



A redescription of *Polystoma africanum* Szidat, 1932 (Monogenea: Polystomatidae)

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Abstract

Polystoma africanum was originally described from a single specimen recovered from the common African toad, *Amietophrynus regularis*. The parasite has also been reported from the Angola river frog, *Amietia angolensis*, in Ethiopia; the Mascarene ridged frog, *Ptychadena mascareniensis*, in Uganda; and *Ptychadena* sp. in Zaire. One of the characters ascribed to this species was the lack of caecal anastomoses. Based on this and other characteristics, other polystomes from frog species like *Pty. mascareniensis* have been identified as *P. africanum*. A large collection of parasite specimens retrieved from *A. regularis* collected in Nigeria allowed a thorough re-examination of the species. A good proportion of the specimens (37%) correspond closely with the type in lacking intercaecal anastomoses. Other specimens showed considerable variation in this regard by possessing one to four intercaecal anastomoses. An unusual feature observed in several specimens is where two adjacent medial diverticula on one side join to form a loop. The type specimen also has a loop. The handle and guard of the hamuli are well separated, as in the type specimen from Liberia, and in other specimens from *A. regularis* (syn. *Bufo regularis*) in Uganda. The mean hamuli length of 388µm is close to the 370µm recorded for the type species, but this value is considerably smaller than the 459µm recorded for the specimens from *Pty. mascareniensis* in Uganda. On the basis of the aforementioned and invoking strict host specificity, we conclude that *P. africanum* is exclusively parasitic in *A. regularis*, and that the polystomes retrieved from *Pty. mascareniensis* from Uganda and a *Ptychadena* sp. from Zaire are most likely *Polystoma pricei*. The materials from *A. angolensis* most likely represent another species.

Key words: Monogenea, Polystomatidae, *Polystoma africanum*, *Amietophrynus regularis*, Nigeria

Introduction

Polystoma africanum Szidat, 1932 was described by Szidat (1932) from a single sub-adult parasite found in the urinary bladder of the Common African toad, *Amietophrynus regularis* (Reuss) (formerly known as *Bufo regularis* Reuss), in Liberia. This toad has a very wide distribution in the savannah and farm bush through sub-Saharan West Africa to the oases of Djanet in Algeria and Gat in Libya, along the Nile to Cairo, western Ethiopia southward to north-western Angola, Uganda, north-eastern Democratic Republic of Congo and southern Kenya. It was introduced to Cape Verde Island (Schleich 1987). *Polystoma africanum* has also been reported from *A. regularis* in Ivory Coast (Euzet *et al.* 1969), Sierra Leone (Williams 1969), Ethiopia and Uganda (Tinsley 1974a) and Togo (Salami-Cadoux 1978). According to Tinsley (1974b), this monogenean also parasitizes the Angola river frog, *Amietia angolensis* (Bocage) (formerly known as *Rana angolensis* Bocage) in Ethiopia; the Mascarene ridged frog, *Ptychadena mascareniensis* Duméril & Bibron in Uganda and Ethiopia; and *Ptychadena* sp. Boulenger in Zaire.

Considerable morphological variation among polystome parasites is well documented and intraspecific variation may exceed interspecies variation (Tinsley 1973). This complicates identification. The two principal