

Zooplankton
Sheet 118

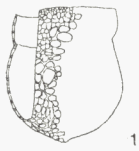
ORDER: TINTINNIDA
Family: Codonellidae (2)

Genera:
Codonella, Codonaria

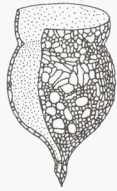
Family: Cyttarocylididae
Genus: Cyttarocylis

(By S. M. MARSHALL)

1969



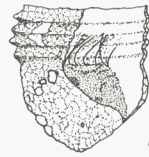
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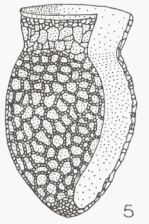
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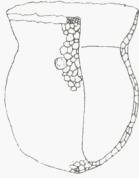
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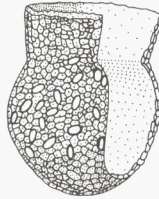
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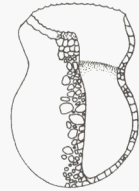
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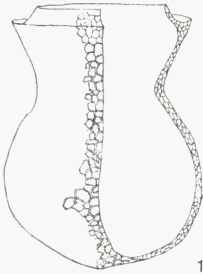
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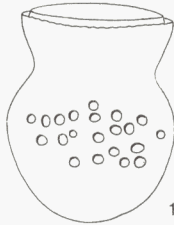
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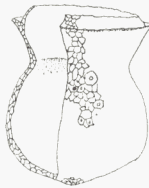
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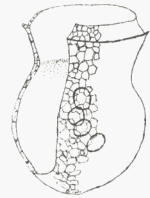
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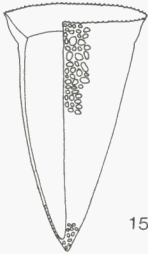
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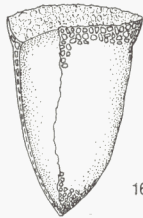
13



14



15



16



17



18



19

100μ



20



21

Plate III.

	Fig.	Length in μ	Oral diam. in μ (Max. width in brackets)	Approx. ratio L/oral diam.	Distribution	Notes on lorica
Genus <i>Codonella</i> HAECKEL, 1873	Plate III					Short wide lorica divided by constriction into rounded bowl and upper collar, often with inner ledge corresponding to outer constriction. Sometimes a border on rim of collar. Collar never longer than bowl, never hyaline, annulate or spiralled (except in <i>Codonella cratera</i>) Fenestrae, if present, are scattered irregularly or round middle of bowl. Wall with few or no agglomerated particles but often with coccoliths. Wall with two layers, with coarse secondary reticulation and fine primary alveoli. Distinguished from <i>Tintinnopsis</i> by structure and covering of wall and by more marked separation of collar and bowl. Characters varying within the genus are presence or absence of fenestrae; of oral border; of denticulation on collar and oral border; shape of aboral end.
<i>C. acerca</i> JÖRGENSEN, 1924	1	60-74	31-46 (46-54)	1.4-2.0	11	Collar nearly $\frac{1}{4}$ total length; inner shelf almost absent, aboral end rounded with a minute point.
<i>C. amphorella</i> BIEDERMANN, 1893	2	77-100	39-49 (46-59)	1.8-2.2	7, 13, 14	Collar $\frac{1}{7}$ - $\frac{1}{5}$ total length, slight inner shelf, aboral end with short pedicel walled off from bowl.
<i>C. apicata</i> KOFOID & CAMPBELL, 1929	3	52-94	30-53 (41-72)	1.4-1.8	13	Collar bulging then narrowing to mouth with oral border. Little marked oral shelf. Aboral end rounded or faintly pointed. Fenestrae may be present.
<i>C. cratera</i> (LEIDY, 1877)	4	56-85	28-46 (36-56)	1.2-2.1	5	Fresh or brackish water sp. Collar usually markedly annulate and sometimes more than half total length. Aboral end rounded to slightly pointed.
<i>C. elongata</i> KOFOID & CAMPBELL, 1929	5	85-117	42-78 (42-60)	1.6-2.0	10, 11, 12, 13	Collar about $\frac{1}{5}$ - $\frac{1}{4}$ total length, flaring with hyaline border, little inner shelf. Bowl oval, clearly reticulate. Fenestrae may be present. Longer and slenderer than <i>C. galea</i> .
<i>C. galea</i> HAECKEL, 1873	6	54-120	40-76 (43-74)	1.3-1.8	11, 13	Collar about $\frac{1}{4}$ total length, flaring, with hyaline border on oral rim, slight inner ledge, aboral end rounded sometimes with minute point.
<i>C. lagenula</i> (CLAPARÈDE & LACHMANN, 1858)	7	39	30 (38)	1.3	4, 10	A doubtful species. Flaring collar and globular reticulated bowl, sometimes covered with coccoliths. See <i>Codonellopsis contracta</i> .
<i>C. nationalis</i> BRANDT, 1906	8	73-117	42-80 (44-66)	1.4-1.7	11, 13	Collar cylindrical or slightly flaring with hyaline border. Bowl almost globular.

	Fig.	Length in μ	Oral diam. in μ (Max. width in brackets)	Approx. ratio L/oral diam.	Distribution	Notes on lorica
<i>C. perforata</i> ENTZ, 1884	9	75	38 (54)	1.8-2.2	11, 13	Collar bulging or angled then narrowing to oral rim with denticulate hyaline border. Deep nuchal constriction. Bowl almost globular sometimes pointed.
<i>C. relictata</i> MINKIEWITSCH, 1905	10	70	60	1.2	5, 6	Almost globular with very short stumpy pedicel. A fresh and brackish-water form.
Genus <i>Codonaria</i> KOFOID & CAMPBELL, 1939						Like <i>Codonella</i> except for presence of an inner collar or suboral cone, set inside and above main collar and often edged by hyaline border. Nuchal constriction more marked.
<i>C. cistellula</i> (FOL, 1884)	11	90-125	45-63 (70-87)	1.5-2.1	11	Large, with collars together about $\frac{1}{3}$ total length, outer flaring, inner narrowing to a hyaline border. Bowl widest in middle aboral end widely rounded or pointed.
<i>C. lata</i> (KOFOID & CAMPBELL, 1929)	12	78-90	47-58 (57-71)	1.6-1.7	11	Collars about $\frac{1}{3}$ total length, outer flaring, inner narrowing, with denticulate border. Bowl globose or flattened aborally. Fenestrae sometimes present equatorially.
<i>C. mucronata</i> (KOFOID & CAMPBELL, 1929)	13	75-108	44-63 (54-84)	1.6-2.0	13	Collars about $\frac{1}{3}$ total length, outer flaring, inner narrowing without oral border. Bowl widest in lower half, rather flattened aborally with small point.
<i>C. oceanica</i> (BRANDT, 1906)	14	70-95	44-57 (59-69)	1.7-1.9	10, 11, 12, 13	Collars about $\frac{1}{3}$ total length, outer flaring, inner narrowing to mouth which may or may not have an oral border. Bowl widest at middle, aboral end almost hemispherical.
Family CYTTAROCYLIDIDAE KOFOID & CAMPBELL, 1929						The position of this family is rather isolated and it is more usually put immediately after the Coxiellidae. Cone or cup shaped lorica with well marked flaring collar set off by nuchal constriction extending inwards as suboral shelf. Never with spiral lamina. Wall trilaminate, coarse meshwork between laminae, mesh with thick outlines enclosing primary alveoli. Mainly pelagic and warm water. Distinguished from <i>Codonella</i> by structure of wall.
Genus <i>Cyttarocyliis</i> (FOL, 1881)						Large, conical or cup shaped, oral margin with or without denticulation; collar flaring as short inverted truncate cone; aboral end rounded, pointed, or blunt, sometimes with minute canal opening to exterior. Wall structure as above.

	Fig.	Length in μ	Oral diam. in μ (Max. width in brackets)	Approx. ratio L/oral diam.	Distribution	Notes on lorica
<i>C. acutiformis</i> KOFOID & CAMPBELL, 1929	15	200-326	110-131	1.5-2.5	13	Long, conical, with slightly convex sides, pointed aboral end open by minute canal. Oral rim denticulate. Flaring collar and marked nuchal shelf. Reticulation in wall smaller in collar and aborally.
<i>C. brandti</i> KOFOID & CAMPBELL, 1929	18	89-122	86-100	0.9-1.2	11	Bowl-shaped with widely flaring collar and baggy aboral end. Nuchal shelf sometimes a thin upturned ridge, making a gutter between it and denticulate oral rim. Wall thickest near shelf. Reticulations largest below collar.
<i>C. cassis</i> (HAECKEL, 1873)	16	90-215	78-112	1.2-2.2	11, 13	Conical, with sides of bowl slightly convex, aboral end pointed, sometimes with terminal pimple open or closed. Collar slightly to widely flaring, oral rim ragged and denticulate. Reticulation larger near oral than aboral end.
<i>C. conica</i> (BRANDT, 1906)	17	170-210	120-143	1.3-2.0	13	Conical with slightly flaring collar. Oral rim uneven. Aboral end flattened with terminal pimple. Reticulations decrease in size aborally.
<i>C. eucecryphalus</i> (HAECKEL, 1887)	20	111-140	115-140	0.8-1.1	13	Small, cup shaped, low collar slightly or widely flaring, oral rim denticulate, well marked nuchal shelf. Aboral end rounded or (usually) flattened. Reticulations largest in collar, smallest aborally.
<i>C. longa</i> KOFOID & CAMPBELL, 1929	21	84-120	99-132	0.8-1.1	11, 12, 13	Small, cup shaped, low widely flaring collar oral rim irregular and denticulate. Aboral end rounded or obtusely pointed. Well marked nuchal shelf. Reticulations decrease in size aborally.
<i>C. magna</i> (BRANDT, 1906)	19	170-400	119-149	1.5-3.2	11, 13	Tall, conical, narrowing aborally to short pedicel usually open. Collar scarcely flaring, nuchal shelf projects little, oral rim denticulate, size of reticulation much the same all over.

(For introduction to Plankton Sheets 117-127, Key to numbers used in the tables for distribution, and Sources of illustrations, please refer to Sheet No. 117, pp. 2 and 11-12).