

Revision of the snailfish genus *Allocareproctus* Pitruk & Fedorov (Teleostei: Liparidae), with descriptions of four new species from the Aleutian Islands

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Abstract

Liparid fishes of the genus *Allocareproctus* Pitruk & Fedorov were collected throughout the Aleutian Islands during surveys conducted by the Alaska Fisheries Science Center, U.S. National Marine Fisheries Service, and represent the first documented records of this genus in North America. Based on this material, we revised the genus and recognized four new species described herein. *Allocareproctus* is distinguished from all other liparid genera by the following characters: anterior 4–8 dorsal-fin rays with tips exerted from the fin membrane, papillae associated with some pores of the cephalic lateralis system, and symplectic extending to the medial aspects of the

quadrate and metapterygoid. *Allocareproctus jordani* (Burke), the type species of the genus, is uniformly pink-red in coloration, with a dark peritoneum, simple teeth, a pigmented nasal papilla, and a single lobe on the orobuccal valve. It ranges from Sagami Bay, the type locality, north through the Kuril Islands, and east to Umnak Island of the Aleutian Islands, at depths of 75 to 495 m. *Allocareproctus ungas* n. sp. is most similar to *A. jordani*, differing in having trilobed teeth, an unpigmented nasal papilla, and higher counts of median-fin rays and vertebrae. It is found only between Seguam Pass and Samalga Pass in the east-central Aleutian Islands at depths of 318 to 461 m. *Allocareproctus kallaion* n. sp. is also known only from Seguam Pass and Samalga Pass at depths of 278 to 450 m and is distinguished from all other species of *Allocareproctus* by its blotchy red body color in life and dusky head coloration in life and in preservation, high gill raker count, high precaudal vertebrae count, and comb-like orobuccal valve. *Allocareproctus tanix* n. sp. is most similar to *A. ungas* n. sp. and is distinguished by its orange-peach coloration, pale peritoneum, absence of an interorbital papilla, and greater body depth. It is found only in the central Aleutians at depths of 104 to 650 m. *Allocareproctus ungas* n. sp. is also found only in the central Aleutians at similar depths of 210 to 465 m and is distinguished by its trilobed teeth, absence of a nasal papilla, and dark peritoneum. Based on our examination of holotypes, *Careproctus pycnosoma* Gilbert & Burke and *C. curilanus* Gilbert & Burke are valid species and not synonymous with *A. jordani*.

Key words: Liparidae, snailfishes, North Pacific Ocean, Aleutian Islands, taxonomy, morphology, new species, *Allocareproctus jordani*.

Introduction

Commonly known as snailfishes, the Liparidae is a diverse family of fishes characterized by pelvic fins that are highly modified into a sucking disk (or absent) and a body that is naked and relatively elongate. Liparids thrive in a variety of temperate to subarctic marine habitats, including the shallow intertidal and oceanic trenches at depths of over 7000 m. Chernova *et al.* (2004) recently listed 29 valid genera of liparids worldwide. About 22 genera, encompassing approximately 155 species, are presently recognized from the North Pacific, including a more recently described monotypic genus, *Lopholiparis* (Orr 2004).

The genus *Allocareproctus* Pitruk & Fedorov was originally erected for the single species *Careproctus jordani* Burke (a replacement name for *C. gilberti* Jordan & Thompson). Until the collection of 15 additional specimens from the Kuril Islands (Pitruk & Fedorov 1993), *Careproctus jordani* had been known only from the holotype collected in or before 1911 from Sagami Bay, Japan. This specimen was subsequently redescribed by Burke (1930) and Kido (1988). Based on their new material, Pitruk & Fedorov (1993) concluded that the distinctive morphology of the species warranted generic rank and established the genus *Allocareproctus*. According to Pitruk & Fedorov (1993), *Allocareproctus* is distinguished from other liparid genera by the presence of small whisker-like papillae on the pores of the upper portion of the head, the extension of the symplectic to the medial aspects of the quadrate and the metapterygoid, and the protrusion of the ends of the anterior rays of the dorsal fin beyond the connective membrane.