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A new species of the genus *Bathylagichthys* (Pisces, Bathylagidae) from New Zealand

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Abstract

Bathylagichthys kobylianskyi n. sp. is described from specimens collected during fisheries surveys of the Exclusive Economic Zone of New Zealand. It was previously misidentified as *B. problematicus*, from which it differs in having fewer vertebrae (43–45 versus 49–51) and more gill rakers (usually 27–31 versus 25–28). *Bathylagichthys kobylianskyi* n. sp. is closely related to *B. greyae* of the Atlantic Ocean as both have two branchiostegal rays and a short supraorbital. The latter species differs from *B. kobylianskyi* n. sp. in having a more slender body, fewer gill rakers and modally higher number of vertebrae and anal-fin rays.

Key words: *Bathylagichthys greyae*, *Bathylagichthys kobylianskyi* n. sp., *Bathylagichthys problematicus*, distribution, taxonomy

Introduction

Species of the family Bathylagidae occur throughout the New Zealand 200-nautical mile Exclusive Economic Zone (EEZ) and can be found in large numbers. Part of the ‘deep scattering layer’, several species undertake diel migrations into surface waters at night (ALS pers. obs.) Although not commercially targeted they are caught as by-catch in the Orange Roughy, Oreo, and Blue Grenadier (Hoki in New Zealand) trawl fisheries. Because they are small, relatively fragile, and invariably skinned when recovered from trawls, identification of these fishes is difficult. Similarity in general morphology and colour, and overlapping taxonomic characters complicate matters more. The family Bathylagidae currently contains eight genera with about 23 species (Eschmeyer, 2014; Eschmeyer & Fong, 2014). The genus *Bathylagichthys* has five species distributed mostly in the southern hemisphere (Kobyliansky, 1985, 1990). In this paper we describe a sixth species of *Bathylagichthys* from specimens collected in New Zealand waters.

Materials and methods

The material used for this study originated mostly from fisheries surveys of the New Zealand EEZ (Fig. 1), starting in the late 1970s, following the discovery of the Orange Roughy (*Hoplostethus atlanticus*) and Blue Grenadier (*Macruronus novaezelandiae*) resources. Specimens were lodged with, examined at or borrowed from the following institutions: Field Museum of Natural History, Chicago (FMNH); Instituto de Ciencias del Mar, Barcelona (IIPB); Museum of Comparative Zoology, Harvard (MCZ); Museum of New Zealand Te Papa Tongarewa, Wellington (NMNZ); South African Institute for Aquatic Biodiversity, Grahamstown (SAIAB).

Unless stated otherwise, fish length throughout this paper is the standard length (SL). Descriptions of colour when fresh are based on photographs (see colour plate below) taken in the field and may not represent the full range of colour variation in this species. Vertebral counts were determined from radiographs of material from the above institutions. Measurements follow Gon (1987), with the addition of body depth at dorsal-fin origin, body width (measured at the widest place on the body, usually somewhere in the area between the posterior edge of the

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