



## A new species of frogfish of the genus *Kuiterichthys* (Lophiiformes: Antennariidae: Histiophryninae) from New South Wales, Australia

RACHEL J. ARNOLD

School of Aquatic and Fishery Sciences, and Burke Museum of Natural History and Culture, University of Washington, Campus Box 355020, Seattle, Washington 98105-5020. E-mail: [schoenrj@uw.edu](mailto:schoenrj@uw.edu)

### Abstract

*Kuiterichthys pietschi*, a new species of frogfish of the teleost order Lophiiformes, family Antennariidae, subfamily Histiophryninae, is described from 20 specimens collected at depths of 60–89 m (average 73 m) off New South Wales, Australia. A member of the antennariid genus *Kuiterichthys*, the new species differs from its congener in esca morphology, a somewhat shorter second dorsal-fin spine (17.0–22.5% SL vs. 17.8–29.8%); 20 vertebrae vs. 21; 10–11 dorsal-fin rays vs. 12–14; and 7–8 pectoral-fin rays vs. 9–10. The new species is described and compared with its purported sister species, *Kuiterichthys furcipilis*.

**Key words:** Teleostei, Antennarioidei, anglerfish, *Kuiterichthys pietschi*, taxonomy, marine, Sydney

### Introduction

The genus *Kuiterichthys*, as recognized by Pietsch (1984) and Pietsch and Grobecker (1987), belongs to the subfamily Histiophryninae (Arnold and Pietsch, 2012) and contains two species: *Kuiterichthys furcipilis* Cuvier, 1817, represented in collections by at least 21 individuals, all collected from New South Wales (below 32° S), the east coast of Tasmania, and Victoria, Australia (Pietsch and Grobecker, 1987); and a previously undescribed species, represented in collections by at least 20 individuals all collected from New South Wales (between 29° and 33° S). The genus is unique in many ways, but it is most recognizable by the long second dorsal-fin spine (17.0–29.8% SL) and close-set bifurcate dermal spinules that cover the body. The new species can easily be distinguished from *K. furcipilis* by a somewhat shorter second dorsal-fin spine (17.0–22.5 vs. 17.8–29.8% SL; see Figs. 1, 2); 20 vertebrae vs. 21; 11 dorsal-fin rays (rarely 10) vs. 13; eight pectoral-fin rays (rarely seven) vs. 9–10 (rarely eight); no basidorsal spot or complicated network of interconnecting white lines; a difference in esca morphology; and an overall smaller adult body size.

The new species was discovered while examining unidentified material during a recent visit to the Australian Museum (AMS) in Sydney. The species is presently represented by 20 individuals, all from SE Evans Head, off Iluka, to Broken Bay, New South Wales, Australia.

### Methods and materials

Standard length (SL) is used throughout. Terminology and methods for taking counts and measurements follow Pietsch (1984) and Pietsch and Grobecker (1987). Clearing and staining protocols follow Potthoff (1984). Type material is deposited at the Australian Museum, Sydney (AMS), and the University of Washington Fish Collection, Seattle (UW).

### *Kuiterichthys pietschi* sp. nov.

**Holotype.** AMS I.33555-004, 25.8 mm SL, female, Crowdy Head, NSW, 31.9°S, 152.9°E (Fig. 1).

**Paratypes.** AMS I.32163-002, 19.1–24.2 mm SL, two specimens, off Crowdy Head, NSW, 31.9°S, 152.9°E, 89 m; AMS I.26229-001, 19.3 mm SL, SE Evans Head, off Iluka, NSW, 29.3°S, 153.6°E; AMS I.33548-002, 25.1–32.4 mm