

速 報

An Abundance of Reef-Coral Planulae in Plankton

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Coral planulae found in plankton have been mentioned rarely by previous authors¹⁾. But I found them, usually from August to October, 1936, at the moat in front of the Palao Tropical Biological Station, and it seems to me that they also would be found in other months. Previous authors may have had difficulty in finding them because of the smallness of quantity of filtered water. In my case, the filtered water may be calculated at about 500 cubic meters.

Recently, at 11 a. m.—1 p. m. on July 3 (two days after the full moon) of 1939, I found a great clouding of planulae at Suoo, on the east coast of Taiwan, during the collection of reef-corals, when I was diving with simple protecting spectacles. These planulae would be identified with those of *Acropora* as I found almost all specimens of some *Acropora* containing many ripe planulae in their polyps at or near the place. *Echinopora* also had ripe planulae, but they were not pink in colour as those of *Acropora*.

The place was the shallow part in the Bay of Suoo, surrounded by a group of rocks, part of which were exposed even at high tide, and the bottom was covered with flourishing reef-corals. There was a slight breeze from S. E. which was changing to S. gradually. From about 11 a. m., just after the high tide, the floating planulae near the surface attracted my attention. The sea water was patched with clouds of small pink planulae. A tow-net was used at noon from a small boat only, and it was sufficient to get a bucketful of water with dense suspensions of planulae. Again I towed about with the boat around the place in order to observe wider areas. The planulae were found to be less abundant in the vicinity of rocks. They were rare in the open places. The dense clouds of planulae were dispersed gradually at about 1 p. m. with the rising swell.

The planulae when obtained showed no activity, even under careful observation with a microscope until two hours after collection. Some of them were very irregular in shape, large or small, brownish pink or pale in colour. This seems to be premature spawning of the planulae. Only a few of the planulae slightly moved about, but most of them still remained motionless at 11 p. m. By 3 p. m. of the next day all of the planulae attained somewhat elongated normal forms, with diameters ranging from 1.0 mm. to 0.2 mm., and moved actively. They showed strong negative geotropism and gathered at the surface near the wall of the containing vessel. They moved about without fixing on the wall until 8th of July in a small vessel or in a tube bottle, after which it became difficult for me to continue observation.

1) STEPHENSON, T. A., 1931. Great Barrier Reef Exp. Rep. III, 3, p. 123. MOTODA, S., 1939. Kagaku Nanyo 1, p. 114.