

Without a thorough knowledge of the conditions under which the Alga occurs in the Maitland district, it is difficult to say what steps should be taken with a view to its destruction. Under the circumstances I can only make a few suggestions which might, if carried out, tend to reduce its numbers.

In the first place it is a well known fact that the Rotifera or Wheel-animaculæ feed on small unicellular Algae such as the one in question. The Unio or Fresh-water Mussel might also be tried, its introduction would not be injurious to the water supply. But I consider the best plan would be to take advantage of the resting stage of the plant, and engage a staff of men to skim the surface of the water. With suitable wire gauze frames vast quantities might be collected and destroyed. If this method were adopted for several seasons in succession the organism might ultimately be eradicated. The following are a few of the more important works in which this Alga is dealt with :—

Chlamydomonas pulvisculus, Ehrenberg; Die Infusions thierchen, 1838, p. 64.

Chlamydomonas pulvisculus, Pritchard; Infusoria, 1861, p. 521, pl. 18, f. 40, 51 – 54.

Chlamydomonas pulvisculus, Cooke; British Freshwater Algae, 1882–4, p. 56, pl. 21, f. 3.

Chlamydomonas pulvisculus, Bennett & Murray; Handbook of Cryptogamic Botany, 1889, pp. 186, 299, 300, 409, 417, 419.

I have the honor to be,

Your Obedient Servant,

THOMAS WHITELEGGE.

SPECIMENS OBTAINED ON A DREDGING TRIP IN
PORT JACKSON, SATURDAY, 30TH MAY, 1890.

As an instance of the very extensive Marine Fauna of Port Jackson, the following list of the various species obtained in one day's dredging is given. The specimens have been determined

by Members of the Museum Staff, viz. : -Mollusca by Mr. Brazier,
General Invertebrata by Mr. Whitelegge :—

MOLLUSCA (6 to 8 fathoms).

Green Point, Watson's Bay.

<i>Octopus granulatus</i> , Lam.	<i>Trivia globosa</i> , Gray †
<i>Murex Brazieri</i> , Angas †	<i>Pellicaria scutulata</i> , Martyn
<i>Typhis arcuatus</i> , Hinds †	<i>Bittium granarium</i> , Kiener
<i>Triton fusiformis</i> , Kiener †	<i>Cerithiopsis crocea</i> , var., Ang.*
<i>Fusus Hawleyi</i> , Angas*	<i>Triforis nigrofuscus</i> , A. Ad.
<i>Eburna (Zenitia) australis</i> , Sowb.	<i>Rissoina Smithi</i> , Angas
<i>Nassa jacksoniuta</i> , Quoy, small var.	„ ^{sp.}
„ <i>paupera</i> , Gould	<i>Turritella sinuata</i> , Reeve
<i>Cominella tritoniformis</i> , Bl.	<i>Trochita calyptraformis</i> , Lam.
<i>Neritula lucida</i> , Ad. & Ang. †	<i>Crypta unguiformis</i> , Lam.*
<i>Olivella exquisita</i> , Ang. †	<i>Capulus violaceus</i> , Angas*
„ <i>nympha</i> , Ad. & Ang.	<i>Vanikoro gaimardi</i> , Adams*
<i>Amalida marginata</i> , Lam.	<i>Australium tentoriformis</i> , Jonas
„ <i>oblonga</i> , Sowb.	<i>Liotia Kieneri</i> , Philippi †
<i>Mitra strangii</i> , Angas*	<i>Clanculus clangulus</i> , Gray
<i>Columbella eximia</i> , Reeve*	<i>Elenchus badius</i> , Wood
„ <i>filosa</i> , Angas	<i>Trochus decoratus</i> , Philippi
„ <i>lincolniensis</i> , Reeve	<i>Leioptyrga picturata</i> , H. & A. Ad.
<i>Marginella orbulum</i> , Reeve	<i>Minolia prodictus</i> , Fischer
„ <i>turbinata</i> , Sowb.	„ <i>ritiligeuia</i> , Menke
„ <i>Metcalfii</i> , Angas †	<i>Gibbula Cori</i> , Angas
„ <i>olivella</i> , Reeve	„ <i>strangii</i> , A. Ad.
„ <i>translucida</i> , Sowb.	<i>Gena nigra</i> , Quoy & G.
<i>Volvarina mustellina</i> , Angas †	<i>Lucapina lineata</i> , Sowb.
<i>Natica euzona</i> , Recluz	<i>Emarginula candida</i> , A. Ad.
„ <i>subcostata</i> , Ten.-Woods †	<i>Hemitoma rugosa</i> , Quoy
<i>Neritina souverbiana</i> , Mont.*	<i>Tugalia parnophoidea</i> , Quoy
<i>Scalaria jukesiana</i> , Forbes	<i>Buccinulus affinis</i> , Ad.
„ <i>oculeata</i> , Sowb.	„ <i>nireus</i> , Angas*
<i>Crosseia concinna</i> , Angas*	<i>Cululus acuminatus</i> , Desh.
<i>Turbonella nitida</i> , Angas	<i>Myonia concinna</i> , A. Ad.
<i>Odostomia levis</i> , Angas	„ <i>sinuata</i> , Angas*
<i>Terebra bicolor</i> , Angas	<i>Ringicula doliaris</i> , Gould
<i>Drillia Metcalfii</i> , Angas	<i>Bullina lineata</i> , Gray
<i>Clathrella bicolor</i> , Angas	<i>Cylichna arachis</i> , Quoy
„ <i>sp.?</i>	„ <i>regularis</i> , Gould*
„ <i>sculptilis</i> , Angas	„ <i>pyramidata</i> , Ad. †
<i>Mangilia lineata</i> , Reeve	„ <i>pygmaea</i> , A. Ad. †
	<i>Tornatina fusiformis</i> , A. Ad.
	„ <i>Hofmanni</i> , Angas

* Rare.

† Very rare.

<i>Bulla australis</i> , Gray	<i>Lutraria oblonga</i> , Gmelin
„ <i>ampulla</i> , Linne	<i>Psammobia modesta</i> , Desh.
<i>Hamina cuticulifera</i> , E. A. Sm.	<i>Tellina</i> , sp. ?
<i>Philine Angasi</i> , Crosse	<i>Chione striatissima</i> , Sowb.
<i>Humphreyia Strangii</i> , A. Ad.*	<i>Circe Angasi</i> , E. A. Smith
„ <i>multiangulare</i> , Tate†	<i>Tapes inflata</i> , Desh.
<i>Solon Sloani</i> , Gray	„ <i>turgida</i> , Lam.
<i>Saxicava artica</i> , Linne	<i>Lucina</i> , sp. ?
<i>Corbula tunicata</i> , Hinds	<i>Modiola Australis</i> , Gray
„ <i>Smithiana</i> , Braz.*	<i>Modiolaria barbata</i> , Reeve
<i>Neara Brazieri</i> , E. A. Smith †	„ <i>Cumingiana</i> , Dunker
<i>Myodora pandoraformis</i> , Stueh	<i>Trigonia Strangei</i> , Ad. (2 valves)
<i>Maetra jacksonensis</i> , E. A. Sm.*	<i>Arca gubernaculum</i> , Reeve
„ <i>oralina</i> , Lam.	<i>Megerlia pulchella</i> , Sowb.*

GENERAL INVERTEBRATA, EXCLUSIVE OF MOLLUSCA.

TUNICATA.

<i>Boltenia pachydermatina</i> , Herd.
<i>Polycarpa tinctor</i> , Qy. & Gaim.
„ <i>viridis</i>

POLYZOA.

<i>Notamia gracilis</i> , McGillivray
<i>Beania conferta</i> , „
<i>Flustra militaris</i> , Waters
<i>Membranipora spinosa</i> , Q. & G.
<i>Cribrella radiata</i> , Möll.
„ <i>clithridata</i> , Waters
<i>Microporella ciliata</i> , Pallas
„ <i>dindema</i> , McGill.
„ <i>malusii</i> , Savigny
<i>Schizoporella discispora</i> , Waters
<i>Lepralia climata</i> , Waters
„ <i>poissoni</i> , Savigny
„ <i>cestita</i> , Hincks
„ <i>depressa</i> , Busk
<i>Smittia praeatans</i> , Waters
„ <i>signata</i> , Waters
<i>Porella inversa</i> , Waters
<i>Cellepora mammillaris</i> , Busk
<i>Selenaria punctata</i> , Ten.-Woods
„ <i>concinna</i> , „
<i>Bipora philippinensis</i> , Busk
„ <i>elegans</i> , D'Orbigny

* Rare.

AMPHIBIA.

<i>Amphibia Leudigeri</i> , Linn.
„ <i>tortuosa</i> , Ten.-Woods

CRUSTACEA.

<i>Micippa parvirostris</i> , Miers
„ <i>spinosa</i> , Stimpson
<i>Paramithrax Peroni</i> , M. Edw.
<i>Pilumnus rufopunctatus</i> , Stim.
<i>Dromia excurata</i> , Haswell
<i>Cryptodromia sculpta</i> , Haswell
<i>Chilauarius</i> , sp.

CIRRIPEDIA.

<i>Balanus trigonus</i> , Darwin
<i>Dichelaspis orthogonia</i> , Darwin

VERMES, GEPHYREA.

<i>Phytosoma japonica</i> , Grubé
<i>Phascolosoma Australis</i> , Keffer.

ECHINODERMATA.

<i>Antedon pumila</i> , Bell
<i>Pectinura gorgonia</i> , Lutken
<i>Ophiactis resiliens</i> , Lyman
<i>Ophioneis schayeri</i> , Mull. & T.
<i>Ophiothrix cespitosa</i> , Lyman
„ <i>funaria</i> , Mull. & T.
<i>Astropecten polyacanthus</i> , „
<i>Antheua acuta</i> , Perrier

† Very rare.

<i>Stichaster polyplax</i> , Mull. & T.	ACTINOZOA.
<i>Asterias calamaria</i> , Gray	ALCYONACEA.
<i>Centrostephanus rodgersii</i> ,	<i>Spongodia florida</i> , Esper
A. Agassiz	<i>Sarcophyllum grande</i> , Gray
<i>Salmacis alexandri</i> , Bell	<i>Clavella australasiae</i> , Gray
<i>Amblypneustes, ovum</i> ,	ZOANTHARIA.
Agassiz & Dessor	MADREPORARIA.
<i>Echinocardium australe</i> , Gray	<i>Conocyathus zealandiae</i> , Dunc.
<i>Colochirus spinosa</i> , Q. & Gaim.	„ <i>compressus</i> , T.-W.
<i>Phylloporus perspicillum</i> , Sel.	<i>Cylicia quinaria</i> , Ten.-Woods
<i>Synapta dotabrifera</i> , Stimpson	<i>Heteropsammia elliptica</i> , T.-W.

The above list by no means includes all the species obtained, there are many more which require identifying, but time does not admit of them being dealt with at present.

The Polyzoa obtained are very interesting, inasmuch as there are amongst them many of the species lately described as new by Mr. A. Waters, and others described by the late Rev. J. E. Tenison-Woods, the whole of which are additions to the collection. *Selenaria punctata*, Ten.-Woods, and *S. concinna*, Ten.-Woods, were obtained in quantity and in good condition, no doubt many of them were alive when caught in the dredge, but owing to the subsequent washing and drying the vibracular organs were destroyed. *Amathia lendigeri*, Linn., is recorded from Port Phillip, but has not previously been observed in Port Jackson.

Among the Crustacea two species are worthy of notice: *Paranithrax perowi*, M. Edwards (new to our local fauna), and *Dromia sculpta*, Haswell, a rare and interesting species. The specimens obtained have enabled me to settle the question regarding the identity of *Cryptodromia nodulifera*, Henderson, described in Vol. xxvii. of the "Challenger Report" with *Dromia sculpta*, Haswell. After a careful examination of the type and a dozen other specimens, I cannot see any valid reason why they should be regarded as distinct; the specimens exhibit a considerable amount of variation in the number and size of the nodules, and in the areolation of the surface of the carapace; in the female and in young males the regions are ill-defined, but in adult males the regional depressions are well marked. The "Challenger" specimens are evidently immature as the following measurements will show: (1) Adult male—length of carapace 12 mm., breadth 13 mm.; (2) adult female—length 9 mm., breadth 11 mm.

The two Cirripedes obtained were both interesting, *Balanus trigonus*, Darwin, on account of its being full of ova, a fact worth recording, as little is known regarding the breeding season of our Cirripedes; the vitality exhibited by this species is remarkable, some hundreds were obtained attached to the branch of a tree; after being out of water for two days the branch was soaked in

fresh water for about five hours and afterwards hung up to dry, at the expiration of three days they were found to be still alive, and many of them had ejected the ova through the valves at the summit. The *Dichelaspis orthogonia*, Darwin, was like five or six other clusters previously obtained, attached to the axis of a species of *Virgularia*, which seems to be the favourite habitat for this rare species.

ADDENDA ET CORRIGENDA.

PAGE	LINE	
8.	1.	Omit "Re-."
8.	1.	For "an" read "a new."
8.		Omit foot-note *
9.	30.	For "44" read "48."
10.	1.	Omit "Re-."
10.	1.	For "an" read "a new."
10.		Omit foot-note.
18.		Foot-note † for "1877" read "1887."
20.	32.	For "milee" read "miles."
23.	33.	For "viverinus" read "viverrinus."
24.	36.	For "Lymnodynastes" read "Limnodynastes."
27.	30.	For "Barwon" read "Barron."
30.	20.	For "nalabatus" read "ualabatus."
30.	42.	For "Scenoæpus" read "Scenopœus."
31.	10.	Omit "Ptilotis" and substitute "
31.	17.	For "epioletus" read "epicletus."
31.	17.	For "Agavista" read "Agarista."
31.	36.	For "Gonyodactylus" read "Gonyocephalus."
31.	38.	For "Myxophies" read "Mixophyes."
36.		Omit foot-note.
37.		Omit foot-note.
38.		Omit foot-note.
41.	6.	For "Lucodore" read "Leucodore."
49.	23.	Add "4" after "Ser."
51.	24.	For "moveable" read "movable."
52.	6.	Add "4" after "Ser."
61.	30.	For "macroscopic" read "microscopic."
65.	30.	For "mising" read "mosing."
69.	5.	For "cresentic" read "crescentic."
78.	2.	For "(155)" read "(15'5)."
81.	23.	For "of the total" read "in the total."
81.	23.	For "four-sevenths of" read "four-sevenths in."
81.		Omit "and is" in foot-note.
86.	8.	For "artica" read "arctica."
86.	19.	Add "Herd." after "viridis."
87.	6.	Omit "," before "ovum."
91.	40.	For "subtymppanal" read "subtympanal."
98.	41.	For "mmch" read "much."
99.	18.	For "this" read "thus."
99.	30.	For "percepttble" read "perceptible."
123.	2.	For "Madroporacæ" read "Madreporacæ."
123.	8.	For "cænenchyma" read "cœnenchyma."
Pl. xi.		The figures are reversed.
„ xxi.		(Explanation) For "Microcystina" read "Microcystis."

Note "DOTICUS PESTILENS: A correction.—From a communication kindly forwarded by Mr. F. P. Pascoe, it appears that the genus for which I adopted the MS. name *Metodoticus* (see p. 75), has been described under the name *Doticus* (Ann. Mag. Nat. Hist. ix. p. 27, 1882). The Victorian Apple-pest should, therefore, be known as *Doticus pestilens*, instead of *Metadoticus pestilens*, as at first suggested. A figure of the insect, and some account of its life-history, are contained in Mr. French's recently published 'Handbook of the Destructive Insects of Victoria.'—A. S. O."