A New Species of *Kritskyia* (Dactylogyridae, Ancyrocephalinae) Parasite of Urinary Bladder of *Prochilodus lineatus* (Prochilodontidae, Characiformes) from the Floodplain of the High Paraná River, Brazil

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A new species of Kritskyia *inhabits the urinary bladder of the "curimba",* Prochilodus lineatus *in the floodplain of the high Paraná river. The new species resembles others members of* Kritskyia *in the following features: haptor lacking anchors and with 14 hooks marginal, posterior male copulatory organ non articulated with the accessory piece and vagina a sclerotized tube. However, it differs from the known species mainly by the shape of the copulatory complex. This is the third endoparasitic monogenean species reported from freshwater Neotropical fish.*

Key words: Monogenea - Dactylogyridae - *Kritskyia boegeri* n. sp. - *Prochilodus lineatus* - Paraná river - Brazil

The record of monogenean parasitizing internal organs of Neotropical freshwater fishes is recent. Until now, only *Kritskyia moraveci* Kohn, 1990, from the ureters and urinary bladder of the "jundiá", *Rhamdia quelen* (Quoy & Gaimard, 1824), (Siluriformes) and *Kritskyia annakohnae* Boeger, Tanaka & Pavanelli, 2001, parasite of ureters and urinary bladder of *Serrasalmus marginatus* Valenciennes, 1836 and *S. spilopleura* Kner, 1858 (Serrasalmidae), have been reported.

During a survey of parasites of *Prochilodus lineatus* (Valenciennes, 1836), from the floodplain of the high Paraná river, a new species of *Kritskyia* was collected from the urinary bladder. The species is described below.

MATERIALS AND METHODS

Ninety four specimens of *Prochilodus lineatus* (Valenciennes, 1836) were collected by net from the floodplain of the high Paraná river. Parasites were collected from the urinary bladder with the aid of a stereoscopic microscope, killed in formalin 1:4000, and preserved in 5% formalin. Some specimens were mounted unstained in Hoyer's medium for study of sclerotized structures. Other specimens, stained with Gomori's trichrome, were used to determine internal organs (as described in Eiras et al. 2000). Measurements, all in micrometers, are expressed as the mean followed by the range and number of specimens measured in parentheses. Illustrations were prepared with the aid of a drawing tube and a Nikon YS 2 microscope. The holotype and paratypes were deposited in the Instituto Oswaldo Cruz Collection (CHIOC), Rio de Janeiro, Brazil. Terminology related to parasite ecology is based on Margolis et al. (1982) as modified by Bush et al. (1997).

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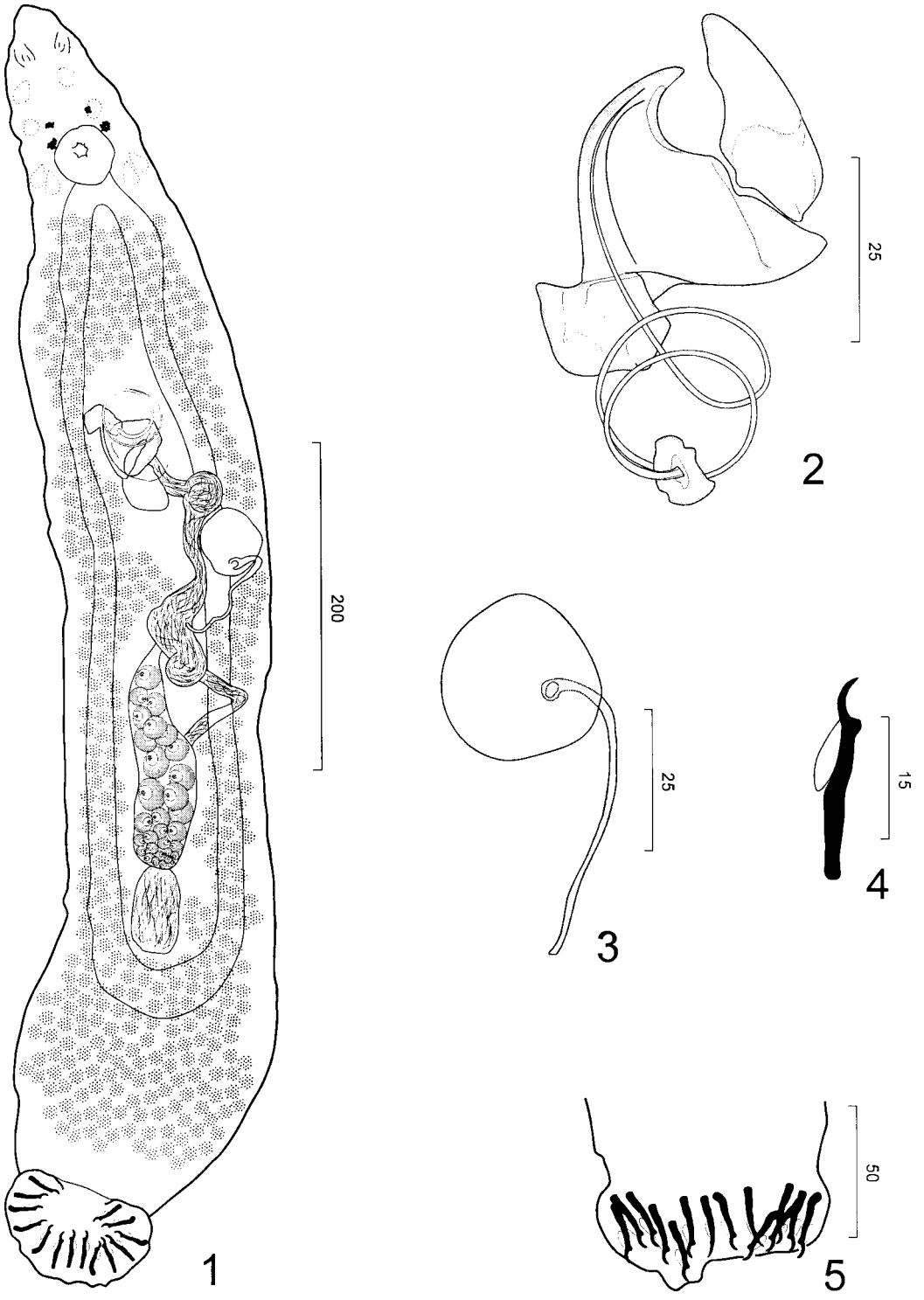
RESULTS

Dactylogyridae Bychowsky, 1933
Ancyrocephalinae Bychowsky, 1937
Kritskyia boegeri n. sp.
(Figs 1-5)

Description: body 802 (666-999; n = 7) long; greatest width 171 (111-242; n = 7) near midlength or posterior trunk. Cephalic lobes poorly developed; head organs inconspicuous, cephalic glands indistinct. Eyes subequal; anterior pair closer together; accessory granules rare. Pharynx spherical, 38 (30-50; n = 7) in diameter; esophagus short. Peduncle broad, undistinguishable from trunk; haptor semicircular 49 (32-74; n = 7) long, 98 (70-135; n = 6) wide. Hooks similar, 25 (22-30; n = 7) long, each with short broad thumb, delicate point, expanded shank; FH loop 1/2 shank length. Male copulatory organ a clockwise coil of about 2 rings; base with sclerotized fringe. Accessory piece 49 (40-57; n = 7) long, bipartite. Testis single, post germarium, difficult to observe because of dense vitellarium, only measured in 1 specimen, 57 long and 30 wide, vas deferens loops left gut. Germarium elongate, sinuous, 162 (150-175; n = 6) long and 64 (42-97; n = 6) wide proximally; seminal receptacle ovate, with delicate wall; ootype, uterus not observed. Vagina a sclerotized tube, sinistral, equatorial, opening in a flattened sclerotized disk. Egg spherical, lacking polar filaments, 69 (67-70; n = 2) long, 61 (55-67; n = 2) wide.

Taxonomic summary
Type host: *Prochilodus lineatus* (Valenciennes, 1836), Prochilodontidae
Site of infection: urinary bladder
Type locality: floodplain of the high Paraná river
Prevalence: 38.29%
Mean intensity of infection: 4.81
Etymology: the species is named for Dr Walter Boeger, from the Universidade Federal do Paraná, in honor of his contributions to the study of Brazilian monogenean.
Specimens deposited: CHIOC 34701 (holotype), 34599 and 34700 (paratypes)

Remarks: Kohn (1990) proposed the genus *Kritskyia* based on specimens collected in *Rhamdia quelen* from the reservoir of the Hydroelectric Power Station of "Passo Fundo", State of Rio Grande do Sul, Brazil. Kritsky et al. (1996) redescribed *Kritskyia moraveci* and Boeger et al. (2001) described *Kritskyia annakohnae*, a parasite of the urinary bladder of *Serrasalmus marginatus* and *S. spilopleura* from the floodplain of the high Paraná river, Brazil. The new species closely resembles the other two members of *Kritskyia* by having the male copulatory organ consisting of sclerotized coiled tube with counterclockwise rings and non-articulated to accessory piece,



Kritskyia boegeri n. sp. Fig. 1: whole mount (composite, ventral). Fig. 2: copulatory complex. Fig. 3: vagina. Fig. 4: hook. Fig. 5: haptor contracted

by having a sclerotized vaginal tube, in the shape of the haptor, armed with 14 marginal hooks and absence of anchors, bars, and 4A hooks. However, the new species differ from *Kritskyia moraveci* Kohn, 1990 in the shape of the copulatory complex. Kohn (1990) described the accessory piece of *K. moraveci* as being bipartite, however Kritsky et al. (1996) in the redescription of this species, reported the accessory piece to be unipartite and, sheathlike. The accessory piece of *K. boegeri* is bipartite. *Kristya boegeri* differs from *K. annakohnae* by lacking the keel-like, sinistral projection, and differs from *K. moraveci* and *K. annakohnae* by having vaginal openings in a flattened sclerotized disk. All species of *Kritskyia* occur in the urinary bladder of their hosts.

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