



<http://dx.doi.org/10.11646/zootaxa.3640.2.2>

<http://zoobank.org/urn:lsid:zoobank.org:pub:96951F3E-87FC-481A-BA01-BA9E41CE4D43>

## Review of the fish-parasitic genus *Cymothoa* Fabricius, 1793 (Isopoda, Cymothoidae, Crustacea) from the southwestern Indian Ocean, including a new species from South Africa

KERRY A. HADFIELD<sup>1</sup>, NIEL L. BRUCE<sup>1,2</sup> & NICO J. SMIT<sup>3,4</sup>

<sup>1</sup>Department of Zoology, University of Johannesburg, P.O. Box 524, Auckland Park, 2006 South Africa. E-mail: kerryh26@yahoo.com

<sup>2</sup>Museum of Tropical Queensland, Queensland Museum and School of Marine and Tropical Biology, James Cook University; 70–102 Flinders Street, Townsville, Australia 4810. E-mail: niel.bruce@qm.qld.gov.au

<sup>3</sup>Water Research Group (Ecology), Unit for Environmental Sciences and Management, Potchefstroom Campus, North West University, Private Bag X6001, Potchefstroom, 2520, South Africa. E-mail: nico.smit@nwu.ac.za

<sup>4</sup>Corresponding author

### Abstract

The genus *Cymothoa* Fabricius, 1793 is revised for southwestern Indian Ocean waters. *Cymothoa borbonica* Schioedte & Meinert, 1884 and *C. eremita* Brünnich, 1783 are redescribed. *Cymothoa rotundifrons* Haller, 1880, from Mauritius lacks type material and the host is unknown, therefore it is here relegated to nomen dubium. *Cymothoa sodwana* **sp. nov.**, from *Trachinotus botla* (Carangidae), collected from the Kwazulu-Natal coast of South Africa, is described and is distinguished by the large, ovoid, hunched body with rugose dorsal surfaces; the anterolateral angles of pereonite 1 are narrow and rounded reaching half the length of the cephalon; the ischium of pereopod 7 has a large protrusion and pereonite 7 which laterally overlaps the pleon margins, extending posteriorly to the pleotelson.

**Key words:** Buccal cavity, fish parasite, Indian Ocean, redescription, *Cymothoa sodwana*

### Introduction

The genus *Cymothoa* Fabricius, 1793 can be considered to be relatively poorly known in the southwestern Indian Ocean, with only six species recorded for this vast area. In contrast, Australia has eleven species, and the central Indo-Pacific region has nine species. There is little doubt that the actual diversity will prove higher as new material comes to hand.

As is well known for this family, nomenclatural and identity problems can obscure accurate assessment of past records. This is especially evident with *Cymothoa* which has been described as one of the least studied Cymothoidae genera (Brusca 1981). It is one of the most difficult genera to correctly identify to species level with many species being poorly described and lacking type material.

Fresh collections of cymothoids made at several localities on the eastern coast of South Africa, as well as examination of fish collections held at the South African Institute for Aquatic Biodiversity (SAIAB) and the isopod collections held at the South African Museum, Cape Town (SAM), revealed the presence of several cymothoid species new to South Africa. These new species include representatives of several genera including *Mothocya* Hope, 1851, *Nerocila* Leach, 1818, *Renocila* Miers, 1880, *Ceratothoa* Dana, 1852 and *Cymothoa*. In this present work we review *Cymothoa* for the southwestern Indian Ocean region, and describe a new species of *Cymothoa* from Sodwana, South Africa, on the host *Trachinotus botla* (Shaw, 1803) (Carangidae), commonly known as the Wave Garrick or Large-spotted Pompano, a common surf beach species.