

A new species of the genus *Isoschizoporella* (Bryozoa: Gymnolaemata: Cheilostomatida: Eminoeciidae) from the Weddell Sea

Новый вид рода *Isoschizoporella* (Bryozoa: Gymnolaemata: Cheilostomatida: Eminoeciidae) из моря Уэдделла

V.I. GONTAR'

В.И. ГОНТАРЬ

V.I. Gontar', Zoological Institute, Russian Academy of Sciences, 1 Universitetskaya Emb., St Petersburg, 199034, Russia. E-mail:gontarvi@gmail.com

A new species, *Isoschizoporella marisweddelli* **sp. nov.**, from the bryozoan order Cheilostomatida was described within the genus endemic for Antarctic waters. Fragments of colonies of the species were found in the Weddell Sea by the German Antarctic Expedition ANT XIII/3 on the research vessel "Polarstern" in 1996. The species is distinguished from the other species of *Isoschizoporella* by the incrusting colony, elongate, hexagonal and convex autozooids, semi-circular primary orifice with shallow sinus, strongly convex avicularian chamber, avicularium with semicircular mandible, and additional avicularium on frontal surface of autozooid. The species belongs to the infraorder Ascophora, superfamily Schizoporelloidea.

Описан новый вид мшанок *Isoschizoporella marisweddelli* **sp. nov.** из отряда Cheilostomatida и рода, эндемичного для Антарктических вод. Фрагменты колоний нового вида были собраны в море Уэдделла Германской антарктической экспедицией ANT XIII/3 на исследовательском судне «Polarstern» в 1996 году. Вид отличается от других близких видов инкрустирующей колонией, удлиненными, шестиугольными и выпуклыми аутозооидами, полукруглым первичным отверстием с мелким синусом, очень выпуклой авикулярной камерой, полукруглой формой мандибулы авикулярия и присутствием дополнительного адвентивного авикулярия на фронтальной поверхности аутозооида. Вид из инфраотряда Ascophora, надсемейства Schizoporelloidea.

Key words: The Weddell Sea, Antarctica, taxonomy, Bryozoa, Eminoeciidae, *Isoschizoporella*, new species

Ключевые слова: море Уэдделла, Антарктика, таксономия, мшанки, Eminoeciidae, *Isoschizoporella*, новый вид

INTRODUCTION

Bryozoans range among the most significant components of marine benthic communities over large areas of the Antarctic continental shelf (between 30 and 600 m). Antarctic bryozoan communities have also proven to be very complex both in species richness and morphological patterns. In contrast with the abundant references to the Antarctic Peninsula or to the Ross Sea, references to the Weddell Sea appear scattered (Hayward, 1995), and only few spe-

cies have been registered from this area. The first collection was gathered by the German Antarctic Expedition ANT XIII/3 on research vessel "Polarstern" in 1996. This expedition has allowed writing the report on the Bryozoan fauna of the Weddell Sea. Material collected during the Expedition cruise have enlarged the number of species known from the Weddell Sea from 10 to more than 400 species and subspecies of Bryozoa from the recent orders Cyclostomatida, Ctenostomatida, and Cheilostomatida. Bryozoans coming from 32 stations and 64 samples (in-

cluding quantitative samples) collected by different gears (10 AGT, 9 GSN, 4 EBS, 1 BPN, 1 D, 1 stomach content and 4 GKG) have been totally sorted, identified and labelled for collection purposes.

The paper is described new species from genus *Isoschizoporella* Rogick, 1960 with SEM illustrations. The family Eminoeciidae includes eight species with erect colonies only belong to the three genera *Eminoecia* Hayward & Thorpe, 1988, *Isoschizoporella* Rogick, 1960, and *Macrocamera* Gordon & d'Hondt, 1997. *Isoschizoporella marisweddelli* sp. nov. is an incrusting species probably inhabiting different substrata. Vertical colonies of Bryozoa are predominant in the Weddell Sea and a finding of the new incrusting species represents great interest, especially for the family Eminoeciidae.

Holotype and paratype are deposited in the Zoological Institute of the Russian Academy of Sciences, St Petersburg, Russia (ZIN).

DESCRIPTION OF A NEW SPECIES

Class **GYMNOLAEMATA**

Order **CHELOSTOMATIDA**

Suborder **NEOCHEILOSTOMINA**

Infraorder **ASCOPHORA**

Superfamily **SCHIZOPORELLOIDEA**

Family **EMINOOECHIDAE**

Genus *Isoschizoporella* Rogick, 1960

Isoschizoporella marisweddelli sp. nov.
(Figs1–4)

Holotype. ZIN-№ 1/ 22-2017 *Isoschizoporella marisweddelli*. Fragment of colony. Size: 2 mm × 2.5 mm. ANT XIII Polarstern 39, *the Weddell Sea*, to the west from Cape Norwegia, 71°23'10''S, 14°19'70''W, station 25, GKG no.14, sample 14, 23.II.1996, depths 621 m. Collectors B.I. Sirenko, I.S. Smirnov.

Paratype. ZIN-№ 2/23-2017 *Isoschizoporella marisweddelli*. Fragment of colony. Size: 11×15 mm. ANT XIII Polarstern 39, *the Weddell Sea*, to the west from Cape Norwegia, 71°22'88''S, 14°18'50''W, station 25, D no. 19,

sample 19, 23.II.1996, depth 622–636m. Collectors B.I. Sirenko, I.S. Smirnov.

Description. Colony incrusting, unilaminar. Autozooids elongate, hexagonal, convex, separated by distinct ridges with four pores. Primary orifice subterminal, semicircular; proximally with small, indistinct condyles and wide, shallow sinus. Autozoid length 1.00 ± 0.18 mm; orifice length $0.15 \pm <0.01$ mm; autozoid width 0.70 ± 0.2 mm; orifice width $0.15 \pm <0.01$ mm. A single suboral avicularium present; cystid occupying whole width of autozoid, very inflated with two widely spaced pores; rostrum oval, directed proximally, with semicircular mandible. Additional avicularium situated very rare on proximal part of frontal surface of autozooids with semicircular mandible laterally directed. Frontal calcification coarsely nodular, with four widely spaced marginal pores. Ovicell prominent, spherical; entooecium calcified, imperforate, with smooth surface; ectooecium present as broad distal and lateral band. In many but not all instances, avicularian cystid, with oval rostrum and oval mandible, situated immediately distal to ovicell.

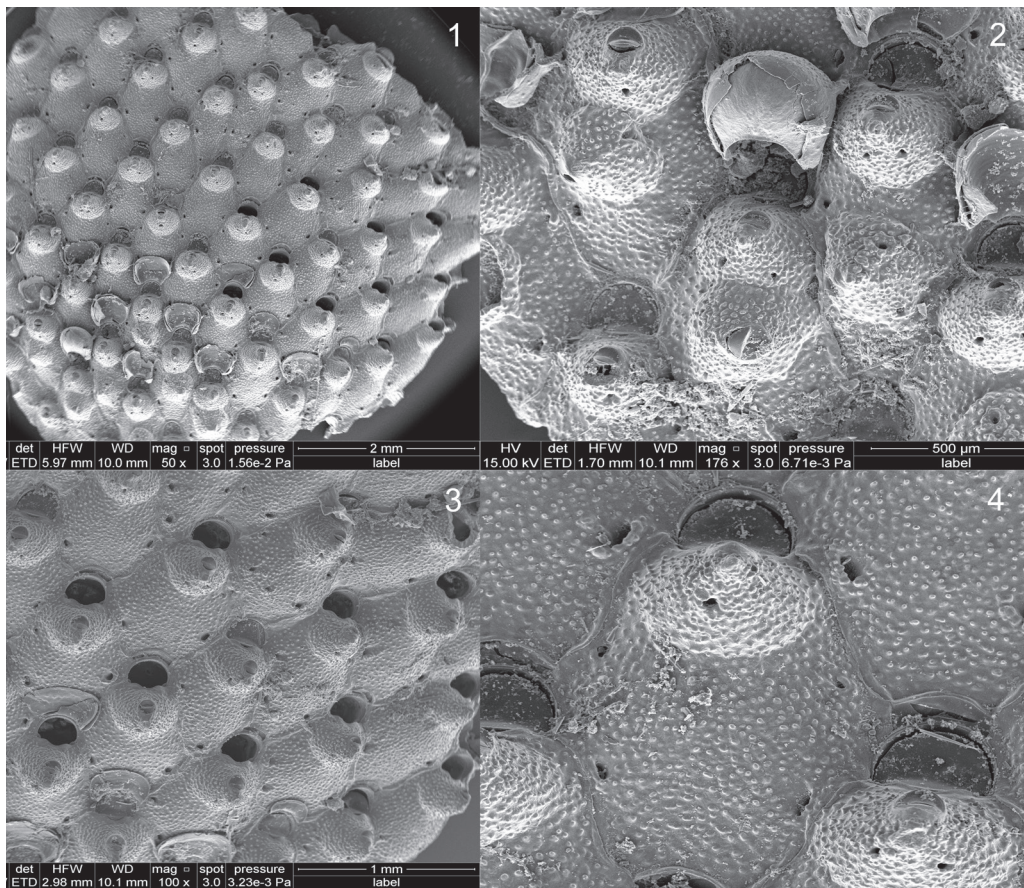
Comparison. This species is distinguished from the other species of *Isoschizoporella* (Hayward & Taylor, 1984; Hayward & Thorpe, 1988; Hayward, 1995) by the incrusting colony, elongate, hexagonal and convex autozooids, semicircular primary orifice having shallow sinus on proximal border, presence of strongly convex avicularian chamber with avicularium having semicircular mandible, and presence of additional avicularium on frontal surface of autozoid. The avicularium associated with the distal edge of the ovicell is of infrequent occurrence.

Distribution. The endemic Antarctic species is known from the Weddell Sea.

Etymology. The species was named for the Weddell Sea.

ACKNOWLEDGEMENTS

I am grateful to Alexey Miroyubov (ZIN) for his help with Scanning Electron Microgra-



Figs 1–4. *Isoschizoporella marisweddelli* sp. nov. 1, colony; 2, ovicell and additional avicularium; 3, shape of primary orifice; 4, shape of autozooid

phy and to reviewer Dr Hans De Blauwe (the Royal Belgian Institute of Natural Sciences, Brussels, Belgium) for the helpful suggestions.

REFERENCES

- Hayward P.J. & Taylor P.D.** 1984. Fossil and Recent Cheilostomata (Bryozoa) from the Ross Sea, Antarctica. *Journal of Natural History*, **18**: 71–94.
- Hayward P.J. & Thorpe J.P.** 1988. A new family of cheilostome Bryozoa endemic to the Antarctic. *Zoological Journal of the Linnean Society*, **93**: 1–18.
- Hayward P.J.** 1995. *Antarctic Cheilostomatous Bryozoa*. Oxford, New York, Tokyo: Oxford University Press. 355 p.

Received 25 May 2017 / Accepted 27 Nov. 2017

Editorial responsibility: D.A. Gapon