



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

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### 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).