

Exechonella loslosensis new species
Plate 20A-B

Type material Holotype: NHM 1972.8.2.2, (131.K/1593) “Siboga” Station 162, off Loslos Island, between Loslos and Broken Islands, N. end of New Guinea, 18 m. 18.08.1899.

Other material examined SBMNH 365267, **406-84**; SBMNH 365268, **403-84**; SBMNH 365269, **506-87**; SBMNH 365270, **410-84**; NHM 1972.8.2.1, (395.C) “Siboga” Station 164, W. of N. end of New Guinea, 32 m; NHM 1931.12.30.85, “Albatross” Station 5148, off Sirun Island, Tawi Tawi Islands, Philippines, 31 m; NHM 1972.6.2.1, Palau Tekukar, Singapore.

Description Autozooids very large (1.40–1.70 x 0.90–1.30 mm), oval or irregularly polygonal, separated by deep grooves. Frontal shield convex, perforated by 60–90 irregularly-spaced small foramina, each foramen surrounded by a narrow rim of thickened calcification, up to 20 spire-like conical processes also present, associated with two or more foramina, often hollow themselves, marginal pores conspicuous, small, numerous, evenly-spaced. Orifice subcircular, longer than wide (ca 0.30 x 0.25 mm), anter deep, rounded, straight or slightly concave border proximally, condyles small, triangular, proximo-medially directed. Peristome thick, low, developed proximally as median process, two or four further processes produced laterally and distally. Single, or paired, large foramen at lateral or proximal margin, far larger than other foramina, raised from frontal shield, tilted towards centre of zooid, perforated by other small foramina. Dried specimens with a thin light greenish frontal covering, the opercula chocolate-brown in colour.

Etymology Named for the type locality, Loslos Island (“Siboga” Station 162), off the east end of New Guinea. Current designation is Pulau Loslos, Papua, Indonesia.

Remarks *Exechonella loslosensis* is characterised by its numerous small frontal foramina, the spire-like processes which join some foramina, the conspicuous marginal pores and primary orifice, with small, triangular condyles.

The form of the primary orifice in *Exechonella loslosensis* is very similar to *E. magna* (herein) and *E. brasiliensis* as illustrated by Tilbrook *et al.* (2001), however *E. loslosensis* has a far greater number of frontal foramina than both these species. *E. loslosensis* has the greatest number of frontal foramina of all the *Exechonella* species described here and is the largest. The two other new species of *Exechonella*, *E. anuhaensis* and *E. albilitus*, produce tall peristomes.

Exechonella loslosensis is very similar in morphology to *E. papillata* Cook & Bock, 2004, but it differs in a number of ways. Firstly, *E. loslosensis* zooids are three times the length of *E. papillata*, it does not produce the papillate lateral kenozooids characteristic of *E. papillata*, which in turn does not produce the frontal projections characteristic of *E. loslosensis*.

Comparisons among the material cited above show some slight differences. The holotype specimen and the Solomon Islands specimens are extremely conservative in their morphology, only differing slightly in the size of autozooids between colonies. This is also the case with an colony associated with *Stylopoma mauritiana* Tilbrook, 2001 (NHM 1999.4.11.21) from Cleveland Bay, Queensland and a colony associated

with a specimen of *Hiantopora bidenticulata* (USNM 7915) from the Philippines. The second group of specimens, from the Philippines, New Guinea and Singapore, have a greater number of spire-like frontal projections and more robust orificial condyles but still possess the large lateral foramen. However, the form of the peristome differs between these specimens; the New Guinea and Singapore specimens have a short, very flared peristome producing up to six processes, while the Philippines specimen has a taller thicker peristome, still producing six processes on its rim. Perhaps a more rigorous investigation of this material, and other specimens including the type material of *E. verrucosa*, will uncover a complex of species.

Exechonella loslosensis belongs to the Group 1 of *Exechonella* species *sensu* Cook & Bock (2004).

At Yandina, Mbanika Island, *Exechonella loslosensis* was associated with *Caleschara minuta* and *Calvipelta calvifrons*.

