

Lobophytum jasparsi spec. nov. from Indonesia (Coelenterata: Octocorallia: Alcyonacea)

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A new species of *Lobophytum* from Indonesia is described and depicted: *Lobophytum jasparsi*.

Introduction

In January 1998 Dr M. Jaspars sent me a specimen of the genus *Lobophytum* for identification. The specimen contained a bioactive secosterol with an unusual A- and B-ring oxygenation pattern (see Morriss et al., 1998). It is here described as a new species.

Systematic part

Lobophytum jasparsi spec. nov.
(figs 1-6)

Material.— RMNH Coel. 24007, holotype, part of a colony, reef wall of Mayu Island, Moluccan Sea, Indonesia; 1°19.699'N 126°25.129'E, 7 m, xi.1996, coll. M. Jaspars.

Description of the holotype.— Colony part 8.5 cm high, and the maximum cross-section, at the top of the colony, is 2.5 × 8.5 cm (fig. 1). It consists of some lobes compressed against each other. These lobes are crest-like, about 0.5 cm wide. A distinct stalk is present.

Polyps with small scalloped rods (fig. 2a), 0.05-0.09 mm long, and many club-like sclerites of about 0.15 mm long (figs 2b, 5a).

Surface layer of crests with clubs, 0.10-0.20 mm long (figs 2c, 5b), the smaller ones with a central wart. Interior of crests with spindles, up to 0.35 mm long (figs 2d, 3, 5c).

Surface layer of base with clubs, 0.10-0.15 mm long, many with a central wart (figs 4a, 6a). Interior of base with capstans, 0.12-0.25 mm long and up to 0.15 mm wide (figs 4c, 6b). In addition a few oblong sclerites are present.

In all parts of the colony shuttles are present (figs 2e, 4b, 6c), although not very numerous.

Colour.— The dry specimen is cream-coloured.

Etymology.— The species is named for Dr M. Jaspars, Marine Natural Products Laboratory, Department of Chemistry, University of Aberdeen, Scotland, who collected the specimen.

Remarks.— The combination of spindles only in the interior of the crests, together

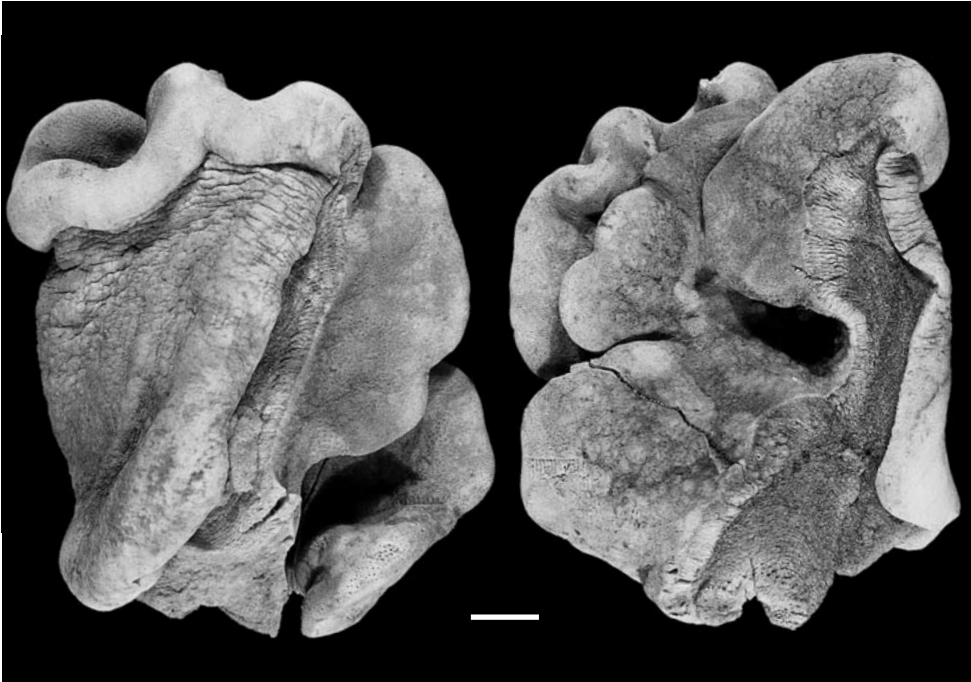


Fig. 1. *Lobophytum jaspersi* spec. nov.; holotype (RMNH Coel. 24007); side views. Scale 1 cm.

with capstans only in the interior of the base, and the presence of many clubs with a central wart, is unique in the genus *Lobophytum*. The presence of clubs in the polyps is also a very distinctive character but can't be used for comparison with other species as these polyp sclerites were almost never mentioned in previous descriptions of species of the genus.

As differences between species of *Lobophytum* often appear slight, the specimen has been compared with all species with spindles only in the interior of the top of the colony and capstans only in the interior of the base. Verseveldt (1983), in his revision of the genus, mentioned the following species with these characters:

L. lamarcki Tixier-Durivault, 1956, has many clubs with a central wart in the surface layer of the base (Verseveldt, 1983, figs 26j-k), but in the surface layer of the lobes few such clubs are present (Verseveldt 1983, figs 26a-d). Verseveldt (1983: 60) mentioned oblong and spindle-shaped sclerites for the interior of the lobes. However, a re-examination of microscopic slides of the holotype revealed the presence of some capstans. Moreover, in his figure 26g Verseveldt depicted one.

L. meandriforme Tixier-Durivault, 1956, has clubs somewhat similar to those of the present species. But in this species most internal sclerites have a distinct "waist", and capstan-like sclerites are also present in the interior of the lobes, a character not mentioned by Verseveldt (1983) in his redescription of the holotype. Moreover, the capstan-like sclerites of the interior of the base are much more slender, up to about 0.10 mm wide.

L. microlobulatum Tixier-Durivault, 1970, has many characters in common with the

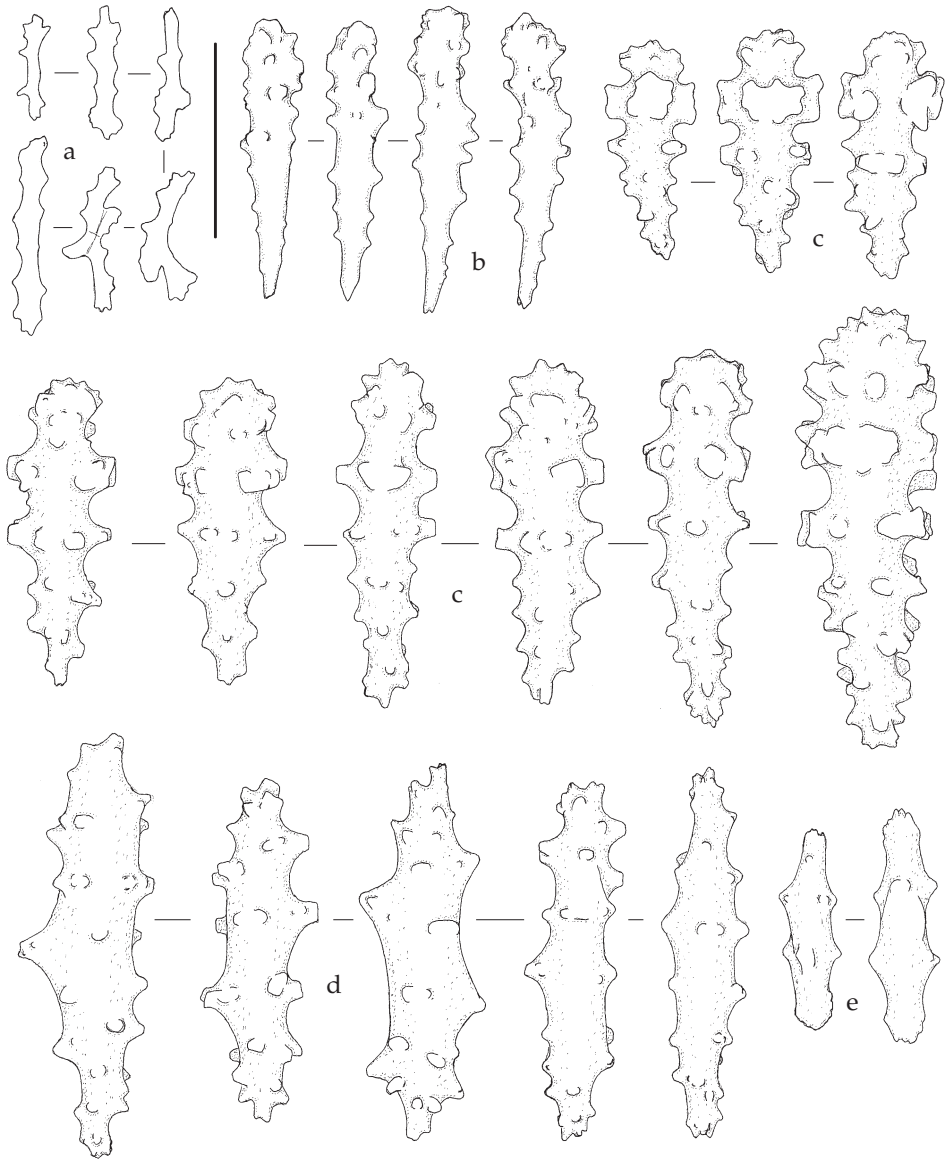


Fig. 2. *Lobophytum jasparsi* spec. nov.; sclerites of holotype (RMNH Coel. 24007); a, anthocodial rods; b, anthocodial clubs; c, clubs of surface layer of crest; d, spindles of interior of crest; e, shuttles of interior of crest. Scale 0.10 mm.

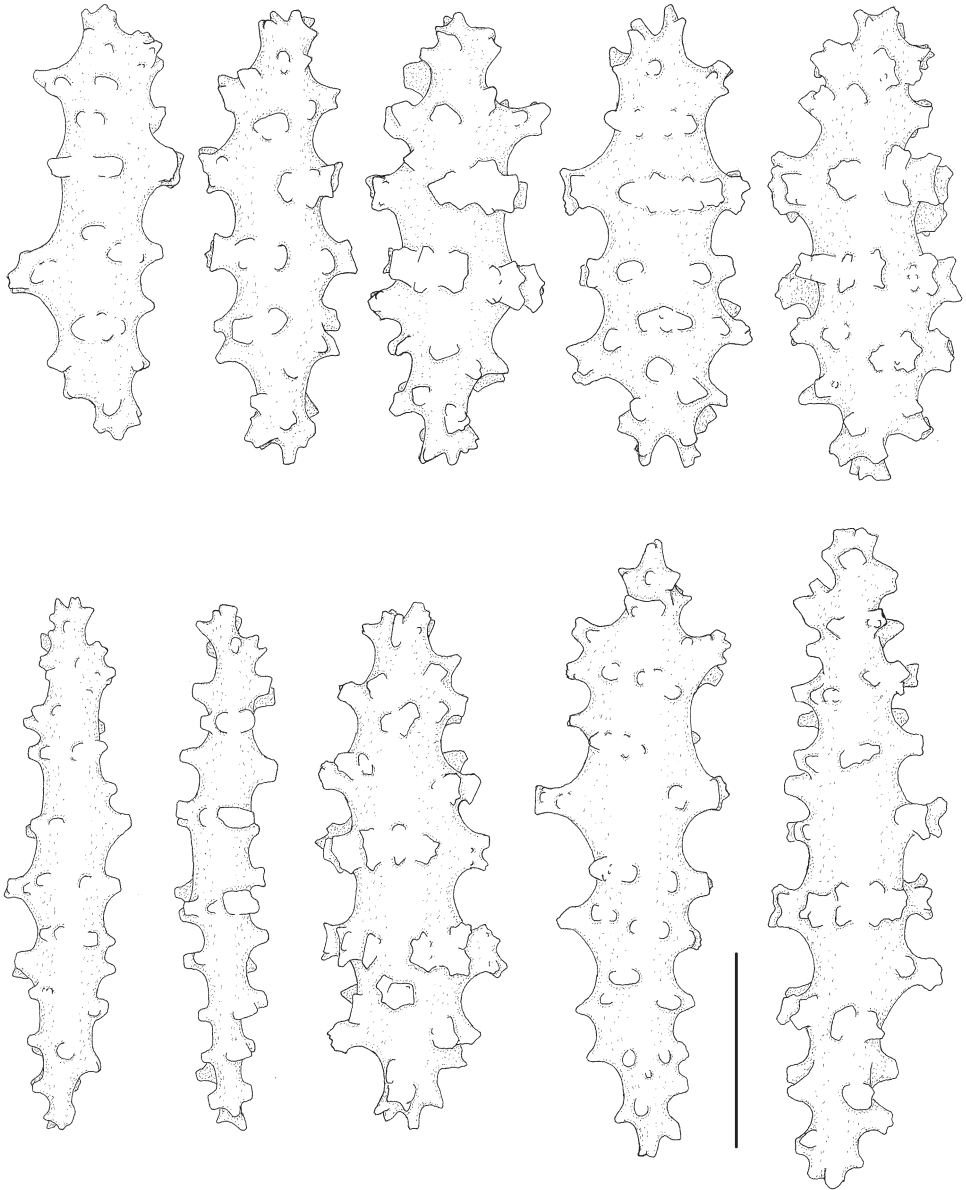


Fig. 3. *Lobophytum jasparsi* spec. nov.; sclerites of holotype (RMNH Coel. 24007); spindles of interior of crest. Scale 0.10 mm.

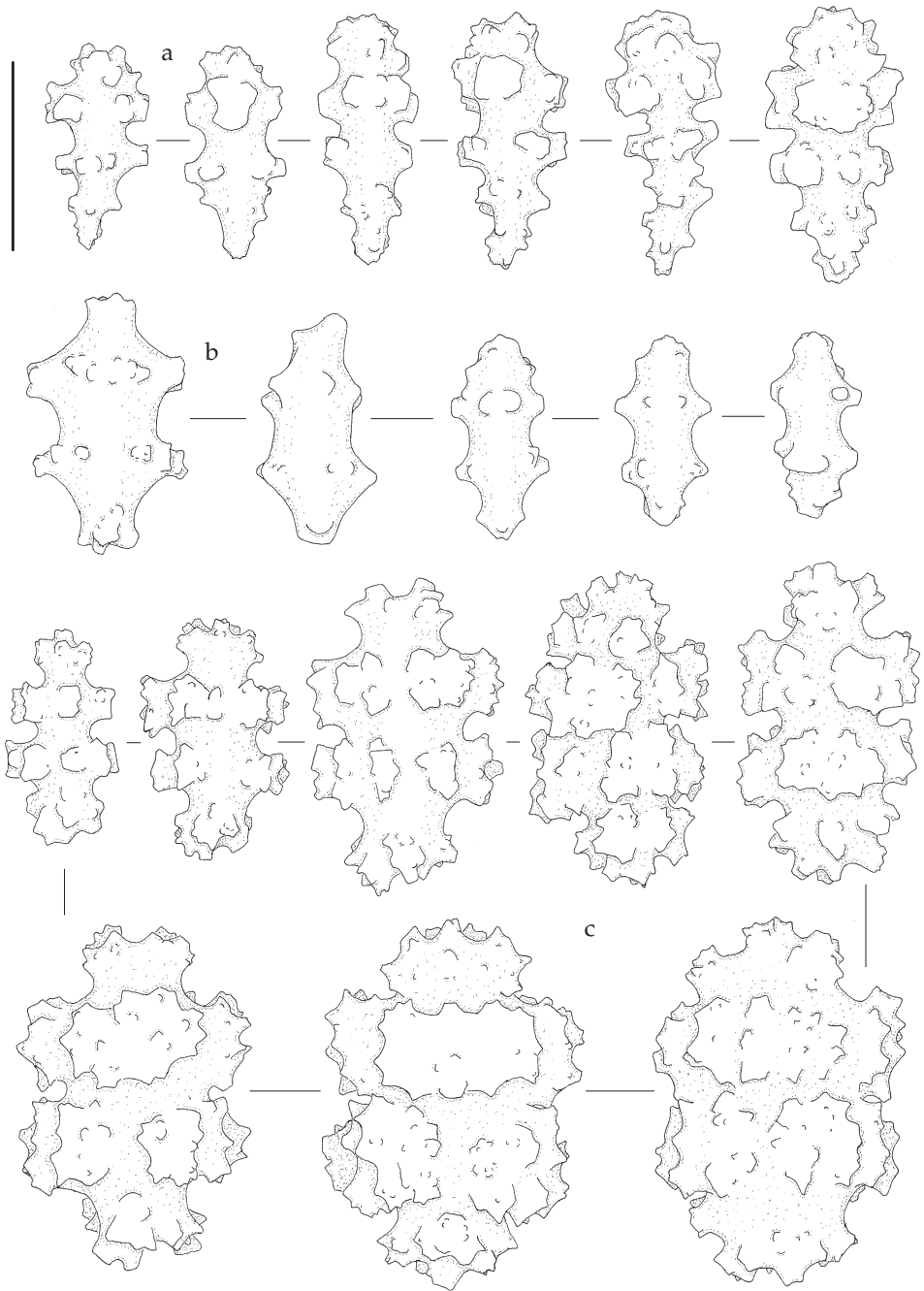


Fig. 4. *Lobophytum jasparsi* spec. nov.; sclerites of holotype (RMNH Coel. 24007); a, clubs of surface layer of base; b, shuttles of interior of base; c, capstans of interior of base. Scale 0.10 mm.

present species, in the surface layer clubs with a central wart are present (see Verseveldt, 1983, figs 32g, j-m), the interior of the lobes has spindles only, and the interior of the base capstans only. However, the capstans are more slender (compare Verseveldt, 1983, fig. 23n-r with fig. 4c). Moreover, the colony shape is quite different; *L. microlobulatum* has small crowded lobes and the present species has big crests.

L. microspiculatum Tixier-Durivault, 1956, resembles the above mentioned species, but the capstans in the interior of the base are smaller, up to 0.17 mm long, quite a difference with the present species with capstans up to 0.25 mm long. Moreover, while comparing the microscopic slides of the holotype with the present species I noticed the presence of capstans in the interior of the crests and spindles in the interior of the base, characters not mentioned by Verseveldt (1983).

L. ransonii Tixier-Durivault, 1957, has no clubs with a central wart. In addition the spindles of the interior of the crests as the capstans of the interior of the base are larger (0.45 mm long versus 0.35 mm long; 0.30 mm long versus 0.25 mm long).

Considering the possibility of overlooking the presence of a few capstans in the interior of the crests and the presence of a few spindles in the interior of the base I have also compared the present specimen with species described as having few of those. The following three species have only few spindles in the interior of the base.

L. compactum Tixier-Durivault, 1956, has no clubs with a central wart. Besides, it has much longer spindles in the interior of the lobes (up to 0.43 mm long), whereas the capstans of the interior of the base are shorter (up to 0.20 mm long) and more slender (up to 0.10 mm wide).

L. durum Tixier-Durivault, 1956, has some clubs with a central wart. The sclerites of the interior are similar sized as the present specimen but the tuberculation of the sclerites is much heavier, especially on the spindles of the top of the colony.

L. lighti Moser, 1919, has some clubs with a central wart in the surface layer of the base but not in the surface layer of the top. Moreover, it has many capstan-like sclerites in the interior of the lobes. Verseveldt (1983) could not find the type and therefore based the description of this species on a specimen described by Tixier-Durivault, 1956, as *L. lighti*, from Puerto Galera, Philippines. Re-examination of the microscopic slides used by Verseveldt revealed the presence of many capstan-like sclerites in the interior of the lobes, apparently overlooked by Verseveldt.

The present specimen was also compared with *L. crassum* von Marenzeller, 1886, a species with few capstans in the interior of the top of the colony and few spindles in interior of the base. This species is different because the clubs of the surface layer have small prominences directed upwards, a character quite different from the clubs with central wart.

Finally, the species was compared with species having similar clubs with a central wart, e.g. *Lobophytum batarum* Moser, 1919; *L. schoedei* Moser, 1919; *L. variatum* Tixier-Durivault, 1957; and *L. venustum* Tixier-Durivault, 1957. The first three of these differ in having no capstans at all. *L. venustum* has capstans as well as spindles in the interior of top and base of the colony.

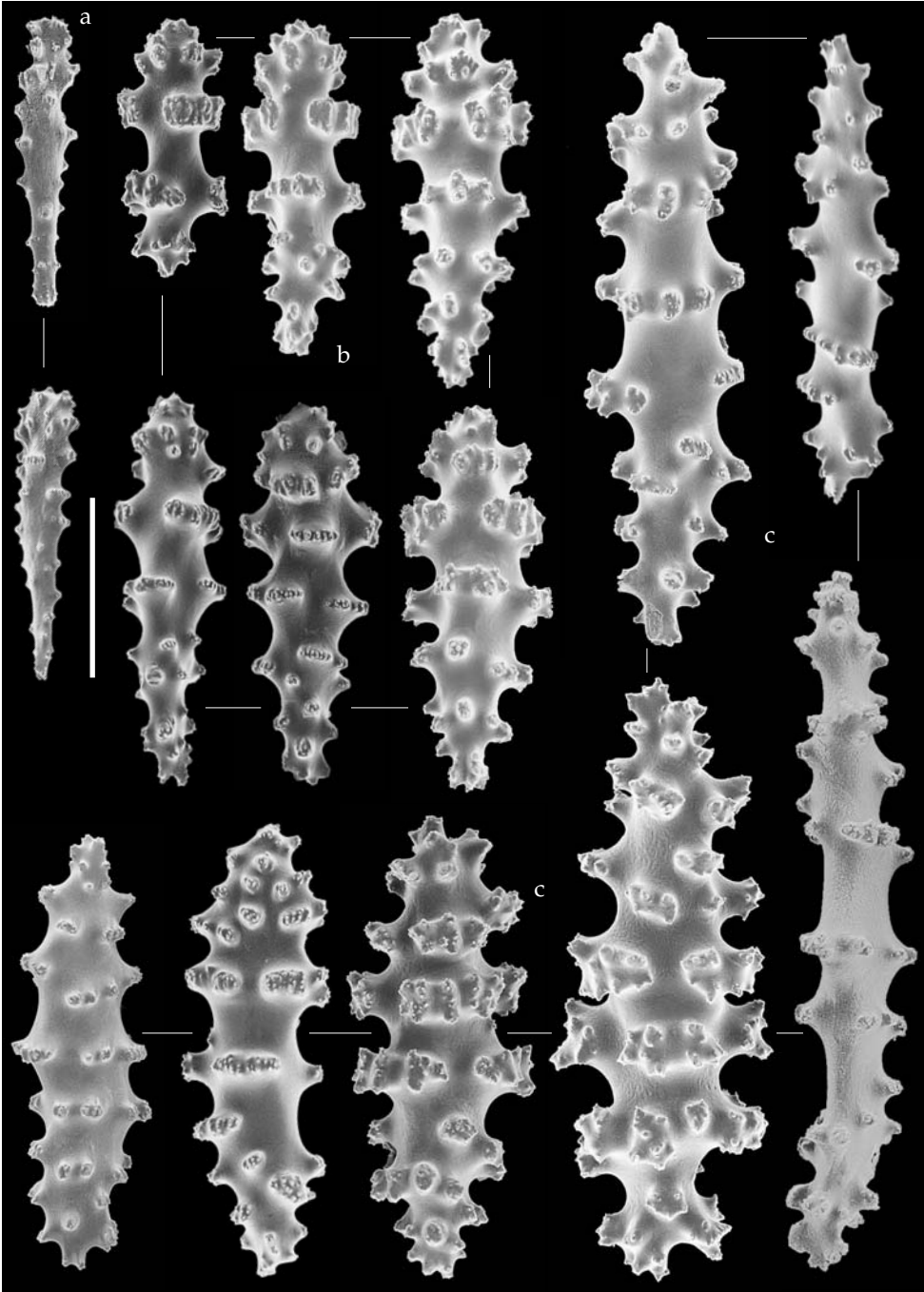


Fig. 5. *Lobophytum jasparsi* spec. nov.; sclerites of holotype (RMNH Coel. 24007); a, anthocodial clubs; b, clubs of surface layer of crest; c, spindles of interior of crest. Scale 0.10 mm.

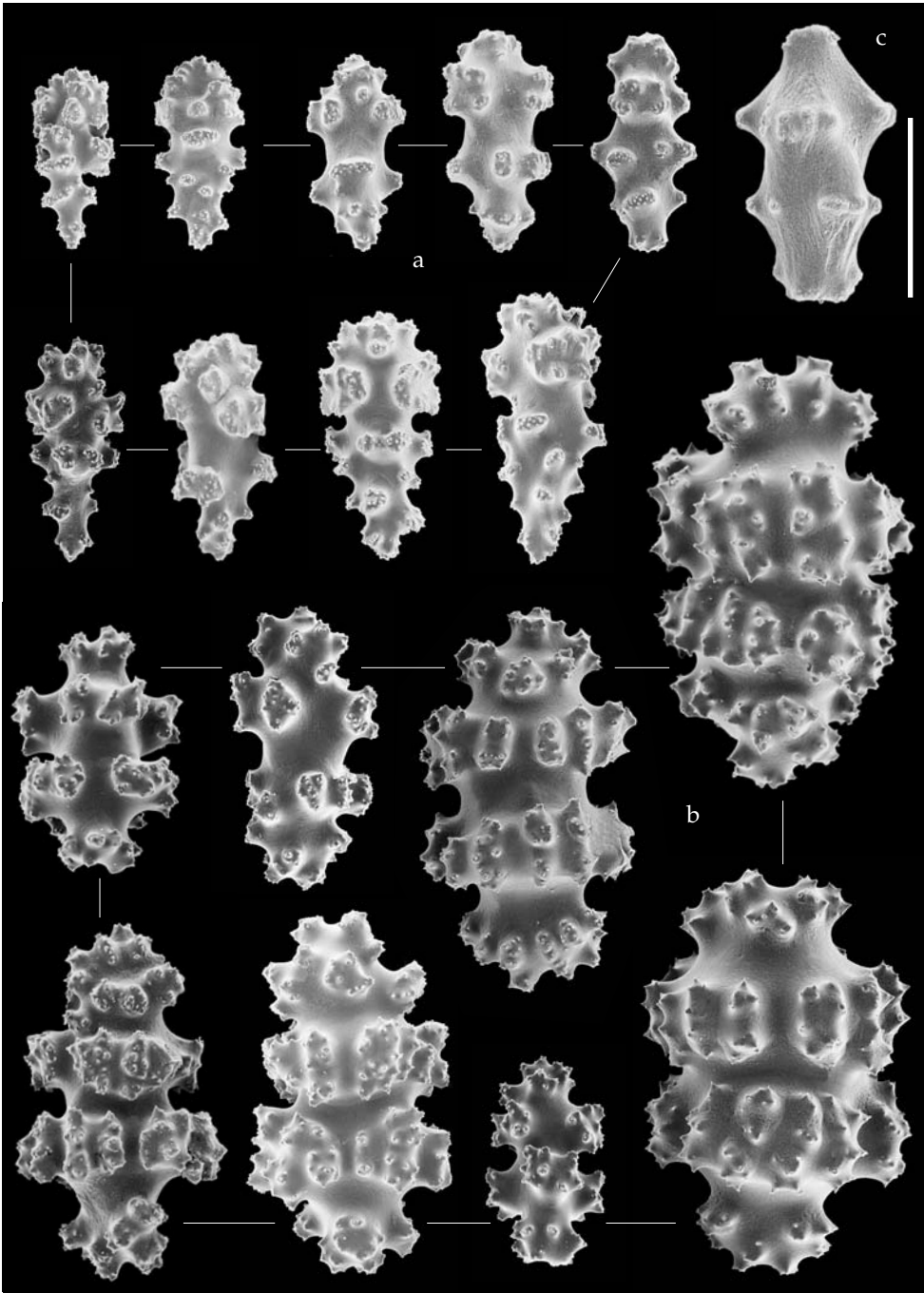


Fig. 6. *Lobophytum jasparsi* spec. nov.; sclerites of holotype (RMNH Coel. 24007); a, clubs of surface layer of base; b, capstans of interior of base; c, shuttle of interior of base. Scale 0.10 mm.

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