Short Communications

Redescription of *Dactylogyrus acanthobramae* Paperna, 1961 (Dactylogyridae: Monogenea)

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Dactylogyrus acanthobramae Paperna, 1961 is redescribed and its relationship with other species of this genus is discussed.

'n Herbeskrywing, met aanvullende morfologiese gegewens van *Dactylogyrus acanthobramae* Paperna, 1961 word gegee. Die *Dactylogyrus*-spesieverwantskappe met betrekking tot hierdie vorm word bespreek.

Monogenea parasitic on freshwater fish from Lake Kinnereth (Galilee) were collected and studied by Paperna (1960, 1961, 1964). Among other species he described *Dactylogyrus acanthobramae* Paperna, 1961, from *Mirogrex terraesanctae terraesanctae* collected on the western shore of the lake. During a survey of monogenean parasites of fish from this lake in October 1980, additional specimens of *D. acanthobramae* were collected. On examination these parasites were found to possess an additional bar not described by Paperna (1961). The type specimens of *D. acanthobramae* were obtained and re-examined resulting in the present redescription.

Fish hosts were collected from the western shore of Lake Kinnereth using gill and beach seine nets. Gills were removed from the fish hosts as quickly as possible and fixed in 2% formalin for 30 min. This allows for the parasites to die relaxed because the solution is not strong enough to kill them immediately. The strength of the solution was then increased to 4%. The gills and sediments were later checked for parasites. Monogenea were cleared and embedded in glycerine jelly under slight pressure. Measurements were taken according to the scheme of Paperna (1959) and are given in micrometres.

Description (based on 7 specimens) Figures 1–6

Small, slender, delicate worms, 219–366 long, 38–80 wide. Opisthaptor small, not clearly delimited from body. Anchors 46–55 long, inner root 10–16, outer root 5–9, shaft 29–31, tip 14–16. First bar is T-shaped with a slit along the midline of the vertical arm, latter 13–15 long, 9–14 wide at the base, cross arm length 16–23. Second bar elongated and sligthly curved with a constriction at its center and sligthly thickened edges,

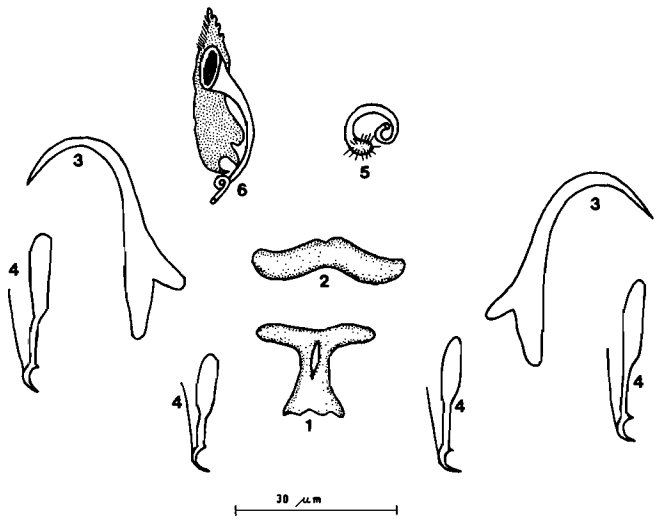

Figure 1–6 Sclerotinoid structures of *Dactylogyrus acanthobramae* Paperna, 1961. 1. First bar; 2. Second bar; 3. Anchors; 4. Hooklets; 5. Vagina; 6. Copulatory organ.

23–29 long, 5–6 thick. Hooklets with thick handle and slender shaft and spike, handles about half of hooklet's entire length; central hooklets (16–19) are smaller than marginal hooklets (25–27 long).

The copulatory organ consists of an ejaculatory duct which originates from a large oval funnel and continues as a long winding tube, 25–34 long, and an accessory piece, 15–16 long, consisting of a plate attached to the funnel of the ejaculator. The sclerotized vagina is coiled, 6–8 long, with projections at the proximal end.

Host: *Mirogrex terraesanctae terraesanctae* (Steinitz, 1952).

Locality: Western shore of Lake Kinnereth.

Discussion

The anchors of the material collected during this survey are larger (46–55 long) than those of the type specimens (25–39) but the other measurements fall within the range given in the original description. Although the first bar is present in the type specimens, it appears Paperna (1961) overlooked it because it was neither drawn nor decribed. He suggested that in having one bar *D. acanthobramae* was similar to a group of *Dactylogyrus* species described by Gussev (1955) from the gills of *Cyprinus carpio haemopterus* from the Amur River System in south-east U.S.S.R. These species, i.e. *D. achmerowi* Gussev, 1955, *D. anchoratus* Gussev, 1955, *D. extensus* Mueller and Van Cleave, 1932, *D. falciformes* Akhmerov, 1952, *D. formosus* Kulwiec, 1927, *D. minutus* Kulwiec, 1927, *D. mollis* (Wedl, 1857) and *D. vastator* Nybelin, 1924, are characterized by a single bar which is very similar to the second bar of *D. acanthobramae*. However, the presence and the structure of the two bars of *D. acanthobramae* as well as the shape of its copulatory organ is evidence of a close relationship to another group of *Dactylogyrus* species. These are *D. difformis* Wagener, 1857, *D. fraternus* Wagener, 1909, *D. minor*

Wagener, 1857, *D. nanus* Dogiel and Bychowsky, 1934 and *D. parvus* Wagener, 1909, associated with Palaeoarctic cyprinids of the subfamily Leuciscinae, namely species of the genera *Alburnus, Blicca, Leuciscus, Rutilus* and *Scardinius*. The other species found on *Mirogrex terraesanctae terraesanctae* in Lake Kinnereth, namely *Dactylogyrus sphyrna* Linstow, 1878, is also a Palaeoarctic species associated with fish of the above mentioned genera. This finding confirms affinity of the Monogenea parasitic on *M. terraesanctae terraesanctae,* with Palaeoarctic monogeneans associated with the subfamily Leuciscinae.

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The diet of barn owls at a roost near Grahamstown

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Barn owl *Tyto alba* pellets were collected over a period of 13 months from a roost near Grahamstown. Twelve species of small mammals and two bird species were found in the pellets. *Mastomys natalensis* and *Mus minutoides* were most numerous in the diet of the owls toward the end of winter whilst in summer *Otomys irroratus* and *O. saundersae* formed most of the prey remains.

Onverteerde, pilvormige kosreste van nonnetjie-uile *Tyto alba* is oor 'n tydperk van 13 maande by 'n slaapplek naby Grahamstad versamel. Twaalf kleinsoogdierspesies en twee voëlspesies is in die kosreste gevind. *Mastomys natalensis* en *Mus minutoides* was die mees algemene voedselsoorte van die uile teen die einde van die winter terwyl *Otomys irroratus* en *O. saundersae* die meerderheid van die prooireste gedurende die somer gevorm het.

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Analyses of pellets of birds of prey, particularly of barn owls *T. alba* in southern Africa have yielded some useful distributional data on small mammals (Nel 1969; Vernon 1972; Dean 1973; Skinner, Lindeque, van Aarde & Dieckmann 1980; Tilson & Le Roux 1983). Most of the studies are based on a single collection of pellets from a roost, from which only distributional information and a list of prey items can be obtained. Perrin (1982) compared his analysis of a single collection of pellets to the results of trapping in adjacent habitats and was able to draw some conclusions on prey selection by the owls.

I collected pellets at roughly monthly intervals over a period of 13 months (1986/87) from a barn owl roost situated in a small recess of a cliff on the farm Thornkloof (33°14'S / 26°19'E) 15 km north-west of Grahamstown in the eastern Cape. During my first visit to the site in April 1986 all skeletal debris from old pellets was cleared from below the roost, so that only pellets regurgitated between sampling periods were collected. The vegetation surrounding Thornkloof for several kilometres is karroid and similar to Acocks's (1975) Fish River Scrub (veld type 23). During the study the area was still in the grip of a drought.

Each pellet was soaked in water before being dissected and all the skulls of vertebrates were retained and identified using Coetzee (1972), De Graaff (1981), and Smithers (1983). Some doubtful material was sent to the Kaffrarian Museum for identification. Mean masses of vertebrates were obtained from De Graaff (1981), Smithers (1983) and Maclean (1985).

The numbers and the mean total biomass of each prey species in the pellets is summarized in Table 1. Small