

NEW RECORDS OF Stereoderma kirchsbergi (Heller 1868)
(ECHINODERMATA, HOLOTHUROIDEA) IN THE ADRIATIC SEA

Dušan ZAVODNIK

Center for Marine Research, "Rudjer Bošković" Institute
Rovinj, Yugoslavia

ABSTRACT

New findings of S. kirchsbergi in the Adriatic Sea are reported. The distribution pattern and the ecology of this species are discussed.

RÉSUMÉ

Localités nouvelles de S. kirchsbergi dans la Mer Adriatique, sa distribution et écologie sont discutés.

Stereoderma kirchsbergi is an Atlanto-Mediterranean species which is now known from Congo, Morocco, Algeria, Western Mediterranean, Adriatic Sea, Bosphorus, and the Black Sea (Baranova and Saveljeva, 1972; Cherbonnier, 1958, 1960; Tortonese, 1965). In the Adriatic Sea, this species was first reported by Heller (1868) and later by Mayer (1937) and Vatova (1943). Recently, new findings were made near Rovinj, Pula and the island Murter (Table I). The bathymetrical distribution of this species is 15-100 m, but in the Adriatic Sea it was found only between 23-53 m.

The ecology of this species is poorly known. According to Picard (1965) it is exclusive to coastal detritic bottom, but Tortonese (1965) reported it also from silt. In the Adriatic Sea, it was sampled mostly on detritic bottoms accompanied by Nucula nucleus, Arca noae, Cultellus adriaticus, Glycera rouxii, Owenia fusiformis, Pectinaria auricoma, Ophiothrix quinque maculata, Ophiura albida, Distoma adriaticum, and other (Vatova, 1943, present results). Our field records for bottom temperature and salinity at sampling times are 12.40-15.25°C and 37.43-38.00‰ respectively.

There are no data on the behaviour of these animals. Fortunately, we were able to keep one animal in a 0.5 l container nearly six months. It was fed with phytoplankton used for feeding of mussel larvae (Isochrysis, Monochrysis). The animal was active only in the night and has crawled for a maximum of 5 cm per day. It has survived the oxygen

pressure of only 40% but eventually died at an accidentally high temperature of 29°C. In extreme oxygen and temperature conditions, the animal contracted, partly retracted the podia, and its skin became wrinkled.

Table I: New find spots of Stereoderma kirchsbergi in the Adriatic Sea

Locality	Station	Date	Depth (m)		No of specimens
Rovinj	251	23.04.1960	23	silty-sand	1
Rovinj	617	2.10.1967	35	sandy-detritic	1
Murter	P-27	16.11.1971	53	sandy-detritic	1*
Pula	PU-12	23.09.1976	38	sandy-detritic	1
Pula	PU-13	13.06.1977	38	sandy-detritic	1

* specimen kindly provided by L.v.Salvini-Plawen, Vienna, and identified by G. Cherbonnier, Paris.

R e f e r e n c e s

- BARANOVA, Z.I. and SAVELJEVA, T.S., 1972. - Tip iglokožie - Echinodermata, in: Opređelitelj fauny Černego i Azovskogo morej, 3:271-291
- CHERBONNIER, G., 1958. - Echinodermes. Faune marine des Pyrénées-Orientales, 2:67 pp.
- CHERBONNIER, G., 1960. - Sur la présence, en mer Noire, de Stereoderma kirchsbergi (Heller). Hidrobiologi, ser. B, 5(1-2):52-53
- HELLER, C., 1868. - Die Zoophyten und Echinodermen des Adriatischen Meeres. Ed. K.K. Zool. Bot.Ges.Wien, 86 pp.
- MAYER, B., 1937. - Die Holothurien der Adria. Thalassia, 2(9):54 pp.
- PICARD, J., 1965. - Recherches qualitatives sur les biocoenoses marines des substrats meubles dragables de la région marseillaise. Rec.Tr.Sta.mar.Endoume, 36(52): 1-166
- TORTONESE, E., 1965. - Echinodermata. Fauna d'Italia, 6:419 pp.
- VATOVA, A., 1943. - Le zoocenosi dell'Alto Adriatico presso Rovigno e loro variazioni nello spazio e nel tempo. Thalassia, 5(6):61 pp.