

***Betaeus truncatus* Dana, 1852 (Crustacea: Decapoda: Caridea: Alpheidae) from South Georgia, South Atlantic Ocean — a new sub-Antarctic record of alpheid shrimps**

***Betaeus truncatus* Dana, 1852 (Crustacea: Decapoda: Caridea: Alpheidae) из Южной Георгии, Южная Атлантика — новая находка каридных креветок в Субантарктике**

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KEY WORDS: Decapoda, Caridea, shrimp, Alpheidae, *Betaeus*, new record, Sub-Antarctic, South Georgia, South Atlantic Ocean.

КЛЮЧЕВЫЕ СЛОВА: Decapoda, Caridea, креветки, Alpheidae, *Betaeus*, новые находки, Субантарктика, Южная Георгия, Южный Атлантический Океан.

ABSTRACT. The alpheid shrimp *Betaeus truncatus* Dana, 1852 (Decapoda: Alpheidae) is firstly reported from sub-Antarctic coastal shallow waters of South Georgia, South Atlantic Ocean. The present locality situated about 1500 km east from the nearest distribution area of the shrimp species, off Falkland Islands.

РЕЗЮМЕ. Креветка-альфеида *Betaeus truncatus* Dana, 1852 (Decapoda: Alpheidae) впервые отмечена из прибрежных вод Южной Георгии, Субантарктическая часть Атлантического Океана. Отмеченная точка обитания находится в более чем 1500 км от ближайшего ранее указанного местообитания данного вида — Фолклендских островов, что существенно увеличивает ареал обитания вида.

## Introduction

The alpheid shrimp genus *Betaeus* Dana, 1952 (Crustacea: Decapoda: Alpheidae) presently includes 16 valid species [e.g. De Grave, Fransen, 2011]. Two of them, *Betaeus truncatus* Dana, 1852 and *B. liliana* Boschi, 1966, are known from the most southern part of South American continent, so called Subantarctic Magellan region. The third alpheid species recorded from the area is *Alpheus puapeba* Christoffersen, 1979 [Boschi, 1966, 1979; Christoffersen, 1979; Spivak, 1997]. *Betaeus truncatus* is a common littoral species living underneath stones, between seaweed and bank of

mussels at the depth of 0–50 m along mainland coast and coastal fjords of southern Argentina, southern Chile, Patagonia and area of Falkland Islands [Boschi et al., 1992; Spivak, 1997; Thatje, Bacardit, 2001]. Planktonic larvae of the species distribute in the area between 37°35'S 53°40'W and 55°15'S 68°15'W [Thatje, Bacardit, 2001] and probably east to South Georgia and South Sandwich Islands.

South Georgia and the South Sandwich Islands situated about 1900 km east from the nearest continental coast of South America and Tierra del Fuego, Patagonia and about 1500 km south-east from Falkland Islands. Littoral fauna of this archipelago is poorly studied but still poorly studied. The paper presents the record of the species of the genus *Betaeus* Dana, 1852, identified as *B. truncatus* Dana, 1852, collected at littoral shallow waters of South Georgia representing the first record of the family Alpheidae from this locality.

## Material and methods

The single ovigerous female was collected in South Atlantic Ocean, South Georgia, Shag Rocks, 53°332' S 42°022' W. Exact collecting methods are unknown, not indicated in the label. The material is deposited in the collection of Directorate of Natural Resources Fisheries Department (DNRFD), Stanley, Falkland Islands. Total body length (tl., mm) and postorbital carapace length (pcl. mm) are used as standard measurements. Only primary synonyms are given.



Fig. 1. *Betaeus truncatus* Dana, 1852, fixed ovigerous female, DNRFD-ZDC4, Shag Rocks, South Georgia, lateral, dorsal views and the label (taken from tube) below.

Рис. 1. *Betaeus truncatus* Dana, 1852, скалы Шаг, Южная Георгия, DNRFD-ZDC4, вид сбоку и сверху, а также этикетка из пробирки.

## Taxonomy

Order DECAPODA Latreille, 1802  
 Family ALPHEIDAE Rafinesque, 1815  
 Genus *Betaeus* Dana, 1852

*Betaeus truncatus* Dana, 1852  
 Fig. 1.

*Betaeus truncatus* Dana, 1852a: 23 [type locality: in mari prope insulam "Hermite"].

*Alpheus sinuosus* Guérin-Méneville, 1857: 51 [type locality: Callao, Chili].

MATERIAL EXAMINED: 1 Ovigerous female (pcl. 4 mm, tl. 17 mm), South Atlantic Ocean, South Georgia, Shay Rocks, exact

coordinates unknown, depth unknown, vessel "Argos Georgia", DNRFD, fixed in 4% formaldehyde, stored in 70° ethanol, 30.09.2001, same tube with *Campylonotus* sp. (Crustacea: Decapoda: Caridea: Campylonotidae).

REMARKS. The single obtained specimen is not eligible for genetic analysis because it was primary fixed in formaldehyde and then transferred to ethanol. Moreover, at present, the specimen is dried. Morphologically it is identical to the description of *Betaeus truncatus*. At the same time, it is possible that the genetic analysis of freshly collected specimens from South Georgia and South Sandwich Islands (probable area of the occurrence of the species) can show the difference from the mainland population as the distance of the separation between these populations exceeds 1500 km.

**ECOLOGY AND DISTRIBUTION.** This is the first record of the species from South Georgia, South Atlantic Ocean. Following the label in the tube, where specimen was preserved, it was found subtidal, under stone at the depth of 0.5 m. *Betaeus truncatus* is widely distributed in coastal shallow waters of Argentina from 45°S to its southern part, fjords of southern Chile, Patagonia and shallow waters of the area of Falkland Islands; 0–50 m [Boschi et al., 1992; Spivak, 1997; Thatje, Bacardit, 2001].

**ACKNOWLEDGEMENTS.** The authors are very thankful to Dr. Paul Brickle (Directorate of Natural Resources, Fisheries Department, Stanley, Falkland Islands) for sending the specimen for exact identification. The study was partly supported by the Grant of the President of the Russian Federation MK-4481.2014.4 and RFFI # 12-04-00540-à.

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*Responsible editor V.A. Spiridonov*