Micronesica 29(1): 99–100, 1996

Note
An Abundance of Marine *Stentor* (Ciliophora: Spirotrichea) Epiphytic on *Padina* (Phaeophyta)

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Protozoans, which are unicellular or form small colonies, can rarely be observed with the naked eye. Except for some foraminifera that are large (up to 10 mm diameter) or abundant (star sand; see Lee 1995) protozoans are only evident when present en masse. We chanced to observe a remarkable "bloom" of black *Stentor,* a unicellular ciliate, on the brown seaweed *Padina* about 20 m deep at a commercial dive site on Guam, July 23 1995. This marine record is interesting because most *Stentor* live in freshwater or brackish water.

The site was "Pete's Reef", at the southern end of Agat Bay, by Facpi Point. Extensive reef areas on the sea bed below the mooring buoy were carpeted with

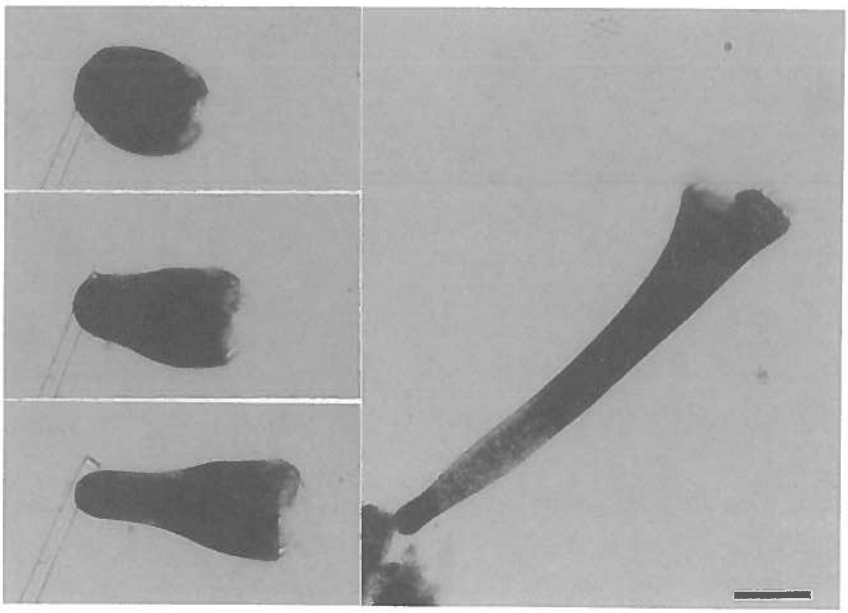

Figure 1. *Stentor* specimens fully extended (at right) and re-extending after shock (series on left). The protists are attached to debris in these photos. Scale = 100 µm

Padina sp., a fan-shaped seaweed that has distinctive concentric bands of hairs and reproductive structures. The reproductive structures (sori) form brown bands on the upper surface of the blades. At first glance, some clumps of *Padina* appeared to be reproductive, however on closer inspection the black bands were thicker than would be expected (more like the external gametangia of *Halimeda*). More telling, they retracted when touched, suggesting that this was an epiphytic animal or protist.

We collected specimens for live observation and documented them on video and still film (Figure 1). We did not attempt to preserve or identify them to species, but they clearly belong to the genus *Stentor,* which is named for its trumpet shape (when extended). Stentor, in Greek mythology, was a herald "with brazen voice, who could shout as loud as fifty other men" (Homer, *Iliad,* bk. V, 1, 785). These ciliates have a vortical pattern of cilia at the anterior end with which they collect food particles (Anderson 1988).

References

Anderson, O. R. 1988. Comparative Protozoology. Ecology, Physiology, Life History. Springer-Verlag, Berlin.

Lee, J. J. 1995. Living sands. *BioScience* 45: 252–261.