HOKKAIDO UNIVERSITY

Title	On the Ephyra and Postephyra of a Semaeostome Medusa, Sanderia malayensis Goette
Author(s)	UCHIDA, Tohru; SUGIURA, Yasuo
Citation	北海道大學理學部紀要, 19(4), 879-881
Issue Date	1975-06
Doc URL	https://hdl.handle.net/2115/27590
Type	departmental bulletin paper
File Information	19(4)_P879-881.pdf

Hokkaido University Collection of Scholarly and Academic Papers : HUSCAP

On the Ephyra and Postephyra of a Semaeostome Medusa, *Sanderia malayensis* Goette

By

Tohru Uchida and **Yasuo Sugiura**

Zoological Institute, Hokkaido University Biological Laboratory, Dokkyo University

While studying hydromedusae at Misaki, the junior writer collected by chance on May 14 and June 17, 1973 ephyrae bearing 16, 15 and 13 sensory organs respectively. The water temperatures at the time when the ephyrae were collected were 18.8 and 21.7°C. The one of the longest longevity died on October 15, 1973. The senior writer who observed them came to the conclusion that the ephyrae belong to *Sanderia malayensis* which is widely distributed in the Indo-Pacific region. As in *Cassiopea* in the Rhizostomae, *Sanderia* is peculiar in the Semaeostomae in the possession of 16 sensory organs.

The ephyra and postephyra will be described as follows. The ephyrae are 3.0, 2.8 and 2.4 mm in diameter and brownish in colour. The numbers of marginal lappets are 16, 15 and 13 pairs. The ratios of length of the marginal lobes to the diameter are comparatively small comparing with the other species with 8

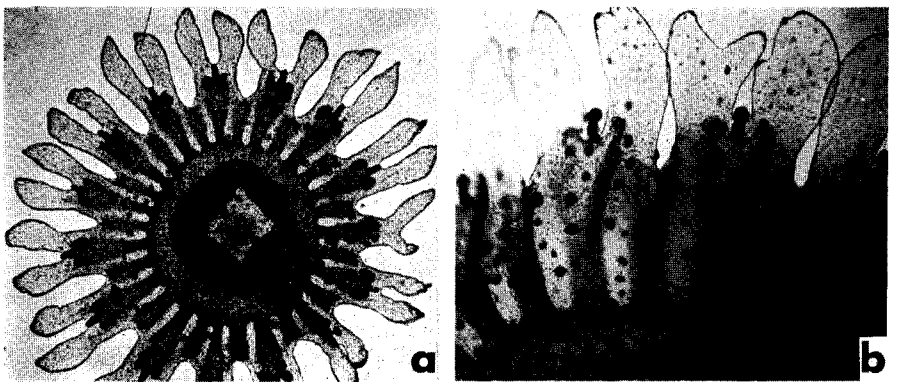

Fig. 1, a Young ephyra. (3.0 mm in diameter)

Fig. 1, b Umbrella surface of postephyra, 83 days after being collected. (6.2 mm in diameter)

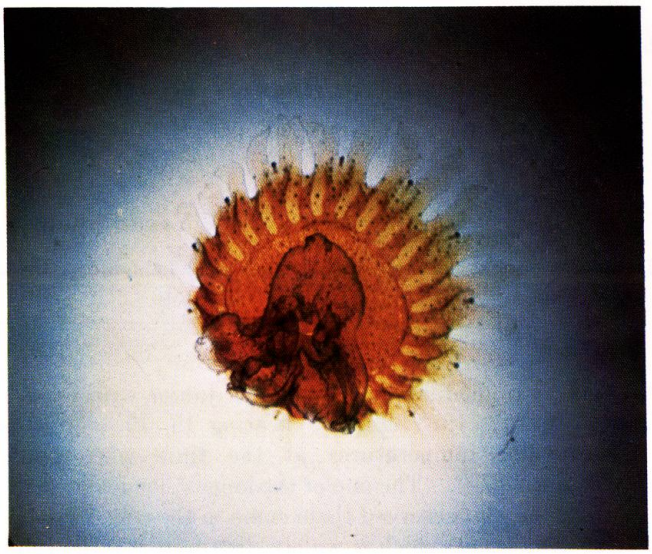

Fig. 2 Postephyra, 102 days after rearing. (6.0 mm in diameter)

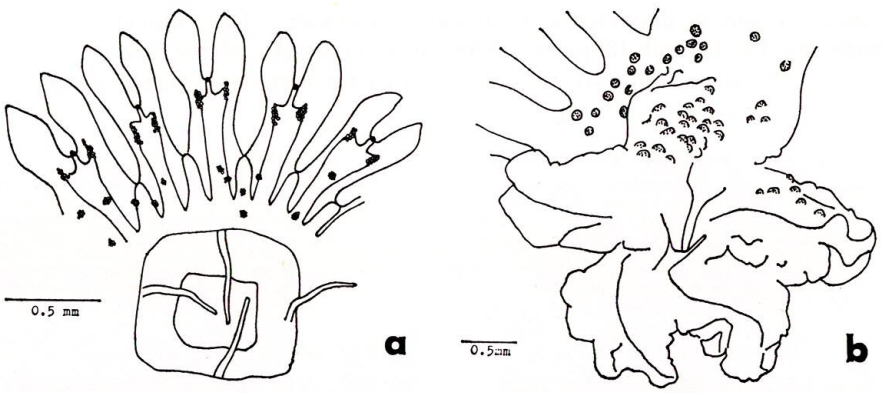

Fig. 3, a Young ephyra, 4 days after being collected. (3.0 mm in diameter)
Fig. 3, b Oral arms of postephyra, 120 days after being collected. (5.4 mm in diameter)

pair lappets. The numbers of radial canals in each ephyra are 32, 30 and 26 respectively and the ends of rhopalar canals do not extend into the lappet on either side and the interrhopalar canals, slightly narrower than the former, do not also extend into the bases of the marginal lobes. Gastral filaments are situated on the interradial axis and the numbers corresponding to the quadrants are (A) 1,1,1,1 (B) 1,1,1,1 (C) 1,1,1,2. The mouth is four sided. Numerous nematocyst clusters

are located on the surface, especially a pair of them situated at the base of each marginal lobes, are prominent at the early stage (Fig. 1, a; Fig. 3, a).

The cultures of ephyrae were constantly kept at 20°C and larvae of *Artemia salina* were fed. The growth of the ephyrae proceeded to develop untill three months and thereafter did not enlarge any more but metamorphosed in the oral arms (Fig. 2). In this stage, the surface of umbrella is covered by numerous nematocyst clusters (Fig. 1, b) and the oral arms are four sided and elongated as in these of other Pelagiidae and characteristic of prominent nematocyst clusters (Fig. 3, b). As to the abnormality of the ephyral lappets, the senior author pointed out in "Remarks on the Scyphomedusan Family Pelagiidae, 1935".

References

Kramp, P. L. 1961. Synopsis of the medusae of the world. J. mar. biol. Ass. U.K. **40**: 330–331.

Mayer, A. G. 1910. Medusae of the world. **3**: 590–591.

Russell, F. S. 1970. Medusae of the British Isles. **2**: 23–24, 70–104.

Uchida, T. 1935. Remarks on the Scyphomedusan family Pelagiidae. Trans. Sapporo nat. Hist. Soc. **14**: 45.