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Uvitellina teesae, New Species (Digenea: Cyclocoelidae) from Liver of White-Eyed Buzzard *Butastur teesa* (Accipitridae) in Hala, Hyderabad, Sindh, Pakistan

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Abstract.- A new species of the genus *Uvitellina* Witenberg, 1923 is described from White-eyed Buzzard *Butastur teesa* and named as *Uvitellina teesae*, referring to the species of the host. The new species is somewhat lanceolate, with a comparatively narrow anterior and broadly rounded posterior end. Oral sucker wider than long. Acetabulum absent. Prepharynx very short. Pharynx larger than oral sucker, strongly muscular and subglobular. Intestinal ceca broad, long and united posteriorly just behind testes. Testes spherical, sub-equal, diagonal and very close to each other just anterior to the posterior cecal arch. Cirrus pouch post-furcal. Genital pore median close to the intestinal bifurcation, seminal vesicle not obvious. Ovary irregular in shape, antero-sinistral to anterior testis. Uterus thin walled. Uterine coils mostly intercecal, extending in extracecal field at some places. Vitellaria extracecal occupying lateral fields. Most of the morphological characteristics of the present species separate it from other related species. Therefore a new species *Uvitellina teesae* is proposed for the present specimen.

Key Words: *Uvitellina teesae, Butastur teesa,* Hala, Sindh.

INTRODUCTION

So far only one species of the genus *Uvitellina* Witenberg, 1923 has been reported from Pakistani bird *Vanellus indicus* (Bhutta and Khan, 1975). During parasitological survey of birds of different feeding habits a new specimen was collected from a bird *Butastur teesa* and described as *Uvitellina teesae* from Sindh, Pakistan. The bird preys upon a variety of mammalian, and herpeto-fauna as well as amphibians and insects (Roberts, 1991).

MATERIALS AND METHODS

A trematode collected from liver of white-eyed buzzard *Butastur teesa* was fixed in AFA solution under slight cover glass pressure, stained with borax carmine, dehydrated sequentially in alcohol, cleared in clove oil and xylol and mounted permanently in Canada balsam. The drawing was made with the aid of camera lucida. Measurements are given in millimeters except those of eggs in µm. The specimens are deposited in the Department of Zoology, University of Sindh, Jamshoro, Pakistan.

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Uvitellina teesae, new species (Fig. 1)

Host

White-eyed buzzard, *Butastur teesa* (Accipitridae).

Location

Liver.

Locality

Hala, Sindh, Pakistan.

Number of specimen recovered

One from a single host, 2 hosts examined.

Holotype No.

SUZDT-47.

Description

Body elongate, somewhat lanceolate, with a comparatively narrow anterior and broadly rounded posterior end, 7.89x1.49 in length. Oral sucker wider than long, 0.16x0.36 in size. Acetabulum

absent. Prepharynx very short. Pharynx larger than oral sucker, strongly muscular and subglobular 0.416x0.416 in size. Intestinal bifurcation at a distance of 0.566 from anterior extremity. Intestinal ceca broad, long and united posteriorly just behind testes.

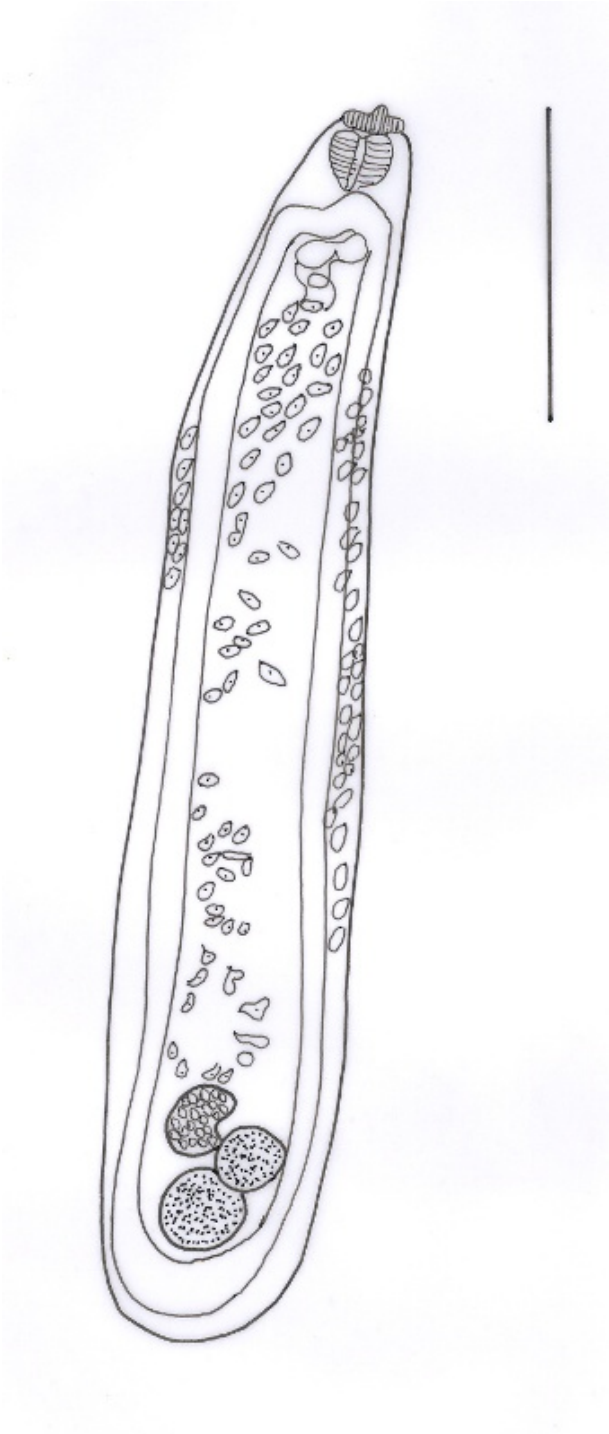

Fig. 1. *Uvitellina teesae*, new species; entire worm. Scale-bar: 2mm.

Testes spherical, sub-equal, diagonal and very close to each other just anterior to the posterior cecal arch. Anterior testis, 0.399x0.433, and

posterior testis 0.499x0.533 in diameter. Cirrus pouch post-furcal. Genital pore median and close to the intestinal bifurcation, seminal vesicle not obvious.

Ovary irregular in shape, antero-sinistral to anterior testis, 0.466x0.299 in size. Uterus thin walled. Uterine coils mostly intercecal, also extending in the extracecal field at some places. Vitellaria extracecal and occupy lateral fields. Eggs 133-216x49 in size.

DISCUSSION

The genus *Uvitellina* Witenberg, 1923 was erected to accommodate trematodes from birds. The type species is *U. pseudocotylea* (Witenberg, 1923), in *Himantopus candidus* Russian Turkestan, also in *Charadrius placidus* Japan–Yamaguti (1939). Other species are *U. indica* Siddiqi et Jairajpuri, 1962 in *Lobivanellus indicus*, Alligarh, India; *U. kanitharensis* Gupta, 1959, syn. of *Cyclocoelum (Haematotrephus) vanelli*– Dubois (1965), in *Glottis nebularia*; Kanihar, India; *U. keri* Yamaguti, 1933, in *Microsarcops cinereus* Japan, syn. of *U. vanelli* (Rud.)–Dollfus (1963); *U. macroisophaga* Hannum et Wilson, 1934, syn. of *U. pseudocotylea*– Bashkirova (1950, in *Oxyechus vociferous* California; *U. magniembria* Witenberg, 1923, syn. of *U. pseudocotylea* – Bashkirova (1950), *Himantopus candidus* Russian, Turkestan; *U. tageri* Yamaguti, 1933, syn. of *U. vanelli* (Rud.) – Bashkirova (1950) *Vanellus vanellus* Japan; *U. vanelli* (Rud., 1819) Bashkirova, 1950, in *Vanellus vanellus* Vien. Mus – (Dubois) (1948) – Dubois (1965). The following species are synonymized by Dubois (1965) this species: *lanceolatum* Wedl, 1858; *similes*, Stossich, 1902; *consimilis* Nicoll, 1914; *adelphus* Johnston, 1916; *pseudocotylea* Witenberg, 1923; *magniembria* Witenberg, 1923; *dollfusi* Tseng, 1930; *keri* Yamaguti, 1933, *tageri* Yamaguti, 1933; *maroisophaga* Hannum et Wilson, 1934; *obscurum* Houdemer, 1938; *titiri* Chatterji, 1958; *lobivanilli* Gupta, 1958; *kaniharensis* Gupta, 1958; *indica* Siddiqi et Jairajpuri, 1962. These species, however, belong to three different genera (*Wardianum, Haematotrephus, and Uvitellina*) according to scheme of classification (Yamaguti, 1971); therefore cannot be accepted Dubois' synonyms as a whole (Yamaguti, 1971).

The trematodes of the genus *Uvitellina* are peculiar in being usually without acetabulum, uterus mostly in intercaecal field, ceca united posteriorly and gonads near the posterior end of the body. The present specimen also possess some typical characteristics of the genus *i.e.* absence of the acetabulum and union of ceca at the posterior end of the body.

The present species (7.89x1.49) differs from *U. tageri*, (20.4x3.3), *U. kaniharensis* (13.44-16.128x2.88-3.84) and *U. keri* (7-14x1.4-2.4) in having smaller body size. It also differs from *U. indica*, (5.683-7.656x1.113-1.536) *U. pseudocotylea* (6.5-12x2-4) and *U. macroisophaga* (6-9x-) in having larger body size. The size of *U. magniembria* has not been given in the original description hence can not be compared with the present specimen.

The egg size (133-216x49) of the present species is larger than *U. macroisophaga* (128-143x43-57) and comparable with *U. pseudocotylea* (134-159x48-62), *U. indica* (136-153x50-59), *U. Keri* (140-200x50-75), *U. vanelli* (170-180x70-80), *U. magniembria* (175x70). The egg size of *U. kanitharensis* is not mentioned.

Most of the morphological characteristics of the present species separate it from other related species. Therefore, a new species *Uvitellina teesae* is proposed for the present specimen. The name refers to the species of the host, *Butastur teesa*.

REFERENCES

BHUTTA, M.S. AND KHAN, D., 1975. Digenetic trematodes of vertebrates from Pakistan. *Bull. Dept. Zool. Univ. Punjab*, **8**: 1-175.

DHAREJO, A. M, BILQEES, F.M. AND KHAN, M.M., 2006. *Paramonostomum (Paramonostomum) macrovesiculum*, new species (Trematoda: Notocotylidae) from Black Coot *Fulica atra* (Aves: Rallidae) of Hyderabad Sindh, Pakistan. *Pakistan J. Zool*., **37**: 313-316.

ROBERTS, T.J., 1991. *The birds of Pakistan, vol. I. Non-Passeriformes*. Oxford University Press. Karachi. pp. 598.

YAMAGUTI, S., 1971. *Synopsis of digenetic trematodes of vertebrates* Vol. I and II. Keigaku Publishing Co. Tokyo, Japan, pp. 1575.

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