

Observation of natural spawning of *Holothuria tubulosa*

Observer: Horst Moosleitner

Dates (moon phase):

- August 1972 (moon phase unknown)
- 18–19 August 1994 (3–4 days before full moon)
- 9–10 July 1997 (5–6 days after new moon)
- 11 July 2003 (2 days before full moon)
- 18 July 2003 (5 days after full moon)

Observation time: always from 16:00–17:00

Location: Mediterranean, Aegean Sea around peninsula of Chalkidike

Depth: 3–10 m

Tide: probably not relevant (less than half a meter)

Description

Spawning of *Holothuria tubulosa* in the Mediterranean is well known, but most observations have been published in popular magazines or books (Erhardt and Moosleitner 1995; Moosleitner 1974; Riedl 1963; Weinberg 1992), and not in scientific journals. Riedl (1963) was perhaps the first person to record that *Holothuria* spp. are capable of raising two thirds of their body in order to release sperm and eggs.

I first observed the spawning of *H. tubulosa* in 1967 and published an article in *Submarine Magazine* (1974). Since that time, I have often seen this species spawning, and noted some of these observations when I took photographs (see below).

Holothuria tubulosa is the most common species of sea cucumber in the Mediterranean, living on soft bottoms sometimes in dense populations. Spawning occurs in the summer months (observed in July, August and September) in the afternoon from about 16:00 to 18:00, sometimes until sundown. Observations have shown that spawning starts with a few isolated specimens, followed by many others. So it is proposed that some males begin spawning, and their sperm includes informative substances that push other males and females to participate in the spawning.

A relationship between spawning events and moon phases is not clearly established in the above data but there seems to be a preference for spawning close to a full moon (within 5–6 days before or after).

Only once were some single specimens of *Holothuria polii* (clearly recognizable by the white ended podia and dorsal papillae) seen spawning at the same time as *H. tubulosa* (no exact data noted).

It should also be noted that some fish (*Chromis chromis* and *Coris julis*) were observed feeding on the spawn (see photo).

References

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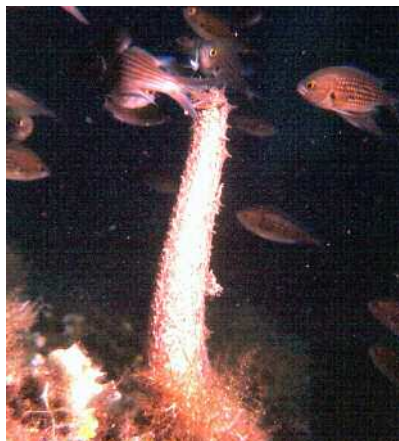
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Images: Horst Moosleitner



Holothuria tubulosa spawning.



A group of *Chromis chromis* feeding on spawn of *H. tubulosa*.



Holothuria polii spawning.