

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 KOFROID & 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> * KOFROID & 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> (KOFROID & 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> (KOFROID & 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).