

A New Subfamily, Genus, and Species of Pearlfish (Teleostei: Ophidiiformes: Carapidae) from Deep Water off Indonesia

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A new carapid fish, *Tetragondacnus spilotus* gen. et. sp. nov., is described from a single specimen collected off Sumatra, Indonesia. This unusual species chiefly differs from all confamilials in having the following combination of characters: dorsal fin origin in advance of anal fin origin, first neural spine a wing-like process larger than second neural spine, no rocker bone, no predorsal bone, no supraneurals, no upper jaw teeth, no developed gill rakers, parapophysis of third centrum enlarged, 13 precaudal vertebrae, 11 caudal fin rays, unmodified dorsal and anal pterygiophores, presence of scales, swim bladder simple and large, squarish mouth with two lower lip lobes, oral valve with thick median septum, united branchiostegal membranes, and large dark blotches on the body. Subfamilial status for the new species is proposed.

Key Words: Teleostei, Ophidiiformes, Carapidae, Tetragondacninae subfam. nov., *Tetragondacnus spilotus* gen. et sp. nov., pearlfish, Indonesia, eastern Indian Ocean.

Introduction

During 2004 and 2005 the Japan-Indonesia Deep-Sea Fisheries Resources Joint Exploration Project was instituted between Japan's Overseas Fishery Cooperation Foundation and Indonesia's Research Institute of Marine Fisheries. The purpose of the project was to collect basic oceanographic and fishery stock data for a feasibility study on developing a deep-water fishery off Java and Sumatra.

In 2005 a 107-day trawl survey aboard Indonesia's 1219-ton vessel *Baruna Jaya IV* was conducted off Sumatra. Numerous deep-sea fishes were collected and voucher specimens were deposited at the Faculty of Fisheries, Hokkaido University, Hakodate, Japan. We studied some of these specimens during November and December, 2005, in Hakodate and discovered a single unusual ophidiiform fish taken in a bottom trawl in just over 500 m. The specimen was identified as an ophidiiform on the basis of characters given by Cohen and Nielsen (1978) and Nielsen and Cohen (1999). The monophyly of the order has been questioned (Rosen 1985; Howes 1992), but Nielsen and Cohen (1999) listed seven characters defining Ophidiiformes and divided it into two suborders, the Ophidioidei and Bythitoidei. Our specimen does not exhibit any of the specialized characters of the viviparous