANIPORELLA NITIDA, Johnston, Brit. Zooph., 277 (*Lepralia*); Busk, B.M.C., ii., 76.

CRIBRILINA MONOCEROS, Busk, "Challenger," xxx., 133; *Eschara unicornis*, Hutt., C.M.M., 99.
HASWELLIA AURICULATA, Busk, "Challenger," xxx., 173 (*Tessaradoma*); *Porina grandiporosa*, Waters, Quar. Jour. Geol. Soc., 43, 59; *Pustulipora porcellanica*, Hutt., C.M.M., 102.
HIPPOTHOA FLAGELLUM, Manzoni, Bry. Plioc. It., iv., 6; *H. distans*, Hincks, A.M.N.H., 5, viii., 62.
SCHIZOPORELLA AREOLATA, Busk, B.M.C., ii., 82 (*Lepralia*).
" BIAPERTA, Michelin (*Eschara*), Hincks, Brit. Mar. Pol., 255.
" BISERIALIS, Hincks, A.M.N.H., 5, xv., 250.
" CINCTIPORA, Hincks, A.M.N.H., 5, xi., 109.
" CINCTIPORA (Hks.), var. PERSONATA, Waters, Quar. Jour. Geol. Soc., 43, 67.
" CIRCINATA, McGill, Cat. Mar. Pol. Victoria, 1887 (*Lepralia*).
" CRIBRILIFERA, Hincks, A.M.N.H., 5, xv., 250.
" HYALINA, Linn. (*Cellepora*); Busk, B.M.C., ii., 84 (*Lepralia*); *Diachoris buskiana*, Hutt., C.M.M., 94.
" HYALINA (L.), var. CORNUTA, Busk, B.M.C., ii., 84 (*Lepralia*); *L. cancer*, Hutt., C.M.M., 97.
" MARSUPIFERA, Busk, "Challenger," xxx., 165.
" SCINTILLANS, Hincks. Specimen so named sent by Miss Jelly.
CELLEPORA BISPINATA, Busk, B.M.C., ii., 87.
" CORONOPUS, S. Wood; *C. tubigera*, Busk, Crag. Pol., 60; *C. pumicosa*, Hutt., N.Z. Cat., 193; *non* Linn.
" MAMILLATA, Busk, B.M.C., ii., 87.
" POSTULATA, Busk, "Challenger," xxx., 200.
" AMPLIATA, Hutton, C.M.M., 99.
" AGGLUTINANS, Hutton, C.M.M., 99.

Sub-order CYCLOSTOMATA.

CRISIA DENTICULATA (M.-Ed.), var. PATAGONICA, d'Orb.; Busk, B.M.C., iii., 8.
" EDWARDSIANA, d'Orb. (*Crisidia*); Busk, B.M.C., iii., 5.
IDMONEA MILNEANA, d'Orb.; *I. giebeliana*, Stoliczka, Voy. "Novara," 115.
" RADIANS, Lamk. (*Retepora*), Busk, B.M.C., iii., 11.
" RAMOSA, d'Orb. (*Reptotubigera*), Waters, Quar. Jour. Geol. Soc., 43, 339.

IDMONEA SERPENS, Linn. (*Tubipora*); Busk, B.M.C., iii., 25 (*Tubulipora*); *Alecto disposita*, Hutt., C.M.M., 103.

CRISINA HOCHSTETTERIANA, Stoliczka, Voy. "Novara," 113 (*Idmonea*).

ENTALOPHORA RARIPORA, d'Orb.; *E. haastiana*, Stoliczka, Voy. "Novara," 102.

" INTRICARIA, Busk, B.M.C., iii., 22 (*Pustulipora*).

" PURPURASCENS, Hutton, Trans. N.Z. Inst., ix., 361 (*Pustulipora*).

CINCTIPORA ELEGANS, Hutton, C.M.M., 103.

DIASTOPORA PATINA, Lamk. (*Tubulipora*); *T. patellata*, Gray, in Dieff. N.Z., ii., 295.

" PERANGULATA, Waters, Quar. Jour. Geol. Soc., 43, 343.

TUBULIPORA BIDUPLICATA, Waters, Quar. Jour. Geol. Soc., 43, 343.

" GLOMERATA, Hutton, C.M.M., 103.

STOMATOPORA RACEMOSA, Hutton, C.M.M., 103 (*Alecto*).

HORNERA FOLIACEA, McGill; Busk, B.M.C., iii., 19; *R. gouldiana*, Busk, Crag. Pol., 95.

" STRIATA, Stoliczka, Voy. "Novara," 107.

FASCICULARIA TUBIPORA, Busk, Crag. Pol., 130; Waters, Quar. Jour. Geol. Soc., 43, 344.

SUPERCYSTIS DIGITATA, d'Orb.; Busk, B.M.C., iii., 37 (*Fasciculipora*).

LICHENOPORA HOLDSWORTHII, Busk, B.M.C., iii., 33 (*Discoporella*); *D. ciliata*, Hutt.; *non* Busk.

" NEOZELANICA, Busk, B.M.C., iii., 32 (*Discoporella*).

DEFRANCHEIA DENTATA, Hutton, N.Z. Cat., 199.

HETEROPORA PELLICULATA, Waters, Jour. Micro. Soc., ii., 390; *H. neozelanica*, Busk, Nicholson, A.M.N.H., 5, vii., 329; *Millepora undulosa*, Ten.-Woods, Trans. N.Z. Inst., xi., 345.

Sub-order CTENOSTOMATA.

FLUSTRELLA BINDERI, Harvey (?); Busk, Quar. Jour. Micro. Soc., i., 156 (*Farciminaria*); *Muscaria armata*, Hutt., C.M.M., 93; *Verrucularia binderi*, Busk, "Challenger," XXX., 48.

AMATHIA SWAINSONI, Hutton, C.M.M., 91 (*Beania*).