

Paleontological Journal 2015 vol.49 N10, pages 1125-1141

---

# The Permian nonmarine bivalve *Palaeonodonta* Amalitzky, 1895: Position in the modern *Bivalvia* system

Silantiev V., Carter J.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

---

## Abstract

© 2015, Pleiades Publishing, Ltd. Bivalves assigned to the genus *Palaeonodonta* Amalitzky, 1895 comprise more than 30 species and are widespread in malacofaunas of the Permian Period in both Eurasia and Gondwana. The history of the establishment of *Palaeonodonta*, changes in the opinion of the author of the genus concerning its composition and type species are considered. Relationships of *Palaeonodonta* with the genus *Naiadites* Dawson, 1860, which was initially regarded as its senior synonym, and with *Anthraconaia* Trueman et Weir, 1946, which shows superficial similarity, are analyzed. Certain characters, such as the external opisthodontic ligament, reduced pseudotaxodont hinge, crossed lamellar comarginal and radial shell microstructure, resulted in the conclusion that the type species of the genus, *Unio castor* Eichwald, 1860, the species close to it, i.e., *P. longissima* (Netschajew) and *P. rhomboidea* (Netschajew), and also the species included in the group *Palaeonodonta fischeri* (Amal.) (*P. subcastor* (Amal.), *P. okensis* (Amal.), *P. parallela* (Amal.), *P. obunca* (Netschajew), *P. amalitzkyi* (Silantiev)), as well as the group *Palaeonodonta dubia* (Amal.) (*P. umbonata* (Amal.), *P. sibirzevi* (Amal.), *P. indeterminata* (Amal.), *P. monstrum* (Amal.)) belong to the genus *Palaeomutela* Amalitzky, 1892. The species listed are similar in the reduced pseudotaxodont hinge apparatus, which is characterized by a narrow hinge area and few small teeth, which are usually at most ten in number, and occasionally fewer down to complete disappearance. This character is the basis for the recognition of the subgenus *Palaeonodonta* Amalitzky, 1895 within the genus *Palaeomutela* Amalitzky, 1892. The diagnoses of the genus, subgenera, and their species composition are provided.

<http://dx.doi.org/10.1134/S003103011511009X>

---

## Keywords

Late Permian, nonmarine bivalves, *Palaeonodonta*, stratigraphy, taxonomy