



A new genus and species of Western Atlantic sea lily in the family Septocrinidae (Echinodermata: Crinoidea: Bourgueticrinida)

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Abstract

Rouxicrinus vestitus new genus, new species, collected during submersible dives at depths of 421–887 m near Barbados, Colombia and the Bahamas is described, and notes on ecology are included. It is referred to the family Septocrinidae Mironov, 2000, which now comprises three genera, *Zeuctocrinus* A.M. Clark, 1973, *Septocrinus* Mironov, 2000, and *Rouxicrinus* new genus. This new genus differs significantly from both *Septocrinus* and *Zeuctocrinus* in having numerous low columnals in the proxistele, which tapers toward the crown, first pinnule arising more proximally, thorns on brachials and pinnulars, and a thick covering of soft tissue on arms and pinnules.

Key words: *Rouxicrinus vestitus*, Caribbean Sea, taxonomy, Crinoidea, Bourgueticrinida, Septocrinidae

Introduction

The family Septocrinidae is a small group of extant ten-armed sea lilies. The first-captured species of this group, *Zeuctocrinus gisleni* A.M. Clark, 1973, has been described in detail by A.M. Clark (1973), Roux (1977) and Roux *et al.* (2002). A.M. Clark (1973) referred *Zeuctocrinus* to the family Phrynocrinidae A.H. Clark 1907 comprising the extant *Phrynocrinus nudus* A.H. Clark 1907. This classification was followed by Rasmussen (1978), but Bourseau *et al.* (1991) and Roux *et al.* (2002) assigned *Zeuctocrinus* to Bathyrcrinidae Bather, 1899. Mironov (2000) established the family Septocrinidae for *Septocrinus disjunctus* Mironov, 2000, *Zeuctocrinus gisleni* and *Z. spiculifer* Mironov, 2000. Further support for establishment of the Septocrinidae was provided by Mironov (2008). Representatives of this family have not yet been subjected to molecular analysis.

Septocrinids were known previously only from five captures. *Z. gisleni* was recorded west of Northern Ireland and from the Bay of Biscay, depths 2000–2432 m (A.M. Clark, 1973; Roux, 1977). *S. disjunctus* has been collected from the Argentine Basin, depth 5180–5190 m; *Z. spiculifer* is known from the southern Izu-Bonin (Izu-Ogasawara) Trench, 6780–6785 m (Mironov, 2000). Breimer (1978, Figure 13.4) figured an undescribed species as a presumed *Zeuctocrinus* from the Antarctic.

Until now, *Bathyrcrinus caribbeus* A.H. Clark 1908a was the only species of ten-armed sea lily known from the western tropical Atlantic. This species was established on the basis of incomplete specimens with basal ring and column; the radial ring and arms were lacking. *B. caribbeus* was transferred to the genus *Monachocrinus* A.H. Clark by Gislén (1938). The type specimen was collected NW of Guadeloupe at a depth 1257 m (*Albatross* station 2751). Subsequently, representatives of *M. caribbeus* were reported from other areas of the western Atlantic (H.L. Clark, 1941, Gislén, 1951; Meyer *et al.*, 1978), but they were not described.

Two other bathyrcrinid species were reported from the western areas of the Atlantic Ocean. *Bathyrcrinus serratus* was established on the basis of incomplete specimens, taken off the coast of Virginia and Maryland in depths of 3340–3680 m (A.H. Clark, 1908b). According to Gislén (1951), this species is synonymous with *B.*