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A NEW SPECIES OF THE FEATHER MITE OF THE GENUS BYCHOVSKIATA (ANALGOIDEA: AVENZOARIIDAE) FROM THE MASKED LAPWING (AVES: CHARADRIIDAE: *VANELLUS MILES NOVAEHOLLANDIAE*)

НОВЫЙ ВИД ПЕРЬЕВОГО КЛЕЩА РОДА BYCHOVSKIATA (ANALGOIDEA: AVENZOARIIDAE) С МАСКИРОВАННОГО ЧИБИСА (AVES: CHARADRIIDAE: *VANELLUS MILES NOVAEHOLLANDIAE*)

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Ключевые слова: Avenzoariidae, *Bychovskiata, Bychovskiata freyanoides* **sp.n.**, Charadriidae, *Vanellus miles novaehollandiae*.

ABSTRACT

A new feather mite species *Bychovskiata freyanoides* **sp.n.** is described from the masked lapwing *Vanellus miles novaehollandiae* (Charadriidae: Vanellinae) from Australia.

РЕЗЮМЕ

Новый вид перьевого клеща *Bychovskiata freyanoides* **sp.n.** описан с маскированного чибиса *Vanellus miles novaehollandiae* (Charadriidae: Vanellinae) из Австралии.

Feather mites of the genus *Bychovskiata* Dubinin, 1951 (Avenzoariidae: Avenzoariinae) are associated with several families of birds of the order Charadriiformes, mainly with plovers (Charadriidae) and related waders (Haematopodidae, Recurvirostridae, Ibidorhynchidae). Two species are also occur on sandpipers of the genus *Actitis* (Scolopacidae).

This genus originally included only 6 species [Dubinin, 1951]. As a result of intensive taxonomic and phylogenetic studies of feather mites of the family Avenzoariidae carried out during five past years this genus recently comprises 25 species [Mironov, 1994a; 1994b; Mironov, Dabert, 1995; 1997]. The latter cited paper contains a complete review of all recently described species of this genus.

The present paper presents the description of one more new species, *Bychovskiata freyanoides* sp.n., belonging to the nudidorsa species group [Mironov, Dabert, 1997]. This species group formerly consisted of 4 species is specific in their host associations to the subfamily of lapwings (Charadriidae: Vanellinae).

All measurements are given in micrometers (μm), a full set of measurements is given for the holotype (male) and one paratype (female). The idiosomal chaetotaxy follows that of Griffiths et al. [1990].

Bychovskiata freyanoides Mironov **sp. n.**
Figs. 1–4.

Male (holotype). Length of idiosoma 370, breadth of idiosoma 240 (that of 8 paratypes: length 360–380, breadth 220–250). Prodorsal shield 96× 127, without striation, with extended rounded posterior angles, posterior margin with narrow medial process, distance between setae *se* 79. Humeral shield short, slightly extending posteriad to setae *cp*; setae *c1* situated medial from cupules *ia*. Hysteronotal shield 278×220 anterior margin slightly concave, anterior angles widely rounded, lateral margins without extensions, slightly convex, surface covered with small pits. Opisthosomal lobes wide triangular, with rounded apices (Fig. 1). Length of terminal cleft 48, width of cleft, i.e. distance between *ps1*, 117 (in paratypes 38–51×110–120). Interlobar membrane as narrow band along margin of terminal cleft and apices of lobes, with little medial notch in bottom of terminal cleft; total depth of incision in interlobar membrane 43. Supranal concavity opened into terminal cleft. Epimerites III with simple medial tips. Genital organ is situated slightly anteriad to level of trochanters IV. Genital arc 29×26, aedeagus short, stylet-like, about half of genital arch length. Anterior genital acetabulae slightly posterior to genital arch apex. Setae *3a* are situated posteriad to setae *3b*; setae *4a* are situated posteriad to basis of genital arch and setae *g*. Adanal shields represented by two pairs of small, weakly sclerotized transversal sclerites, setae *ps3* situated on posterior pair of these shields (Fig. 2). Diameter of anal discs 22. Distance between setae: *h3–h3* 160, *ps2–ps2* 192, *ps3–ps3* 79, *4a–g* 9, *g–ps3* 88. Setae *d* and *e* button-like.

Female (paratype). Length of idiosoma 396, breadth of idiosoma 230 (that for other 10 paratypes: length 380–410, breadth 210–240). Prodorsal shield as in male, but posterior margin slihgtly

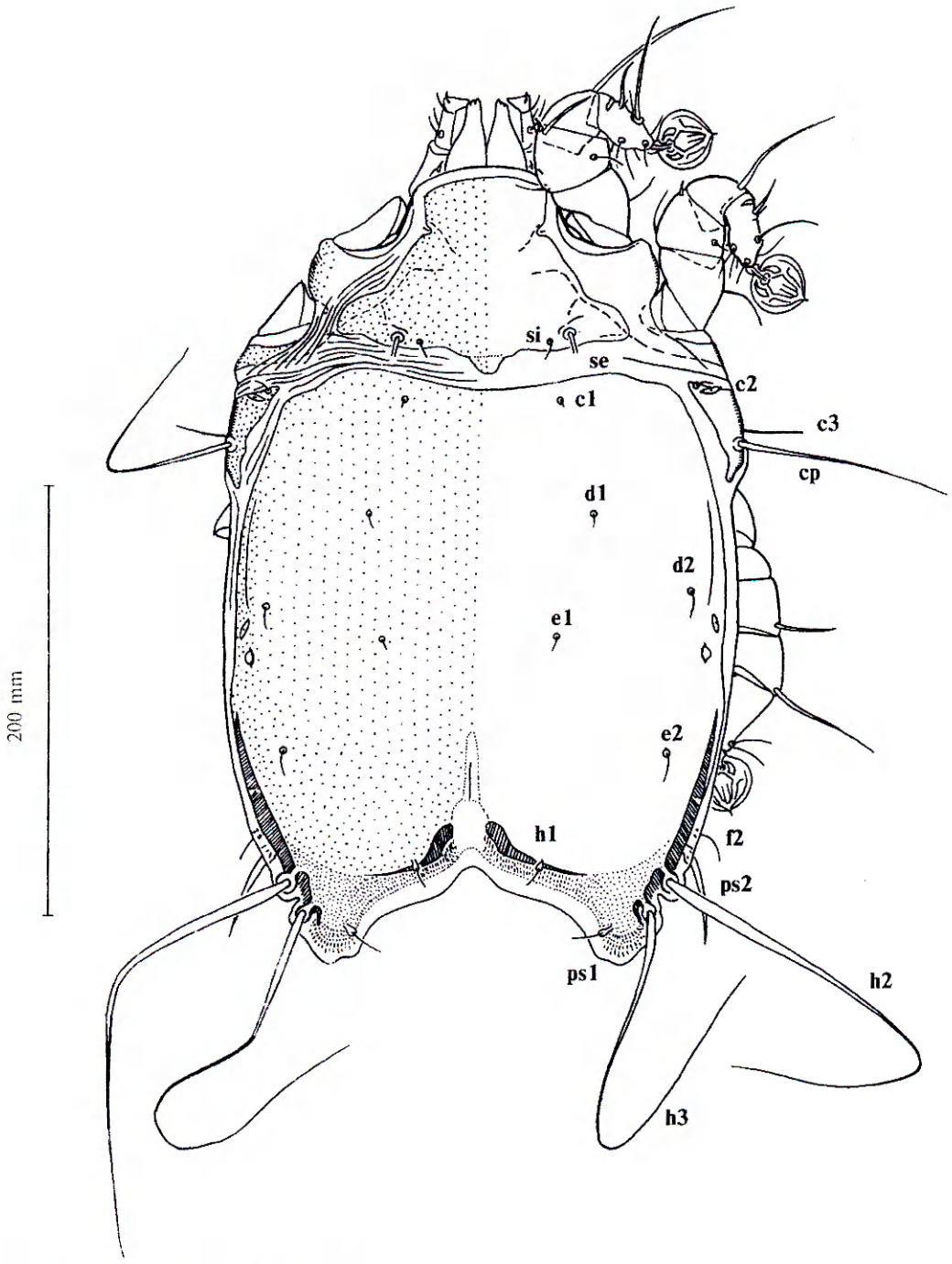

Fig.1. *Bychovskiata freyanoides* **sp.n.**, dorsal view of male.
Рис.1. Самец *Bychovskiata freyanoides* **sp.n.**, вид сверху.

sinuous, 102×125, distance between setae *se* 72. Humeral shields as in male. Hysteronotal shield 293 ×210, anterior margin almost straight in medial part, anterior angles widely rounded, lateral margins concave, without extensions, surface as in male. Its posterior part with large U-shaped lacuna, the anterior branches of wnich almost parallel. Setae *e1* and *h1* very short setiform, setae *h1* surrounded by lacuna, situated approximately at its midlevel. Posterior margin of opisthosoma between setae *h3* weakly sclerotized. Distance between setae *h3–h3* 103, *e1–e1* 48, *h1–h1* 31, *e2–h1* 65–72. Setae *ps1* situated on posterior margin of hysteronotal shield. Epigynium thick, semicircular, 46×53. Spermatheca as in Fig. 4. Legs IV extending to posterior end of opisthosoma.

Material. Holotype male (ZISP # 4177), paratypes 8 males, 11 females from the masked lapwing *Vanellus miles novaehollandiae*, Australia, date unknown, E.Trouessart coll. Type and paratypes are deposited in the Zological Institute, Russian Academy of Sciences (St.-Petersburg, Russia), paratypes — in Musee National de l'Histoire Naturelle (Paris, France).

Remarks. 1. The original label contains a synonimic name of the host «*Vanellus lobatus*». 2. This series of slides was mounted by Dr. J.Gaud (Universite de Nice, France) and originally be-

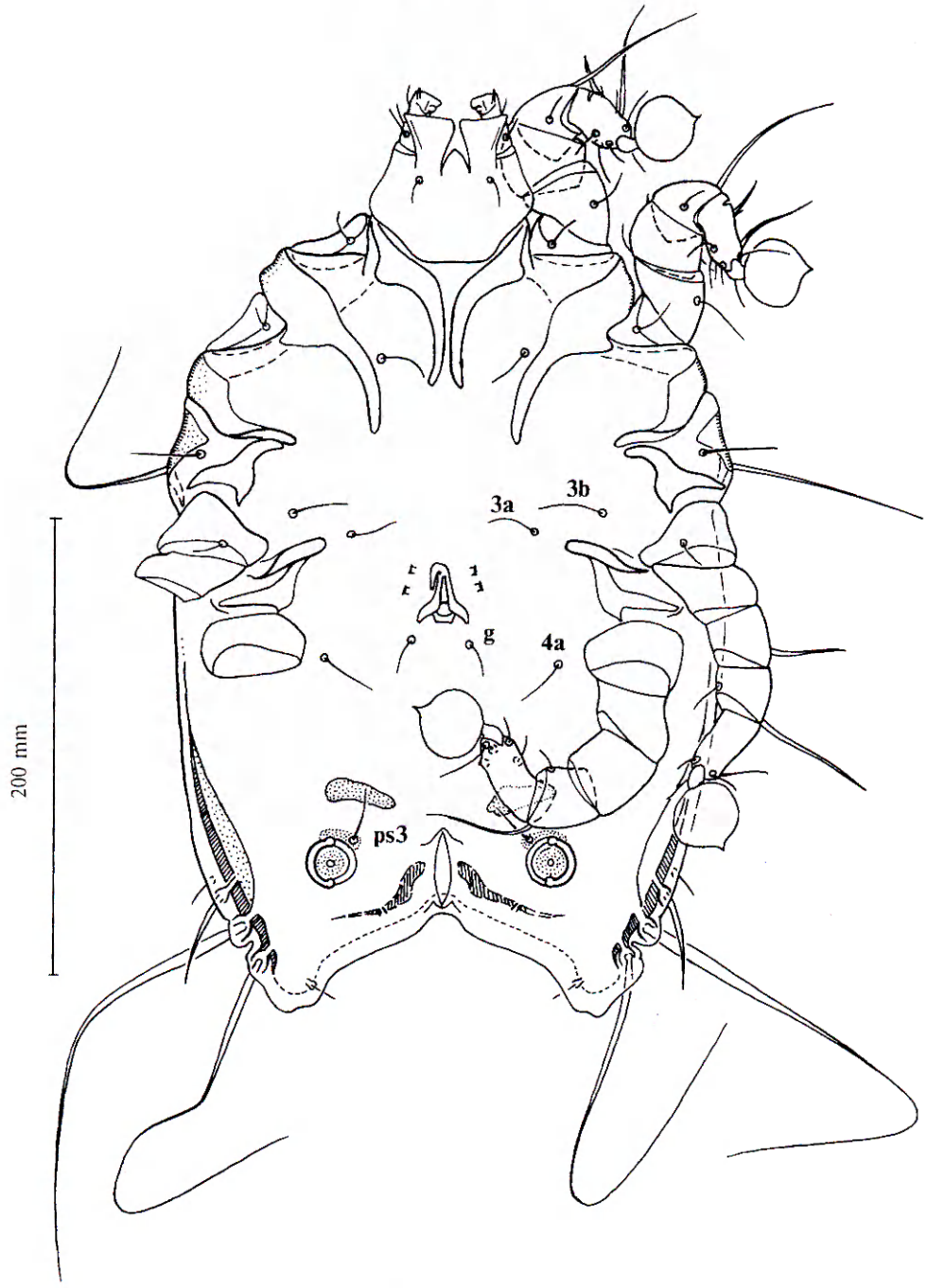

Fig.2. *Bychovskiata freyanoides* **sp.n.**, ventral view of male.
Рис.2. *Самец Bychovskiata freyanoides* **sp.n.**, вид снизу.

longed to his private feather mite collection. The slides carry his note «coll. Trouessart» that surely means that mites were collected by E.Trouessart. However, as far as the slides have no any collection numbers, these materials obviously were never officially included or registered in the Trouessart's collection deposited in Musee National de l'Histoire Naturelle (Paris, France).

DIFFERENTIAL DIAGNOSIS

Bychovskiata freyanoides belongs to the *nudidorsa* species group, which formerly included 3 species [Mironov, Dabert, 1997]. This group is characterized by the wide, flattened idiosoma in both sexes, relatively wide and short opisthosomal lobes separated by the wide terminal cleft in males, and large U-shaped lacuna in hysteronotal shield in females.

The new species is most closely related to *B.tricolor* Mironov et Dabert, 1997 by having simple tips of epimerites III in both sexes and rounded opisthosomal lobar apices in males. Males of *B.freyanoides* differ from this closely related species by the short, wide and sloping terminal cleft, the little medial in anterior part of interlobar membrane and the slit-like supranal concavity (Fig. 1). In males of *B.tricolor* the terminal cleft is almost semicircular, the interlobar membrane without medial notch in anterior part, and the supranal concavity is indistinct. Females of *B.freyanoides* are

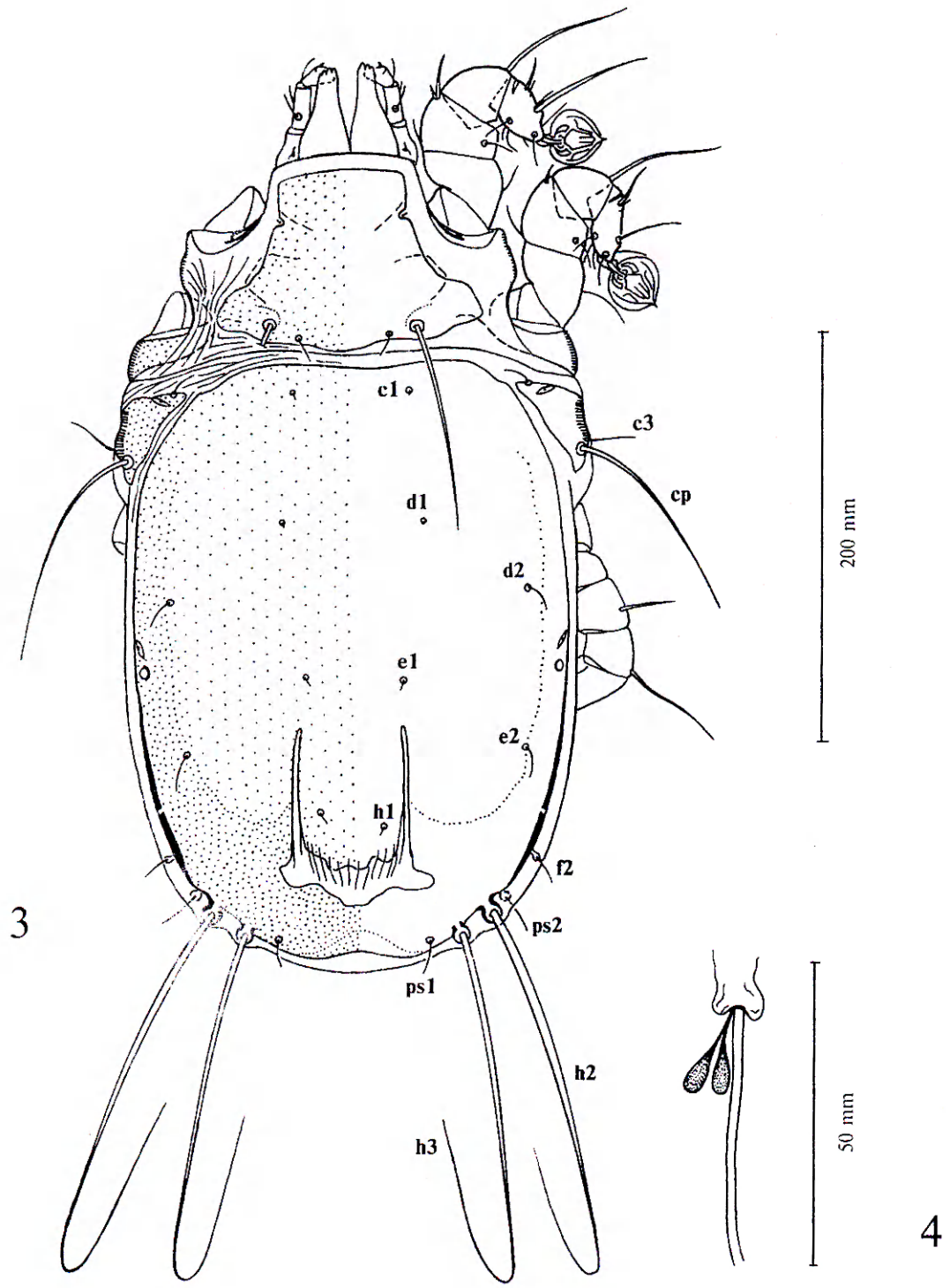

Fig.3. *Bychovskiata freyanoides* **sp.n.**, dorsal view of female.
Рис.3. Самка *Bychovskiata freyanoides* **sp.n.**, вид сверху.

Fig.4. *Bychovskiata freyanoides* **sp.n.**, spermatheca.
Рис.4. *Bychovskiata freyanoides* **sp.n.**, сперматека.

distinguished from *B.tricolor* by the U-shaped opisthosomal lacuna with parallel branches and by setae *h1* situated at midlevel of lacuna, on a heavily sclerotized tegument. In females of *B.tricolor* the anterior ends of the lacuna are divergent and setae *h1* are situated at the bottom of this lacuna, on a weakly sclerotized tegument.

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