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Checklist of the ancyrocephalids (Monogenea) parasitizing *Tilapia* species in Cameroon, with the description of three new species

ANTOINE PARISELLE¹, ARNOLD R. BITJA NYOM^{2,3} & CHARLES F. BILONG BILONG³

¹ ISE-M/IRD, UMR 5554/UMR226, Université Montpellier 2, CC 063, 34095 Montpellier Cedex 5, France,
e-mail: antoine.pariselle@ird.fr

² Département des Sciences Biologiques, Université de Ngaoundéré, BP 454, Ngaoundéré, Cameroun,
e-mail: bitja.nyom_arnold@gmail.com.

³ Département de Biologie et Physiologie Animales, Université de Yaoundé I, BP 812, Yaoundé, Cameroun,
e-mail: bilong_bilong@yahoo.com

Abstract

A checklist of the 23 species of Ancyrocephalidae (Monogenea) parasitizing *Tilapia* species sampled from both sides of the Cameroon Volcanic Line is provided. As already reported elsewhere, *Cichlidogyrus aegypticus* in Cameroon shows two different shape of its vagina, and *C. tilapiae*, *C. arthracanthus* and *C. tiberianus* were found on a wide range of host species. Among the 23 studied species of Monogenea, three are considered new species and are described herein: *Cichlidogyrus berminensis* n. sp. from *Tilapia bemini*, characterized by a short penis with marked narrow heel, a simple and straight accessory piece ending in a large hook, and a medium sized pair of uncinuli I; *Cichlidogyrus gillesi* n. sp. from *Tilapia guineensis*, characterized by a large and trapezoid heel of the penis and a S-shaped and wrinkle walled vagina; and *Scutogyrus vanhovei* n. sp. from *Tilapia mariae*, characterized by the presence of a distinct swollen portion of the penis. From a parasite's point of view, the CVL has no influence on species dispersion/distribution.

Key words: Monogenea, *Cichlidogyrus berminensis* n. sp., *Cichlidogyrus gillesi* n. sp., *Scutogyrus vanhovei* n. sp., Cichlidae, *Tilapia* spp.

Introduction

Within the framework of a larger global study (2007–2010) of the biodiversity along and on either side of the Cameroon Volcanic Line (CVL) and funded by the French national research agency (ANR), we checked the cichlid fishes and their associated ancyrocephalid parasites (Monogenea) to determine whether or not the CVL, oriented approximately 30° to the northeast from the Gulf of Guinea and crossing from Pagalu Island inland towards Lake Chad through the Cameroon for more than 2000 km (Déruelle *et al.* 2007), may represent a barrier to fish and parasite species dispersal. This study presents the results obtained on monogenean species parasitizing host species belonging to *Tilapia* Smith.

Materials and methods

Fish were caught either by gill net, cast net, or by hook and identified by comparison of their morphometric, meristic or chromatic characters following Bitja Nyom (2012). 139 specimens of *Tilapia* spp. from 11 localities (Fig. 1) were found infected. The fish were dissected as soon as possible, and the right branchial arches were placed directly in 3% formalin or frozen in a portable deep freezer until examination. In the laboratory the gills were transferred into tap water in a Petri dish and the monogeneans detached from these gills using a strong water current. Worms were then transferred individually into a drop of ammonium picrate-glycerine [mixture described