

## A new species of Gastropteridae (Gastropoda, Opisthobranchia, Cephalaspidea) from tropical Northeast Australia

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### Abstract

A new species of the family Gastropteridae from tropical Australia is described. The main focus of the description is the external morphology, the radula morphology and the histology of all organ systems. *Siphopteron leah* sp. nov. is a small species with a bright yellow body colour and red lines along the siphonal crest, the parapodia, across the visceral hump and at the flagellum. The species is characterised by the presence of glandular cells along the inner side of the large parapodia, by two large spines on the penial bulb, by a three parted prostate and by a muscular pocket at the vagina. The inner lateral teeth of the radula are very distinct bearing a long curved cusp and two small stout denticles. This is the first detailed histological description of all organ systems in *Siphopteron* providing new insights into the anatomical structure and functional biology of these animals.

**Key words:** Gastropoda, Opisthobranchia, Cephalaspidea, Gastropteridae, *Siphopteron*, taxonomy, morphology, histology, microstructure

### Introduction

The family Gastropteridae Swainson, 1840 comprises four genera of small cephalaspidean opisthobranchs, *Gastropteron* Meckel in Kosse, 1813, *Sagaminopteron* Tokioka & Baba, 1964, *Enotepteron* Minichev, 1967 and *Siphopteron* Gosliner, 1989. The body of the Gastropteridae is divided into an anterior cephalic shield and a posterior visceral hump (Burn & Thompson 1998) and all species possess paired parapodia which extend up over the dorsum, an elongate tapered tail and a posterior funnel on the cephalic shield (siphon) (Carlson & Hoff 1974). The shell is reduced and internalized or absent. Members of the different gastropterid genera are distinguished by variation in the structure of the radula teeth, the siphon, the gill and the penis (Gosliner 1989; Brodie et al. 2001). Gosliner