



A new species of frogfish of the genus *Histiophryne* (Teleostei: Lophiiformes: Antennariidae) from Lombok and Komodo, Indonesia

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

Abstract

Histiophryne pogonius, a new species of frogfish of the teleost order Lophiiformes, family Antennariidae, is described from a total of five specimens: three collected in shallow waters surrounding Lombok, Indonesia, one reportedly from the nearshore waters of Cebu, Philippines, and a photograph of a specimen from Komodo Island, Indonesia. The new taxon differs from its congeners in having an extremely small illicium and esca, barely discernible even with aid of a dissecting microscope; dark pink pigmentation overlaying a pale pink background, including a dark pink basidorsal spot; a small white encrusted patch of skin always present posterior to pectoral-fin origin, with similar patches sometimes present on cheeks; body everywhere covered with small dark reddish to black spots, including lips and outer margins of the sclera, spots encircled by a thin white ring; cheeks with shallow depressions, giving head a pitted appearance; head lightly covered with cutaneous cirri, especially around edges of opercle; upper and lower lips with short cutaneous cirri; and genetic divergence in mitochondrial gene cytochrome oxidase *c* subunit I (COI). The new species is described and compared with its congeners, and a phylogenetic tree based on the nuclear recombination activation gene-2 (RAG2) and mitochondrial cytochrome oxidase *c* subunit I (COI) and 16S genes is presented.

Key words: Teleostei, Lophiiformes, Antennarioidei, Antennariidae, *Histiophryne*, *pogonius*, new species, taxonomy, marine, Indonesia

Introduction

The genus *Histiophryne*, as recognized by Pietsch (1984) and Pietsch and Grobecker (1987), contains five species: the type species *H. bougainvilli* Valenciennes 1837, represented in collections by at least 40 individuals, all collected from Queensland, New South Wales, and South Australia; *H. cryptacanthus* Weber 1913, about 75 known specimens from localities ranging from Taiwan to South Australia; *H. psychedelica* Pietsch, Arnold, and Hall 2009, known from three specimens from Ambon and Bali, Indonesia; *H. maggiwalker* Arnold and Pietsch 2011, known from six specimens collected from Queensland, Australia; and a new species described here from Lombok and Komodo, Indonesia. The genus is unique in many ways, characterized most strikingly by having a greatly reduced illicium (nearly absent in *H. cryptacanthus* and *H. psychedelica*); the second and third dorsal-fin spines immobile, bound down to the surface of the cranium by skin, emerging only as low protuberances on top of the head; and the posteriormost margin of the soft-dorsal and anal fins extending beyond the base of the caudal fin and broadly connected to the proximal portion of the outermost caudal-fin rays (Pietsch and Grobecker 1987). Although easily recognized among the remaining 11 genera of the family, two species of the genus, *H. cryptacanthus* and *H. bougainvilli*, are difficult to distinguish, each diagnosed by a small difference in the length of the illicium, and whether the illicium and esca are partially hidden within a groove on the mid-dorsal line of the snout by folds of skin (Pietsch and Grobecker 1987:253, fig. 104). In contrast, *H. psychedelica* is easily recognized by its distinctive swirling color pattern (Pietsch et al. 2009:39, fig. 1), and *H. maggiwalker* is recognized by its distinctive morphology of the esca (Arnold and Pietsch 2011:66, fig. 3). Although most similar to *H. cryptacanthus* and *H. psychedelica*, the new species can easily be distinguished by its distinctive spotted pattern and pitted appearance of the head (Fig. 1).