

International Council for the  
Exploration of the Sea

C.M.1994/L:33  
Ref: Pub

## IDENTIFICATION LEAFLETS FOR PLANKTON

Editor's Report 1993/94



J.A. Lindley  
Natural Environment Research Council  
Plymouth Marine Laboratory  
Prospect Place, West Hoe,  
PLYMOUTH, PL1 3DH,  
UK.

### Phytoplankton

One leaflet on potentially toxic phytoplankton, *Prorocentrum*, by M. Faust, J. Larsen & Ø. Moestrup is now in Press.

### Zooplankton

A leaflet on the identification of the calanoid copepods of the family Acartiidae (*Acartia* and *Paracartia*) by Dr. J. Bradford-Grieve has been accepted for publication. This will replace the now obsolete *Fiches* No 12 by Farran.

Dr. J. Mauchline has agreed to produce a leaflet on the calanoid copepod genus *Euchaeta*. This is nearing completion and is expected soon.

Other contributions on larvae of pedunculate barnacles, larvae of Thalassinidae (Decapoda) and eggs of planktonic Cladocera are promised.

### Call for new contributions.

A list of published identification leaflets in the ICES series (including *Fiches d'identification des oeufs et larves de poissons*) is appended to this report. The list is ordered taxonomically to enable potential contributors to identify gaps in the series or contributions which are now in need of revision. In addition to the groups highlighted in the last report (bivalve and ascidian larvae for which no leaflets have been published and echinoderm and polychaete larvae which have been only partially covered) there are gaps among the calanoid copepods (e.g. Temoridae) and among the fish eggs and larvae. The inclusion of phytoplankton in the series is a recent innovation and there is enormous scope for contributions. I would be delighted to hear from anyone who is interested in preparing leaflets to fill remaining gaps or to revise or replace obsolete contributions.

## INDEX OF ICES PLANKTON IDENTIFICATION SHEETS

No	Subject	Author	Year	Comments
<b>PROTOZOA</b>				
108	Foraminifera: Globigerinidae Globorotaliidae	Bé	1967	
114	Acantharia: Holoacantha: Acanthochiasmidae	Bottazzi Massera & Nencini	1969	
110	Protozoa: Oligotrichidia: Halteriidae, Stobilidae	Bock	1967	
117-127	Tintinnida	Marshall	1969	
65	Ellobiopsidae	Boschma	1956	
<b>COELENTERATA</b>				
2	Hydromedusae: Tublariidae (Part)	Russell	1939	
28	Hydromedusae: Tulariidae (part), Margelopsidae	Russell	1950	
29	Hydromedusae: Corynidae	Russell	1950	
30	Hydromedusae: Zacleidae, Cladonemidae, Eleutheridae	Russell	1951	Replaced by 153
31	Hydromedusae: Clavidae & Hydractiniidae	Russell	1951	Replaced by 154
51	Hydromedusae: Rathkeidae, Bougainvilliidae	Russell	1953	
54	Hydromedusae: Pandeidae, Tiarannidae	Russell	1955	
99	Hydromedusae: Dipleurosomatidae, Melicertidae, Laeoiceidae	Russell	1963	
100	Hydromedusae: Mitrocomidae	Russell	1963	
101	Hydromedusae: Campanulriidae, Lovenellidae, Phialellidae	Russell	1963	
102	Hydromedusae: Phialuciidae, Eirenidae Eutimidae	Russell	1963	
128	Hydromedusae: Aequoridae	Russell	1970	
153	Hydromedusae: Zancleidae, Cladonemidae & Eleutheridae	Russell	1977	Replaces 30
154	Hydromedusae: Clavidae	Russell	1977	Replaces 31
161	Hydromedusae: Addenda	Russell	1978	
164	Trachymedusae: Geryonidae, Ptychogastridae & Halicreatidae	Russell	1980	

165	Trachymedusae: Rhopalonematidae 1	Russell	1981	
166	Narcomedusae: Aeginidae, Solmaridae & Cuninidae	Russell	1981	
55	Siphonophora: Calycophorae: Diphyidae (part)	Totton & Fraser	1955	
56	Siphonophora: Calycophorae: Diphyidae (part)	Totton & Fraser	1955	
57	Siphonophora: Calycophorae: Chuniphyidae	Totton & Fraser	1955	
58	Siphonophora: Calycophorae: Prayidae	Totton & Fraser	1955	
59	Siphonophora: Calycophorae: Hippopodidae	Totton & Fraser	1955	
60	Siphonophora: Calycophoridae: Abylidae	Totton & Fraser	1955	
61	Siphonophora: Physonectae, Agalmidae	Totton & Fraser	1955	
62	Siphonophora: Physonectae, Various families	Totton & Fraser	1955	
152	Scyphomedusae: Coronatae	Russell	1976	
158	Scyphomadusae: Semaestomeae	Russell	1978	
93	Anthozoa: Arachnactis larvae	Leloup	1962	
82	Ctenophora	Lilley	1958	Replaced by 146
146	Ctenophora	Greve	1975	Replaces 82

#### ROTATORIA

84	Rotatoria: Monogonata: Ploima: Synchaetidae	Berzins	1960	
85	Rotatoria: Monogonata: Ploima: Trichoceridae	Berzins	1960	
86	Rotatoria: Monogonata: Ploima: Brachionidae (part)	Berzins	1960	
87	Rotatoria: Monogonata: Ploima: Brachionidae (part)	Berzins	1960	
88	Rotatoria: Monogonata: Ploima: Asplachidae, Synchaetidae (part)	Berzins	1960	
89	Rotatoria: Monogonata: Flosulariaceae, Collothecaceae	Berzins	1960	

#### CHAETOGNATHA

1	Chaetognatha	Russell	1939	Revised 1957
---	--------------	---------	------	--------------

NERMERTEA

64 Pelagic Nermerteza, Keys to Coe 1956  
families and genera

POLYCHAETA

52 Polychaeta: Aphroditidae Muus 1953  
Phyllodocidae Alciopidae

53 Polychaeta: Tomopteridae Muus 1953  
Typhloscolecidae

91 Polychaeta: larvae: Hannerz 1961  
Spionidae, Disomidae,  
Poecilochaetidae

113 Polychaeta: Syllidae: Hamond 1967  
Autolytinae

CRUSTACEA

3 Cladocera Ramner 1939 Replaced by 143

143 Cladocera Della Croce 1974 Replaces 3

5 Ostracoda: Cypidinidae Klie 1944 Replaced by 115

6 Ostracoda: Conchoeciidae Klie 1944 Replaced by 116

115 Ostracoda I: Myodocopa: Poulsen 1969 Replaces 5  
Cypridiniiformes

116 Ostracoda II: Myodocopa: Poulsen 1969 Replaces 6  
Halocypridiformes

11 Calanoida: Centropages Farran 1948

12 Calanoida: Acartia Farran 1948

13 Calanoida: Candacia Farran 1948

14 Calanoida: Metridia Farran 1948

15-16 Calanoida: Heterorhabdidae Farran 1948

17 Calanoida: Pleuromamma Farran 1948

32 Calanoida: Calanidae Farran 1951 (revised by  
Vervoort)

33 Calanoida: Megacalanidae Farran 1951 (revised by  
Vervoort)

34 Calanoida: Eucalanidae Farran 1951 (revised by  
Vervoort)

35 Calanoida: Paracalanidae. Farran 1951 (revised by  
Paracalanus Vervoort)

36 Calanoida: Paracalanidae. Farran 1951 (revised by  
Calocalanus, Leptocalanus, Vervoort),  
Dolichocera = Ischnocalanus. Revised by  
Bernard (1960),  
Replaced by 138

37 Calanoida: Pseudocalanidae. Farran 1951 (revised by  
Pseudocalanus, Microcalanus Vervoort)

38	Calanoida: Pseudocalanidae. Clausocalanus, Drepanopus, Drepanopsis, Ctenocalanus	Farran	1951	(revised by Vervoort)
39	Calanoida: Spinocalanidae. Spinocalanus	Farran	1951	(revised by Vervoort)
40	Calanoida: Spinocalanidae. Mimocalanus, Monacilla	Farran	1951	(revised by Vervoort)
41	Calanoida: Aetideidae. Key to Genera	Vervoort	1952	
42	Calanoida: Aetideidae. Aetideus, Euaetideus, Aetidiopsis	Vervoort	1952	
43	Calanoida: Aetideidae. Bradyidius, Bradyetes, Bryaxis	Vervoort	1952	
44	Calanoida: Aetideidae. Chiridius, Pseudaetideus, Chiridiella.	Vervoort	1952	
45	Calanoida: Aetideidae. Gaidius	Vervoort	1952	
46	Calanoida: Aetideidae. Gaetanus	Vervoort	1952	
47	Calanoida: Aetideidae. Euchirella	Vervoort	1952	
48	Calanoida: Aetideidae. Pseudochirella	Vervoort	1952	
49	Calanoida: Aetideidae. Chirundina, Undeuchaeta, Pseudeuchaeta	Vervoort	1952	
138	Copepoda: Calanoida: Calocalanidae	Corral	1972	Replaces 36
50	Copepod nauplii (I)	Ogilvie	1956	
63	Copepod nauplii (II)	Lovegrove	1956	
169-171	Copepoda: Cyclopoida: Oncaea	Malt	1983	
4	Harpacticoida	Klie	1943	Replaced by 133
133	Copepoda-I: Harpacticoida	Wells	1970	Replaces 4
144-145	Copepoda: Monstrilloida	Isaac	1975	
83	Cirripidea: Thoracica Lepadidae	Broch	1959	
163	Cirripedia: Balanomorph nauplii	Lang	1980	
71	Cumacea: Key to families	Jones	1957	
72	Cumacea: Figures	Jones	1957	
73	Cumacea: Bodotriidae	Jones	1957	
74	Cumacea: Leuconidae	Jones	1957	

75	Cumacea: Nannastacidae, Lampropidae, Pseudocumidae,	Jones	1957	
76	Cumacea: Diastylidae	Jones	1957	
77	Isopoda: Valvifera. Asselota	Naylor	1957	
78	Isopoda: Flabellifera	Naylor	1957	
103	Amphipoda: Hyperiidea: Hyperiididae	Dunbar	1963	
104	Amphipoda: Hyperiidea: Phronimididae	Shih & Dunbar	1963	
18	Mysidacea: General	Nouvel	1950	
19	Mysidacea: Lophogastridae, Eucopiidae, Petalophthalmidae. Mysidae: Boreomysinae	Nouvel	1950	
20	Mysidacea: Mysidae: Siriellinae, Gasterosaccinae	Nouvel	1950	
21	Mysidacea: Mysidae: Mysinae: Erythropinae (part)	Nouvel	1950	
22	Mysidacea: Mysidae: Mysinae: Erythropini (part)	Nouvel	1950	
23	Mysidacea: Mysidae Mysinae: Erythropini (part), Calyptommini	Nouvel	1950	
24	Mysidacea: Mysidae: Mysinae: Leptomysini	Nouvel	1950	
25	Mysidacea: Mysidae: Mysinae: Mysini (part)	Nouvel	1950	
26	Mysidacea: Mysidae: Mysinae: Mysini (part)	Nouvel	1950	
27	Mysidacea: Mysidae: Mysinae: Mysini (part) Mysidellinae	Nouvel	1950	
134	Euphausiacea: adults	Mauchline	1971	
135- 137	Euphausiacea: larvae	Mauchline	1971	
67	Decapoda Larvae: I. General	Williamson	1957	
68	Decapoda Larvae: V. Hippolytidae	Williamson	1957	
81	Decapod Larvae: XI. Paguridae, Coenobitidae, Dromiidae & Homolidae	Pike & Williamson	1958	Revised 1959
90	Decapoda: larvae: VII. Caridea, Cragonidae: Stenopodidea	Williamson	1960	

92	Decapoda: larvae: III. Oplophoridae, Nematocarcinidae, Pasiphaeidae	Williamson	1962		
109	Decapoda: larvae: IV. Pandalidae, Alpheidae	Williamson	1967		
112	Decapoda: pelagic adults: Pasiphaeidae, Oplophoridae, Hippolytidae, Pandalidae	Rice	1967		
139	Decapoda: larvae: Galatheidae	Pike & Williamson	1972		
159	Decapod larvae: VI. Palaemonidae & Processidae	Fincham & Williamson	1978		
167-168	Decapod larvae: VIII. Nephropidea, Palinuridea & Eryonidea	Williamson	1983		
INSECTA					
147	Insecta: Halobates	Cheng	1975		
POLYZOA					
107	Polyzoa: Cyphonautes larvae	Ryland	1965		
MOLLUSCA					
8	Pteropoda: Thecosomata	Tesch	1947	Replaced 140-142	by
140-142	Pteropoda: Thecosomata	van der Spoel	1972	Replaces 8	
66	Heteropoda	Phillips Dales	1957		
79	Gymnosomata: Clionidae	Morton	1957		
80	Gymnosomata: Pneumodermatidae, Cliopsidae	Morton	1957		
129-132	Prosobranchia: Veliger of Taenioglossa and Stenoglossa	Fretter & Pilkington	1970		
106	Opisthobranchia: veliger larvae	Hadfield	1964		
94	Cephalopoda: Decapoda: Sepioidea	Muus	1963		
95	Cephalopoda: Decapoda: Teuthoidea: Loliginae	Muus	1963		
96	Cephalopoda: Decapoda: Teuthoidea: Ommastrephidae, Chiroteuthidae, Cranchidae	Muus	1963		

97	Cephalopoda: Decapoda: Teuthoidea: Octopoteuthidae, Gonatidae, Onychoteuthidae, Histioteuthidae, Branchioteuthidae	Muus	1963	
98	Cephalopoda: Octopoda	Muus	1963	
<b>ECHINODERMATA</b>				
105	Echinodermata: pluteus larvae	Geiger	1964	
<b>PHORONIDEA</b>				
69	Actinotrocha larvae (Phoronidea)	Fornneris	1957	
<b>HEMICHORDATA</b>				
70	Tornaria larvae (Enteropneusta)	Burdon-Jones	1957	
<b>UROCHORDATA</b>				
7	Appendicularia	Buckmann	1945	Revised 1969
9	Salpidae	Fraser	1947	
10	Doliolidae	Fraser	1947	
<b>CEPHALOHORDATA</b>				
111	Acrania: Branchiostomatidae	Wickstead	1967	
<b>FISH</b>				
148	Callionymidae	Demir	1976	
149	Labridae	Fives	1976	
150-151	Soleidae	Nichols	1976	
172	Blenniidae	Fives	1986	
173-175	Macrouridae	Merrett	1986	
176	Gadidae: <i>Ciliata</i> Couch	Demir	1986	
177	Sparidae	Camus & Besseau	1986	
<b>PHYTOPLANKTON</b>				
178	<i>Emiliana huxleyi</i>	Jahnke	1992	
179	Potentially toxic Prymnesiophyceae (Haptophyceae)	Moestrup & Larsen	1992	
180	Potentially toxic <i>Dinophysis</i> (Dinophyceae)	Larsen & Moestrup	1992	
<b>MISCELLANEOUS</b>				



**FICHES D'IDENTIFICATION DES OEUFs ET LARVES DE POISSONS**

1	Clupeoidae	Saville	1964	
2	Ammodytidae	Macer	1967	
3	Blenniidae	Fives	1970	Replaced by 172
4-6	Pleuronectidae	Nichols	1972	