

First Record of *Ernogrammus zhirmunskii* (Actinopterygii: Cottiformes: Stichaeidae) from Japan, with a Description and a Revised Diagnosis

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Sixteen specimens of *Ernogrammus zhirmunskii* Markevich and Kharin, 2011, formerly known only from Peter the Great Bay, Russia, were collected from Volcano Bay on the Pacific coast of Hokkaido and from Shizugawa Bay, Miyagi Prefecture, Pacific coast of the northern Honshu, Japan. This species is redescribed on the basis of these specimens and several errors in the original description are corrected. This species is easily distinguished from other stichaeid fishes in having a diagnostic lateral-line pattern and a rigid spine in the posteriormost part of the anal fin.

Key Words: Stichaeidae, *Ernogrammus zhirmunskii*, western North Pacific, Japan, new records.

Introduction

The stichaeid fish genus *Ernogrammus* Jordan and Evermann, 1898 of the subfamily Stichaeinae (*sensu* Mecklenburg and Sheiko 2004) is characterized by having the following characters: body less elongate than in most Stichaeidae; pectoral fin large with 13–17 rays; 4 longitudinal lateral-line canals (upper, middle, lower, and ventral) not forming a network; and the upper lateral-line canal without dorsally directed branches (Lindberg and Krasnyukova 1975; Follet and Powell 1988). Mecklenburg and Sheiko (2004) recognized two species: *E. hexagrammus* (Temminck and Schlegel, 1845), distributed in the southern Kuril Islands, Sea of Japan, Yellow Sea, Bohai Gulf, and all around Japan except for the Ryukyu Islands; and *E. walkeri* Follet and Powell, 1988, found off central and southern California (Mecklenburg and Sheiko 2004). Recently, Markevich and Kharin (2011) described an additional species, *E. zhirmunskii*, from Peter the Great Bay in the Russian part of the Sea of Japan.

Sixteen specimens of *E. zhirmunskii* were recently collected from the Pacific shores of Hokkaido and Miyagi Prefectures, Japan, representing the first records of this species from Japan. In this paper, detailed descriptions of the morphology and coloration of the Japanese specimens are given and the diagnostic characters of this species are revised.

Materials and Methods

Methods of counts and measurements mostly follow

Miki and Maruyama (1986), except for vertical body depth, which was measured at the origin of the anal fin. Counts of the cephalic sensory pores follow Makushok (1958) except that the occipital pores (oc) and pores of the posterior occipital canal (poc) were counted separately. Vertebral and osteological elements were examined from radiographs. Observations of lateral-line canals were made on specimens stained with alizarin red and cyanine blue. Standard length is abbreviated as SL. Institutional abbreviations follow Eschmeyer (1998), except for the Hokkaido University Museum, Hakodate, Japan (HUMZ).

Ernogrammus zhirmunskii Markevich and Kharin, 2011

[New Japanese name: Yari-gaji]

(Figs 1–4)

Ernogrammus zhirmunskii Markevich and Kharin, 2011:
59, figs 1–4 (type locality: Bol'shoy Pelis Island, Peter the Great Bay, Russia, Sea of Japan).

Material examined. Sixteen specimens, 27.8–86.2 mm SL: HUMZ 190053, 36.6 mm SL, sex unknown, Volcano Bay near Usujiri (41°56.4'N, 140°57.7'E), Hakodate city, Hokkaido Prefecture, Japan, 10 m depth, rocky area, 21 May 2007; HUMZ 198453, 198454, 2 specimens, female and sex unknown, Usujiri, 9.7 m depth, rocky area, 21 February 2007; HUMZ 198462, 59.7 mm SL, male, Shizugawa Bay (38°39.1'N, 141°29.2'E), Miyagi Prefecture, Japan, 13 February 2007; HUMZ 201217, 81.2 mm SL, male, Usujiri, 10 m depth, rocky area, 27 December 2007; HUMZ 201262, 55.2 mm SL, sex unknown, Shizugawa Bay, 12 m depth,