SHORT COMMUNICATION

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CATATROPIS SP. (TREMATODA: NOTOCOTYLIDAE) FROM THE BLACK COOT, *FULICA ATRA* LINNAEUS, 1758 (GRUIFORMES: RALLIDAE) IN SINDH PROVINCE OF PAKISTAN

N. A. Birmani, A. M. Dharejo and M. M. Khan.

Department of Zoology, University of Sindh, Jamshoro-76080
Corresponding author email: birmani@gmail.com

ABSTRACT

During present study on the helminth parasites of Black Coot, *Fulica atra* Linnaeus, 1758 (Gruiformes: Rallidae) in Sindh Province of Pakistan, two trematodes of the genus *Catatropis* Odhner, 1905 were recovered from intestine of host bird. The detailed study of the worms resulted the lack of some diagnostic characteristics for the identification up to the species level. Therefore, these worms are identified up to the generic level. Previously there is no record of the genus *Catatropis* Odhner, 1905 in the avian host of Pakistan.

Keywords: Avian trematode, *Catatropis* sp., *Fulica atra*, Sindh, Pakistan.

INTRODUCTION

Sindh province, with magnificent Lakes and wetlands have always been regarded as welcoming grounds for the millions of migratory birds who immigrate to Pakistan from Siberia and Russia during winter season. Black Coot, *Fulica atra* is one of the migratory birds who come to Pakistan from Siberia in winter from October-March every year. Black Coot belongs to the order Gruiformes and family Rallidae. *Fulica atra* have been examined for the helminth parasites throughout the world but, no serious efforts have ever been undertaken on the helminth parasites of this bird in Pakistan except few reports by Bhutta and Khan (1975), Dharejo *et al.* (2006) and Birmani *et al*. (2008, 2009).

MATERIALS AND METHODS

A total of 105 *Fulica atra* Linnaeus, 1758 (Gruiformes: Rallidae) collected from different water bodies of Sindh Province, Pakistan were examined for endohelminths. Trematodes collected were put into 0.9% saline, fixed under slight cover glass pressure in alcohol-formalin-acetic acid (AFA), stained with borax carmine, dehydrated in a graded series of ethanol solutions and cleared in clove oil and xylol. Specimens were finally mounted in Canada balsam. Diagrams were made with aid of camera lucida. All measurements are given in millimeter (mm) and eggs in micrometer (µm). Specimens were identified and compared with the literature available. Specimens are deposited in the Department of Zoology, University of Sindh, Jamshoro, Pakistan.

RESULTS

***Catatropis* sp. (Figure 1)**

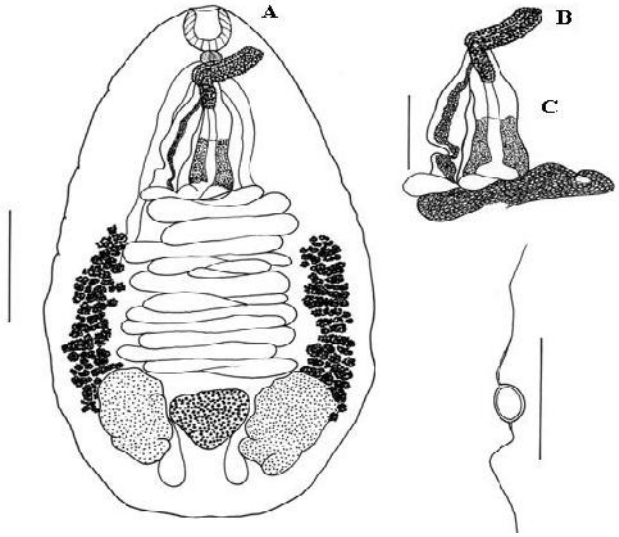
Host:	Black Coot, *Fulica atra* Linnaeus, 1758 (Gruiformes: Rallidae)
Site of infection:	Intestine
Number of specimens:	Two
Locality:	Manchhar lake.

Description (based on 2 specimens): Body small, muscular, dorsoventrally flattened, attenuated anteriorly and broadly rounded posteriorly, 1.56-2.32 X 0.83-1.35 in size. Ventral glands not observed. Oral sucker terminal, cup-shaped, 0.16-0.18 X 0.19-0.21 in size. Pharynx absent. Esophagus very short 0.06 long. Ceca long, smooth, extending posteriorly between the uterine loops and vitelline follicles, pass through the testes and ovary, terminate blindly at the level of excretory pore.

Testes two irregularly lobed, located in extracaecal field in posterior third of the body. Right testis 0.31-0.52 X 0.18-0.30 and left testis 0.26-0.47 X 0.19-0.30 in size. Cirrus sac elongate, containing prostatic cells and coiled seminal vesicle. Cirrus sac 0.40-0.57 X 0.10-0.15 in size. Extrusible portion of the cirrus is 0.27-0.33 X 0.07-0.09 in size, covered with transverse rows of papillae. Genital pore median, closely posterior to the cecal bifurcation.

Ovary trilobed, situated at the testicular level 0.11-0.25 X 0.18-0.31 in size. Uterus with regular, closely packed loops, overlapping cirrus sac posteriorly and ceca at some places, reaching up to the level of Mehlis' gland. Uterine loops 18 in number. Mertaterm smaller than cirrus sac lies on left and parallel to the cirrus sac 0.35-0.52 X 0.08-0.12 in size. Vitellaria fairly composed of large follicles arranged extracecally but at

some places it overlaps the ceca, extending from the anterior third of the testes up to the anterior third uterine loop. Eggs double walled, filamentous, 115-130 in size.



DISCUSSION

The genus *Catatropis* Odhner, 1905 was erected to accommodate the trematodes from birds. Type species is *Catatropis verrucosa* (Froelich, 1789) Odhner, 1905 in domestic and wild Anseriformes from Europe, Asia, Africa. Other species of the genus include *C. appendiculata* Lutz, 1928 in *Nettion brasiliense* from Venezuela; *C. charadarii* Skrjabin, 1915 in *Helodromus ochropus* from Russia. Also in *Capella gallinago* of Uzbekistan; *C. cygni* Yamaguti, 1939 in *Cygnus bewickii jankowski*, *Tadorna tadorna* from Japan; *C. gallinulae* Johnston, 1928 in *Gallinula tenebrosa* from Australia; *C. harwoodi* Bullock, 1952 in *Branta canadensis* from N. Hampshire; *C. hisikui* Yamaguti, 1939 in *Anser fabalis serrirostris* from Japan. Also in *Aythya fuligula* of Czechoslovakia; *C. indica* Srivastava, 1935 in *Gallus bankiva murghi* in Ducks and Geese from India; *C. Johnstoni* Martin, 1956 from the experimentally infected Chickens; *C. liara* Kossack, 1911 in *Phoenicopterus roseus* from Tunisia; *C. orientalis* Harshey, 1932 in *Dafila acuta* and *Fulica* from Uzbekistan; *C. pricei* Harwood, 1939 in *Branta canadensis* from U.S.A. and *C. rauschi* Singh, 1956 in *Dafila acuta* from India.

The most important diagnostic character of this genus is the presence of longitudinal rows of ventral papillae separated by mid-ventral ridge. Due to highly muscular body of the present specimens, these structures can not be seen. Therefore, the present specimens are identified up to the generic level. In the literature available, there is no record of the genus *Catatropis* Odhner, 1905 in avian host from Pakistan.

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