



A new species of *Monandrocarpa* (Ascidiacea, Styelidae) from Vanuatu I. (South Pacific Ocean)

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The U.S. Coral Reef Research Foundation collected by SCUBA various marine invertebrates in the islands of Vanuatu. Among them was a small bulbous ascidian settled on thin test stolons of another discrete ascidian being very similar in colour and shape. It is a new species of the genus *Monandrocarpa* (Styelidae) in which few species have been recorded. This genus is characterised by gonads in rows of hermaphrodite polycarps, each of them containing a single male vesicle. Other species in the same genus are discussed.

Monandrocarpa humilis n. sp.

Type : Vanuatu, Espiritu Santo, Aore Island, 15°31.92'S–167°11.61'E, 30m, 30.I.2000, coll. CRRF n° CRCHO 463. (Registered in the Muséum National d'Histoire Naturelle Paris n° S1 MON 2)

Several specimens, some of them solitary but others in groups of 2 or 3 individuals, were found attached to a colony of *Amphicarpa agnata* (Kott, 1985). The body is oval, 1cm in maximum length, covered with sparse adhering sand (Fig.1). Some individuals are sessile, others are erect on a common base making a short and thick stolon. The siphons are slightly protruding and well apart. The tunic is leathery, but the body remains soft.

The internal body wall is opaque. In formalin it has a dark-pigmented superficial reticulate design. Internally, on each side of the body wall, a longitudinal darker pigmented band extends alongside the polycarp line. The siphons have strong sphincters. The body musculature forms a continuous network of thin fibres. The number of oral tentacles is variable, in 3 orders of size. The peripharyngeal band is dorsally curved in a low V; it has a single crest. The dorsal tubercle is button-like. The branchial tissue (Fig. 2) is thin and contains less pigment than other tissues. Among the 4 branchial folds, the first and the third, counted from the dorsal lamina, are higher. Two to 3 longitudinal vessels can be counted anteriorly between the folds, they progressively join the folds as the sac narrows posteriorly. A representative formula in a large specimen, near the peripharyngeal band is:

R-E; 5-2-8-3-6-2-8-1-DL-8-3-5-2-6-3-6-1-E-L

There are 4 to 5 stigmata in a mesh between the folds. The number of stigmatal rows is difficult to count, but about 18–20, basally grouped two by two due to a more or less complete division by parastigmatic vessels. The last rows are narrow with only a few stigmata. The dorsal lamina forms a high blade.

The digestive loop (Fig. 3B) occupies a reduced posterior part of the left side (Fig. 3A). The oesophagus is narrow and straight, well delimited from the long cylindrical stomach. There are 8 to 9 longitudinal stomach folds. The pyloric caecum is long. The intestine curves in a single closed loop. The anus with a plain edge opens close to the oesophagus entrance. A pigmented network of vessels covers the intestine. An endocarp lies in the loop (Fig. 3B). Round endocarps are scattered on the body wall (Fig. 3A), some of them intercalated between the polycarps. A ring of short thread-like papillae encircles the cloacal siphon.

An average of 10 polycarps are arranged in a line on each body side along and close to the ventral line