

## ON A NEW CESTODE FROM THE AVOCET RECUR VIROSTRA AVOCETTA L. COLLECTED IN IRAQ

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### ABSTRACT

Several specimens of the avocet, *Recurvirostra avocetta* L. are found infected with *Himantocestus giganticus* sp. nov. (Cestoda, Diploposthidae). This cestode is related to *H. blanksoni* Ukoli 1965 but easily differentiated from it in having longer and wider strobila, larger size of testes but lesser in number, cirrus situated in the middle of mature segment instead of anterior third and slightly posterior to the middle in gravid segment instead of the middle, ovary and vitelline gland are larger, and the uterus has more branches.

### INTRODUCTION

The avocet *Recurvirostra avocetta* L. is present in Iraq most of the year and breeds in small numbers in some suitable areas during summer (Allouse, 1961). The bird inhabits the muddy shores and shallow water bodies searching for its food mainly the benthic invertebrates (Olney, 1967; Sills, 1981) which are capable of transmitting different kinds of parasites. To the best of my knowledge, there is no report on the helminth parasites of this bird in Iraq. Only few works were carried out abroad like that of Baear (1968), Burt (1967, 1980), and Gabrion and MacDonald (1980) who reported only one cestode species.

### MATERIALS AND METHODS

Eleven birds were shot at Al-Zubaidiya area, Wasit Province, middle of Iraq during March 1994 to August 1995. The birds were dissected immediately. The cestodes were put in 1% wami saline to allow them to expand, then kept in 40% acetic acid diluted by 70% ethanol, stained with acetocarmine, cleared in xylene and then mounted in Canada balsam. Drawings were made with the aid of camera lucida.

### RESULTS

Ten birds (91%) were found infected with 2-7 (mean = 3.1) specimens of hitherto undescribed cestode, its description as follows:

#### *Himantocestus giganticus* sp. nov.

The strobila is broad and thick, measuring 165 mm in length and 7.1 mm in maximum width. All segments are wider than long. The scolex is small, bibbed and not demarcated from neck (fig. 1) measuring 0.48 mm in length and 0.68 mm in breadth. The rostellum is knoblike, measures 0.14 mm in length and 0.045 mm in maximum width, armed with 18 hooks. The suckers measure 0.30-0.329 (0.31) mm in diameter. The immature segment with primordia of the male organs (fig. 2). Genital pores bilateral located in the middle of the margin of the mature segment (fig. 3) and slightly posterior to the middle in the gravid segment (fig. 4). Testes are 40-52 (44) arranged in a bundle in the middle of the segment. The testis is subspherical, 0.06-0.08 mm. There are two cirrus pouches, one on each side of the segment. In

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the immature segment they extend internally beyond the excretory canals( fig. 2) in the mature segment they just touch the canals( fig. 3) , while in the gravid segment they do not reach the canals (fig. 4) .The cirrus pouch of the mature segment measures 0.23-0.26 X 0.10-0.12 mm. The cirrus of the mature segment is large , conspicuous and always protruded . The everted part measures 0.076 mm in length with fine closely set spines which have a linear arrangement. The ovary is bibbed, situated medially near the posterior border of the segment, measuring 0.67 mm across . The vitelline gland is compact, spherical and situated anterior to the ovary, measuring 0.02 mm. The vagina is absent. The uterus develops early . At the beginning it is in the form of a simple transverse tube, then later it attains the form of a narrow transverse tube stretching across the middle of the segment between the excretory canals, with large sac-like diverticula from anterior to posterior margins. The ripe egg ( fig. 5) measures 0.122 X 0.047mm.

Type host: avocet *Recurvi rostra avocetta* L.

Additional host: black-winged stilt, *Himantopus himantopus himantopus* ( L.)

Type locality: A1-Zubaidiya area, Wasit province, middle of h-aq ( 45 10, 32 45)

Site of infection: small intestine

Type series: Holotype HIB 139, Paratypes HIB 140. Types are deposited in the collection of the Invertebrates and Parasitology section, Iraq Natural History Museum, University of Baghdad, Baghdad, Iraq.

#### DISCUSSION

Ukoli (1965) erected the genus *Himantocestus* for his new cestode *H. blanksoni* depending on the strength of differences between his new genus and the other genera of family Diploposthidae. He redefined the family Diploposthidae to include the new genus. Spasski and Spasskaya (1968) objected Ukoli's suggestion considering the morphological criteria were imperfect. They also analysed the description of *H. blanksoni* from the duodenum of *H. h. himantopus* in Ghana, and consider the family Diploposthidae to be synonymous with Hymenolepididae,

Although there is some confusion in regard to generic position of some taxa of Diploposthidae, the present cestode is clearly belonged to genus *Himantocestus* and the present species differs from the genotype *H. blanksoni* in attaining larger size of strobilae; larger size of testes, almost double ( diameter 0.113 mm); less number of testes with mean of 44 instead of 60 in *H. blanksoni* ; cirrus situated in the middle of mature segment instead of anterior third and slightly posterior to the middle in the gravid segment instead of the middle; ovary and vitelline gland are larger; and finally it has more uterus branches.

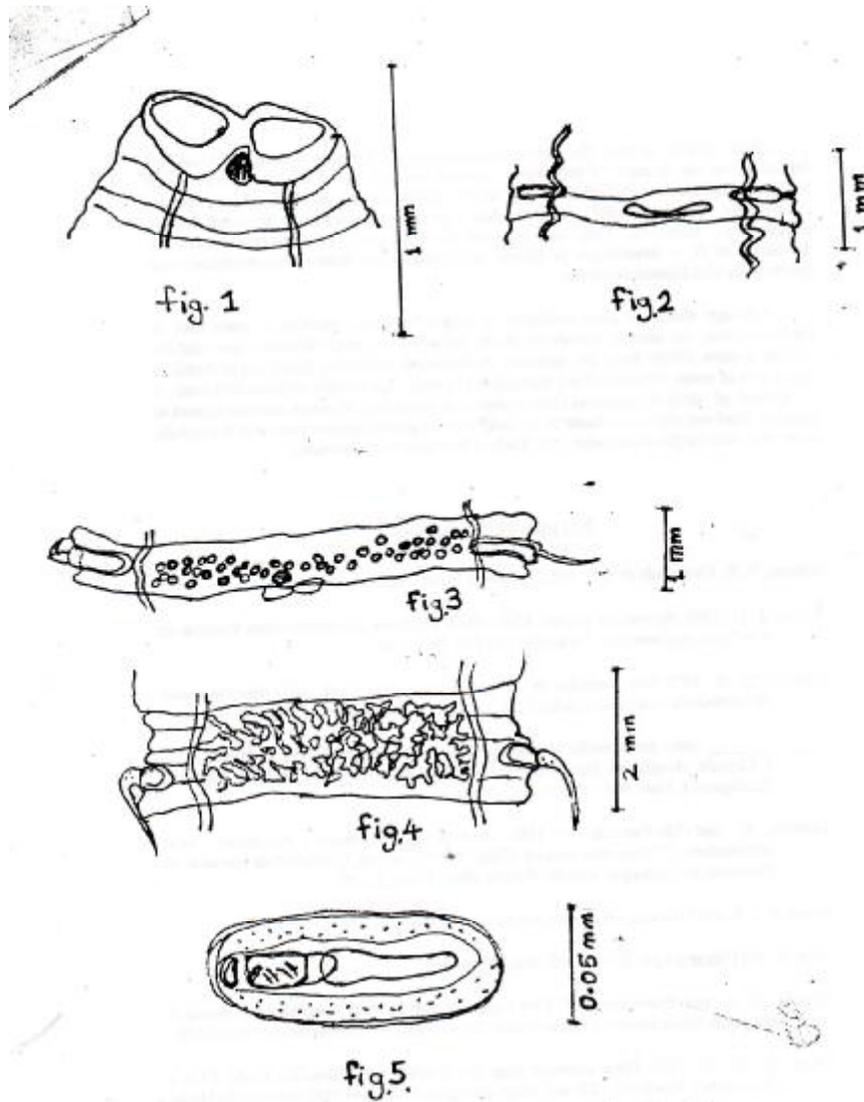
#### LITERATURE CITED

- Allouse, B. E. 1961 Birds of Iraq. vol.2 ArRabitta Press, Baghdad, 278 pp.
- Baear, J. C. 1968 *Eurycestus avoceti* Clark 1954 (Cestode, Cyclophyllidien )Parasite de l'avocette en Camergue. Vie Milien , 19 1-C: 189 - 198
- Burt, D. R. R. 1979 New cestodes of the genus *Eurycestus* Clark 1954 from the avocet *Recurvirostra avoricaea* Gmelin 1788. Zoological 3. Linn. Soc., 65(1): 71 - 82

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- \_\_\_\_\_ 1980 Intraspecific variation in *Diplophallus polymorphus* ( Rudoiphi, 1819) ( Cestoda: Acoelidne) from avocets and stilts ( *Recurvirostridae*) in North America. *Zoological J. Linn. Soc.*, 68 (4): 387-397
- Gabrion, C. and MacDonalds, G. 1980 *Artemia* sp. ( Crustacea , Anostraca) , host intermediate d'*Eurycecus avoceti* Clark 1954 ( Cestode, Cyclophyllide) parasite de l'avocette en Camargue. *Annales Parasit. Hum. Comp.*,55: 99
- Olney, P. I. S. 1967 Avocets - their prey and predators. *Ibis*, 189:474 Sills, N. 1981 Shrimp soup. *Birds RSFS Iviag.* (Summer):26
- Spasski, A. A. and Spasskaya, L. P. 1968 On the imperfectness of morphological criteria of the genus *Himantocetus* ( Gyrocoelinae, Diploposthidae). *Helminthologia*, 9:537-539
- Ukoli, F. M. A. 1965 Three cestodes from the families Diploposthidae Poche 1926
- Dioecstidae Southwell 1930 and Progynotaenidae Fuhrmann 1936 found in the black winged stilt *Himantopus himantopus himantopus* (Linn.,1758)in Ghana. *3. Helminth.* ,34(4):383-398

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*Bull. Iraq nat. Hist. Mus.*  
(2000) 9 (2): 13-17