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HYMENOLEPIS JONESAE N.SP. (CESTODA) IN COMMON TEAL (*ANAS CRECCA* LINN.) FROM SINDH, PAKISTAN

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ABSTRACT

A new tapeworm from the family Hymenolepididae and genus *Hymenolepis* Weinland, 1858 is being described from the intestine of common teal (*Anas crecca* Linn.) from Jhimpir, Thatta district, Sindh, Pakistan. The new species *Hymenolepis jonesae* is characterized by having delicate body. Scolex simple, small with four sucker, rostellum armed with a single row of 28 hooks, scolex followed by a narrow neck. Rostellum well developed anteriorly and narrows down posteriorly. Strobilla contains 170–185 proglottides. Testes three, oval to rounded in shape. In most segments there are two poral and one aporal testis. Cirrus sac narrow and elongated. Genital pore are unilateral. Ovary situated away from the poral side, bilobed; vagina thin walled; vitelline gland compact and post ovarian. Eggs numerous almost filling the gravid segments.

Keywords: *Hymenolepis jonesae* n.sp., common teal, intestine, Jhimpir, Sindh, Pakistan

INTRODUCTION

The common teal (*Anas crecca* Linn.) is a common, widespread duck which breeds in temperate Eurasia. In flights it forms large flocks. During the breeding season, it is common inhabitant of sheltered freshwater wetlands with some tall vegetation such as ponds and small lakes. It eats mainly crustaceans, insects and their larvae, aquatic invertebrates grasses, grains and seeds (Laurie-Ahlberg and McKinney, 1979; Wiles *et al.*, 2004).

They commonly feed by wading in shallow water or by swimming with its bill immersed, dabbling under the surface of water or in the mud (Roberts, 1991). During the present study of helminth parasites of common teal of Sindh, two cestode specimens were recovered which are being described.

MATERIALS AND METHODS

Four common teal (*Anas crecca* Linn, 1758) were purchased from Jhimpir, Thatta district, Sindh, Pakistan. Out of these one bird was infected with two cestodes. These were fixed in AFA, stained with Mayers carmalum, dehydrated, cleared in clove oil and xylene and mounted permanently in Canada balsam. Diagrams were made with the aid of a camera Lucida. Measurements are given length by width in millimeters. The holotype and paratype specimens are in the collection of the second author (AK), Crop Diseases Research Institute, PARC, University of Karachi, Karachi-75270, Pakistan.

***Hymenolepis jonesae* n.sp.**

(Figs. 1a-c)

Host: Common teal (*Anas crecca* Linn. 1758)
Location: Small intestine
Locality: Jhimpir, Thatta district, Sindh, Pakistan
No.of hosts examined/infected: Four/one
No.of specimens recovered: 2

Description is based upon permanent mountings. Worms relatively delicate, whitish and opaque when alive. Scolex simple, small with four suckers, rostellum armed with a single row of 28 hooks. Scolex followed by a narrow neck about 0.29–0.30 by 0.26–0.27 in size. Scolex 0.38–0.4 by 0.4–0.42. Rostellum well developed 0.2–0.22 by 0.18–0.19 anteriorly while it narrows down 0.05–0.06 posteriorly.

Strobila contains 170–185 proglottides, each being broader than long with 30–35 immature, 65–70 gravid segments and numerous mature segments. Mature segments 0.2–0.24 by 1.26–1.30. Testes 3, oval to rounded in shape, occupying irregular positions in each segment. In most of the segments there are two poral and one aporal testis, 0.06–0.08 by 0.08–0.085 in size. Cirrus sac narrow and elongated with a flask-shaped opening at the anterior border of the lateral side of the segment, 0.14–0.15 long by 0.02–0.03 wide, the flask shaped structure measures 0.04–0.04 by 0.04–0.04. The genital pores are unilateral.

Ovary situated away from the poral side, bilobed, the right lobe is 0.06–0.065 by 0.1–0.11 while the left lobe is 0.07–0.071 by 0.11–0.11 in size. Vagina thin walled, hardly visible, vitelline gland compact, post ovarian 0.038–0.04 by 0.04–0.04. Eggs numerous, almost completely filling the gravid segments 0.019–0.031 by 0.018–0.021.

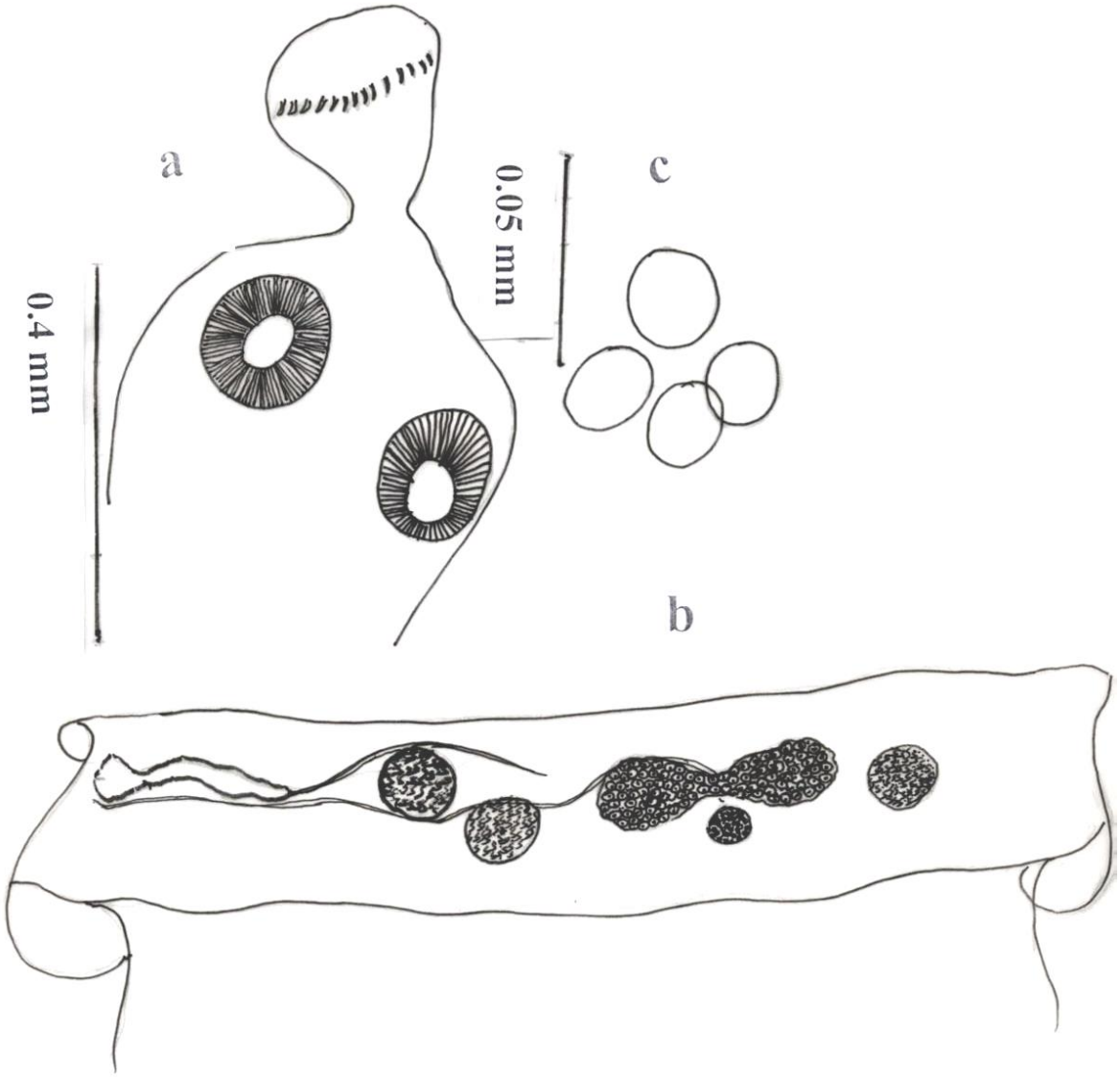

Fig.1. *Hymenolopis jonesae* n.sp. a. Scolex; b. Mature segment; c. Eggs

DISCUSSION

The genus *Hymenolepis* Weinland, 1858 is a well established genus, cosmopolitan in distribution and found parasitizing birds and mammals.

Species of the genus found parasitizing avian hosts in Pakistan, especially *Anas crecca* are:

- *Hymenolepis medici* (Stossich, 1890) Fuhrmann, 1906; Khan *et al.*, 1983
- *H. moghensis* (Inamdar, 1934) Khan *et al.*, 1983

- *H. megalorchis* (Lühe, 1898) Khan *et al.*, 1983
- *H. uralensis* (Clere, 1908) Khan *et al.*, 1983
- *H. lanceolata* (Bloch, 1782) Khan *et al.*, 1983

Present specimens are reported from *Anas crecca* caught and examined from Jhimpir, district Thatta, Sindh. Present forms mainly differ from the above named species in having the reproductive set away from the poral side. It further differ in shape, size and position of the male and female gonads and position of the genital opening. The present specimens are further differenciated from all the species in the shape of scolex, rostellum and number of rostellar hooks and their shape differ from the reported species.

The abovementioned differences in the important diagnostic features as compared to previously described species suggest that the present species is undescribed species of the genus *Hymenolepis*. Therefore a new species is proposed *H. jonesae* in honour of Dr. Arlene Jones, England.

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