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Description of the male of *Iphidozercon gibbus* (BERLESE, 1903) (Acari: Mesostigmata)

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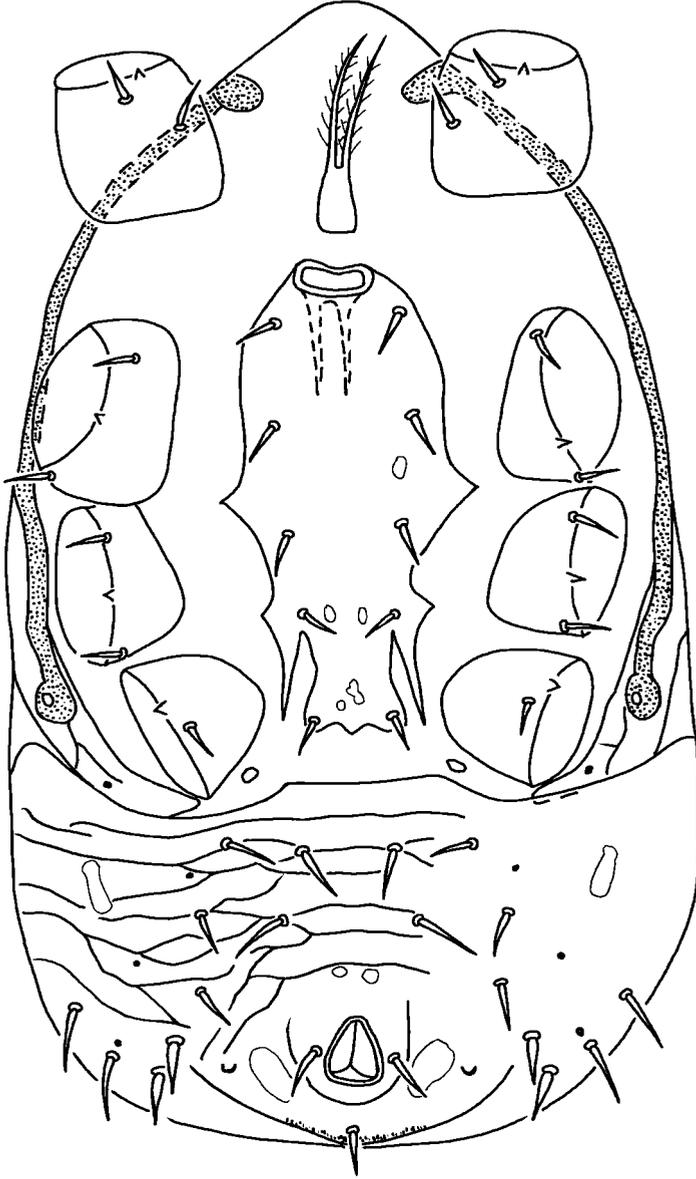
ABSTRACT. With respect to the specimens found in the litter and excrement of the forests of several National Parks, the previously unknown male of *Iphidozercon gibbus* (BERLESE, 1903) was described. Moreover, a comparison with other males of this genus was made.

Key words: acarology, taxonomy, Acari, Mesostigmata, Ascidae, *Iphidozercon*, Poland.

INTRODUCTION

Although the genus *Iphidozercon* was recorded 100 years ago by BERLESE (1903), current literature still shows many differences in the classification of particular species of this genus. According to EVANS (1958) *Iphidozercon* has 14 pairs of setae on the posterior dorsal shield, J series which always comprises 5 pairs of setae, genital shield in the female without setae, female usually with anal shield. On this basis he distinguished 3 species in the British Isles: *I. corticalis* EVANS 1958, *I. gibbus* (BERLESE, 1903), *I. minutus* (HALBERT, 1915). However BERNHARD (1963) did not take into account this genus in his work at all, and all species were assigned to the genus *Leioseius*, subgenus *Arctoseius*. CHANT (1963) and BREGETOVA (1977) believe that the main characteristic which differentiates *Iphidozercon* from *Arctoseius* is the lack of characteristic incisions in the middle of the dorsal shield. On this basis, BREGETOVA (1977) distinguished four species, also adding *I. venustulus* (BERLESE, 1917) to the ones earlier recorded by EVANS (1958). Other proposed criteria distinguishing the genus *Iphidozercon* are the chaetotaxy of legs and the presence of macrosetae on the palptarsus. LINDQUIST &

EVANS (1965) and HALLIDAY et al. (1998) confirmed the presence of tarsi II-IV with one (al-1) or both (al-1 and al-2) dorsolateral subapical setae, very slender and elongated, and a palptarsus with macroseta in *Iphidozercon*. Moreover the vertex of the dorsal shield is steeply arched downwards, concealing vertical setae j1 and long peritremes, their anterior extremities sharply recurved posteroventrally,



1. *Iphidozercon gibbus*: male, ventral view

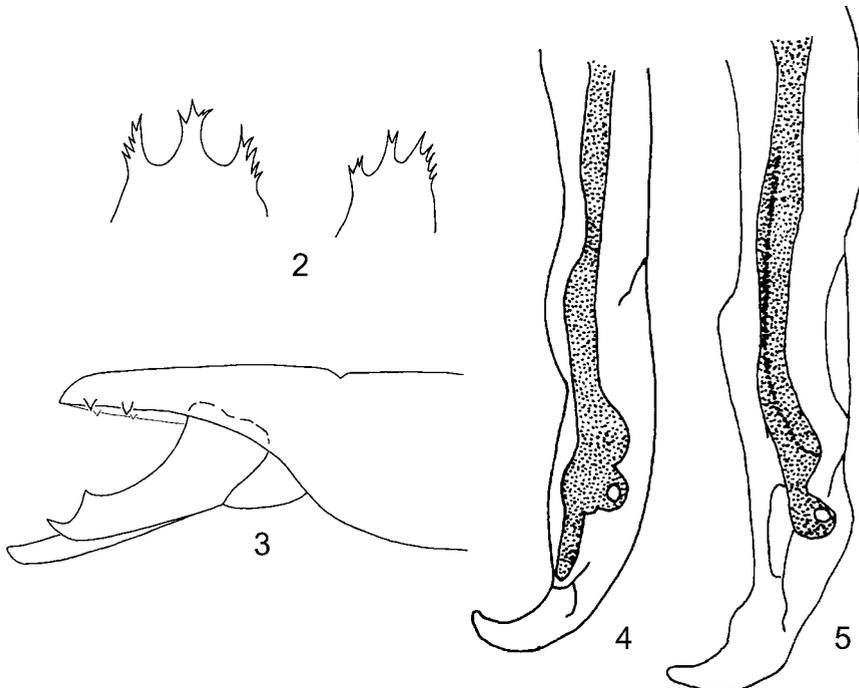
whereas the genus *Arctoseius* has tarsi II-IV with neither of the dorsolateral subapical setae slender and elongated and a palptarsus without macroseta. The vertex of the dorsal shield is not strongly arched and the vertical setae j1 are visible from above with short or long peritremes. Their anterior extremities are not recurved. Then KARG (1993) distinguished the genus *Iphidozercon* among others on the basis e.g. of the absence of a lateral boundary of a hypostomal groove on the hypostome, where seven denticulate rows are present. The above studies only concern females, with no information about males. This work attempts to fill this gap. The paper is also a comparison of the males of *Iphidozercon gibbus* with *I. poststigmatus* GWIAZDOWICZ, 2003.

The present study refers to chaetotaxy, symbols and the numbering system of setae on the dorsal and ventral side after EVANS (1963), LINDQUIST & EVANS (1965) and LINDQUIST (1994). The description of setae on hypostome was used after HIRSCHMANN (1959).

Male of *Iphidozercon gibbus* (BERLESE, 1903)

DESCRIPTION

The idiosoma are 300 μm long and 170 μm wide. As with the female dorsal shield it has thirty-two pairs of short simple setae (15 μm). In front of the



2, 3, 5. *Iphidozercon gibbus*. 4. *Iphidozercon poststigmatus*: 2 – tectum, 3 – chelicera, 4, 5 – peritremes

holodorsal shield a reticular sculpture is visible. There is a sternal shield, 120 μm long (Fig. 1), below coxae I, on the ventral side. Then a genital orifice in front of this shield and below it five pairs of sternal setae (12 μm). The ventrianal shield is relatively large with nine ventral setae and three preanal setae. The setae are of different lengths, i.e. ZV1 (8 μm), JV1 (12 μm), JV2 (15 μm), ZV4 (15 μm). Moreover setae JV4 and JV5 are thicker than others. Clear linear sculpture is visible on the shield. The cribrum is below postanal seta U. There are long peritremata on the side of the body on the peritrematic shield. Stigma at level of coxae IV. Peritremata above coxae I to the inside, which is characteristic for the genus *Iphidozercon*.

The gnathosoma are similar to those found in females. The corniculi are horn-like, and shorter than the laciniae. Setae C1 (25 μm) and C3 (25 μm) are distinctly longer than setae C2 (15 μm) and C4 (20 μm). There is a hypostomal groove without a visible edge. The tectum is similar to that found in females with three groups of tiny denticles (Fig. 2). The chelicerae differ from the female, as the digitus fixus has two pairs of denticles and the digitus mobilis has one tooth and a finger-like spermatodactyl (Fig. 3). Because the male is noticeably smaller than the female, his limbs are also slightly shorter leg I (240 μm), leg II (200 μm), leg III (200 μm), leg IV (225 μm).

DIFFERENTIAL DIAGNOSIS

A comparison of two male specimens *Iphidozercon gibbus* and *I. poststigmatus* was made, due to the lack of detailed descriptions of other males of this genus. There was no real difference in body size between the males of both species. The idiosoma of *I. gibbus* male is 300 μm long while in the male of *I. poststigmatus* it is 310 μm long (GWIAZDOWICZ 2003).

The fundamental difference is the shape of the peritrema. Peritrema of *Iphidozercon gibbus* ends in the stigma (Fig. 5), while in *I. poststigmatus* the peritrema extends below the stigma (Fig. 4). Another difference is visible in the morphology of the chelicera, for example in *I. gibbus* digitus mobilis has one large tooth, while in *I. poststigmatus* two smaller teeth.

MATERIAL

One male was recorded in the excrement of the bison *Bison bonasus* (L.) in the Białowieża National Park (52°47'N, 23°50'E), 11.07.1996, leg. D. J. Gwiazdowicz; another was found in the litter of Bory Tucholskie National Park (53°48'N, 17°30'E), 02.07.2002, leg. K. Matysiak; two males were recorded in the litter of Biebrza National Park (53°32'N, 22°45'E), 26.08.2002, leg. J. Klemt.

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