

**TWO NEW SPECIES OF THE GENUS *IPHIDOZERCON*
(MESOSTIGMATA, ACEOSEJIDAE) FROM UKRAINE**

**ДВА НОВЫХ ВИДА РОДА *IPHIDOZERCON*
(MESOSTIGMATA, ACEOSEJIDAE) С УКРАИНЫ**

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Ключевые слова: Aceosejidae, *Iphidozercon*, Diptera, *Coproica*

ABSTRACT

Two new species of the genus *Iphidozercon* collected from flies of the genus *Coproica* are described. This is the first record of this mite genus phoretic on dipterans.

РЕЗЮМЕ

Приводится описание двух новых видов рода *Iphidozercon*, обнаруженных на мухах рода *Coproica*. Это первый случай регистрации форезии клещей этого рода на двукрылых.

INTRODUCTION

The genus *Iphidozercon* was erected by Berlese with a single species, *Iphidozercon gibbus* Berlese, 1903 known from Italy. In 1917 Berlese described *Iphidozercon venustulus* (Berlese, 1917). At present 4 species are known in this genus: ones mentioned above, *Iphidozercon minutus* (Halbert, 1915) and *Iphidozercon corticalis* Evans, 1915. All previously described species were found in soil, litter, under the tree bark, in the nests of small mammals.

All measurements are given in μm .

***Iphidozercon dubinini* sp.n.**

Fig. 1.

Female. Rather small, white-yellow colored. The sizes of idiosoma are 274×160. The body is slightly narrowed in front and more widened behind.

Dorsum. The entire dorsal shield (Fig. 1a) covers nearly all dorsal surface, only 2 narrow uncovered strips present on the each side. Thirty-two pairs of small needle-like setae (almost microsetae) are on the dorsal shield and 10 pairs of the same setae are beyond. The dorsal surface is slightly convex, but without raising in the center as in *I. gibbus*. The relief of scaled shield is strongly developed. Every scale has a fine-point picture inside. The most strong relief is on the anterior half of

body. It is weakly developed on posterior half, only fine heaps like points could be seen. Anyway the relief of dorsal shield of this species is similar to that in *I. corticalis* described by Evans [1958] from England. The lateral-posterior edges of the dorsal shield are finely toothed. The badly seen smooth pointed setae F1 are drawn together. The anterior edge of the shield is not turned to the ventral side. F2 are slightly thickened, the length of S8 is the same as M11, but shorter than M10.

Ventral region (Fig. 1c). Sternal shield is narrow. Its lateral sides are well developed but anterior and posterior edges are hardly seen even at strong magnification. Three pairs of small setae similar in size are situated on it. Setae St1 are slightly drawn together but St3 are disposed. Setae Mst are on the soft cuticle. The metasternal shields are small and triangle-shaped. Genital shield with straight lateral edges, slightly elongated. Its lateroposterior edges are slightly widened but posterior side is straight. Genital setae are outside of the shield. Irregular bean-shaped metapodal plates lay at some angle to the central axis of ventral side. In front these plates are slightly narrowed, behind — widened. Anal shield (52×48) with slight expansion laterally, irregular oval-shaped. Its anterior side is slightly convex but posterior one is flattened. The form of anal shield is alike *I. gibbus* Berlese, 1903 on the figure of Karg [1971] but not similar to one of Bernhard [1963] in the handbook of Bregetova [1963]. The structure of inversely pear-shaped form is around anal orifice in the center of anal plate. The anal and postanal setae are equal. The postanal seta is removed from anal valve. Two pairs of very fine pseudopores are on the anal plate. Cribrum looks like a narrow strip. Eleven pairs of small smooth needle-like setae are on the opisthoventral surface, they do not reach bases of setae behind them. Peritremal plates are flated in the III–

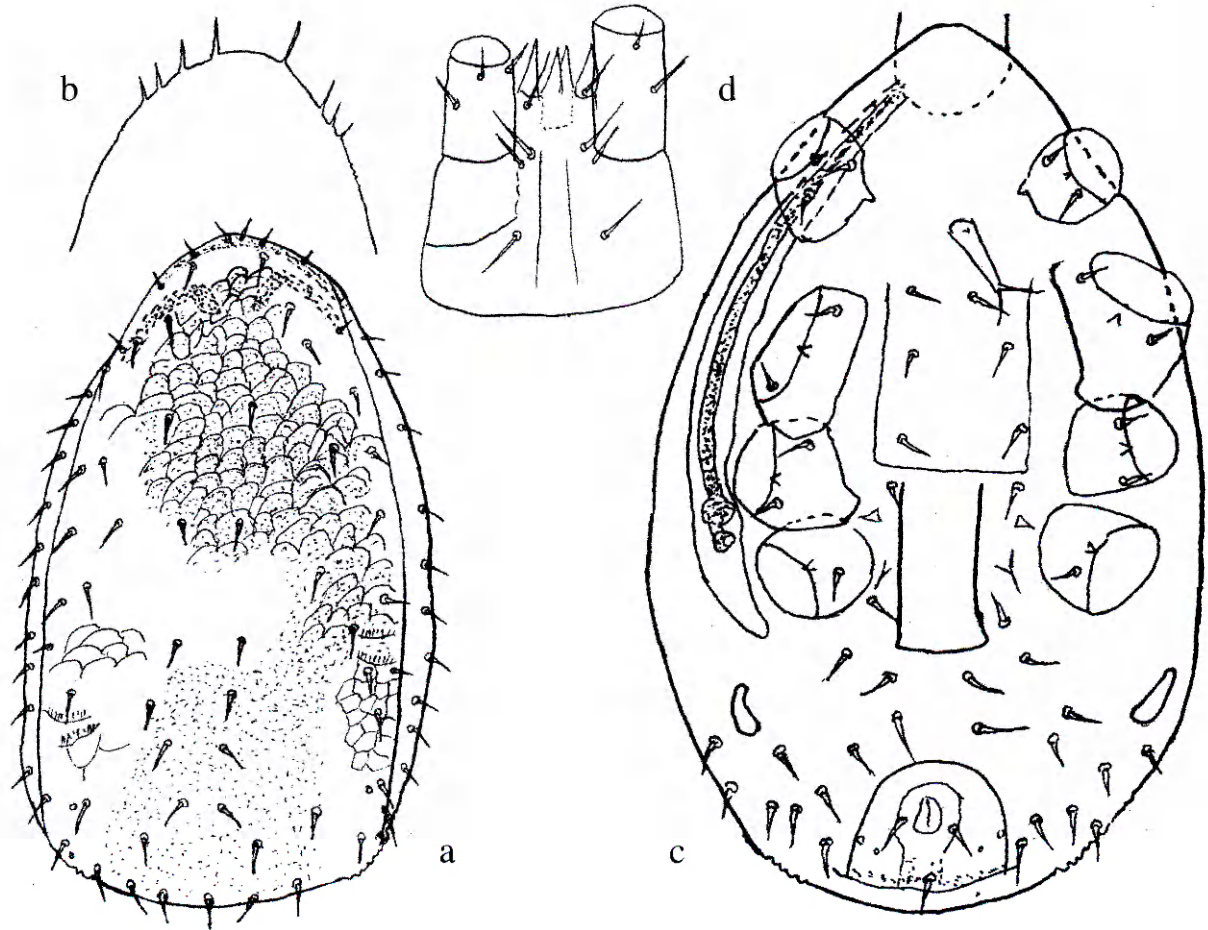


Fig. 1. *Iphidozercon dubinini* sp.n., female: a — dorsal view, b — tectum, c — ventral view, d — gnathosoma.

IV coxae area and spread behind the stigmata not surrounding coxae IV. In front peritremae reach dorsal surface on the gnathosoma level and turn back under angle. The stem of tritosternum is narrow and elongated. Laciniae (they seems smooth) are shorter than stem.

Gnathosoma (Fig. 1d). Erect corniculi are not large and widened at their bases. The most long gnathosomal setae are C2 and C4, the shortest are C3. Setae C2 and C3 are drawn together and removed from setae C1 and C4. Deutosternal groove is wide. Spade-shaped and convex tectum has two sharp tips in front and three not large tips on the front-lateral sides. Lateral sides of tectum are slightly toothed (Fig. 1b). Small chelicerae (19) as in other representatives of the genus. Two small teeth present on the movable digit, there are three small teeth and short and filmy pilus dentilis on the fixed digit. Setae-like structure on the base of palpal tarsus is two-tined. One of the solenidia on palpa is the most long and curved.

Legs are short and stout: I — 200, II — 157, III — 151, IV — 183.

Male and immature stages are unknown.

Material. Holotype (female) No. 1168-il were found on fly *Coproica* sp. in the destroyed potato basement of the living house, Poltava, Ukraine, 1982.

Differential diagnosis. At first the described new representative of the genus *Iphidozercon* differs from known species by small-toothed structure of lateral-posterior sides of dorsal shield, sculpture of posterior half of shield and fine-pointed pattern in the scaled net of front half of the dorsal shield, by the tectum structure and some other features. The structure of anal plate of the new species is close to *I. gibbus* (Berlese, 1903) and the structure of the dorsal shield to *I. corticalis* Evans, 1958.

Etymology. The species is named after outstanding Russian acarologist and evolutionist V.B. Dubinin.

***Iphidozercon orthopnoicus* sp.n.**

Figs. 2–3.

Female. Size of idiosoma is 308–200. Body of mite is sharpened in front and widely rounded on the end.

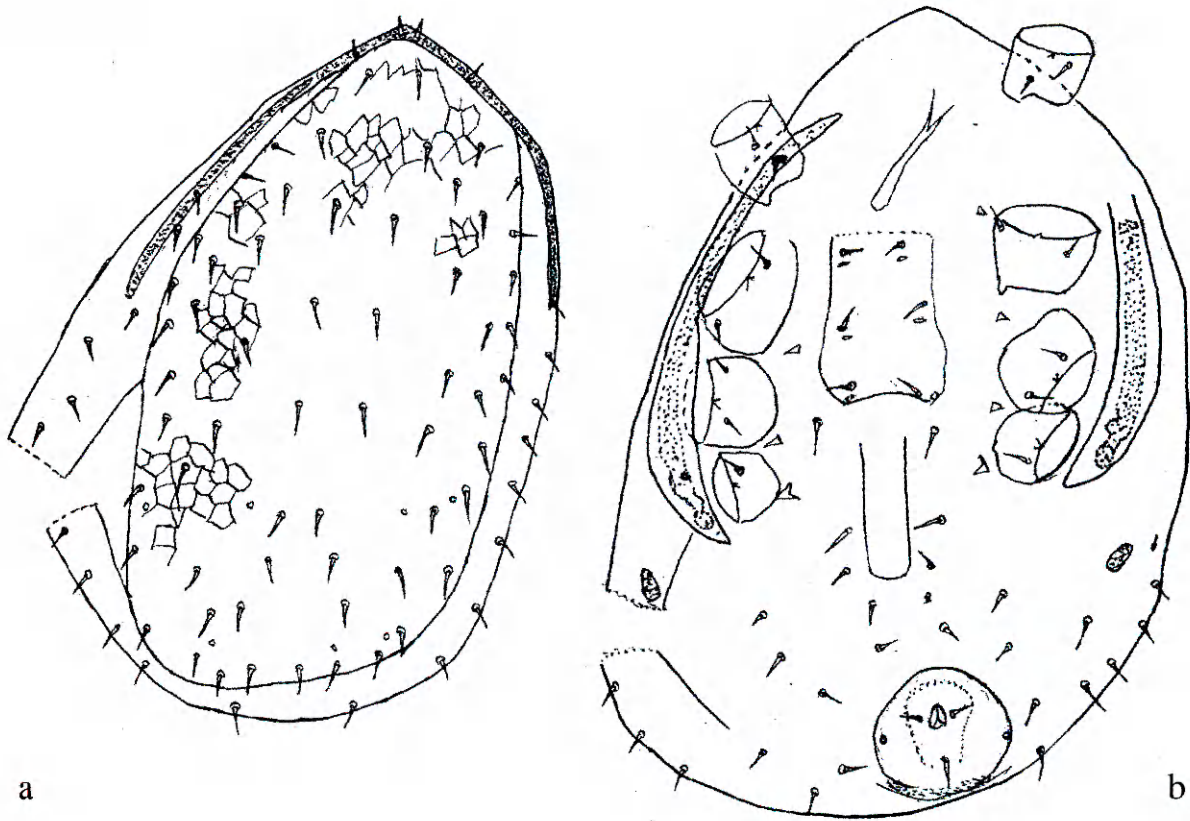


Fig 2. *Iphidozercon orthopnoicus* sp.n., female: a — dorsal view, b — ventral view.

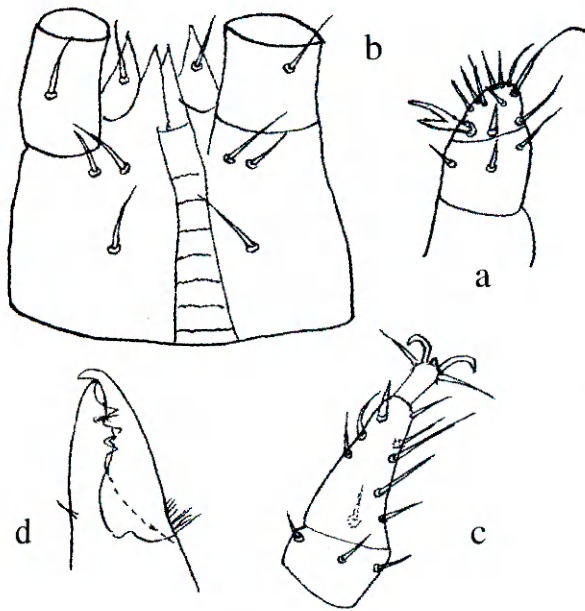


Fig. 3. *Iphidozercon orthopnoicus* sp.n., female: a — tarsus pedipalp, b — gnathosoma, c — tarsus II, d — chelicera.

Dorsum (Fig. 2a). There is well-developed riant on the edges of frontal half of dorsal shield by the level of coxae II. White-colored mites. Dorsal shield doesn't cover all the dorsal surface — sides and end of the body are free. There are 32 pairs of

small needle-like setae on the dorsal shield, most of them being 9–10 in length. Only setae M11 are slightly longer — 15. Setae F1 are slightly thickened. Sculpture of the shield is well-developed and net-like especially on the first half of the shield. Lateral and lateral-posterior sides of the shield are smooth (without festoons and teeth); 12 pairs of marginal setae; 4 pairs of pseudopores present on the shield.

Ventral region (Fig. 2b). Rectangle-shaped sternal plate is elongated, it is weakly concaved at the back. Not large needle-like setae on the shield are of the same size. Contours of the shield are weakly noticeable. Three pairs of pores present on the shield. Genital shield with straight temporal sides without expansions and posterior side smoothly rounded spreads below level of coxae IV. Genital setae are on the soft cuticle, not on the shield, they are longer than St1–3. Form of the metapodal plates resembles oval. There are 4 pairs of triangle plates between coxae I–IV and behind coxae IV. Width of irregular rounded anal plate longer than length — 49×55. Adanal and postanal setae approximately equal. Adanal setae are on the 1/3 anal valves level. The postanal seta is slightly removed from anal orifice. Back pear-shaped structure on the plate as in *I. dubinini*. There is a pair of not large

pseudopores on the lateral sides of the plate. Cribrum looks like a narrow stripe. Elongated, respecting wide peritremal plates spread beyond coxae IV and slightly curved, spread beyond coxae I in front but do not reach the dorsal surface. Narrow stem of tritosternum is longer than weakly edged laciniae. Fourteen pairs of small needle-like setae are on the opisto-ventral surface. All of them, with an exception of genital ones, are of the approximately same size — 10.

Gnathosoma (Fig. 3b) resembles one of *I. dubinini*. Cornicules are straight, sharp, flattened at bases, not large. The most long gnathosomal setae are C2 and C4. Setae C1 are removed from C2 and C3, and bases of C2 and C3 are drawn together. Deutosternal groove is wide with 7 rows of small teeth. Two small teeth present on the movable digit of chelicerae (Fig. 3d), 3 on the fixed one, with small hyaline attachment. Pedipalpal tarsus (Fig. 3a) is two-tipped with one long solenidium.

Legs. Four pairs of legs (I — 183; II — 157; III — 154; IV — 174) are short and thickened. Tarsi are with well-developed claws, two solenidia are on the tarsi II–IV (Fig. 3c).

Male and immature stages are unknown.

Material. Holotype (female) No. 1166–12 from the fly *Coproica fervuginata* Stenh., in the destroyed potato basement of the living house, Poltava, Ukraine, 4.09.1982.

Differential diagnosis. The new species differs from all known species by the well-developed rant on the first half of the dorsal shield, the

structure of the sternal plate, more long genital plate and by some other features. The dorsal shield relief of a new species resembles one of *I. venustulus* (Berlese, 1917). The structure of the anal plate is more close to that in *I. minutus* (Halbert, 1915).

Etymology. The structure of narrow sternal plate was used to coin the name «*orthopnicus*» for the new species.

REFERENCES

- Bregetova N.G. 1977. [Fam. Aceosejidae]. In: Opređitel' Obitayuscikh v Pochve Kleschchey. Vol. 3. Mesostigmata. Nauka Publ., Leningrad: pp. 169–226. [In Russian]
- Berlese A. 1903. Diagnosi di alcune nuove Specie di Acari italiani, mirmecofili e liberi. *Zoologische Anzeiger*, 27 (1): 12–28.
- Berlese A. 1917. Centuria terza Acari nuovi. *Redia*, 12: 298–388.
- Bernhard F. 1963. Die familie Ascaidae (Oudemans, 1905) Bernhard nov comb. In: Beiträge zur Systematik und Ökologie mitteleuropäischer Acarina. 2. Mesostigmata: pp. 33–178.
- Halbert J.N. 1915. Clare Island Survey, Terrestrial and marine Acarina. In: Proceedings of Royal Irish Academy, 31 (Sect 2, Pt. 39+II): 45–136.
- Evans G.O. 1958. A revision of the British Aceosejinae (Acarina: Mesostigmata). In: Proceedings of Zoological Society (London), 131: 177–229.
- Karg W. 1971. Acari (Acarina) Milben Unterordnung Anactinochaeta (Parasitiformes). Die freilebenden Gamasina (Gamasides), Raubmilben. *Die Tierwelt Deutschlands* (Jena), 59, 475 pp.