Observation of natural spawning of Bohadschia vitiensis

Observer: Sylvie Gaudron¹

Date: 19 February 2006

Observation time: 15:30-18:15

Location: Lagoon St Gilles-les-Bains, La Saline, Trou d'Eau, Réunion Island, Indian Ocean

Depth: 0.5-1 m back reef

Tide: ebb tide

Moon phase: 6 days after full moon

Description

Observations of natural spawning of *Bohadschia vitiensis* have been described in past issues of this bulletin (Desurmont 2005, 2006, New Caledonia; Durville 1996; and Rard 2004, Reunion Island) and in the reviews of McEuen (1988) and Conand (1989).

This spawning event occurred during daytime after a tropical storm, when there was an increase in freshwater runoff into the lagoon. The first observation was made in the mid-afternoon (15:30) where one specimen was observed in the typical upright spawning position. As soon as the observer went close to the specimen it laid down on the soft bottom. One hour later, 20 additional *B. vitiensis* were observed, covered with a thin layer of sediment, within a 100 m² area around the specimen. At 16:45 two other specimens were observed in upright positions, and one was releasing a thin layer of white sperm by its swollen gonopore. This individual did not sway. The same specimen was subsequently observed releasing sperm while laying down. The observation was conducted for another hour and a half, but no more spawning was observed. Several authors have described these two positions for spawning (either upright or laying flat) on substratum in *Bohadshia* spp. (e.g. McEuen 1988).

Interestingly, Rard (2004) observed spawning of two individuals of *Bohadschia vitiensis* in an upright position in the same location at the end of April 2004 at 17:00, as did Durville (1996) on 15 February 1995.

Was this spontaneous spawning a response to an environmental stress due to the tropical storm? Only more data about the natural spawning of sea cucumbers will answer this question.

References

Conand C. 1989. Les Holothuries Aspidochirotes du lagon de Nouvelle-Calédonie : biologie, écologie et exploitation. Études et Thèses, ORSTOM, Paris: 393 p.

Desurmont A. 2005. Observations of natural spawning of *Bohadschia vitiensis* and *Holothuria scabra versi-color*. SPC Beche-de-Mer Information Bulletin 21:28.

Desurmont A. 2006. Observation of natural spawning of *Bohadschia vitiensis*. SPC Beche-de-Mer Information Bulletin 23:38.

Durville P. 1996. Spawning and asexual reproduction of tropical holothurians. SPC Beche-de-Mer Information Bulletin 8:41.

McEuen F.S. 1988. Spawning behaviors of northeast Pacific sea cucumbers (Holothuridae: Echinodermata). Marine Biology 98:565–585.

Rard M. 2004. Natural spawning observation. SPC Beche-de-Mer Information Bulletin 20:37.



Bohadschia vitiensis spawning.