

Bibliography on the genus *Marenzelleria* and its geographical distribution, principal topics and nomenclature

Michael L. Zettler

University of Rostock, WB Allgemeine und Spezielle Zoologie, Universitätsplatz 5, D-18051 Rostock, Germany

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Abstract

A bibliography is given for the genus *Marenzelleria*. All together, 236 publications were found dealing with *M. viridis*, *M. wireni* and *M. jonesi* and their synonyms. The contents of the publications are briefly reviewed in tabular form identifying the nomenclature used, the geographical distribution and the topic of the paper in each case.

Introduction

Comprehensive literature studies were necessary before the ecological, physiological and genetic work required for the BMBF project '*Marenzelleria*' could be undertaken at the University of Rostock and the results published. The present bibliography covers all literature sources worldwide that have dealt with some aspect of the genus *Marenzelleria*. It is still impossible to say definitely how the genus immigrated to Europe. Its range of distribution appears to be much larger than hitherto assumed. *Marenzelleria* is found in the Russian and American arctic waters (circumpolar), in the North Sea and Baltic Sea (temperate boreal) and along the North American east coast from the Arctic to the subtropical state of Georgia (see map in Bastrop et al. in this issue). The genus has possibly been present in the North Sea for much longer than previously assumed. The discovery of what appeared to be *Marenzelleria wireni* at Königshafen on Sylt in 1932 (Wohlenberg, 1937) and 1970 (Otte, 1979) and in the Forth estuary in 1979 (Elliott & Kingston, 1987) indicates that the genus has been in the North Sea for some time. It was only its widespread discovery during the early 1980s and the coincidental discovery of animals identified as *Marenzelleria viridis* in the Baltic Sea during the mid-1980s (Bick & Burkhardt, 1989) that drew attention to the potential implications. So far, the species' identity had been largely ignored. It is impossible to say which

of the types differentiated genetically and morphologically, corresponds to the animals found in Russian arctic waters (Bastrop et al., this issue; Bick & Zettler, this issue). Sikorsky et al. (1988) published a morphological description for *M. cf. viridis* rather resembling that given by Bick (1995), but assigned their material to *M. wireni*. The species *M. jonesi* established by Maciolek (1984) is also questionable and led to the current confusion in the literature. Miller et al. (1992), for instance, included *M. jonesi* in their list of taxa for the *locus typicus* in Cape Henlopen (Delaware, USA). However, in a study published three years later they called the species *M. viridis* (Bock & Miller, 1995). Recently, Rodi & Dauer (1996) synonymized *M. jonesi* with *M. viridis*. No further mention of *Marenzelleria jonesi* has been found in the literature.

Bibliography

The bibliography includes publications dealing directly with the spionid polychaete itself as well as those mentioning *Marenzelleria* only marginally. The synonyms given in Table 1 imply in no way that a complete revision of the taxa has been undertaken. Table 1 is intended solely to indicate the nomenclature used hitherto and is based on the taxonomic studies published by Maciolek (1984), Foster (1971) and Hartman

Table 1. Nomenclature of the genus *Marenzelleria*. The columns show the synonyms used for *Marenzelleria* spp. under the names given in the column headings.

[1] <i>Marenzelleria viridis</i>	[13] <i>Marenzelleria wireni</i>	[20] <i>Marenzelleria jonesi</i>
[2] <i>Marenzellaria viridis</i>	[14] <i>Marenzellaria wireni</i>	
[3] <i>Laonice viridis</i>	[15] <i>Laonice annenkovae</i>	
[4] <i>Scolecopides arcticus</i>	[16] <i>Laonice annenkovae</i>	
[5] <i>Scolecopides arctius</i>	[17] <i>Microspio wireni</i>	
[6] <i>Scolecopides virens</i>	[18] <i>Nerine vulgaris</i>	
[7] <i>Scolecopides viridis</i>	[19] <i>Paraspio wireni</i>	
[8] <i>Scolecopsis tenuis</i>		
[9] <i>Scolecopsis viridis</i>		
[10] <i>Scolecopsis tenuis</i>		
[11] <i>Scolecopides viridis</i>		
[12] <i>Scolecopides viridis</i>		

(1959). A revision would certainly lead to a change in the synonyms used (see Bick & Zettler, in this issue).

In Table 2 an overview is given of the geographic area and of the different research topics covered in each of the publications listed. The NOM-numbers given in this table refer to the synonyms in Table 1 used in

the corresponding publication. Finally, in Table 3 the complete bibliography is presented. The purpose of the bibliography is to enable the reader to see at a glance the nomenclature used in a publication referring to *Marenzelleria*, the principle topic of the paper and the geographical area it deals with.

Table 2. Bibliography on the genus *Marenzelleria* and its geographical distribution, principal topics and nomenclature (NOM) [publication numbers refer to Table 3 and NOM-numbers refer to Table 1]

No.	Author	NOM	Distribution	Topics
1	Aller RC (1980)	6	Mud Bay NE America (South Carolina)	occurrence abundance 19 ind./m ²
2	Annenkova N (1932)	15	Franz-Joseph-Land Arctic, Russia	occurrence
3	Arndt EA (1989)	1	Darss-Zingst Estuary Baltic Sea, Germany	occurrence
4	Arndt EA (1991)	1	Darss-Zingst Estuary Baltic Sea, Germany	occurrence 6700 ind./m ² (82 gWW/m ²)
5	Arndt EA (1994)	1	Darss-Zingst Estuary Baltic Sea, Germany	abundance and biomass from 1986 to 1990
6	Atkins SM et al. (1987)	1	Tay Estuary (1984) North Sea, Scotland	morphology, ecology, vertical distribution, reproduction
7	Augener H (1913)	13	Franz-Joseph-Land Arctic, Russia	occurrence first record
8	Augener H (1929)	13	Spitsbergen Arctic, Norway	occurrence
9	Barnes RSK (1994)	1	NW Europe brackish-water fauna	determination
10	Bastrop R et al. (1995)	1	North Sea and Baltic Sea	genetics
11	Bastrop R et al. (1996)	1	North Sea and Baltic Sea Atlantic, NE America	genetics
12	Bick A Burckhardt R (1989)	1	Darss-Zingst Estuary Baltic Sea, Germany	occurrence morphology
13	Bick A et al. (1993)	1	Darss-Zingst Estuary Baltic Sea, Germany	occurrence, reproduction population dynamics
14	Bick A (1995)	1	Darss-Zingst Estuary Baltic Sea, Germany	morphology
15	Bochert R (1993)	1	Darss-Zingst Estuary Baltic Sea, Germany	reproduction
16	Bochert R et al. (1997)	1	Darss-Zingst Estuary Baltic Sea, Germany	reproduction
17	Bochert R et al. (1994)	1	Darss-Zingst Estuary Baltic Sea, Germany	dispersal of larvae
18	Bochert R Bick A (1995)	1	Darss-Zingst Estuary Baltic Sea, Germany, laboratory	larval development, influence of salinity and temperature
19	Bochert R Bick A (1995)	1	Darss-Zingst Estuary Baltic Sea, Germany, laboratory	reproduction larval development
20	Bochert R (1996)	1	Darss-Zingst Estuary Baltic Sea, Germany, laboratory	spermatogenesis

Table 2. Continued

No.	Author	NOM	Distribution	Topics
21	Bochert R et al. (1996)	1	Darss-Zingst Estuary Baltic Sea, Germany, laboratory	larval development, influence of salinity and temperature
22	Bochert R (1996)	1	Darss-Zingst Estuary Baltic Sea, Germany, laboratory	oogenesis
23	Bochert R (1996)	1	Darss-Zingst Estuary Baltic Sea, Germany, laboratory	gametogenesis, influence of salinity and temperature
24	Bochert R et al. (1996)	1	Darss-Zingst Estuary Baltic Sea, Germany	reproduction, settlement larval development
25	Bochert R (1996)	1	Darss-Zingst Estuary Baltic Sea, Germany, laboratory	comprehensive investigations of reproduction
26	Bock MJ Miller DC (1995)	1	Cape Henlopen NE America (Delaware)	feeding behavior, nutrition storm effects
27	Bock MJ Miller DC (1996)	1	Breakwater Harbor NE America (Delaware)	feeding behavior, nutrition influence of current
28	Boesch DF et al. (1976)	7	Chesapeake Bay NE America (Virginia)	occurrence reproduction
29	Boesch DF (1977)	7	Chesapeake Bay NE America (Virginia)	occurrence
30	Bromley JEC (1979)	7	Minas Basin, Minas Chanel NE America (Nova Scotia)	occurrence
31	Brunel P (1970)	7	St. Lawrence Gulf NE America (Quebec, New Brunsw.)	occurrence
32	Bumpus HC (1980)	9	Woods Hole NE America (Massachusetts)	occurrence
33	Burbancck WD (1962)	7	Hudson River, Dennings Point NE America (New York)	occurrence
34	Cammen LM (1976)	7	Drum Inlet, Snow's Cut NE America (North Carolina)	occurrence
35	Carlton JT Geller JB (1993)	1	Atlantic coast, NE America Germany	immigration
36	Chamberlin RV (1920)	5	Arctic Alaska, Northwest Territories	occurrence morphology
37	Cowles RP (1930)	8, 9	Chesapeake Bay, Severn River NE America (Virginia)	occurrence
38	Dauer DM (1979)	7	Chesapeake Bay NE America (Virginia)	occurrence tube building
39	Dauer DM et al. (1980)	7	Lafayette-River, Norfolk NE America (Virginia)	swarming behavior
40	Dauer DM et al. (1981)	7	Chesapeake Bay NE America (Virginia)	nutrition, ecology, competition vertical distribution
41	Dauer DM et al. (1982)	7	Lafayette-River, Norfolk NE America (Virginia)	swarming behavior

Table 2. Continued

No.	Author	NOM	Distribution	Topics
42	Dauer DM et al. (1993)	1	James River, Chesapeake Bay NE America (Virginia)	abundance 515–8548 ind./m ² biomass max. 1.8 gAFDW/m ²
43	Dauer DM et al. (1996)	1	Delaware Bay NE America (Delaware)	feeding behavior
44	Day JH (1973)	7	Beaufort NE America (North Carolina)	occurrence
45	Dekker R (1991)	2	Balgzand, Molenrak, Scheurrak North Sea, Netherlands	occurrence, S~20‰ abundance 3–6 ind./m ²
46	Discroll SK (1996)	2, 7	laboratory	metabolism bioaccumulation
47	Dörjes J Howard JD (1975)	7	Ogeechee River, Ossabaw Sound NE America (Georgia)	vertical distribution dominance, salinity 0.4–12‰
48	Dörjes J (1977)	7	Sapelo Island NE America (Georgia)	dominant limmic to mixo-oligohaline
49	Elliott M Kingston, P. F. (1987)	14	Forth Estuary (1979) North Sea, Scotland	occurrence <i>M. wireni</i> - <i>N. diversicolor</i> -area
50	Engkvist R Persson L-E (1995)	1	Kalmar-Fjord Sweden	occurrence abundance 0–53 ind./m ²
51	Essink K Kleef HL (1986)	1	Ems Estuary, Dollard (1983) North Sea, Netherlands, Germany	occurrence ecology
52	Essink K (1987)	1	Dollard North Sea, Netherlands	occurrence spreading
53	Essink K (1987)	1	Dollard North Sea, Netherlands	occurrence spreading, biology
54	Essink K Kleef HL (1988)	1	Ems Estuary, Dollard (1983) North Sea, Netherlands, Germany	ecology, vertical distribution abundance 0–19,600 ind./m ²
55	Essink K (1990)	1	West Europe	occurrence
56	Essink K Kleef HL (1993)	1	Ems Estuary, Dollard (1983) North Sea, Netherlands, Germany	ecology, reproduction 4000–130,000 ind./m ²
57	Ewing RM Dauer DM (1982)	7	Chesapeake Bay NE America (Virginia)	occurrence
58	Fauchauld K (1977)	13	world-wide	determination
59	Ferguson FF Jones ER (1949)	3	Norfolk NE America (Virginia)	occurrence
60	Foster NM (1971)	7	Alaska, Newfoundland to North Carolina, NE America	revision of <i>Scolecoclepidus</i> morphology, occurrence
61	Frankenberg D Burbanck WD (1963)	7	Marshfield NE America (Massachusetts)	occurrence
62	Franz DR Harris WH (1988)	7	Jamaica Bay NE America (New York)	occurrence sediment
63	Friedrich H	17	Sylt Island	morphology

Table 2. Continued

No.	Author	NOM	Distribution	Topics
	(1938)		North Sea, Germany	
64	Fritzsche D (1995)	1	Darss-Zingst Estuary Baltic Sea, Germany, laboratory	resistance, metabolism calorimetry
65	Fritzsche D (1995)	1	Darss-Zingst Estuary Baltic Sea, Germany, laboratory	resistance, metabolism calorimetry
66	Fritzsche D (1995)	1	Darss-Zingst Estuary Baltic Sea, Germany, laboratory	resistance, metabolism calorimetry
67	Fritzsche D Oertzen JA v (1995)	1	Darss-Zingst Estuary Baltic Sea, Germany, laboratory	resistance, metabolism calorimetry
68	Fritzsche D Oertzen JA v (1995)	1	Darss-Zingst Estuary Baltic Sea, Germany, laboratory	resistance, metabolism calorimetry
69	George JD (1966)	7	Lawrencetown NE America (Nova Scotia)	reproduction, larval stages swarming behavior
70	George JD (1966)	7	Lawrencetown NE America (Nova Scotia)	reproduction
71	Gollasch S Dammer M (1996)	1	North Sea, Baltic Sea Germany, Poland	neozoan organisms
72	Gosner KL (1971)	7	Cape Hatteras to Bay of Fundy NE America	determination
73	Gosselck F et al. (1993)	1	Weser Estuary North Sea, Germany	occurrence abundance 100 ind./m ²
74	Gruszka P (1991)	1	Pommeranian Bay Baltic Sea, Poland	ecology, abundance 200–500 ind./m ²
75	Gruszka P (1993)	1	Pommeranian Bay Baltic Sea, Poland	larvae in Baltic plankton
76	Gudmunsson H (1985)	7	not own investigations	comparison with <i>Malacoceros fuliginosus</i>
77	Günther B Lampe R (1993)	1	Kooser Lake, Greifswalder Bodden Baltic Sea, Germany	occurrence abundance
78	Günther B et al. (1995)	1	Peene and Oder Estuary Baltic Sea, Germany	abundance, biomass, salinity living communities
79	Gukov, AY (1992)	13	Laptev Sea Arctic, Russia	abundance, biomass
80	Haefner PA (1967)	7	Penobscot River NE America (Maine)	occurrence, O ₂ =0.5–8 ppm T=7–17 °C, salinity 9–31‰
81	Haefner PA et al. (1969)	7	Penobscot River NE America (Maine)	occurrence
82	Haesloop U (1990)	1	Weser Estuary North Sea, Germany	occurrence
83	Haesloop U Schuchardt B (1995)	1	Weser Estuary North Sea, Germany	occurrence abundance
84	Hartman O (1938)	4	Alaska	occurrence

Table 2. Continued

No.	Author	NOM	Distribution	Topics
85	Hartman O (1942)	9, 12	New England NE America	occurrence
86	Hartman O (1944)	10, 12	New England NE America	occurrence
87	Hartman O (1959)	7, 9, 13, 16, 18, 19	catalogue world-wide	occurrence
88	Hartmann-Schröder G (1971)	13	Arctic, Northwest Alaska, North Sea	occurrence morphology, taxonomy
89	Hartmann-Schröder G (1996)	1, 13	Arctic, Northwest Alaska NE America, North Sea, Baltic Sea	occurrence morphology, taxonomy
90	Hawthorne S Dauer DM (1983)	7	Elizabeth River NE America (Virginia)	occurrence abundance 67–800 ind./m ²
91	Hensel S (1994)	1	Greifswalder Bodden Baltic Sea, Germany	abundance, dominance max. 27,850 ind./m ²
92	Hines AH Comtois KL (1985)	7	Rhode River, Chesapeake Bay NE America (Maryland)	abundance, biomass vertical distribution
93	Hines AH et al. (1989)	7	Rhode River, Chesapeake Bay NE America (Maryland)	ingestion of <i>M. viridis</i> larvae by <i>Mya</i> and <i>Macoma</i>
94	Holland AF et al. (1977)	7	Chesapeake Bay, Calvert Cliff NE America (Virginia)	occurrence abundance 4–275 ind./m ²
95	Holland AF et al. (1980)	7	Chesapeake Bay NE America (Virginia)	reproduction, abundance 650–24,500 ind./m ²
96	Holmquist C (1967)	13	Kotzebue Sound, Bering Strait Alaska	occurrence, morphology taxonomy
97	Holmquist C (1973)	13	Calville, Imuruk, Krusenstem and Imigrook Lagoon, Alaska	occurrence salinity 0.4–23‰
98	Howard JD Frey RW (1975)	7	Ossabaw Sound NE America (Georgia)	occurrence
99	Howard JD Frey RW (1975)	7	Ossabaw Sound NE America (Georgia)	tube building
100	Howard JD et al. (1976)	7	Ossabaw Sound NE America (Georgia)	occurrence abundance 2010 ind./m ²
101	Hübel H-J et al. (1995)	1	Greifswalder Bodden Baltic Sea, Germany	abundance 0–3260 ind./m ² 0–47.5% relative abundance
102	Jansson K (1994)	1	Sweden	introduction
103	Jordan RA Sutton CE (1984)	7	Chesapeake Bay, Gunpowder River NE America (Virginia)	reproduction abundance 180–430 ind./m ²
104	Khatib S (1989)	1	Darss-Zingst Estuary Baltic Sea, Germany	larvae in plankton (47 ind./l)
105	Kinner P et al. (1974)	7	Delaware Bay NE America (Delaware)	occurrence abundance 60 ind./m ²
106	Kinner P	7	Delaware Bay	occurrence

Table 2. Continued

No.	Author	NOM	Distribution	Topics
107	Maurer D (1978) Kirkegaard JB (1990)	1	NE America (Delaware) Ringkobing Fjord North Sea, Denmark	abundance 20–40 ind./m ² occurrence immigration
108	Kleef HL Essink K (1986)	1	Ems Estuary, Dollard (1983) North Sea, Netherlands, Germany	occurrence ecology, interactions
109	Klinkenberg G Schumann R (1995)	1	Darss-Zingst Estuary Baltic Sea, Germany	<i>M. viridis</i> -larvae in plankton
110	Krieg H-J (1996)	1	Elbe Estuary North Sea, Germany	abundance 100–1000 ind./m ² salinity 0.4–0.8‰
111	Kube J et al. (1996)	1	Oder Estuary, Pommeranian Bay Darss-Zingst Estuary, Wismar Bay Warnow Estuary, Schiei Estuary Baltic Sea, Germany	abundance, abiotic influence population dynamics
112	Kube J (1996)	1	Oder Estuary, Pommeranian Bay Baltic Sea, Germany	abundance, abiotic influence population dynamic
113	Kube J et al. (1996)	1	Oder Estuary, Pommeranian Bay Baltic Sea, Germany	occurrence
114	Küster E (1996)	1	laboratory	influence of abiotic factors on proteines
115	Lagzdins G Pallo P (1994)	1	Riga Bay Baltic Sea, Estonia	immigration, abundance biomass, salinity
116	Leling A (1986)	13	Elbe Estuary North Sea, Germany	occurrence abundance 70–100 ind./m ²
117	Leppäkoski E (1991)	1	Baltic Sea	immigration
118	Levin LA (1982)	7	laboratory	interspecific aggression
119	Lippson AJ Lippson RL (1984)	7	Chesapeake Bay NE America (Virginia)	tube building, occurrence vertical distribution
120	Loi T-N Wilson BJ (1979)	7	Chesapeake Bay, Calvert Cliffs NE America (Virginia)	reproduction, occurrence sediment, opportunist
121	Maciolek NJ (1984)	1, 13, 20	NE America (Maine, Massachusetts, Rhode Island, Connecticut, Virginia)	morphology revision of <i>Marenzelleria</i>
122	Marenzeller E von (1891)		Spitsbergen Arctic, Norway	occurrence and morphology of <i>Scolecoplepis</i> sp.
123	Maslowski J (1992)	1	Oder Estuary Baltic Sea, Poland	occurrence
124	Maurer D et al. (1978)	7	Delaware Bay NE America (Delaware)	occurrence
125	Maurer D et al. (1979)	7	Delaware Bay NE America (Delaware)	occurrence
126	McIntosh WC (1915)		?	morphology of <i>Marenzelleria</i> sp.

Table 2. Continued

No.	Author	NOM	Distribution	Topics
127	McLusky DS et al. (1993)	1	Forth Estuary (1982) North Sea, Scotland	occurrence 30 ind./m ² (max. 649 ind./m ²)
128	Mead AD (1897)	9	Woods Hole NE America (Massachusetts)	reproduction, morphology (false diagnosis?)
129	Meire PM et al. (1994)	1	North Sea	no influence on other species
130	Mesnil F (1896)		Spitsbergen Arctic, Norway	morphology of <i>Marenzelleria</i> sp.
131	Michaelis H et al. (1992)	1	Ems, Weser, Elbe, Eider Estuaries North Sea, Netherlands, Germany	occurrence
132	Miller DC et al. (1992)	20	Cape Henlopen NE America (Delaware)	feeding, influence of current
133	Miller DC Blank JM (1996)	1	Cape Henlopen NE America (Delaware)	salinity, population structure
134	Mountford NK et al. (1977)	7	Calvert Cliff, Chesapeake Bay NE America (Virginia)	occurrence abundance 100–6882 ind./m ²
135	Nilsson J (1995)	1	Kalmar Fjord Sweden	occurrence abundance 0–11 ind./m ²
136	Norkko A et al. (1993)	1	Gulf of Finland Tvärminne, Baltic Sea, Finland	occurrence
137	Norkko A et al. (1995)	1	Gulf of Finland Tvärminne, Baltic Sea, Finland	occurrence depth distribution
138	Olenin S Chubarova S (1992)	1	Baltic Sea Poland, Russia (Curonian Bay)	occurrence spreading
139	Olenin S Chubarova S (1994)	1	Baltic Sea Lithuania (Curonian Bay)	abundance 10–2350 ind./m ² depth distribution (max. 55 m)
140	Olenin S (1997)	1	Baltic Sea Lithuania (Curonian Bay)	occurrence
141	Otte G (1979)	17	Sylt Island North Sea, Germany	occurrence
142	Persson L-E (1990)	1	South Sweden Baltic Sea	occurrence
143	Persson L-E (1994)	1	South Sweden Baltic Sea	immigration into Sweden
144	Persson L-E et al. (1996)	1	Baltic Sea	immigration, spreading
145	Pfitzenmeyer HT (1969)	7	Chesapeake Bay NE America (Delaware)	occurrence salinity 0–8‰
146	Pocklington P Tremblay MJ (1987)	7	from Newfoundland to New York NE America	occurrence
147	Post D Landmann M (1994)	13	Ems Estuary North Sea, Germany	occurrence
148	Powilleit M	1	Pommeranian Bay	occurrence

Table 2. Continued

No.	Author	NOM	Distribution	Topics
	et al. (1995)		Baltic Sea, Germany, Poland	biomass 0–5 gAFDW/m ²
149	Prena J	1	Wismar Bay	occurrence
	Gosselck F (1989)		Baltic Sea, Germany	abundance < 1 ind./m ²
150	Prena J (1990)	1	Wismar Bay Baltic Sea, Germany	occurrence
151	Prena J (1995)	1	Wismar Bay Baltic Sea, Germany	occurrence
152	Rathbun R (1880)	9	Provincetown, Cape Cod NE America (Massachusetts)	occurrence
153	Reinharz E (1983)	7	Potapsco River NE America (Maryland)	bioturbation, opportunist vertical distribution
154	Richard D (1995)	1	Darss-Zingst Estuary Baltic Sea, Germany	osmoregulation resistance
155	Robinson WW Matta JF (1977)	7	near Duck NE America (North Carolina)	occurrence
156	Rodi AJ Dauer DM (1996)	1, 20	Lewes NE America (Delaware)	synonymy of <i>M. jonesi</i> with <i>M. viridis</i>
157	Röhner M (1993)	1	different populations from the North Sea and Baltic Sea	genetics
158	Röhner M et al. (1996)		different populations from the North Sea and Baltic Sea	genetics of genus <i>Marenzelleria</i>
159	Röhner M et al. (1996)		different populations from the North Sea, Baltic Sea, NE America	genetics of genus <i>Marenzelleria</i>
160	Röhrig A Wächtler K (1994)	1	Darss-Zingst Estuary Baltic Sea, Germany	interactions competition behavior
161	Röhrig A (1995)	1	Darss-Zingst Estuary Baltic Sea, Germany	interactions settlement, competition
162	Rumohr H (1993)	13	Kiel Bay Baltic Sea, Germany	occurrence
163	Saavedra Perez (1990)	1	Greifswalder Bodden Baltic Sea, Germany	abundance 700-1000 ind./m ² biomass 2–10 gWW/m ²
164	Sanders HL et al. (1962)	7	Bamstable Harbor NE America (Massachusetts)	nutrition abundance 8–96 ind./m ²
165	Sanders HL et al. (1965)	7	Pocasset River NE America (Massachusetts)	occurrence salinity 0.3–31‰
166	Sarda R (1991)	1	Great Sippewissett NE America (Massachusetts)	occurrence
167	Sarda R et al. (1995)	1	Great Sippewissett NE America (Massachusetts)	reproduction, production population dynamics
168	Sarda R et al. (1995)	1	Great Sippewissett NE America (Massachusetts)	production, biomass, abundance, opportunist
169	Schiedek D (1992)	1	laboratory	resistance and tolerance

Table 2. Continued

No.	Author	NOM	Distribution	Topics
170	Schiedek D (1993)	1	laboratory	resistance and tolerance
171	Schimmer M (1995)	1	Weser Estuary North Sea, Germany	occurrence
172	Schneider A (1994)	1	Darss-Zingst Estuary Baltic Sea, Germany, laboratory	calorimetry hydrogen sulphide resistance
173	Schneider A (1995)	1	Darss-Zingst Estuary Baltic Sea, Germany, laboratory	calorimetry hydrogen sulphide resistance
174	Schneider A (1995)	1	Darss-Zingst Estuary Baltic Sea, Germany, laboratory	calorimetry hydrogen sulphide resistance
175	Schneider A (1996)	1	Darss-Zingst Estuary Baltic Sea, Germany, laboratory	metabolism, calorimetry influence of sulphide
176	Schneider A (1996)	1	Darss-Zingst Estuary Baltic Sea, Germany, laboratory	metabolism, calorimetry influence of sulphide
177	Schreiber G (1992)	1	Darss-Zingst Estuary Baltic Sea, Germany, laboratory	ATPase-activities
178	Schumann R (1993)	1	Darss-Zingst Estuary Baltic Sea, Germany	phytoplankton as nutrition for larvae of <i>M. viridis</i>
179	Shorey WK (1973)	7	Penebscot River NE America (Maine)	occurrence 5–19% relative abundance
180	Sigvaldadottir E (1996)	13		systematics and cladistics
181	Sikorsky AV et al. (1988)	13	Barents Sea to Bering Strait Arctic, Russia	occurrence, morphology taxonomy, revision
182	Simon JL (1968)	7	Woods Hole NE America (Massachusetts)	reproduction
183	Slastnikov GS (1957)	13	White Sea Arctic, Russia	occurrence
184	Smith RI (1964)	7	Woods Hole NE America (Massachusetts)	morphology
185	Söderström A (1920)	7	Spitsbergen to Kara Sea Arctic, Russia	occurrence morphology, taxonomy
186	Stewart PL et al. (1985)	12	Davis Strait NE America (Northwest Territories)	abundance 10 ind./m ² , depth distribution max. 1.000 m
187	Stickney AP (1959)	11	Sheepscot River NE America (Maine)	occurrence
188	Stigzelius J et al. (1995)	1	Gulf of Finland Tvärminne, Baltic Sea, Finland	occurrence immigration 1990
189	Stigzelius J et al. (1995)	1	Gulf of Finland Tvärminne, Baltic Sea, Finland	occurrence between Kotka and Pori
190	Sumner FB et al. (1913)	9	Woods Hole NE America (Massachusetts)	occurrence
191	Thiel R	1	Darss-Zingst Estuary	occurrence

Table 2. Continued

No.	Author	NOM	Distribution	Topics
	(1990)		Baltic Sea, Germany	abundance 44–693 ind./m ²
192	Tobiasson S	1	Kalmar Fjord	occurrence
	(1993)		Sweden	abundance 0–16 ind./m ²
193	Tobiasson S	1	Kalmar Fjord	occurrence
	(1995)		Sweden	abundance 0–52 ind./m ²
194	Tourtellotte GH	7	Chesapeake Bay, Lynnhaven Roads	occurrence
	Dauer DM (1983)		NE America (Virginia)	
195	Turkkila A-M	1	Gulf of Finland	occurrence
	Rissanen J (1995)		Tvärminne, Baltic Sea, Finland	
196	Ushakov PV	15	Spitsbergen to Tschukschen Sea	occurrence
	(1939)		Arctic, Russia	
197	Ushakov PV	16	Amur Estuary	occurrence
	(1948)		Ochotsky Sea, Russia	salinity 22‰
198	Ushakov PV	15	Spitsbergen to Amur Estuary	occurrence
	(1950)		Arctic, Russia	
199	Ushakov PV	15, 17	Spitsbergen to Kamtschatka	occurrence
	(1955)		Arctic, Russia	
200	Ushakov PV	15, 17	Spitsbergen to Kamtschatka	occurrence
	(1965)		Arctic, Russia	
201	Verrill AE	8, 9	Vineyard Sound, Great Egg Harbor	morphology
	(1873)		New Haven, Watch Hill, Woods Hole	first record, patchiness
			NE America (New Jersey, Massachusetts)	
202	Verrill AE	8, 9	New England	occurrence
	(1881)		NE America	
203	Warzocha J	1	Gdansk Basin	occurrence
	Gostkowska J (1997)		Baltic Sea, Poland	abundance 2 ind./m ²
204	Webster HE	9	Great Egg Harbor	occurrence
	(1879)		NE America (New Jersey)	
205	Webster HE	9	Provincetown, Wellfleet	occurrence
	Benedict JE (1884)		NE America (Massachusetts)	
206	Wells HW	7	Cape Hatteras	occurrence
	Gray IE (1964)		NE America (North Carolina)	
207	White CP	7	Chesapeake Bay	tube building, occurrence
	(1989)		NE America (Virginia)	morphology
208	Whitlatch RB	7	Barnstable Harbor	reproduction
	(1977)		NE America (Massachusetts)	abundance 2000 ind./m ²
209	Whitlatch RB	7	Barnstable Harbor	occurrence
	(1980)		NE America (Massachusetts)	nutrition
210	Whitlatch RB	7	Barnstable Harbor	occurrence
	(1981)		NE America (Massachusetts)	abundance 326 ind./m ²
211	Winkler HM	1	Darss-Zingst Estuary	predation, fish nutrition
	Debus L (1997)		Baltic Sea, Germany	
212	Wiren A	18	Kara Sea	occurrence

Table 2. Continued

No.	Author	NOM	Distribution	Topics
	(1883)		Arctic, Russia	
213	Wohlenberg E	17	Sylt Island	occurrence
	(1937)		North Sea, Germany	
214	Wolff WJ	1	North Sea	immigration
	(1992)		Germany, Netherlands	
215	Woodin SA	7	Assateague Island	occurrence
	(1978)		NE America (Virginia)	abundance 30–100 ind./m ²
216	Wrogemann H	1	Darss-Zingst Estuary	occurrence
	(1994)		Baltic Sea, Germany	population dynamics
217	Wrogemann H	1	Darss-Zingst Estuary	occurrence
	Weidemann W (1994)		Baltic Sea, Germany	population dynamics
218	Young DK		Cape Cod	<i>Scolecopides</i> sp.
	Rhoads DC (1971)		NE America (Massachusetts)	abundance 20 ind./m ²
219	Ysebaert T	1	Ems Estuary	occurrence
	et al. (1993)		North Sea, Netherlands	
220	Zachs IG	16	White Sea	occurrence
	(1925)		Arctis, Russia	morphology
221	Zajac RN	7	Alewife Cove	occurrence
	(1986)		NE America (Connecticut)	
222	Zajac RN	7	Alewife cove	predation, regeneration
	(1995)		NE America (Connecticut)	
223	Zettler ML	1	Darss-Zingst Estuary	population dynamics, biology
	(1993)		Baltic Sea, Germany	abundance, biomass
224	Zettler ML	1	Darss-Zingst Estuary	interactions
	(1994)		Baltic Sea, Germany	long term investigations
225	Zettler ML	1	Darss-Zingst Estuary	vertical distribution
	et al. (1994)		Baltic Sea, Germany	tube building
226	Zettler ML	1	Darss-Zingst Estuary	population dynamics
	et al. (1995)		Baltic Sea, Germany	biology
227	Zettler ML	1	Darss-Zingst Estuary	interactions with abiotic and
	(1995)		Baltic Sea, Germany	biotic factors, competition
228	Zettler ML	1	Darss-zingst Estuary	immigration together
	(1995)		Baltic Sea, Germany	with <i>Gammarus tigrinus</i>
229	Zettler ML	1	Darss-zingst Estuary	patchiness, analyses of
	Bick A (1996)		Baltic Sea, Germany	dispersion patterns
230	Zettler ML	1	Darss-Zingst Estuary	immigration
	(1996)		Baltic Sea, Germany	interactions, competition
231	Zettler ML	1	Darss-zingst Estuary	interactions
	(1997)		Baltic Sea, Germany	long term investigations
232	Zettler ML	1	Darss-Zingst Estuary	comprehensive investigation
	(1996)		Baltic Sea, Germany	of biology and ecology
233	Zmudzinski L	1	Curonian Bay	occurrence
	et al. (1997)		Baltic Sea, Russia, Poland	immigration

Table 2. Continued

No.	Author	NOM	Distribution	Topics
234	Zmudzinski L (1995)	1	Vistula Bay Baltic Sea, Poland	bioturbation vertical distribution
235	Zmudzinski L (1996)	1	Vistula Bay Baltic Sea, Poland	bioturbation interactions, competition
236	Zölder A et al. (1995)	1	Greifswalder Bodden Baltic Sea, Germany	automatic screening of larvae of <i>M. viridis</i>

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