A New Species of *Anoplodiscus* (Monogenea: Anoplodiscidae) Parasitic on *Pagrus pagrus* (Osteichthyes: Sparidae) from the Coastal Zone of the State of Rio de Janeiro, Brazil

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A new species of *Anoplodiscus* (Monogenea, Anoplodiscidae), parasitic on gills of the red porgy, *Pagrus pagrus*, from the coastal zone of the State of Rio de Janeiro, Brazil, is described and illustrated. The new species can be differentiated from the other species of this genus by the shape of the accessory piece of the copulatory complex, and the length of the vagina. This is the first record of a species of *Anoplodiscus* in the Neotropical region.

Key words: Monogenea - Anoplodiscidae - *Anoplodiscus longivaginatus* sp. nov. - *Pagrus pagrus* - Rio de Janeiro - Brazil

Anoplodiscidae Tagliani, 1912 is a monotypic family of monogeneans parasitic on sparid fishes from Mediterranean, Australian and Japanese waters (Ogawa & Egusa 1981, Ogawa 1994). The only genus of this family was proposed by Sonsino (1890) to accommodate *Anoplodiscus richiardii* collected from *Pagrus orphus* in the Mediterranean Sea. This species was later redescribed by Monticelli (1905). Presently other four *Anoplodiscus* species are known: *A. australis* (Johnston, 1930), *A. spari* (Yamaguti, 1958), *A. cirruspiralis* Roubal, Armitage and Rohde, 1983, and *A. tai* Ogawa, 1994 (Ogawa & Egusa 1981, Roubal 1981, Roubal et al. 1983, Ogawa 1994). Ogawa and Egusa (1981) studied the systematic position of *Anoplodiscus* and provided an emended diagnosis of the genus and redescriptions of *A. australis* and *A. spari*.

During a parasitological survey of marine fishes from the coastal zone of the State of Rio de Janeiro, Brazil, 90 specimens of the sparid fish *P. pagrus* (Linnaeus, 1758) were necropsied and numerous monogeneans specimens were collected. In the present paper a new species of *Anoplodiscus* is described and illustrated.

MATERIALS AND METHODS

The monogeneans studied are part of the material collected from 90 specimens of *P. pagrus*, from the coastal zone of the State of Rio de Janeiro, Brazil (21-23°S, 41-45°W), during 1998 and 2000. Specimens of *P. pagrus*, from the coastal zone of the State of Rio de Janeiro, Brazil, 90 specimens of the sparid fish *P. pagrus* (Linnaeus, 1758) were necropsied and numerous monogeneans specimens were collected. In the present paper a new species of *Anoplodiscus* is described and illustrated.

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**NATIONAL PARASITE COLLECTION (USNPC), Maryland, USA, and in the Meguro Parasitological Collection (MPM), Tokyo, Japan.**

RESULTS

Monogenea van Beneden, 1858  
Polyonchoinea Bychowsky, 1937  
Anoplodiscidae Tagliani, 1912  
Anoplodiscus Sonsino, 1890  
*Anoplodiscus longivaginatus* sp. nov.  
(Figs 1-3)

Description: body elongate, 2.18 (1.81-2.58, \( n = 13 \)) mm long, with round ends (Fig. 1). Maximum width at level of testis 777 (655-921, \( n = 13 \)). Two prostatic reservoirs at level of seminal vesicle. The terms prevalence and mean intensity of infestation were used according to Bush et al. (1997). The holotype and paratypes were deposited in the Helminthological Collection of the Instituto Oswaldo Cruz (CHIOC), Rio de Janeiro, Brazil, in the United States National Parasite Collection (USNPC), Maryland, USA, and in the Meguro Parasitological Collection (MPM), Tokyo, Japan.

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Type host: Pagrus pagrus (Linnaeus, 1758) (Sparidae)

Site of infestation: mouth and gills

Type locality: coastal zone of the State of Rio de Janeiro, Brazil (21-23° S, 41-45° W)

Prevalence of infestation: 16.6%

Mean intensity of infestation: 2.3 ± 1.1

Type specimens: Holotype CHIOC no. 34905. Paratypes: CHIOC nos. 34906a-d, 34907 (five specimens), USNPC no. 92350 (two specimens), and MPM no. 18806 (two specimens)

Specimens examined: one paratype of A. cirruspiralis (USNPC no. 77299), and six paratypes of A. tai (MPM no. 19593, slides no. A1285-1286)

Etymology: the specific name is from Latin (longus = long, + vagina = vagina) and refers to vaginal duct that is longer than in the other Anoplodiscus species.

Remarks: the new species can be compared with A. richiardii, A. cirruspiralis and A. tai by the shape of the body and the copulatory complex. A. longivaginatus sp. nov. differs from the above species by the structure of the accessory piece of the male copulatory organ which is very irregular in contrast with the round shape of the accessory piece of A. cirruspiralis, A. richiardii, and A. tai. A. richiardii is a species less known of the genus. The information provided in the original description and subsequent redescription by Monticelli (1905) is inaccurate in details of the copulatory complex, showing the shape of the accessory piece only. Thus, a redescription of A. richiardii is needed to elucidate some aspects of its morphology.

Another characteristic to differentiate A. longivaginatus sp. nov. is the vaginal duct which is much longer than that reported for the other species. This is the first record of a species of Anoplodiscus in the Neotropic-
cal region.

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REFERENCES


