

CONSEIL INTERNATIONAL POUR L'EXPLORATION DE LA MER

Zooplankton.

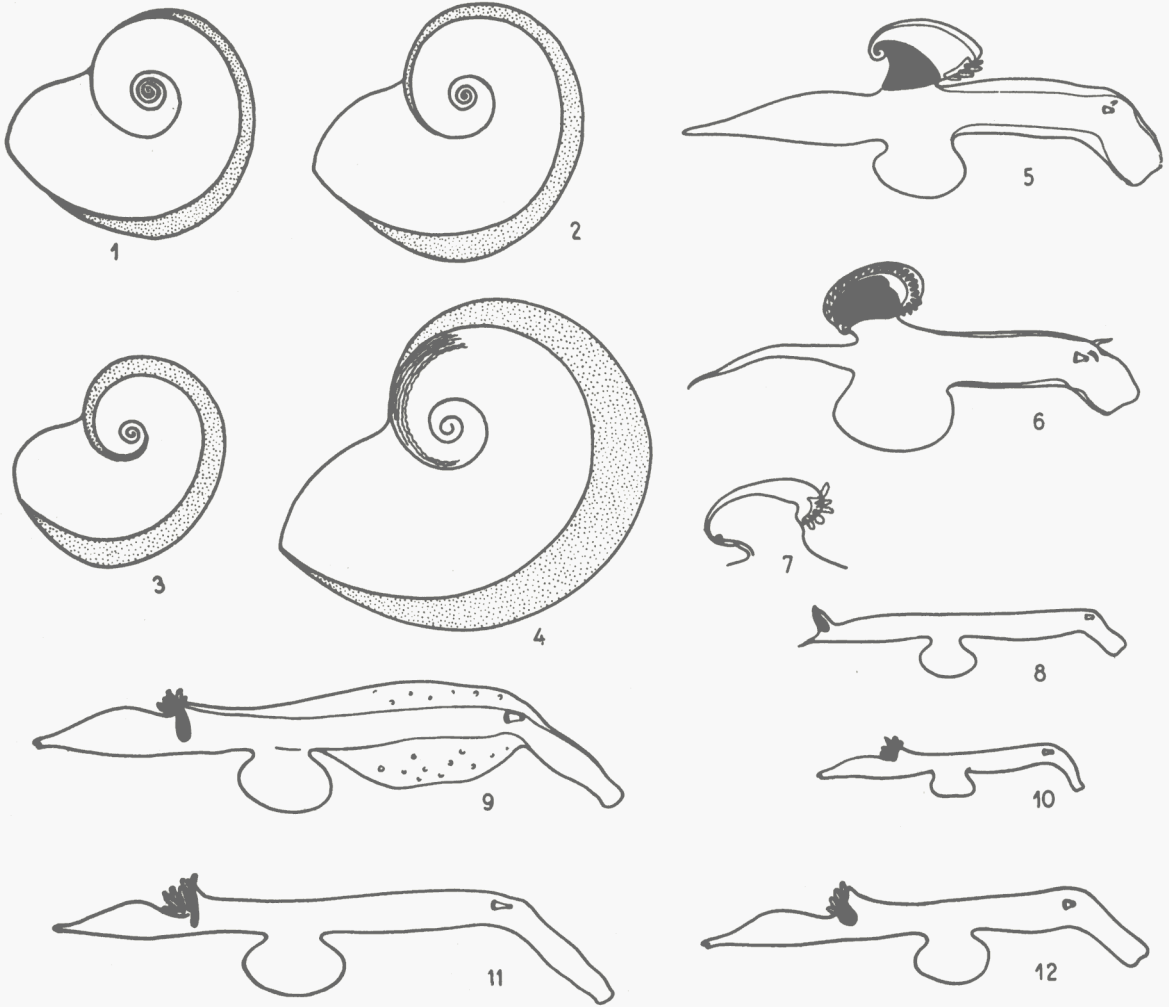
Sheet 66.

HETEROPODA

**Families: Atlantidae,
Carinariidae, and
Pterotracheidae**

(By R. Phillips Dales)

1957



The figures are numbered to correspond with the species given on page 3.

- 1, *Atlanta peroni*. 2, *A. gaudichaudi*. 3, *A. lesueuri*. 4, *A. fusca*.
5, *Carinaria lamarcki*. 6, *Cardiapoda placenta*. 7, *C. richardi*.
8, *Firoloida desmaresti*. 9, *Pterotrachea scutata*. 10, *P. minuta*.
11, *P. coronata*. 12, *P. hippocampus*.

(Figures 1—4, 10, modified after T e s c h (1949))

Family ATLANTIDAE

The whole body able to be withdrawn within a flat, keeled, spiral shell of small or very small size (less than about 1 cm. across).

Genus ATLANTA Lesueur

Shell right-handed, inner whorls visible from the side; keel chalky, opaque, extending between the whorls in older animals in many species.

Species	Distinguishing features
1. <i>A. peroni</i> Lesueur	Shell flattened, colourless, transparent, with 5 whorls, and up to 10—11 mm. across
2. <i>A. gaudichaudi</i> Souleyet	Shell flattened, colourless, transparent, with 4 whorls; shell mouth larger than in <i>A. peroni</i>
3. <i>A. lesueuri</i> Souleyet	Shell flattened, colourless, transparent, with 3 whorls; keel higher than in other species and reaching shell opening
4. <i>A. fusca</i> Souleyet	Shell inflated, buff coloured, last whorl with rows of wavy lines near the lower edge of the shell opening

Family CARINARIIDAE

The visceral mass alone covered by the shell; animals often of large size (10 cm. or more in length), body more or less cylindrical with a large proboscis and an oval fin opposite the visceral mass which hangs downwards in life (the usual convention of drawing the dorsal side uppermost has been followed in the illustrations).

Genus CARINARIA Lamarck

Shell relatively well developed (although delicate and easily lost by fixed animals), covering the whole of the visceral mass and the gills in the mantle cavity. Body enveloped by a thick jelly-like cutis.

Species	Distinguishing features
5. <i>C. lamarcki</i> Péron & Lesueur	Width of shell opening two-thirds the length of the final whorl of the shell

Genus CARDIAPODA d'Orbigny

Shell much reduced, covering only the apex of the visceral mass, and with the rim of the shell opening produced into wings. Cutis not thickened as in *Carinaria*.

Species	Distinguishing features
6. <i>C. placenta</i> (Lesson)	Gills numerous, encircling the visceral mass
7. <i>C. richardi</i> Vayssièrè	Gills few, only on the dorsal side of the visceral mass

Family PTEROTRACHEIDAE

Shell absent; visceral mass posterior to the oval swimming fin.

Genus FIROLOIDA Lesueur

A small lobe only, posterior to the visceral mass; tentacles in front of the eyes only in males. (A single species).

8. *F. desmaresti* Lesueur.

Genus PTEROTRACHEA Forskål

A distinct tail posterior to the visceral mass; no tentacles in front of the eyes in either sex.

Species	Distinguishing features
9. <i>P. scutata</i> Gegenbaur	Eyes longer than broad; visceral mass 3 times as long as broad; cutis enormously expanded into a disc between the swimming fin and the eyes
10. <i>P. minuta</i> Bonnevie	Eyes triangular; visceral mass 3 times as long as broad; small, cutis not so expanded
11. <i>P. coronata</i> Forskål	Eyes longer than broad; visceral mass spindle-shaped (4—5 times as long as broad), and acuminate at the tip
12. <i>P. hippocampus</i> Philippi	Eyes triangular; visceral mass twice as long as broad

Further Information on Identification and Biology

Tesch (1949) should be consulted for taxonomic problems, and for a classified bibliography.

Distribution

Species

(Species in brackets occur only exceptionally)

Faroe Shetland Area	(5) ?
Atlantic, west of Scotland	
and Ireland	1, 5, 8
North-eastern Atlantic:	
40°—50°N.	1, 2, 3, 5, 8, 9, 11, 12
North-eastern Atlantic:	
30°—40°N.	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12

Note: Only records W. to 20°W. have been taken into account.

References

- | | |
|--|--|
| Bonnevie, K., 1920. Rep. Sars N. Atl. Deep Sea Exped., 1910, 3, 2, pp. 1—15. | McIntosh, W. C., 1890. Ann. Mag. nat. Hist., Ser. 6, 5, pp. 40—48. |
| Fraser, J. H., 1953. Ann. biol., Copenhagen, 9, p. 76; p. 118. | Tesch, J. J., 1949. Dana Rep., 34, Copenhagen. |
| Fraser, J. H., 1956. Ann. biol. Copenhagen, 11, p. 87. | Vayssière, A., 1904. Résult. Camp. sci. Monaco, 26, pp. 1—65. |