

DIGENETIC TREMATODES OF THE FISH *Hemiramphus marginatus* (Forsskal, 1775) FROM KHOR ABDULLA, NORTHWEST ARABIAN GULF

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ABSTRACT

Two species of digenetic trematodes (*Chauhanotrema spiniacetabulum*, *Treptodermus latus*) were described from the gut of *Hemiramphus marginatus*. Fishes were captured from Khor Abdullah, since June to October 2001. The detected parasites were found newly recorded in Iraqi marine waters, So a brief redescription were given in the present article.

INTRODUCTION

Many species of marine teleosts act as a final hosts and intermediate hosts for many digenetic trematodes particularly those whose final hosts are shore inhabiting or fish eating birds and mammals (paperna, 1980).

Paperna (1980) mentioned that trematodes of fish in general demonstrate a high level of adaptation to their definitive host, and the only apparent tissue response to the presence of the metacercaria is the formation of dense fibrous layer around the encysted parasite, but the heavy infection by the adult trematodes are not likely to induce tissue damage or physiological stress in their host.

Previous surveys on adult digeneans of the Arabian Gulf have been conducted in coastal waters i.e. (Al-Yamani & Nahhas, 1981; Abdul Salam & Kalil, 1987; Abdul Salam *et al.*, 1990; Abdul Salam & Seelatha, 1992; 1993; Sey, 1995; Al-Daraji, 1995; Sey & Nahhas, 1997; Saoud *et al.*, 1986a,b; 1987a,b; Bannai, 2002; Nahhas & Sey, 2002; Nahhas *et al.*, 1998).

MATERIAL AND METHODS

Twenty five fish specimens of *Hemiramphus marginatus* were captured at Khor Abdullah north west of the Arabian Gulf during June to October, 2001.

Free digeneans from fishes were inserted in glass vial contain an amount of physiological solution, fixed in A.F.A under slight cover glass pressure

rinsed in 70% ethanol, stained with acetocarmin, dehydrated in concentrations of ethanol, mounted in Canada balsam (Sey, 1995).

For parasite identification and terminology, Yamaqti (1970, 1971) Nahhas & Sey (1998, 2002) were used. All measurement is given in millimeters.

## RESULTS AND DISCUSSION

As result of dissecting of 25 specimens of *Hemiramphus marginatus* fishes, two species of digenean parasites were recorded for the first time in Iraq.

**I-Description:** *Chauhanotrema spiniaacetabulum*. Nahhas et al., 1997 (Fig.1)

(The description and measurement based on 5 specimens

**Location :** intestine

**Prevalence:** 32%

**Mean intensity :** 0.62

Waretromatidae. The cylindrical elongated body measures 2.43-3.25 (2.84). Tegument surrounded by spines. Oral sucker terminal and subrounded and measures 0.18-0.24 (0.21) x 0.16-0.21 (0.18). Prepharynx short and measure 0.05-0.06 (0.055) x 0.01-0.013 (0.11). Pharynx rounded and measure 0.11-0.14 (0.12) in diameter. The acetabulum surrounded by 10 rows of spines and located in the middle of first third of the body, it measures 0.26-0.34 (0.3) long and 0.18-0.24 (0.21) wide. Esophagus is short and measures 0.22-0.29 (0.25) in long. The tubular caeca extending laterally to the posterior extremity of the body. Testis single, elongated, located in the posterior half of the body and measures 0.54-0.72 (0.63) long x 0.13-0.16 (0.145) wide. The genital pore opening between the acetabulum and the pharynx. The ovary is globular and located dorsally above the testis and measure 0.15-0.16 (0.155) x 0.12-0.13 (0.125). Vitelline follicles, different in size and extending posterior level to acetabulum.

Zukov (1972) was established The *Chauhanotrema indica* as a type species of the genus *Chauhanotrema* from the type host *Hemiramphus far*. From the Indian waters and he placed the genus in the family Waretrematidae and subfamily Chauhanotrematinae.

Recently, Nahhas et al. (1997) were described a second species of this ~~genus~~ *Chauhanotrema spiniaacetabulum* of the Kuwaiti coastal water. The specimens of the present study showing a full agreement in its characters and measurements with Nahhas et al. (1997) specimens which detected from the same hosts species. Also, the present finding of this parasite indicated to its first record in Iraqi marine waters.

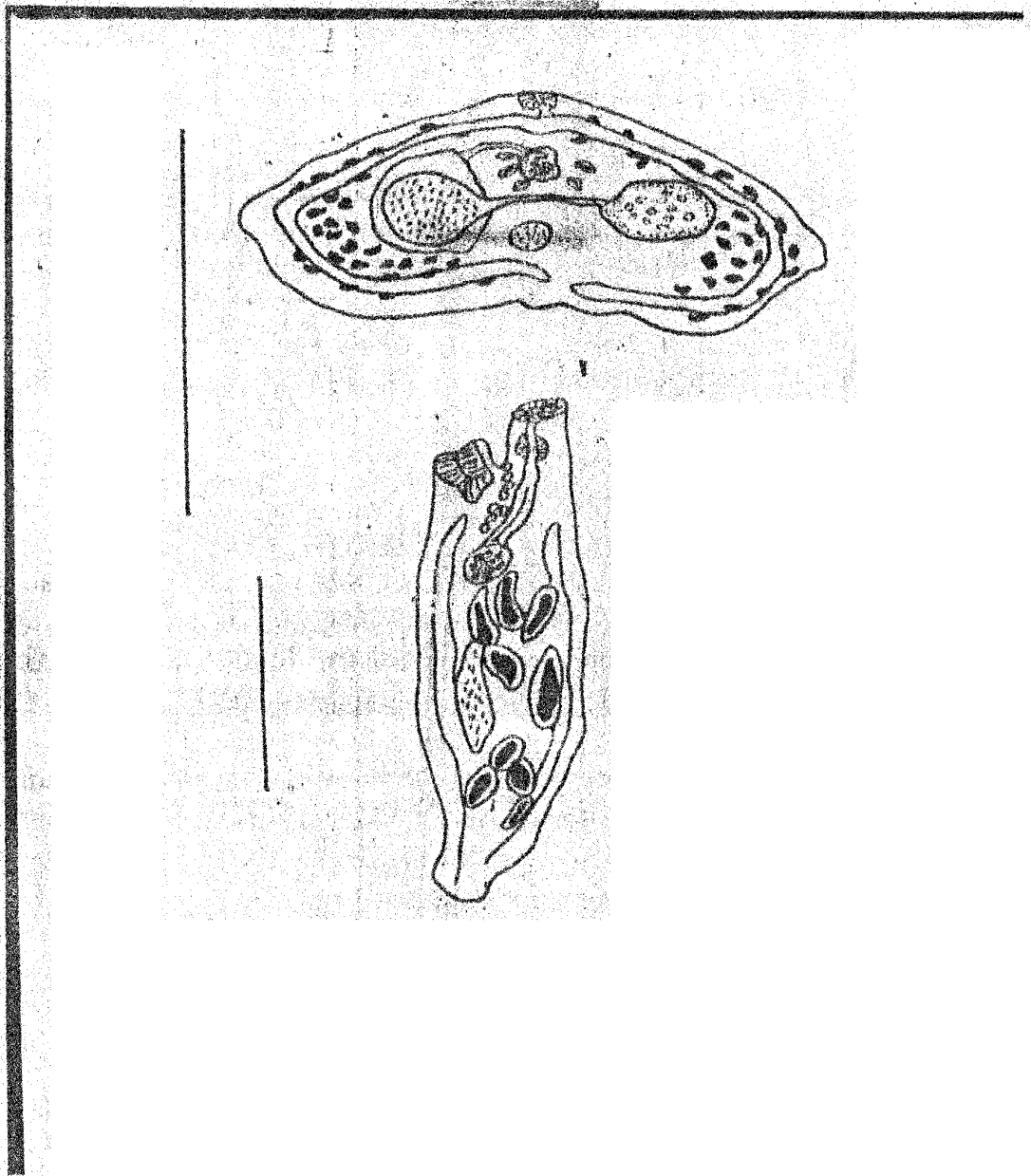


Fig. 1 *Chauhanotrema spiniacetabulum*  
Fig. 2 *Treptodermus latus*  
Scale 1mm

## II- Description *Treptodemus latus* Manter, 1961 (Fig. 2)

**Location:** intestine

**Prevalence:** 40%

**Mean intensity:** 0.40

The description and measurement based on 10 specimens.

Bivesiculidae. The leaf-like body is transversely elongated (border than long) it measures 0.60-0.85 (0.725) long and 1.26-1.78 (1.52) wide, The ventral surface is slightly concave while the dorsal is slightly convex. The Oral and ventral sucker is absent. The mouth is small and opening at mid edge. Pharynx is rounded and measures 0.07-0.09 (0.08) in diameter. Esophagus 0.02-0.028 (0.024) long. The intestinal bifurcation situated near the pharynx. Testis single, situated in the mid half of the body and measures 0.09-0.12 (0.10) long x 0.07-0.09 (0.08) wide. Ovary is oval, situated in the mid right of the body and measures 0.08-0.11 (0.095) x 0.7-0.9 (0.8). The vitellaria are follicular and situated laterally.

Manter (1961) recorded this species as a type species for the genus from *Hemiramphus* sp. (Hemiramphidae) of the Fiji waters. Yamaquti (1971) erected Treptodemidae family accommodate the monotypic genus. Later on Cribb (2002) retained this genus in the family, Bivesiculidae. Machida & Kuramochi (2000) described this species from *Hemiramphus* *far* from Okinawa, Japanese water.

Recently Sey *et al.*, (2003) redéscribed this species from *H. marginatus* from Kuwaiti coastal water. The present described specimen showing a full agreement in its characters and measurements with Sye *et al.* (2003).

However, the present finding of this parasite indicated that is the first record in the Iraqi marine water.

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الديدان ثنائية المنشأ المتطفلة على أسماك القمبرور

*Hemiramphus marginatus* (Forsskal, 1775)

في خور عبد الله شمال غرب الخليج العربي

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#### الخلاصة

تم في الدراسة الحالية وصف نوعين من الطفيليات ثنائية المنشأ (*Chauhanotrema spiniacetabulum*, *Treptodemus latus*) في أسماك سمكة القمبرور *Hemiramphus marginatus* المصايد من خور عبد الله شمال غرب الخليج العربي خلال الفترة من شهر مارس إلى شهر يونيو 2001 وقد تم إعادة وصفها بإيجاز إذ اعتبر تسجيلها في الدراسة الحالية هو الأول في المياه البحرية العراقية.