

SHORT COMMUNICATIONS

TWO NEW SPECIES OF *GYRODACTYLUS* (MONOGENOIDEA) FROM MONGOLIAN *BRACHYMYSTAX LENOK* (PALLAS)

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Abstract. *Gyrodactylus brachymystacis* sp. n. and *G. asiaticus* sp. n. are described from the fins and gills of *Brachymystax lenok* from the River Tul and Lake Tirkhin tsagan (Mongolian People's Republic).

Besides *G. lenoki* Gussev, 1953, another two forms of *Gyrodactylus*, *G. lenoki* form A and *G. lenoki* form B, were found by Ergens (1971) on gills of Mongolian *Brachymystax lenok*. With regard to the present knowledge of the variability of the hard parts of opisthaptor in some members of *Gyrodactylus* and on the basis of a systematical evaluation of further *G. lenoki* specimens obtained later, it is concluded that each of these forms may be considered an independent species. Their descriptions and illustrations of the main characters are presented.

Gyrodactylus brachymystacis sp.n.

Fig. 1

Host: *Brachymystax lenok* (Pallas); location: fins; type locality: River Tul near the settlement Songino, April 14, 1966; specimens studied: 5; type specimens: holotype (measurements in parentheses) and four paratypes are deposited in the collections of the Institute of Parasitology, Czechoslovak Academy of Sciences, Prague (No. Coll. 388).

Description: The total length of massive anchors is 0.090–0.096 (0.090) mm, their shaft measures 0.066–0.069 (0.067) mm, point 0.042–0.045 (0.045) mm, root 0.031 to 0.036 (0.031) mm. The ventral connecting bar with relatively small but conspicuous lateral processes and with 0.022–0.024 (0.023) mm long membranous appendage measures 0.010–0.012 (0.010) mm in length and 0.031–0.034 (0.032) mm in width. The dorsal connecting bar measures 0.002–0.003 × 0.017–0.021 (0.003 × 0.020) mm. The total length of marginal hooks is 0.042–0.046 (0.042–0.043) mm, the hook proper measures 0.008–0.009 (0.008) mm.

G. brachymystacis sp. n. is almost identical with *G. lenoki* in the shape and size of anchors, but it differs markedly in the shape of marginal hooks. On the contrary, it is very similar to *G. thymalli* Žitňan, 1960, *G. birmani* Konovalov, 1967 and *G. magnus* Konovalov, 1967 in the shape and size of marginal hooks, but differs from these species in the shape of both the ventral connecting bar and anchors.

Gyrodactylus asiaticus sp.n.

Fig. 2

Host: *Brachymystax lenok* (Pallas); location: gills, fins; localities: River Tul near the settlement Songino and Lake Tirkhin tsagan; specimens studied: 3; type specimens: holotype and two paratypes are deposited in the collection of the Institute of Parasitology, Czechoslovak Academy of Sciences, Prague (No. Coll. 389). The holotype (measurements in parentheses) is represented by a specimen collected on the gills of *B. lenok* caught from the River Tul near the settlement Songino on April 18, 1966.

Description: The total length of anchors is 0.099—0.101 (0.099) mm, their shaft measures 0.071—0.073 (0.072) mm, point 0.043—0.044 (0.044) mm and root 0.035—0.036 (0.036) mm. The ventral connecting bar with small lateral processes and with 0.023—0.027 (0.027) mm long membranous appendage is 0.011—0.012 (0.012) mm long and 0.028 to

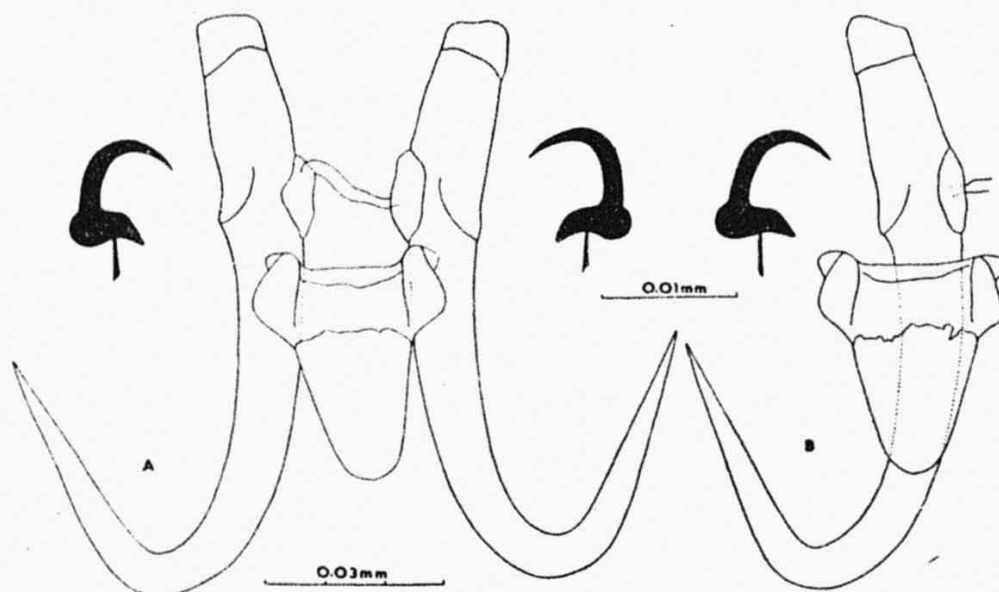


Fig. 1. *Gyrodactylus brachymystacis* sp.n. from fins of *Brachymystax lenok*. A — holotype; B — paratype.

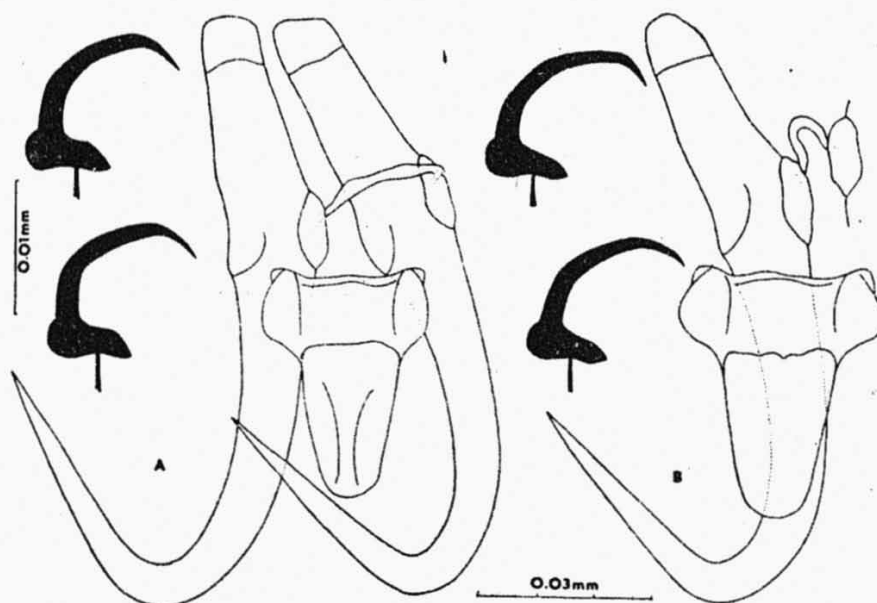


Fig. 2. *Gyrodactylus asiaticus* sp.n. from gills and fins of *Brachymystax lenok*. A — holotype; B — paratype.



Fig. 3. Comparison of the shape of the hook proper of marginal hooks. A — *Gyrodactylus brachymystacis* sp.n.; B — *Gyrodactylus lenoki* Gussev, 1953; C — *Gyrodactylus asiaticus* sp. n.

0.030 (0.030) mm wide. The dorsal connecting bar measures $0.002 \times 0.021 - 0.023$ (0.002×0.022) mm. The total length of marginal hooks is 0.042—0.044 (0.044) mm, the hook proper measures 0.010—0.011 mm.

G. asiaticus sp. n. is most closely related to *G. lenoki* and *G. brachymystacis* in the shape and to a considerable extent also measurements of individual parts of the complex of anchors, but it differs from these species in the shape of marginal hooks.

ДВА НОВЫХ ВИДА РОДА *GYRODACTYLUS* (MONOGENOIDEA)
ОТ МОНГОЛЬСКИХ *BRACHYMYSTAX LENOK* (PALLAS)

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Резюме. Описаны два новых вида рода *Gyrodactylus* Nordmann, 1832, *G. brachymystacis* sp. n. и *G. asiaticus* sp. n. с плавников и жабр *Brachymystax lenok* из реки Тул и озера Тиркхин цаган (Монгольская народная республика).

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J. Vesenjak - Hirjan et al.: Tick-borne Encephalitis in Croatia (Yugoslavia).
Krpeljni encefalitis u Hrvatskoj.

Jugoslavenska akademija znanosti i umjenosti, Rad, knjiga 372, Zagreb 1976, 184 pp.

This treatise is the issue of over twenty years' work of Prof. Vesenjak-Hirjan and her co-workers, started in 1953, when the tick-borne encephalitis (TBE) virus was first demonstrated and isolated from a patient's blood in Croatia; in the same year the first isolation of this virus in Yugoslavia was carried out in the territory of Slovenia. In subsequent years the research team focused attention on the Stara Ves locality, north-east of Zagreb, which proved to be a natural focus of the TBE virus. In 1961 TBE virus was also detected in Dalmatia and this fact stimulated the studies on the natural focus of this virus on the island of Brač. The two mentioned natural foci were selected as a model for studies on natural focus of the Mediterranean and Pannonian types. Manifold investigations were carried out there; on the one hand the biocenosis was studied from the zoological, botanical and virological aspects and on the other serological, epidemiological and clinical

analyses were performed. The book is written in English and individual chapters are supplemented with Serbo-Croatian summaries; it is provided with ample documentary material.

The book is divided into 20 chapters. Following the introductory chapter by Prof. Vesenjak-Hirjan there are three subsequent chapters compiled with co-authors: Brudnjak, Egri-Hećimović, Galinović-Weissglass, Šooš and Vince, dealing with the Pannonian TBE natural focus. Serological survey of human population and domestic animals (horses and cows) was carried out in the years 1961—1964 and for comparison also in 1972, and the persistence of HI, KF and N antibodies to the TBE virus was studied. No substantial difference was observed in the level of antibodies detected in the human population and domestic animals in the periods studied; in the course of the whole study period 6 clinical cases of illness were reported. On the contrary, in the natural focus on the island of