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**Zoogeographical peculiarities of
Euroasian north continental water-bodies
– Phylactolaemata and Eurystomata**

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A b s t r a c t: This report continues the study of geographical distribution of Phylactolaemata and Eurystomata in continental water-bodies. Their distribution is variable. It can be cosmopolitan, holarctic, wide regional, endemical (regional or local). Other brackish-water Eurystomata species (neolymnic component) have a marine distribution. The species composition of Phylactolaemata and Eurystomata in Arctic continental water-bodies is known from some works. Sea Bryozoa distributes in the sea bays, with neolymnic forms. The northern range of Eurasian freshwater Phylactolaemata and Gymnolaemata is limited by environmental temperature. Most northern Phylactolaemata discoveries are by statoblasts only. The occurrence of freshwater and marine bryozoan species in the provinces of Novaja Zemlia, Zemlia of Franz-Josef (Zemlia of Franz-Josef Subprovince, Spitzbergen Subprovince), Lapland, Dvyna River, Pechora River, Lower Ob River, Lower Yenisei River (Taymir Subprovince), Lena River, Kolyma River, Kamchatka, Chukotka, Preockhot-Sea, Severnaja Zemlia, Novosibirsk Islands, and Vrangeli Island is given.

K e y w o r d s: Distribution, freshwater, marine, brackish-water, Bryozoa.

Introduction

This report continues the study of geographical distribution of Phylactolaemata and Eurystomata in continental water-bodies (ABRICOSOV 1926, 1933, 1948, 1959a, b, c; LACOURT 1968; D'HONDT 1983; VINOGRADOV 1985, 1989a, b, 1992, 1993, 1994, 1995, 1996a, b, c, 2000, 2003a, b, 2004, 2005). The distribution of recent Phylactolaemata and Eurystomata is variable. It can be cosmopolitan, holarctic, wide regional, endemical (regional or local). Other brackish-water Eurystomata species (neolymnic component) have a marine distribution.

The species composition of Phylactolaemata and Eurystomata in Arctic continental water-bodies is known from some works (ABRICOSOV 1926, 1933, 1968; PIROZSCHNIKOV 1937; GRESE 1947a, b, 1953, 1957a, b; KOZSHOV & TOMILOV 1949). Sea Bryozoa distributes in the sea bays, with neolymnic forms (USCHAKOV 1930; PIROZSCHNIKOV 1936; ABRICOSOV 1948; KLUGE 1962).

The northern range of Eurasian freshwater Phylactolaemata and Gymnolaemata is limited by environmental temperature. Most northern Phylactolaemata discoveries are by

statoblasts only. This document describes the occurrence of freshwater and marine bryozoan species in the provinces of Novaja Zemlia, Zemlia of Franz-Josef (Zemlia of Franz-Josef Subprovince, Spitzbergen Subprovince), Lapland, Dvyna River, Pechora River, Lower Ob River, Lower Yenisei River (Taymir Subprovince), Lena River, Kolyma River, Kamchatka, Chukotka, Preockhot-Sea, Severnaja Zemlia, Novosibirsk Islands, and Vranghel Island.

Paleartic Region

Europe-Siberia Subregion

Novaja Zemlia Province

The list of arctic findings of Phylactolaemata and continental water-bodies Eurystomata includes *Paludicella articulata*, *Fredericella sultana duplessisi* (= *F. sultana sultana*), *Cristatella mucedo*, *Plumatella repens* and *P. fruticosa* (ABRICOSOV 1933, 1968). Statoblasts of *P. repens* are from the Arctic Russian territory (Novaja Zemlia, half-island Belushyi, lake Bolshoe Sidorovskoje). Marine bryozoan come only from the Novaja Zemlia sea bays (USCHAKOV 1930; GOSTILOVSKAJA 1962, 1984).

Zemlia of Franz-Josef Province

Zemlia of Franz-Josef Subprovince

Marine Bryozoa findings are in water-bodies near the sea (DENISENKO & PANTEEVA 1985).

Spitzbergen Subprovince

Phylactolaemata statoblasts findings are at Spitzbergen, as well as in Greenland and Iceland (ABRICOSOV 1968).

Lapland Province

Species in continental water-bodies: *Fredericella sultana sultana*, *F. australiensis* (probably, introduced), *Plumatella fruticosa*, *P. emarginata*, *P. repens*, *P. fungosa*, *P. coralloides*, *Hyalinella punctata*, *Cristatella mucedo*, *Paludicella articulata*, *Electra baltica* (= *E. crustulenta* var. *baltica*).

Marine bryozoans live in several salt and brackish water-bodies. Subfossil marine bryozoan findings are in the deposits of lake Mogilnoje (GOSTILOVSKAJA & TARASOV 1971 1975): Cyclostomida – *Proboscina* sp., *Tubulipora flabellaris* (FABRICIUS), *T. uniformis* GOSTILOVSKAJA, *Tubulipora* sp., *Diplosolen* sp., *Crisiella producta* (SMITT), *Crisia eburnea* (LINNAEUS), *Crisia* sp., *Lichenopora verrucaria* (FABRICIUS), *Lichenopora* sp.; Cheilostomida – *Eucratae loricata* (LINNAEUS), *Tegella armifera* (HINCKS), *T. arctica* (D'ORBIGNY), *Callopora lineata* (LINNAEUS), *C. craticula* (ALDER), *Cauloramphus cymbaeformis* (HINCKS), *Cauloramphus* sp., *Dendrobeatia murrayana* (JOHNSTON), *D.*

pseudomurrayana var. *fessa* KLUGE, *Dendrobeatia* sp., *Tricellaria ternata* (ELLIS & SOLANDER), *T. gracilis* (VAN BENEDEN), *Scrupocellaria scabra* (VAN BENEDEN), *Cribrillina annulata* (FABRICIUS), *C. punctata* (HASSALL), *Escharella immersa* (FLEMING), *Smittina minuscula* (SMITT), *S. rigida* LORENZ, *Porella acutirostris* SMITT, *Umbonula arctica* (SARS), *Schizoporella lineata* (NORDGAARD), *S. porifera* (SMITT), *Hippodiplosia reticulatopunctata* (HINCKS), *H. propinqua* SMITT, *Hippothoa hyalina* (LINNAEUS), *Harmeria scutulata* (BUSK), *Microporella ciliata* (PALLAS), *Microporella* sp., *Rhamphostomella spinigera* LORENZ, *R. radiatula* (HINCKS).

Our collection of recent bryozoans of Beloje Sea (White Sea), from Kandalaksha Bay, includes 30 species: Stenolaemata – *Tubulipora flabellaris*, *Diplosolen obelia obelia*, *D. obelia* var. *arctica*, *Filicrisia geniculata*, *Crisia aculeata*, *C. eburnea*, *C. eburneo-denticulata*, *C. denticulata*, *L. verrucaria*; Eurystomata – *Electra pilosa pilosa*, *E. pilosa* var. *dentata*, *Tegella armifera*, *Callopora lineata*, *C. craticula*, *C. craticula* var. *sedovi*, *C. aurita*, *Cauloramphus spiniferum*, *Amphiblestrum septentrionalis*, *Flustra membranaceo-truncata*, *Bugulopsis peachi*, *Tricellaria ternata*, *T. gracilis*, *Scrupocellaria scabra*, *S. minor*, *S. arctica*, *Cribrillina annulata*, *C. punctata*, *Escharella immersa*, *Umbonula arctica*, *Hippothoa hyalina*.

Dvyna River Province

Species (probably): *Fredericella sultana sultana*, *Plumatella fruticosa*, *P. repens*, *P. emarginata*, *Hyalinella punctata*, *Cristatella mucedo*, *Paludicella articulata*.

Pechora River Province

Species (probably): *Fredericella sultana sultana*, *Plumatella fruticosa*, *P. repens*, *P. emarginata*, *Hyalinella punctata*, *Cristatella mucedo*, *Paludicella articulata*.

Lower Ob River Province

Species (from publications): *Fredericella sultana*, *Plumatella fruticosa*, *P. repens*, *P. fungosa*, *P. emarginata*, *Hyalinella punctata*, *Cristatella mucedo*, *Paludicella articulata*.

Our data: *Fredericella sultana*, *Plumatella fruticosa*, *P. fungosa*, *P. emarginata*, *Hyalinella punctata*, *Cristatella mucedo*, *Paludicella articulata*. Findings of *Fredericella sultana* zoaria are from the Ob River delta, *Plumatella fruticosa* from the peninsula Gydanskyi (second finding at the Asian part of Russia, after one finding at Yakutia, the third in Asia, after Japan); *P. fungosa* – at the Ob River delta, *P. emarginata* – at the Yamal region, *Hyalinella punctata* – at the lower part of Taz River, *Cristatella mucedo* – at the peninsula Tazovskyi, *Paludicella articulata* – at the Ob River delta. They are the most north findings of species. In the south, at the Irtysh Province (Irtysh River basin, south of Tiumen Region) *Leptoblastella casmiana* zoaria (first findings in West Siberia and second in Siberia, after Middle Siberia, at the south of the Krasnoyarsk Region) and *Plumatella coralloides*.

East-Siberia Subregion

Lower Yenisei River basin Province

Taimyr Subprovince

Species: *Plumatella emarginata*, *P. articulata*, *Hislopia placoides* (endemic in Lake Baical), *Alcyonidium disciforme* (brackish-water Eurystomata).

Lena River Province

Species: *Fredericella sultana*, *Plumatella fruticosa*, *P. fungosa*, *Hyalinella punctata*, *Cristatella mucedo*, *Paludicella articulata*.

Kolyma River Province

Plumatella sp. statoblasts were found in the plankton of Kolyma River. Some Phylactolaemata findings are from the bottom of Ilyrneyskije Lakes (Magadan Region); statoblasts were found in the winter plankton.

Kamchatka Province

Species: *Hyalinella punctata*, *Cristatella mucedo*.

Chukotka Province, Preockhot-Sea Province, Severnaja Zemlia Province, Novosibirsk Islands Province, Vrangeli Island Province

Phylactolaemata and Eurystomata have not been not studied yet.

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