



***Polystoma floridana* n. sp. (Monogenea: Polystomatidae) a parasite in the green tree frog, *Hyla cinerea* (Schneider), of North America**

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Abstract

Polystoma floridana is described as a new species of the Polystomatidae parasitic in the urinary bladder of *Hyla cinerea* in Gainesville, Florida, USA. This is the fifth polystome from an anuran host described from North America but only the third belonging to the genus *Polystoma*. Here we show that the parasite from *H. cinerea* is a separate species. It is distinguished from other American *Polystoma* species by a combination of characters including body size, haptor length, body ratios, size and shape of hamuli and marginal hooklets. In a sample of 235 frogs, 13.6% were infected with up to four parasites per host (mean intensity 1.6).

Key words: Monogenea, Polystomatidae, *Polystoma*, *Hyla cinerea*, Florida, USA

Introduction

Polystomatids of anurans are represented in North America by the genera *Polystoma* Zeder, 1800, *Pseudodiplorchis* Yamaguti, 1963 and *Neodiplorchis* Yamaguti, 1963. The first record of an anuran polystome from North America was specimens from the urinary bladder of the grey tree frog, *Hyla versicolor* LeConte, 1825 (see Riley 1927). These parasites were originally identified as *Polystoma integerrimum* (Fröhlich, 1791), but were then redescribed and named as *Polystoma integerrimum nearcticum* by Paul (1935). This subspecific taxon was later elevated to species status (Price, 1939), based on morphological differences with *P. integerrimum*. Paul (1938) reported *Polystoma nearcticum* (Paul, 1935) from the urinary bladder of *H. versicolor* from Connecticut, USA and the green tree frog, *Hyla cinerea* Schneider, 1799 from Florida; Campbell (1967) reported a single *Polystoma* specimen from the rectum of *H. versicolor* from Chesterfield County, Virginia; and Campbell, (1969) found eight *P. nearcticum* specimens in the urinary bladder of five *H. versicolor* from Virginia Gloucester County, Virginia. On one occasion a specimen of the invasive Cuban tree frog, *Osteopilus septentrionalis* Duméril & Bibron, 1841 collected in south Florida was found to be infected with a single specimen of *Polystoma stellai* Vigueras, 1955 (see Stunkard 1959).

Only two other anuran polystomes are currently known from North America. *Pseudodiplorchis americana* Rodgers & Kuntz, 1940 is known from the urinary bladder of Couch's spadefoot toad, *Scaphiopus couchii* Baird, 1854 from Oklahoma, U.S.A. Tinsley and Earle (1983) reported this same species from *S. couchii* from Arizona, USA, while Lamothe-Argumedo (1985) reported this species from the same host from Mexico. *Neodiplorchis scaphiopi* Rodgers, 1941 infects the urinary bladder of the plains spadefoot toad, *Spea bombifrons* Cope, 1863 from Oklahoma, USA. Lamothe-Argumedo (1973) reported this species from the urinary bladder