



## A new species of *Gerstfeldtiancylus* Starobogatov, 1989 (Pulmonata: Basommatophora: Acroloxiidae) from Lake Baikal

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### Abstract

*Gerstfeldtiancylus ushunensis*, new species (Pulmonata: Basommatophora: Acroloxiidae) is described from material collected in the littoral zone of Lake Baikal. This limpet has been found only at the type locality, Malye Olkhonskie Vorota, Ushun Bay. It is distinguished from all known Baikal acroloxids by the presence of scales on the dorsal jaw part and from other representatives of *Gerstfeldtiancylus* by the presence of a velum in the male copulatory organ, short salivary glands and the location of the posterior shell adductor. This new species is most similar to *G. roepstorfi* Shirokaya et al., 2003 based on the shape of teleoconch, and most closely resembles *G. renardii* (Dybowski, 1884) in terms of radular morphology. Species that are morphologically identical with *G. ushunensis* never accompany it. *G. ushunensis* coexists with *G. benedictiae* and *G. kotyensis*, which are easily distinguishable from the latter.

**Key words:** Lake Baikal, Acroloxiidae, new species, shell, radula, anatomy, egg masses

### Introduction

The last taxonomic revision of acroloxids from Lake Baikal was undertaken by Starobogatov (1989). As a result of conchological analysis, he concluded that the lake is inhabited by 24 endemic acroloxids belonging to three genera: *Pseudancylastrum* Lindholm, 1909 (twelve species), *Gerstfeldtiancylus* Starobogatov, 1989 (eight) and *Baicalancylus* Starobogatov, 1967 (four). Examination of the structural peculiarities of their male copulatory organs by Kruglov and Starobogatov (1991a) allowed them to distinguish two subgenera in each of the two genera — *Pseudancylastrum* and *Gerstfeldtiancylus*. Subsequently, a new abyssal species, *P. frolikhae* Sitnikova & Starobogatov, 1993, was described from the zone of an underwater hydrothermal vent (north-eastern coast of Baikal), and classified as a separate subgenus based on features of the shell and male copulatory organ (Sitnikova et al. 1993). An additional new littoral species, *G. roepstorfi* was later described from near the Ushkany Islands (Shirokaya et al. 2003). And finally, based on conchological analysis of type series and anatomical data, *G. kozhovi* Starobogatov, 1989 was recognized as a subjective synonym of *G. kotyensis* Starobogatov, 1989 and *G. gerstfeldti* Starobogatov, 1989 — a junior synonym of *G. renardii* (Dybowski, 1884) (Shirokaya 2005). Thus, the family Acroloxiidae currently includes 24 endemic species from three genera and five subgenera in the Lake Baikal.

In 2003, in Malye Olkhonskie Vorota (middle basin of the Lake Baikal), the author found numerous acroloxid specimens that can be distinguished from all nominal *Gerstfeldtiancylus* species by their conchological and anatomical characters. A description of this new species is provided herein.