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FIRST RECORD OF *Sprostoniella multitestis* CHOWSKY *et* NAGIBINA, 1967 (MONOGENEA: CAPSALIDAE) FROM *Platax teira* AND *P. orbicularis* (PISCES: EPHIPPIDAE) FROM MARINE WATERS OF IRAQ

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ABSTRACT

During the period from January 2014 to the end of July 2014, a total of 21 fishes belonging to two species of the family Ephippidae (*Platax teira* and *P. orbicularis*) were captured from Iraqi marine waters, northwest Arab Gulf. The study revealed the existence of one species of monogenean, *Sprostoniella multitestis* from gills of both fish species. The record of *S. multitestis* in the present study is considered as the first record in the Iraqi territorial waters of the Arab Gulf and both *P. teira* and *P. orbicularis* are new host records for this parasite in the Arab Gulf.

INTRODUCTION

All living organisms, including fishes in nature or farms, can be exposed to the parasites. Fishes in nature are infected with a great variety of parasites, includes protozoans, monogeneans, trematodes, cestodes, nematodes, acanthocephalans and crustaceans [1]. However, in times of stress, resistance of fishes against parasitic infections is often lowered and some parasites may greatly increase in abundance and affect the health of the fish. In this situation, fish will often lose condition and become susceptible to predation, or may even die from the effect of the parasites [2].

Among the major groups of fish parasites, monogeneans are the most important group as they cause severe damage to skin and gills, especially for carp fingerlings under extensive fish

culture practice, their direct life cycles and fish crowding are good conditions for their easy spread among fishes, and hence, they cause fish death and mass mortalities associated with large economical losses [3].

Some information about the monogeneans of Iraqi marine fishes are available. Information reported in such investigations included the seasonal changes of infection with host age, site of attachment, geographic distribution and correlation of infection with host sex [1, 2, 3, 4, 5, 6, 7, 8]. The main purpose of the present investigation is to document the first record of the monogenean *Sprostoniella multitestis* on two fish species from marine waters of Iraq.

MATERIALS AND METHODS

A total of 21 fish specimens were collected by fishermen using trawl net monthly, during the period from January 2014 to the end of July 2014, which belong to two perciform species: *Platax orbicularis* (Forsskål, 1775) and *Platax teira* (Forsskål, 1775). They were taken from Iraqi marine waters, northwest Arab Gulf (latitudes 47° 30′ to 48° 15′; N 30° 50′ to 30° 00′ E).

Fishes were identified according to [9] and updated according to [10]. Vigorously moving worms were separated from the gills with a pipette and samples for light microscopy were handled according to [11].

RESULTS

The following is a brief systematic account of *S. multitestis*..

Phylum Platyhelminthes

Class Monogenea

Order Capsalidea

Family Capsalidae

Sprostoniella multitestis Chowsky *et* Nagibina, 1967

Hosts: *P. teira* and *P. orbicularis*

Site of infection: Gills.

Prevalence of infection: 57% and 71% for *P. teira* and *P. orbicularis*, respectively.

Mean intensity: 14 and 10.6 for *P. teira* and *P. orbicularis*, respectively.

Materials deposition: 2 voucher specimens were deposited in the Natural History Museum, London, accessions NHMUK 2014.3.20.1-2.

Description and measurements (based on four specimens).

Body 3.2-8.3 (5.75 mm.) in total length, elliptical, greatest width 1.0-2.6 (2.1 mm.), four eyes with trapezoidal arrangement, haptor1.3-2.2 (1.5 mm.) in diameter. Testes, 146.4-348 (256 mm.) in diameter, in two groups, left group with 8-11 testes, right group with 9-10 testes, first pair of anchors is developed and strong (Plate 1, Fig. 1).

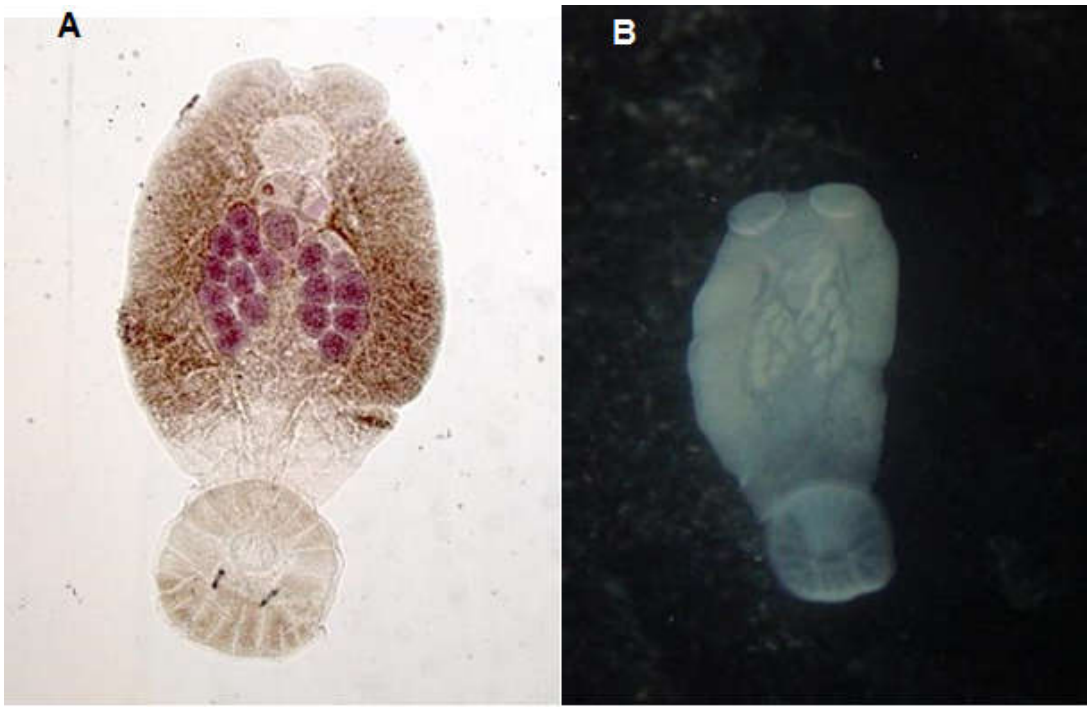

Plate (1). *Sprostoniella multitestis*

A: Whole mounting, 20X; B: Before staining, 40X.

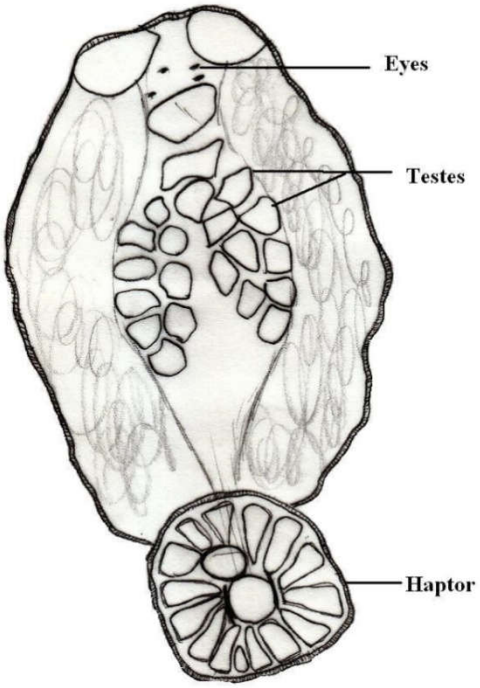

Fig. (2). *Sprostoniella multitestis* (Scale bar= 1.3 mm.).

DISCUSSION

The parasitism is the most common lifestyle on the planet and understanding its role in the environment may help researchers to understand changes in a given fish population or stream ecosystem. The resultant hypertrophy of the underlying epithelial layer reducing the surface area for effective respiration could lead to suffocation, particularly at high temperature, furthermore, fish parasites cause commercial losses in both the aquaculture and fisheries industries [2]. Also, they may have human health issues, as well as a socio-economic implication**.**

[12] described *S. multitestis* from *Platax pinnatus* which has the diagnostic characters of this genus with two neighboring groups of testes and structure of loculi of the haptor from Pacific waters. [13] described *Sprostoniella micrallcyra* from *Chaetodipterus faber* off the Brazilian coast. The third species: *S. lamothei* was described from the gills of *Chaetodipterus zonatus* in Chamela Bay, on the west coast of Mexico ([14]. Based on single specimen of parasite, [15] described *S. teria* from *Platax teira* from Iraqi marine waters. According to [16], the latter species is considered invalid. Unfortunately, the holotype of *S. teria* was not deposited in any museum. [17] prepared an up-to-date check lists of all monogeneans

parasitic on freshwater and marine fishes of Basrah province. Among such 54 monogenean taxa, no capsalid species have been recorded from Iraq, and hence, the present record is considered as the first one for this parasite from *P. teira* in Iraq, and *P. teira* is considered as a new host record.

أول تسجيل لأحادي المنشأ *Sprostoniella multitestis* Chowsky *et* Nagibina, 1967 من عائلة Capsalidae من كل من سمكتي *Platax teira* و *P. orbicularis* من عائلة أسماك الخفاش Ephippidae في المياه البحرية في العراق

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الخلاصة

أثناء المدة من شهر كانون الثاني ٢٠١٤ ولغاية نهاية شهر تموز ٢٠١١٤، تم صيد مامجموعه ٢١ نموذجا من نوعين من الأسماك العائدة لعائلة أسماك الخفاش هما *Platax teira* و*P. orbicularis* من المياه البحرية العراقية، شمال غرب الخليج العربي. كشفت الدراسة عن وجود نوع من أحادية المنشأ، على غلاصم سمكة *Platax teira* وسمكة *P. orbicularis*. ويعدّ تسجيل هذا الطفيلي في الدراسة الحالية بمثابة أول تسجيل في المياه الأقليمية العراقية من الخليج العربي، وتعد تلك السمكتين مضيّفين جديدين لهذا الطفيلي في الخليج العربي.

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