

## Accepted Manuscript

Title: Palaeozoic carbonates and fossils of the Mendeleev Rise (eastern Arctic): a study of dredged seafloor material

Authors: O.L. Kossovaya, T.Yu. Tolmacheva, O.V. Petrov, T.N. Isakova, R.M. Ivanova, E.S. Mirolyubova, P.V. Rekant, E.A. Gusev



PII: S0264-3707(17)30219-3  
DOI: <https://doi.org/10.1016/j.jog.2018.05.001>  
Reference: GEOD 1567

To appear in: *Journal of Geodynamics*

Received date: 17-9-2017  
Revised date: 12-4-2018  
Accepted date: 10-5-2018

Please cite this article as: Kossovaya, O.L., Tolmacheva, T.Yu., Petrov, O.V., Isakova, T.N., Ivanova, R.M., Mirolyubova, E.S., Rekant, P.V., Gusev, E.A., Palaeozoic carbonates and fossils of the Mendeleev Rise (eastern Arctic): a study of dredged seafloor material. *Journal of Geodynamics* <https://doi.org/10.1016/j.jog.2018.05.001>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

PALAEOZOIC CARBONATES AND FOSSILS OF THE MENDELEEV RISE (EASTERN ARCTIC): A  
STUDY OF DREDGED SEAFLOOR MATERIAL

Kossovaya O. L.<sup>1,5</sup>, Tolmacheva T. Yu.<sup>1</sup>, Petrov O. V.<sup>1</sup>, Isakova T. N.<sup>2</sup>, Ivanova R. M.<sup>3</sup>,  
Miroyubova E. S.<sup>4</sup>, Rekant P. V.<sup>1</sup>, Gusev E. A.<sup>4</sup>

<sup>1</sup>-A.P. Karpinskyi Russian Research Geological Institute, 74 Sredny pr., 199106 Saint Petersburg, Russia;

<sup>2</sup>-Geological Institute of the Russian Academy of Science, Moscow, Russia;

<sup>3</sup>-Institute of Geology and Geochemistry, Urals branch of RAS; Ekaterinburg, Russia;

<sup>4</sup>-VNII Okeanologia, Saint Petersburg, Russia;

<sup>5</sup>-Kazan Federal University, Kazan, Tatarstan, Russian Federation

Fossiliferous carbonate rocks dredged during the "Arctic-2012" cruise on the Mendeleev Rise (eastern Arctic) provide proof of the presence of Upper Silurian(?)–Middle Devonian, Famennian–Tournaisian, Bashkirian–Kasimovian, Gshelian–lower Asselian(?) and Kungurian–Kazanian carbonate deposits. The wide spectrum of facies includes deposits of both photic zone (with fusulinids, algae, relicts of microbial and coral reefs) and deeper dysphotic areas (with trilobites, deep-water tentaculitids and ostracods). The results obtained suggest that there were at least three periods of carbonate platform sedimentation during the latest Silurian(?) to Permian.

The Late Silurian?–Devonian biota do not show biogeographical differentiation, but rather are distributed globally. Shallow-water foraminifera and some algae of early Pennsylvanian–basal Cisuralian age belong to the warm-water province. These forms are unknown in the Moscovian–Permian of the Boreal Realm (Taimyr, New Siberian Islands, Verkhoyanie, Omolon Massif) but are typical for Alaska and Arctic Canada, Wrangel Island, Chukotka, Polar Urals and Svalbard. The disappearance of warm-water biota during late Artinskian–Kungurian times led to a subsequent predominance of smaller foraminifera: this assemblage with *Protonodosaria* is widely distributed in Permian deposits of Novaya Zemlya, Urals, Barents Sea and the eastern Arctic.

Download English Version:

<https://daneshyari.com/en/article/8908370>

Download Persian Version:

<https://daneshyari.com/article/8908370>

[Daneshyari.com](https://daneshyari.com)