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Differences between the eggmasses of *Alderia modesta* and *Limapontia depressa**)

by

C. DEN HARTOG

(Zoölogical Museum, Amsterdam)

The eggmasses of the sacoglossan slugs *Alderia modesta* (Lovén) and *Limapontia depressa* A. & H. have often been described, but the differences between them have never been pointed out. ENGEL, GEERTS & VAN REGTEREN ALTENA (1940) even have written, that it was impossible to distinguish the spawnmasses of *Alderia modesta* from those of *Limapontia depressa*. During a stay at the Zoological Station at Den Helder in summer 1953, however, it appeared to me that there are clear differences between the eggmasses of the two species.

1. The spawn of *Limapontia depressa* consists of a cylinder of yellow egg-capsules, which are closely pressed together so that rarely a spiral arrangement can be observed, embedded in an uncoloured, transparent envelope of gelatinous mucus. The spawnmass of *Alderia* has not been differentiated into sheath and central mass; it is uncoloured and hyaline. The egg-capsules in the spawn of *Alderia* are arranged in a loose spiral.

2. Both species attach their spawn with one end to the algae, grass and other objects. The spawn of *Limapontia* is obtusely rounded at the free extremity, while the free end of the *Alderia*-spawn consists of a slightly melted mass without egg-capsules. This part varies in size from 0,2 to 6,3 mm, according to the size of the whole spawnmass. On the picture of RASMUSSEN (1951) this melted mass is clearly shown in a small egg-mass. GALLIEN (1929) too recorded the melting of the free extremity of the *Alderia*-spawn.

3. There are also differences in size between the eggmasses of the two species. For this purpose I have measured the length and the thickness, accurate to 0,1 mm, of 373 *Alderia*-sausages and 64 *Limapontia*-spawns. These dates have been recorded in a diagram (fig. 3). The length

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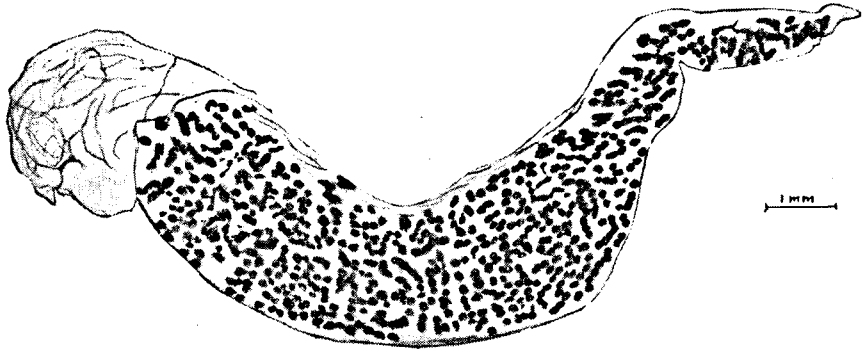


FIGURE 1. Egg-mass of *Alderia modesta* (enlarged).

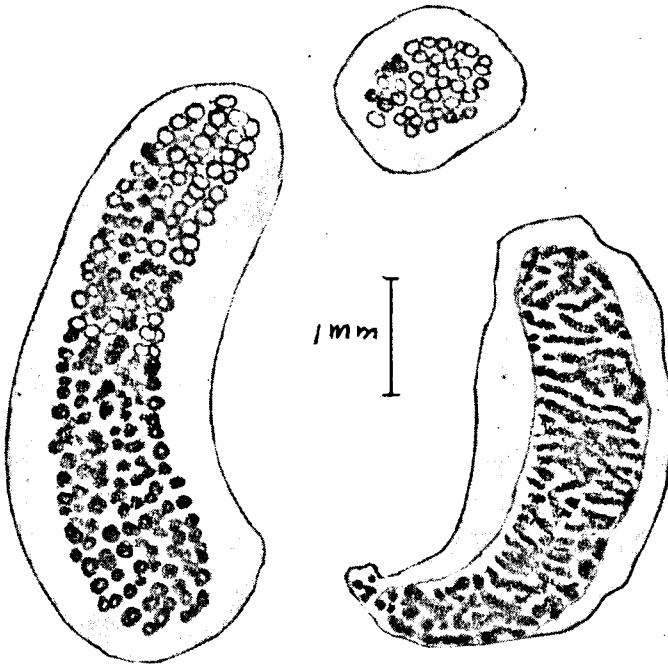


FIGURE 2. Egg-masses of *Limapontia depressa* (enlarged).

of the *Alderia*-eggmasses ranged from 1,8 to 19,4 mm, the thickness from 1,1 to 3,7 mm. For *Limapontia* these values vary respectively from 0,9 to 8,5 mm and from 0,6 to 1,3 mm. Comparing the diagrams it is obvious that a small range of thickness is common to both species, viz. from 1,1 to 1,3 mm, but only few *Limapontia*-sausages are thicker than 1,1 mm (5 from 64) whereas *Alderia*-spawnmasses rarely are thinner than 1,3 mm (19 on 373).

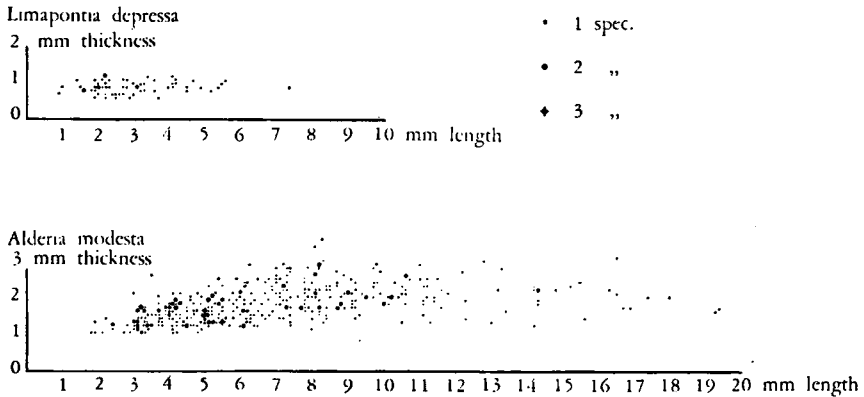


FIGURE 3. Ratio between length and thickness in the spawnmasses of *Alderia modesta* and *Limapontia depressa*.

Egg-masses of *Limapontia capitata* (O. F. MÜLLER) have been pictured by TSCHANG SI (1931) and VESTERGAARD & THORSON (1938). Apparently they cannot be distinguished from those of *Limapontia depressa*. Only the biotope can give the clue to the species, *Limapontia depressa* occurring on saltmarshes, *Limapontia capitata* in rockpools (GASCOIGNE, 1952).

REFERENCES

- ENGEL, H., S. J. GEERTS & C. O. VAN REGTEREN ALTENA
 1940 *Alderia modesta* (Lovén) and *Limapontia depressa* Alder & Hancock in the Brackish Waters of the Dutch Coast. — *Basteria*, 5: 6—34.
- GALLIEN, L.
 1929 Etude de deux Mollusques Opisthobranches d'eau saumâtre. — *Bull. Soc. Linn. Normandie*, (8) 1: 162—189.
- GASCOIGNE, F.
 1952 The Distribution of *Limapontia capitata* (MÜLLER) and of *L. depressa* A. & H. on the Coasts of Northumberland and Durham. — *Proc. Mal. Soc. London*, 29: 210—213.
- HARTOG, C. DEN
 1957 Distribution and Ecology of the slugs *Alderia modesta* and *Limapontia depressa* in the Netherlands (in press).
- HARTOG, C. DEN & C. SWENNEN
 1952 On the Occurrence of *Alderia modesta* (Lovén) and *Limapontia depressa* A. & H. on the Salt Marshes of the Dutch Waddensea. — *Beaufortia*, 2 (19): 1—3.
- RASMUSSEN, E.
 1951 Faunistic and Biological Notes on Marine Invertebrates II. The eggs and larvae of some Danish marine Gastropods. — *Vidensk. Medd. fra Dansk naturh. Foren.*, 113: 201—249.
- TSCHANG SI
 1931 Contribution à l'étude des Mollusques Opisthobranches de la côte provençale. — (thesis), Lyon.
- VESTERGAARD, K. & G. THORSON
 1938 Ueber den Laich und die Larven von *Duvaucelia plebeja*, *Polycera quadrilineata*, *Eubranhus pallidus* und *Limapontia capitata* (Gastropoda Opisthobranchia). — *Zool. Anz.*, 124: 129—138.