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The first record of *Thesbia nana* (Lovén, 1846) (Gastropoda: Conoidea) in Russian waters

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ABSTRACT. *Thesbia nana* is recorded for the first time in the Russian part of the Barents Sea. The species was previously known from the North Atlantic with reported Eastern distribution limit in Finmark. The brief species description is provided.

Introduction

Barents Sea has the highest number of recorded gastropod species among northern seas of Russia. The observed high molluscan diversity is a result of both extensive studies and transport of warm water species with waters of North Atlantic Current. The studies of molluscan fauna in the Russian part of the Barents Sea were conducted since the end of the 19-th century to present, and accumulated data were summarized in some catalogs and checklists [Golikov, 1995; Golikov *et al*., 2001; Kantor, Sysoev, 2006]. However the studies of the Barents Sea fauna are not yet completed and new for the region species are recorded regularly [Kantor *et al.*, 2008; Chaban, Nekhaev, 2010; Nekhaev, 2011]. This note reports *Thesbia nana* (Lovén, 1846) for the first time in Russian waters.

Material and methods

Material studied was collected by 0.1 m^2 van-Veen grab on August 19, 2007 during the cruise of the r/v *Dalnie Zelentsy* at a single site in the Barents Sea (70º00'N, 33º33'E) (Fig. 1) at the depth of 142 m, with water salinity 34.1‰ and temperature +4.69ºC on silty substratum with sand and stones. The site is situated on a standard transect "Kola Meridian" which had been periodically studied since 1890-th [Derjugin, 1924; Nesis, 1960]. Two live specimens and two empty shells of *Thesbia nana* were collected.

Classification follows that of Bouchet *et al.* (2011).

Results

Superfamily CONOIDEA Fleming, 1822
Raphitomidae A. Bellardi, 1875
Thesbia Jeffreys, 1867

Type species: *Tritonium nanum* Lovén, 1846 (by monotypy).

Thesbia nana (Lovén, 1846)

Tritonium nanum Lovén, 1846: 144.

The shell is thin, white, semitransparent, elongated, with 4-4.5 moderately convex whorls (Fig. 2). The axial sculpture is limited to thin sigmoid growth lines. The anal sinus is very shallow, subsutural. The spiral sculpture consists of spiral rows of micropits, 24 on the body whorl. The protoconch consists of about 1.3-1.4 whorls, mat, with rough surface. Aperture is ovate, with distinct angulation at the junction of outer lip and parietal wall. Siphonal canal short. Outer lip is thin, evenly convex. The shell height of the largest alive specimen is 4.6 mm.

Remarks. *Thesbia nana* is still tentatively attributed to Raphitomidae. Typically protoconch of raphitomids is multispiral, of 2.5–6.5 whorls, protoconch I often spirally striated, protoconch II with diagonally cancellated sculpture. At the same time somewhat similar protoconchs were found in *Taranis* Jeffreys, 1867 [Bouchet, Warén, 1980: figs. 270-271, 274-275], which was proved to belong to Raphitomidae on the basis of molecular data [Bouchet *et al*., 2011].

Discussion

T. nana was previously recorded along the Norway coast eastward to East Finmark [Høisœter, 2009], in the North Sea [Fretter, Graham, 1985], Iceland [Bouchet, Warén, 1980]. Poppe and Goto [1991] mistakenly reported this species from Sval-

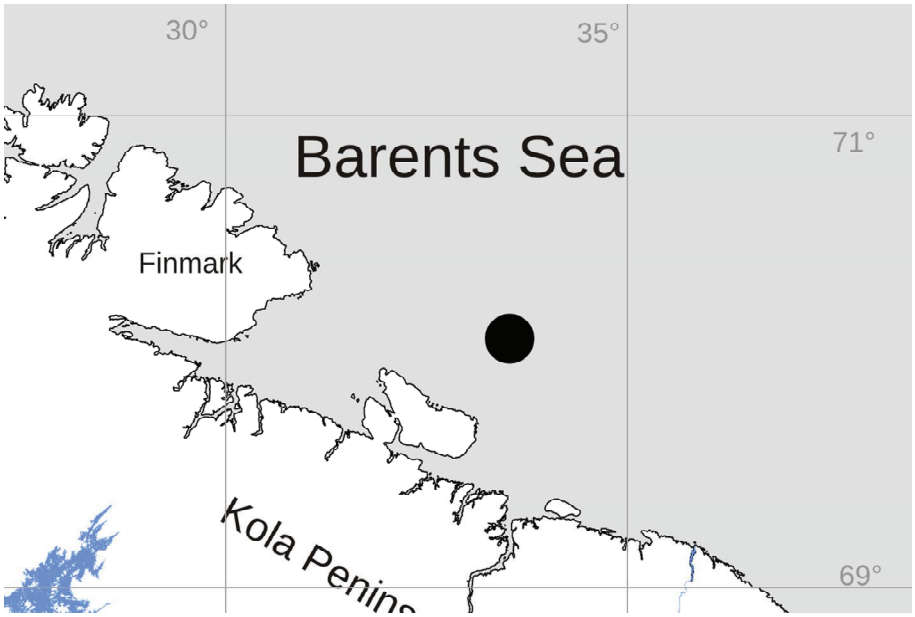

FIG. 1. New locality of *Thesbia nana*.

РИС. 1 Новая находка *Thesbia nana*.

bard refering to Bouchet and Warén [1980]. According to WoRMS database *T. nana* also occurs in Arctic Canada [Gofas, 2011]. So far this species has not been previously found in the Russian waters.

The findings of previously non recorded boreal species on the "Kola Meridian" transect is usually considered to be the result of climate warming, whereas occurence of arctic species is probably caused by climate cooling [Nesis, 1960]. *T. nana* has typical boreal distribution and its presence on the "Kola Meridian" transect may reflect the current relatively high temperatures. This hypothesis is confirmed by findings of some other warm water gastropod species along the Kola Peninsula coast, e.g. *Aporrhais pespelecani* (Linnaeus, 1758), *Retusa pellucida* (Brown, 1827), *Eulima bilineata* Alder, 1848 and *Odostomia turrita* Hanley, 1844 [Kantor *et al.*, 2008; Chaban, Nekhaev, 2010, Nekhaev, 2011].

On the other hand, *T. nana* was known from the adjacent waters of Northern Norway, therefore recorded by us distributional expansion is not very broad and may be caused by processes not related to the climate.

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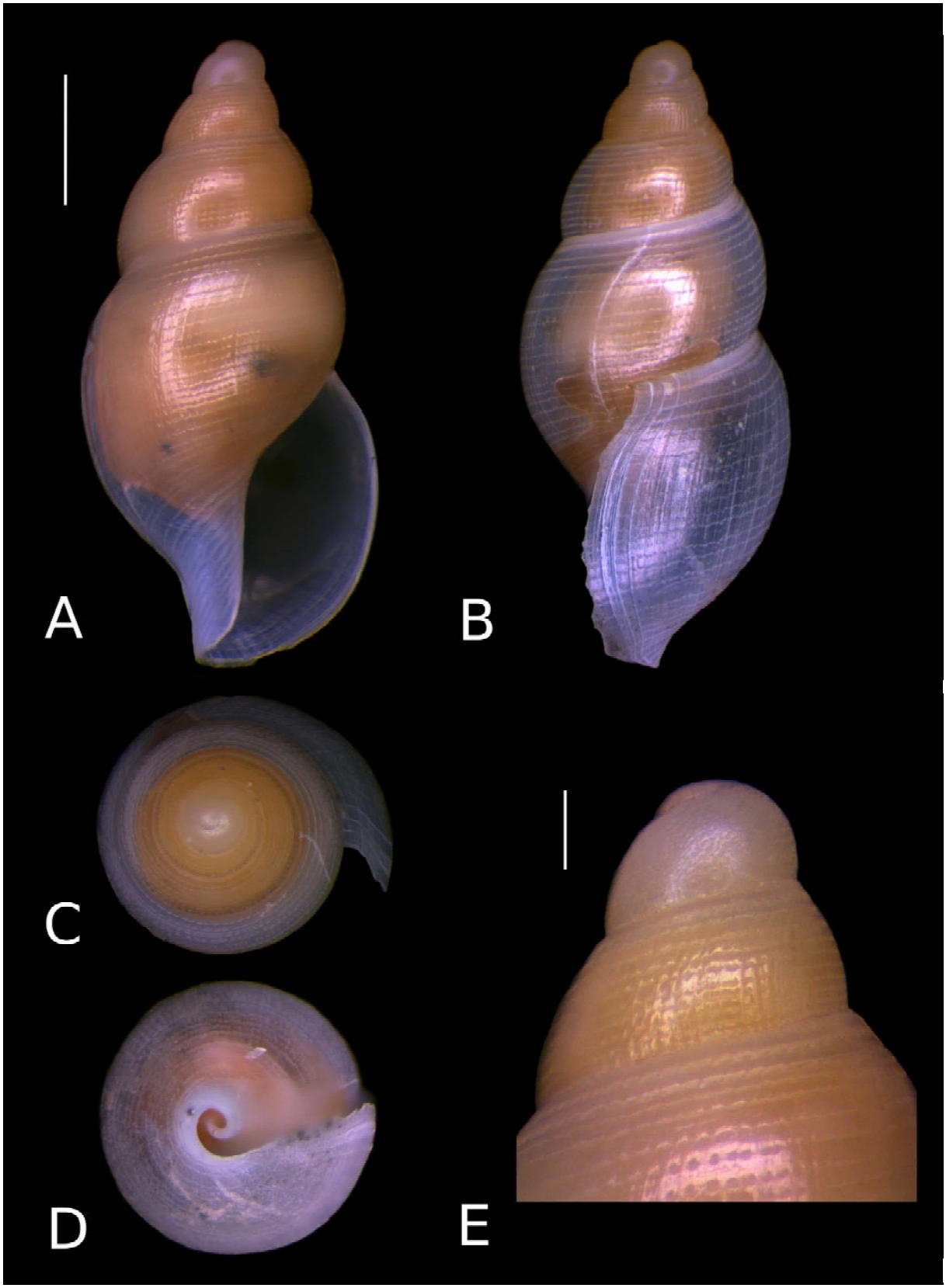

FIG. 2. Shell of *Thesbia nana* from the Barents Sea. A-D at the same scale, scale bar 1 mm, E — scale bar 0.25 mm.

РИС. 2. Раковина *Thesbia nana* из Баренцева моря. Масштаб для A-D — 1 мм, для E — 0,25 мм.

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Первая находка *Thesbia nana* (Lovén, 1846) (Gastropoda: Conoidea) в российских водах

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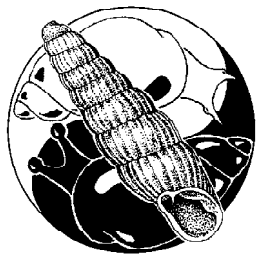
РЕФЕРАТ. *Thesbia nana* (Lovén, 1846) (Gastropoda: Conoidea) впервые отмечается для фауны России. Ранее вид был известен из северной Атлантики с восточной границей распространения в Восточном Финмарке. Приведён краткий видовой диагноз.



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