Some parasites of the yellow-finned sea bream *Acanthopagrus latus* (Houttuyn, 1782) in the Iraqi marine waters

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Abstract

A total of 34 fishes, belonging to the yellow-finned sea bream *Acanthopagrus latus* were collected, in April 2008 from Khor Abdullah northwest Arabian Gulf, by using trawler net. Fishes were surveyed for parasites. The study revealed the presence of two species of parasites the first one is a monogenetic trematode, *Polylabris mamaevi* and the second is a digenetic trematode, *Paradiscogaster farooqii*. The detection of *P. farooqii* in the present study represents its first record in the fishes of the Iraq.

Introduction

The yellow-finned seabream *Acanthopagrus latus* is belonging to the family Sparidae (Fischer and Bianchi, 1984), and is a carnivorous fish, with a moderately body size. Although, *A. latus* is one of the important items of the fisheries in different localities, it also plays an important role in fish aquaculture in ponds or cages (Leu *et al*., 1991). Munro (1949); Hayashi (1993) mentioned that *A. latus* is distributed through South Japan, South-East Taiwan, North-East Australia and Philippines. Leu and Chou (1996) stated that *A. latus* is of a highly economic value besides its high adaptations to different salinities and temperatures. A little attention has been paid to *A. latus* in Iraq as a few scattered works has been published on the species (Al-Dobeykl, 1986; Hussain *et al*., 1987;

Al-Daham *et al*., 1993; Hussain *et al*., 1993; Al-Areeki, 2001). Concerning the parasitic fauna of *A. latus* in the Iraqi waters, there is only one article (Al-Daraji, 1995) detecting one species of each of the Monogenea and the Digenea from specimens from Khor Al-Zubair.

The present study is aimed to through more light on the parasitic fauna of *A. latus* especially from Khor Abdullah, North-West Arabian Gulf.

Material and Methods

Thirty-four specimens of *Acanthopagrus latus* were collected, by using trawler net, from Khor Abdullah, northwest Arabian Gulf during April 2008. Calculations of prevalence and mean intensity of infection were done according to Margolis *et al*. (1982). The detected worms were treated according to the standard techniques as described by Sey and Nahhas (1997). Drawings of the parasites were done by using microprojection. The monogenetic and digenetic trematodes were identified according to Yamaguti (1963, 1968) and Nahhas *et al*. (1998), respectively.

Results and Discussion

The inspection of the fishes revealed their infection with two species of parasites one of them belongs to the Monogenea and the other to the Digenea. The following is a brief account on the description, dimensions and the site of infection of these parasites.

Polylabris mamaevi Ogawa *et* Egusa, 1980 (Fig.1)
Site: Gills
Prevalence: 17 %
Mean intensity of infection: 1.3
Description and measurements (8 specimens):

Microcotylidae: Body is elongated with a posteriorly tapering haptor measuring 2.61-3.68 mm. × 0.370-0.483 mm. The haptor was elongated, occupying 44 % of the body length and armed with

35-43 clamps arranged in two bilaterally symmetrical parallel subequal raws. Buccal suckers ovoid each sucker is divided into two chambers by a thin transverse septum lying towards the anterior part of the sucker and measuring 0.053-0.064 mm. × 0.051-0.066 mm. Pharynx small, spherical and measuring 0.036-0.049 mm in diameter.

Esophagus very short. Intestinal bifurcation occurs immediately at a level of the male copulatory organ. The caeca was blind with lateral diverticula and extends to the posterior extremity of the body. Genital pore armed with circular muscles and occurred midventrally at the level of male copulatory organ. Testes numerous (11-14 in number), transversely elongated and occupied intercaecally the posterior half of the body, each testis measuring 0.053-0.061 mm. × 0.047-0.052 mm. Vas deferens occurred immediately forward of the anterior testis. Seminal vesicale with sigmoid shape and present immediately posterior to the male copulatory organ. Male copulatory organ of conical shape and consist of outer sheath and inner tube. Ovary looks like an inverted U with a short arm, located anterotesticular and measuring 0.087-0.116 mm x 0.052-0.055 mm. Vitellaria are follicular and extend from the level of intestinal bifurcation in two lateral fields ending near the posterior end of the body.

Hussey (1986) stated that eight species of the genus *polylabris* are known from different fish hosts and localities. Hayward (1996) in his revision recognized about 17 valide species of *Polylabris* based on the comparative morphology of the male copulatory organ and the numbers of clamps and testes.

P. mamaevi was firstly described by Mamaev and Parukhin (1976) as *P. gerres* (Sandars, 1944) from the gills of three different species of hosts. Later on Ogawa and Egusa (1980) renamed this species as *P. mamaevi.*

Al-Daraji (1995) in his taxonomic study on the parasitic fauna of the fish of Khor Al-Zubair recorded this species from *A. latus* for the first time in the Iraqi waters.

The present specimens closely resemble Al-Daraji's (1995) specimens in all features and measurements. Therefore, the present article is considered the second record of this species in the Iraqi marine water, from a different locality.

Paradiscogaster farooqii Hafeezullah and Siddiqi,1970 (Fig.2)

Site: Intestine

Prevalence: 8 %

Mean intensity of infection: 3.6

Description and measurements (5 specimens):

Fellodistomidae: Body is fusiform, with somewhat rounded ends and measuring 1.20-1.79 mm × 0.35-0.587 mm. Tegument armed with distinct spines extending all over the body, except the posterior region. Oral sucker oval in shape, subterminal and measuring 0.136-0.177 mm in diameter. Pharynx subspherical, muscular and measuring 0.033-0.059 mm × 0.041-0.068 mm. Esophagus tubular, narrow and long. Intestinal caeca tubular, simple, short and not reaching the acetabulum. Acetabulum large, subquadrate, with four semicircular papillae at each corner. Sucker length ratio 1: 2.8. Testes ovoid, subsymmetrical, immediately posterior to acetabulum and measuring 0.131-0.167 mm × 0.086-0.113 mm. Cirrus poach median and slightly overlapping the anterior level of acetabulum. Ovary rounded immediately posterior to the acetabulum, intertesticular and measuring 0.078-0.131 mm in diameter. Uterus extending from the anterior margin of the acetabulum backwards laterally and posteriorly up to the posterior extremity of the body. Vitellaria follicles consist of four lateral clusters of 3-9 follicles each. Eggs ovoid and measuring 0.023-0.031 mm × 0.013-0.022 mm. Excretory pore terminal.

Paradiscogaster farooqii was firstly described by Hafeezullah and Siddiqi (1970) when they detected this parasite from the same host in India. Later on, Bray (1984) reported and redescribed this species from another fish (*Monodactylus argenteus*) in Natal. The third detection of this parasite was done by Nahhas *et al.* (1998) from *Scatophagus argus* in the Kuwaiti coastal waters. The present specimens closely resemble those of Nahhas's *et al.* (1998). This represents the first record of the species in the Iraqi fishes.

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Fig.(1): *Polylabris mamaevi* (hole amount, ventral view)
Scale bar = 500 um

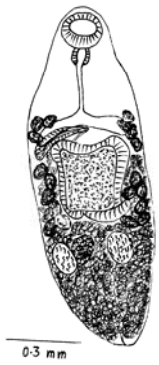

Fig.(2):*Paradiscogaster farooqii* **(**hole amount, ventral view) Scale bar = 300 um

بعض طفيليات سمكة الشانك (*Acanthopagrus latus* (Houttuyn, 1782 في المياه البحرية العراقية

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الخلاصة

تم جمع 34 سمكة شانك ،في شهر نيسان من عام 2008 ،من خور عبد الله شمال غرب الخليج العربي باستخدام شباك الجر. فحصت الأسماك بحثا عن الطفيليات،وتم العثور على نوعين منها النوع الأول يعود للمخرمات أحادية المضيف وهو *Polylabr ismameavi* والنوع الثاني يعود للمخرمات ثنائية المضيف وهو*Paradiscogaster farooqii* ويعد تسجيل النوع *P. farooqii* في الدراسة الحالية هو التسجيل الأول له في الأسماك العراقية.