

Zooplankton

Sheet 127

ORDER: TINTINNIDA

Family: Tintinnidae (2)

Genera: Eutintinnus,

Daturella,

Salpingella, Salpingelloides,

Salpingacantha

(By S. M. MARSHALL)

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Plate XII.

	Fig.	Length in μ	Oral diam. in μ (Max. width in brackets)	Approx. ratio L/oral diam.	Distribution	Notes on lorica
Family TINTINNIDAE (2) Sub-family Salpingellinae KOFOID & CAMPBELL, 1939						Elongated, cylindrical or tubular, oral rim entire or toothed, with or without a brim, oral region sometimes flaring. Middle region sometimes slightly expanded, aboral end flaring or contracted, always open. Longitudinal structures, when present may be oral or aboral only, or full length. Wall hyaline usually structureless. Mostly warm-water forms.
Genus <i>Eutintinnus</i> * KOFOID & CAMPBELL, 1939	Plate XII					Cylindrical or nearly so, widely open at both ends, oral and aboral regions sometimes flaring with, or without, thickened brim; oral rim with or without teeth. Wall hyaline, usually structureless sometimes wrinkled.
<i>E. apertus</i> (KOFOID & CAMPBELL, 1929)	1	85-112	28-39	2.2-3.2	10, 11, 13	Slightly tapering cylinder, narrowing abruptly near aboral end to a width about half that of mouth. Oral region slightly, if at all, flaring. Often with laterally attached diatoms, especially <i>Chaetoceros</i> spp.
<i>E. brandti</i> (KOFOID & CAMPBELL, 1929)	2	205-339	53-66	3.7-5.6	11	Tubular with median expansion and slightly flaring oral and aboral ends, both of which have brims, the first more marked, the second sometimes lacking.
<i>E. elongatus</i> (JÖRGENSEN, 1924)	3	390-509	66-69	4.5-7.5	11, 12, 13	Elongated, slender, slightly flaring both orally and aborally, oral margin with brim. Aboral diameter about $\frac{1}{2}$ that of oral.
<i>E. fraknoi</i> (DADAY, 1887)	4	278-475	40-80	4.5-6.5	4, 7, 10, 11, 12, 13, 15	Large, tapering, gently flaring both orally and aborally. Aboral diameter about $\frac{2}{3}$ that of oral. Oral brim present. Occasionally with polygonal prisms and included particles in wall. Sometimes with attached <i>Chaetoceros</i> .
<i>E. inflatus</i> nom. nov. SILVA, 1952	5	100	21 (24)	4.8	11	Like <i>E. apertus</i> except that lorica widens slightly to just above aboral contraction. Possibly includes CANDEIS' <i>E. elegans</i> .
<i>E. latus</i> (JÖRGENSEN, 1924)	6	320-404	67-83	4.9	11, 12, 13	Large, almost cylindrical with oral end flaring more gradually than aboral. Aboral diameter about $\frac{3}{4}$ that of oral. Oral brim present. Sometimes slightly expanded in middle.
<i>E. lusus undae</i> (ENTZ, 1885)	7	169-290	38-54	3.2-4.9	11, 12, 13	Almost cylindrical with slightly flaring oral end and low brim. No flare or brim aborally. Aboral diameter little more than $\frac{1}{2}$ oral. Wall sometimes with prisms, sometimes with attached <i>Chaetoceros</i> .
<i>E. macilentus</i> (JÖRGENSEN, 1924)	8	136-329	37-58	3.6-5.0	7, 11	Small, tapering, with rather concave sides. Tapers from oral brim to slightly flaring aboral brimless opening, diameter $\frac{1}{2}$ - $\frac{2}{3}$ oral.

	Fig.	Length in μ	Oral diam. in μ (Max. width in brackets)	Approx. ratio L/oral diam.	Distribution	Notes on lorica
<i>E. medius</i> (KOFOID & CAMPBELL, 1929)	9	192–254	44–58	3.7–4.8	13	Almost cylindrical, with flaring oral and aboral ends, usually slightly expanded in middle. Oral brim present. Aboral diameter $\frac{2}{3}$ that of oral. Smaller than <i>E. latus</i> .
<i>E. pinguis</i> (KOFOID & CAMPBELL, 1929)	10	114–161	30–42	2.6–3.8	10, 12	Cylindrical in top $\frac{2}{3}$, contracting aborally to opening, $\frac{2}{3}$ as wide as mouth, very slightly flaring orally sometimes with slight median expansion. Indefinite oral brim.
<i>E. tubulosus</i> (OSTENFELD, 1899)	11	94–210	23–32	2.7–3.8	4, 6, 10, 11, 12, 15	Tapers uniformly from oral end with slight brim to aboral end more than $\frac{2}{3}$ as wide as oral. Wall very thin.
<i>E. turgescens</i> (KOFOID & CAMPBELL, 1929)	12	155–193	39–48	3.2–4.4	13	Almost cylindrical with flaring oral end, median expansion and straight aboral end from $\frac{1}{2}$ – $\frac{2}{3}$ diameter of oral. Like <i>E. lusus undae</i> apart from median expansion.
Genus <i>Daturella</i> * KOFOID & CAMPBELL, 1929						Elongated tapering cylinder with longitudinal fins or striae over whole or most of length. Wall soft and flaccid with more or less distinct alveolar structure. Warm-water genus.
<i>D. angusta</i> KOFOID & CAMPBELL, 1929	15	150–270	36–71	3.8–4.0	13, 15	Spool shaped with widely flaring oral and slightly flaring aboral end. Striae indistinct.
<i>D. gaussi</i> KOFOID & CAMPBELL, 1929	14	400	106	3.8	12	Tapering with flaring mouth, median expansion and very slight aboral flare. Aboral margin irregular, oblique. About 8 nearly vertical striae.
<i>D. magna</i> KOFOID & CAMPBELL, 1929	13	540	104	5.2	13	Large, tapering, with everted oral rim. Aboral diameter about $\frac{1}{3}$ that of oral. 10–11 fins, twisting leftwards under oral rim.
<i>Salpingella</i> * JÖRGENSEN, 1924						Elongated, narrow with flaring oral and contracted aboral end, latter sometimes with short cylinder and always open. Vertical or spiral fins or striae aborally only or, rarely, both orally and aborally but not full length (except sometimes in <i>S. laminata</i>). Wall hyaline, structureless. Mainly warm-water forms.
<i>S. acuminata</i> (CLAPARÈDE & LACHMANN, 1858)	16	200–370	29–47	5.5–11.6	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	Long, tubular, with widely flaring mouth and narrow aboral end without cylinder. 6–9 fins below middle, slightly curved. Middle region sometimes with a band of coccoliths.
<i>S. alata</i> KOFOID & CAMPBELL, 1929	17	283–290	40–41	7.0	15	Long, tubular with widely flaring mouth and narrow aboral end. 6 fins extend over posterior $\frac{1}{3}$, each widening into small angular wing just above aboral end.

	Fig.	Length in μ	Oral diam. in μ (Max. width in brackets)	Approx. ratio L/oral diam.	Distribution	Notes on lorica
<i>S. attenuata</i> JÖRGENSEN, 1924	19	248-433	35-43	7.4-15.3	13	Long, tubular, widely flaring mouth has thickened rim. Lorica narrower in posterior $\frac{1}{3}$, with 5-7 fins sometimes giving appearance of aboral expansion.
<i>S. curta</i> KOFOID & CAMPBELL, 1929	18	69-93	12-14	5.3-7.7	5, 10	Small, tubular, with scarcely flaring oral end and very short narrow aboral cylinder. 6-7 blade-like fins on posterior $\frac{1}{3}$.
<i>S. decurtata</i> JÖRGENSEN, 1924	20	128-150	16-23	8.5	12, 13	Small, tubular, with everted oral rim and very narrow aboral opening on short cylinder. 6-8 fins on posterior $\frac{1}{4}$ - $\frac{1}{3}$.
<i>S. gracilis</i> KOFOID & CAMPBELL, 1929	21	320-434	31-33	8.9-13.6	10, 11, 12, 13, 15	Elongated, narrow, widely flaring mouth with thickened rim, slightly incurved. Narrow aboral opening. 7-9 low fins posteriorly, sometimes indistinct. Sometimes faint suboral striae.
<i>S. laminata</i> KOFOID & CAMPBELL, 1939	22	73-125	15	4.9	11	Short, tubular, oral region scarcely flaring, lorica narrowest in middle, short aboral cylinder below fins. 4 vertical fins on lower part of bowl, disappearing or not, in middle, visible suborally. MARGALEF & DURAN record their specimens as this sp. but think they may be too long. Increased length may be a temperature effect.
<i>S. minutissima</i> KOFOID & CAMPBELL, 1929	23	78-133	3.4	3.3	10, 11, 12	Short, tubular, widely flaring mouth with thickened rim. Short narrow aboral cylinder, above it 6 fins.
<i>S. secata</i> (BRANDT, 1896)	25	260-408	39-47	6.8-14.8	1, 2, 6, 12, 15	Long, narrow, widely flaring mouth without thickened rim. Short, very narrow aboral cylinder, above this 7-8 fins about $\frac{1}{3}$ total length. Differs from <i>S. acuminata</i> in having an aboral cylinder to which fins do not extend.
<i>S. stenostoma</i> nom. nov. SILVA, 1950	24	130	7	18.6	11	Small mouth with oral region dilated just below it. Lorica narrowest a little suborally, widest near aboral end. About 6 fins. Resembles <i>S. subconica</i> apart from mouth.
Genus <i>Salpingelloides</i> * CAMPBELL, 1942						Elongated, almost cylindrical with flaring mouth and narrowed aboral end. No facets, but ridges or fins running throughout length or nearly so.
<i>S. altiplicata</i> (MERKLE, 1909)	26	150-177	31-35	4.8	4	Almost cylindrical, with widely flaring mouth and short narrow aboral cylinder. 8 fins running spirally right down lorica.
Genus <i>Salpingacantha</i> * KOFOID & CAMPBELL, 1929						Elongated, narrow, cylindrical upper part with bowl-shaped oral region and narrowing posterior part with or without aboral cylinder. Oral margin with 3-12 large teeth. 5-8 low fins posteriorly. Resembles <i>Salpingella</i> except for oral teeth.

	Fig.	Length in μ	Oral diam. in μ (Max. width in brackets)	Approx. ratio L/oral diam.	Distribution	Notes on lorica
<i>S. ampla</i> KOFOID & CAMPBELL, 1929	27	306-358	27-28	10.7-13.2	13	Oral region slightly flaring with 6-8 vertical folds. Oral margin with 7-8 curved teeth. Short aboral cylinder, 5 vertical fins on posterior part.
<i>S. undata</i> (JÖRGENSEN, 1899)	28	320-400	23-50	8.0-13.8	1, 3, 4, 12, 14, 15	Oral region bowl-shaped with 2-6 large claw-like teeth. Margin between teeth flattened and rolled inwards. Aboral end narrow, with or without cylinder. 7-8 ridge-like fins on posterior $1/4-1/2$.
<i>S. unguiculata</i> (BRANDT, 1906)	29	130-290	11-20	10.4-14.5	14	Slender tapering tube, oral region bowl-shaped but little expanded. Oral margin with 5-8 strong incurved teeth, margin between flattened and rolled inwards. Shaft sometimes slightly dilated in middle, contracting to narrow aboral end, with or without aboral cylinder. 7-8 low fins posteriorly.

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