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Acarologia is under free license and distributed under the terms of the Creative Commons-BY-NC-ND which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original author and source are credited.
CRINITODISCUS BEIERI SELLNICK AND ORIENTIDISCUS N. SUBGEN FROM THE EASTERN MEDITERRANEAN REGION, WITH DESCRIPTION OF TWO NEW SPECIES AND BIOGEOGRAPHICAL REMARKS (ANACTINOTRICHIDA : UROPODINA)

BY Françoise ATHIAS-BINCHE * and Jerzy BŁOSZYK **

SUMMARY: Genus Crinitodiscus (Sellnick, 1931) is redefined, and the subgenera Crinitodiscus s.s. and Orientidiscus n. subgen. are described and compared. The two subgenera may be distinguished both by morphological features and by their geographical distributions. Two new Orientidiscus species are described. At present, Crinitodiscus appears to be a peculiar genus, not related to other known european higher Uropodina.

INTRODUCTION

The genus Crinitodiscus was described by Sellnick (1931) from material collected in Corfu and Levkas ionian islands. This higher Uropodina is characterized by long posterior hairs and a well individualized pygidial shield. Later, further specimens were found in the Parnassus mountains, Greece, and the genus was redescribed by Zirngiebl-Nicol (1972). Examining some more recent material from Greece, Turkey and Iraq, collected by Dr W. Niedbała and Dr J. Pawlowski, we could make a new reappraisal of the systematic status of the genus Crinitodiscus. In addition, we distinguished a new sub-genus, Orientidiscus, closely related to Crinitodiscus, sampled in Turkey and Iraq, but absent in Greece.

The main distinctive morphological features of the genus Crinitodiscus are redefined in this paper, with descriptions of the related subgenus Orientidiscus, and of two new species included in the subgenus Orientidiscus. Some comments on biogeographical aspects of the distribution of the
FIG. 1-3: Crinitodiscus beieri (Selnick), female.

subgenera *Crinitodiscus* and *Orientidiscus* complete this paper.

The present material was studied using both permanent preparations (Faure-type gum chloral) and open slide technique of GRANDJEAN (1949); coxae I were removed for examination of gnathosoma and sternapophyse (= tritosternum).

Morphological and setal nomenclature are mainly derived from EVANS & TILL (1979) and ATHIAS-BINCHE & EVANS (1981).

**SYSTEMATIC STATUS OF THE GENUS *CRINITODISCUS***

SELLNICK (1931) established *Crinitodiscus* as a new subgenus, placed in the genus *Discopoma* G. & R. Canestrini, 1882. *Discopoma* was later redefined by VITZTHUM (1941) as the genus *Neodiscopoma*, type *Uropoda splendida* (Kramer, 1882). *Neodiscopoma* is mainly characterized by a heavily sculptured dorsal shield, lack of posterior sclerotization of the dorsum, presence of posterior dorsal platelets and a strong forked seta on the palpal trochanter. By contrast, *Crinitodiscus* exhibits no sculptured dorsum, and a well defined pygidial shield (fig. 1). In fact the dorsal pattern of *Crinitodiscus* is more closely related to that of the genus *Capitodiscus* VITZTHUM, 1931, type *Discourella venusta* Berlese, 1884. In addition, the long posterior idiosomatic hairs (fig. 1, 2, 3) are very peculiar to *Crinitodiscus*. These morphological features allow to assume a generic status for *Crinitodiscus*.

Genus *Crinitodiscus* was included in the "Ganggattung" *Discourella* by HIRSCHMANN and ZIRNGIEBL-NICOL (1967). This designation might be not correct however because ZIRNGIEBL-NICOL (1972) later placed *Crinitodiscus* in the "Ganggattung" *Urodiaspis*, together with more typical members of the genus, such as *Urodiaspis tecta* (Kramer, 1876) or *Urodiaspis pannonica* Willmann, 1951. Later again, HIRSCHMANN (1979) redesignated *Crinitodiscus* as a distinct "Stadiengattung".

Such successive systematic placements of *Crinitodiscus* illustrate the need for a redefinition of the typical main morphologic features of the

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**FIG. 4-5 : C. beieri, gnathosoma, ventral.**

4. — Female. 5. — Male.
Fig. 6 : C. beieri, male ventral.

Fig. 7-9 : Crinitodiscus (Orientidiscus) rafalskii n. sp.
7. — Female, dorsal. 8. — Female, ventral. 9. — Male, ventral.
genus. We have also added the distinguishing characters of the new related subgenus, Orientidiscus.

Genus Crinitodiscus (Sellnick, 1931)
Type Neodiscopoma (Crinitodiscus) beieri Sellnick, 1931

Typical higher Uropodoidea sensu ATHIAS-BINCHE & EVANS, 1981, with well marked pedofossal grooves, scabellum (= tectum) prominent and enlarged coxae I. Cuticule well sclerotized, not heavily sculptured. One of the most typical feature of the genus is the presence of long and robust setae inserted on the posterior part of the venter and the dorsum (fig. 1, 2, 3).

Dorsum: Dorsum similar to that of Capitodiscus Vitzthum, 1931 (type: Discourella venusta Berlese, 1884) with a large, individualised pygidial shield and distinct, entire, marginal shield (fig. 1). Typically, marginal and pygidial cuticle bear small spines (fig. 1, 2, 7, 11, 14, 16). Dorsal shield not heavily sculptured. Submarginal setae inserted on well marked tubercles so that the margins of the idiosoma appear crenellated (fig. 1, 2, 11, 16). Submarginal setae and posterior dorsal setae robust, longer than the other dorsal setae (fig. 1, 7, 18).

FIG. 10: C. (O.) rafalskii, male, ventral; details of scabellum (= tectum), peritrema, pedofossae and endopodal shields.

FIG. 11: C. (O.) rafalskii, male, lateral; details of ventral and pygidial cuticular spines, and detail of scabellum.
*Ventrum*: Scabellum (= tectum) well developed (fig. 2, 10, 11), pedofossal grooves deep and well marked. Pedofossae IV with a posterior gutter accommodating distal part of legs IV (fig. 3, 10).

Sternapophyse (= tritosternum) four branched, paraxial branches shorter and more serrated than axial branches (fig. 17).

Peritrema simple, lacking post-stigmatic section (fig. 3, 10).

Female epigynial shield tongue-like, articulated with venter posteriorly to the level of coxae IV (fig. 3, 8, 19). Male genital shield inserted at the level of coxae IV (fig. 6, 9).

Opisthogastric ventral setae inserted on indi-

ual tubercles situating along a transversal row (fig. 3, 6, 8, 19). Posterior ventral setae robust, much longer than sternal setae and anterior ventral setae *Jv*1 and *Jv*2.

*Gnathosoma*: Tegular limb (= gnathotectum) forked distally (see Sellnick, 1931, fig. 27 c). Corniculi simple; hypognathal surface smooth, excepting small posterior denticles (fig. 4, 5, 14, 15, 22). Typically, hypostomatic setae *h1* long, forked, with one branch finely crenellated (fig. 4, 5, 14, 15, 22 see also Sellnick, fig. 27 b). Hypostomatic setae *h4* shorter than the others, and serrated.

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**Fig. 12**: *C. (O.) rafalskii*, male, legs I-IV.
Appendages: Fixed digit of chelicerae longer than the movable digit, with anterior sensory angular point (fig. 23).

Ventral setae v1 of palpal trochanter twice as long as v2 (fig. 4, 5, 14, 15).

Legs of higher Uropodoidea-type (fig. 12, 20); no sexual dimorphism was observed on legs. Leg I lacking claw (fig. 12, 20); typically a long dorsal sensory setae on tarsi I, with leaf-shaped end (fig. 12, 20, and SELNICK: fig. 25 and 27 e). Trochanter III and IV bearing a robust serrated dorsal seta (fig. 12, 20, 27).

Owing to leg chaetotaxy, only the total number of setae per podomere is given (table III), since both situation and number of leg setae exhibit a well marked intraspecific variability in relation

Fig. 13-17: C. (O.J) rafalskii.
with the distribution of the geographic populations belonging to the same species. Such leg setation variability was noticed in *Protodinychus punctatus* Evans between populations originating from several localities in England, Scotland and Ireland (ATHIAS-BINCHE & EVANS, 1981). In more extensive material, similar leg chaetotaxy variability was later pointed out by BŁOSZYK and LEONIAK (1982, unpubl. data) in specimens of *Oodinychus ovalis* (C. L. Koch, 1839) and *Leiodinychus orbicularis* (C. L. Koch, 1839) collected in several parts of Poland.

Following EVANS (1972), observations of leg chaetotaxy in Uropodina, *Crinitodiscus* is mainly characterized by presence of seven setae on femur III, as in genus *Deraiphorus*, only 6 setae on tibia I, 5 on tibia II and 5 to 6 on tibia III and IV (table III). One of the main distinguishing features is the presence of typically brush-like dorsal setae on trochanter III and IV.

*Crinitodiscus (Crinitodiscus) beieri* (Sellnick, 1931)

*Discopoma (Crinitodiscus) beieri* SELLNICK, 1931 : *Discourella beieri* (Sellnick) nov. comb. HIRSCHMANN & ZIRNGIEBL-NICOL 1967 ; *Urodiaspis beieri* (Sellnick) nov. comb. ZIRNGIEBL-NICOL, 1972 ; *Crinitodiscus beieri* N. “Stadiengattung” HIRSCHMANN, 1979 :

Present material and SELLNICK’s types slightly shorter than ZIRNGIEBL-NICOL’s (1972) specimen (table I) which was collected in the Parnassus Mountains, Greece.

Few details may be added to SELLNICK’s very complete description; he did not, however, note the presence of robust serrate setae on trochanter III and IV. All other features of our material agree with SELLNICK’s observations.


*Crinitodiscus (Orientidiscus) * n. subgen.

Type: *Crinitodiscus (Orientidiscus) rafalskii* n. sp.

The most strikingly distinctive morphological features concern the sclerotization of the pygidial shield and the presence of particular lobate hyalin processes on the epigynial shield of the female in the subgenus *Orientidiscus*. Occurrence of the sexual dimorphism of gnathosomal setae is an interesting peculiarity, but less immediately visible.

The two new subgenera may be distinguished by the following features:

<table>
<thead>
<tr>
<th>Crinitodiscus s.s.</th>
<th>Orientidiscus n. subgen.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dorsal shield (fig. 1, 7, 18)</td>
<td>fused anteriorly with vertex, cuticle smooth</td>
</tr>
<tr>
<td>Posterior dorsal bulge (fig. 1, 7, 18)</td>
<td>absent</td>
</tr>
<tr>
<td>Pygidial shield (fig. 1, 2, 7, 18)</td>
<td>weakly sclerotized, forming a bulge</td>
</tr>
<tr>
<td>Marginal shield (fig. 1, 7, 18)</td>
<td>cuticle smooth, spines long</td>
</tr>
<tr>
<td>Posterior dorsal and marginal setae (fig. 1, 7, 18)</td>
<td>long and flagelliform</td>
</tr>
<tr>
<td>Ventral cuticle and epigynial cuticle (fig. 3, 6, 9, 21)</td>
<td>smooth</td>
</tr>
<tr>
<td></td>
<td>individualised, cuticle ornamented</td>
</tr>
<tr>
<td></td>
<td>present</td>
</tr>
<tr>
<td></td>
<td>well sclerotized, trapezoidal, with hemicircular thickness of the cuticle</td>
</tr>
<tr>
<td></td>
<td>cuticle reticulated, spines short</td>
</tr>
<tr>
<td></td>
<td>robust and clubby</td>
</tr>
<tr>
<td></td>
<td>with alveolar ornamentation</td>
</tr>
</tbody>
</table>

* From the latin *oriens*, *orientis* : eastern region, and *discus*, disk, for similarity with *Crinitodiscus*. 
Epignyal shield (fig. 28)
Adanal and postanal setae (fig. 30)
Posterior ventral cuticular spines (fig. 3, 10, 11, 30)
Ventral setae Jv5 (fig. 3, 8)
Male sternal cuticle (3, 6, 9, 21)
Sexual dimorphism of hypostomatic setae (fig. 4, 5, 14, 15, 22)

<table>
<thead>
<tr>
<th></th>
<th>Crinitodiscus s.s.</th>
<th>Orientidiscus n. subgen.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epignyal shield</td>
<td>tongue-like, with an anterior narrow process</td>
<td>more triangular, with hyaline lobate processes</td>
</tr>
<tr>
<td>Adanal and postanal setae</td>
<td>not inserted on the anal tubercle, postanal seta shorter than adanal setae</td>
<td>inserted on the anal tubercle, postanal setae longer than adanal setae</td>
</tr>
<tr>
<td>Posterior ventral cuticular spines</td>
<td>absent</td>
<td>present</td>
</tr>
<tr>
<td>Ventral setae Jv5</td>
<td>shorter than posterior ventral setae</td>
<td>similar to the other ventral setae</td>
</tr>
<tr>
<td>Male sternal cuticle</td>
<td>smooth</td>
<td>with alveolar ornamentation</td>
</tr>
<tr>
<td>Sexual dimorphism of hypostomatic setae</td>
<td>absent</td>
<td>present</td>
</tr>
</tbody>
</table>

Fig. 18-19: Crinitodiscus (Orientidiscus) pawlowskii n. sp., female.
Crinitodiscus (Orientidiscus) rafalskii n. sp.

Cuticle well sclerotized, brown in color; idiosoma longer than in *C. (O.) pawlowskii* n. sp. (table I, fig. 31).

**Dorsum**: Dorsal shield with irregularly distributed alveoli (fig. 7), posterior bulge triangular. Dorsal setae long and thin (fig. 29 b), except the transversal row of posterior dorsal setae, more massive (fig. 7, 25 b). Pygidial setae robust, inserted on heavily sclerotized tubercles. Anterior marginal setae shorter than posterior marginal setae (fig. 7); all marginal setae with denticles. Submarginal setae *Ur* long, robust and ornamented (fig. 6, 26 b).

**TABLE I**: Body dimensions (µm) in genus *Crinitodiscus*; *L*: length, *W*: width, *N*: number of specimens measured.

<table>
<thead>
<tr>
<th>Author</th>
<th>Species</th>
<th>Female</th>
<th>Male</th>
<th>Deuteronymph</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sellnick</td>
<td><em>C. (O.) beieri</em></td>
<td>L 594</td>
<td>W 462</td>
<td>N 17 972 484</td>
</tr>
<tr>
<td>ZINNGIEBEL-NICOL</td>
<td><em>C. (O.) rafalskii</em></td>
<td>L 598-</td>
<td>W 633</td>
<td>N 25 598-504</td>
</tr>
<tr>
<td></td>
<td><em>C. (O.) pawlowskii</em></td>
<td>L 457-</td>
<td>W 356-</td>
<td>N 4 466-352-</td>
</tr>
</tbody>
</table>

**Ventrum**: Postanal setae *Pa* smooth (fig. 30 b). Epigynial shield more or less trapezoidal; its lobate anterior processes lacking denticles (fig. 28 b).

**Gnathosoma**: Male hypostomatic setae *h2* and *h3* more robust than in female; *hl* slightly longer than in female (tabl. II).

Fig. 20: *C. (O.) pawlowskii* female, legs I-IV.
Appendages: Ventral tectum of femora I well developed and triangular (fig. 12). Dorsal setae of trochanter III and IV massive, brush-like (fig. 27 b).

Deuteronymph: Body ovoid, anterior part of the vertex more pointed than in the C. (C.) beieri deuteronymph (see Sellnick, 1931: fig. 28). Dimensions are given in table I.

Dorsum: Posterior margins of holodorsal shield not well defined. Marginal and pygidial area lacking cuticular spines.

Dorsal setae as in adults; setae smooth except anterior dorsal setae and three pairs of plumose posterior setae (fig. 13 a). Submarginal setae setiform.

Ventrum: Sternal shield rectangular (fig. 13 b), appears to be longer than in C. (C.) beieri (Sellnick: fig. 28 b); cuticle with alveolar ornamentation.

All ventral setae smooth; 3 pairs of ventral setae inserted on individual platelets and 5 pairs borne by the ventrianal shield, added to the normal set of adanal/postanal setae (fig. 13 b).
FIG. 28: Female genital shields.
FIG. 29: Details of dorsal cuticle and dorsal setae.
FIG. 30: Detail of anal area.

a = C. beieri; b = C. (O.) rafalskii; c = C. (O.) pawlowskii.
Three long ventral setae are inserted on individual platelets.

**Appendages**: The dorsal setae of trochanter III and IV are smooth, not ornamented as in the adults (fig. 13 b).

**Localities**: Turkey, 20 km from Düzce vicinity, Pontian Mountains. Beech forest, moist litter in a stream bed; altitude 240-320 m. Leg J. Pawłowski, 19.viii.1977: holotype 1, 1, 23 paratypes (12 ♂♂, 11 ♀♀), 2 deutonymphs. N. W. Turkey, 12 km E. from Bolu (Pontian Mountains). Mixed fir/beech forest, litter in a stream bed; altitude 730-800 m. Leg J. Pawłowski, 19.viii.1977: 7 ♀♀, 50 ♂♂ Kurdian Irak, 36°30’ N/44°25’ E. Dry grasses from a stream in a canyon, altitude 700 m. Leg J. Pawłowski, 9.viii.1977: 1 ♂♂, 50 ♂♂ Kôrdian Irak, 36°30’ N/44°25’ E. Holotypes and paratypes in J. Błoszyk’s collection. This species is dedicated to J. Błoszyk’s Teacher, Prof. J. Rafalski.

**Crinitodiscus (Orientidiscus) pawłowskii** n. sp.

Body shape similar to that of *C. (O.) rafalskii*, but idiosoma shorter (table I), (fig. 31).

**Dorsum**: Dorsum pattern similar to that of *C. (O.) rafalskii*, the posterior gibbosity is more rounded (fig. 7, 6), and a reticular ornamentation on the axial part of the dorsal shield.

Anterior dorsal setae robust, brush-like ended (fig. 16, 29 c). Posterior dorsal setae as in *C. (O.) rafalskii*, slightly shorter (fig. 25 c). Marginal setae setiform, with few spinelets (fig. 24 c). Submarginal setae pennate, wider than in *C. (O.) rafalskii* (fig. 26 c).

**Ventrum**: Ventrum similar to that of *C. (O.) rafalskii* (fig. 17). Postanal setae pennate, not smooth as in *C. (O.) rafalskii* (fig. 30 c).

Epigynal shield tongue-like, margins of anterior lobate processes serrate (fig. 28 c). Male ventral pattern as in *C. (O.) rafalskii*.

**Gnathosoma**: Hypostomatic setae *h3* slightly longer than *h2* in the female (fig. 22 b, table II).

In the male, *h2* and *h3* robust, *h3* being longer than *h2* (fig. 22 a, table II).

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### TABLE II: Genus *Crinitodiscus*, length of hypostomatic setae (µm).

<table>
<thead>
<tr>
<th>Species</th>
<th>h1</th>
<th>h2</th>
<th>h3</th>
<th>h4</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>C. (C.) beieri</em></td>
<td>56</td>
<td>42</td>
<td>37</td>
<td>15</td>
</tr>
<tr>
<td><em>C. (O.) rafalskii</em></td>
<td>53</td>
<td>26</td>
<td>32</td>
<td>9</td>
</tr>
<tr>
<td><em>C. (O.) pawłowskii</em></td>
<td>50</td>
<td>13</td>
<td>22</td>
<td>8</td>
</tr>
</tbody>
</table>

---

**Fig. 31**: Scatter diagram of idiosomal dimensions. *a* = *C. (O.) pawłowskii*; *b* = *C. beieri* and *c* = *C. (O.) rafalskii*; *N* = number of specimens.

**Appendages**: Chelicerae and palps as in *C. (O.) rafalskii*.

Ventral tectum of femora I more rounded than in *C. (O.) rafalskii* (fig. 20). Dorsal setae of trochanter III and IV brush-like, ornamented only on its half distal part.

Localities: Turkey N, 20 km far from Düzce vicinity, Pontian Mountains. Beech forest, moist litter in a stream bed, altitude 240-340 m. Leg J. Pawłowski, 9.viii.1977: holotype 1, 1; paratype 3 and 5 00. Holotypes and paratypes in J. Błoszyk’s collection. This species is dedicated to Prof. J. Pawłowski, Cracow.
BIOGEOGRAPHICAL REMARKS

The Genus *Crinitodiscus* appears to be characteristic of the eastern part of the Mediterranean basin (fig. 32): it has never been collected in Western Europe, and seems to be absent in Yugoslavia. Our colleague Dr M. HUTU, Iasi, Romania, making extensive collection of Uropodina in her country, had never found members of this genus. It may be assumed that the northern limits of the geographical area of *Crinitodiscus* are constituted by the mountainous barrier of Dinarides/Hellenides (Rhodope mountains, Greece; Albanian Alps, Montenegro; Macedonian mountains, Yugoslavia and Balkans Mountains, Bulgaria), and the southern side of the Black Sea. The eastern parts of *Crinitodiscus* distribution are less precise, due to lack of extensive samplings in the Middle East. It is known from Turkey and Iraq and seems to be absent in the Far East, following the data of our colleague N. HIRAMATSU, Nagasaki, Japan.

The Subgenus *Crinitodiscus* s.s. appears to be restricted to continental Greece, the Ionian islands and Crete (fig. 32). The subgenus *Orientidiscus* exhibits a more easterly distribution and may be characteristic of Asia Minor.

According to recent contribution on the Middle Sea palaeogeography, the Dinarides/Hellenides mountains should indicate the northern border of the subduction of both the Apulian and African land masses contacting Eurasia (BIJU-DÜVAL et al., 1976). Following these authors, the small Apulian block comprises a italo-dinaric-hellenic framework and Western Turkey. The Apulian block moved from the northern part of the African continent to Eurasia, and probably collided with Europe during the Upper Cretaceous (—72 MY). The eastern contact between the African land mass and Eurasia, comprising the Arabic peninsula, Middle East, and possibly Eastern Turkey, took place later, during the Lower Tertiary (Eocene, circa —50 MY). The Messinian xeric crisis (Upper Miocene), was then marked by dispost of evaporite and the appearance of southern Mediterranean deserts (QUEZEL et al., 1980).

Following this palaeogeographical pattern of the framework of the Mediterranean basin, QUEZEL et al. (1980) studied the palaeontological origin of Mediterranean flora and recognized some typical Balkanid flora, corresponding to the old Apulian block, and distinct from the Anatolian region. Similarly, the genus *Crinitodiscus* could have an African/Apulian palaeogeographical origin, and might belong to and old tropical or subtropical group, as it was defined by QUEZEL owing to the Mediterranean flora. Such a palaeogeographical theory might be an attractive hypothesis in explaining the present peculiar geographical distribution of the genus *Crinitodiscus*.

Subgenus *Crinitodiscus* s.s. exhibits a strict Apulian (present Aegean) distribution; subgenus *Orientidiscus* may have originated from the African continent; and one may assume that the separation of the two subgenera was very early. However, the divergence of the two populations may have been more recent: some exchanges between Greece and Oriental Turkey could have been possible during the Messinian drying of the Middle Sea, or also during variations of sea level during the Quaternary glaciations, the two groups would have then been separated by the present Marmara Sea and Bosphorus Straits.

Further extensive sampling however, would need to be done in order to be more specific about the present distribution of the genus *Crinitodiscus*, particularly that of *Orientidiscus*, and about its possible palaeogeographical origin.

Such discussion demonstrates the biogeographical interest of the genus *Crinitodiscus* and its assumed African palaeotropical origin.

CONCLUSION

The Genus *Crinitodiscus* exhibits some typical features; among them, the long idiosomatic setae, which are more common in tropical Higher Uropodina; presence of individualized pygidial shield; presence of cuticular idiosomatic spines; and the typical brush-like setae of trochanter III-IV. Its
Fig. 32: Geographical distribution of the genus Crinitodiscus. Cb = C. beieri; Cp = C. (O.) pawlowskii; Cr = C. (O.) rafaliskii; no = localities lacking genus Crinitodiscus.
systematic status remains obscure, and at present *Crinitodiscus* cannot be related to other families or groups of Higher Uropodina.

**TABLE III :** Genus *Crinitodiscus*, leg setation of adults, total number of setae per podomere.

<table>
<thead>
<tr>
<th>Podomere</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trochanter</td>
<td>4</td>
<td>4</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Femur</td>
<td>7</td>
<td>9</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Genus</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Tibia</td>
<td>6</td>
<td>5</td>
<td>6</td>
<td>5/6</td>
</tr>
</tbody>
</table>

The two subgenera, *Crinitodiscus* s.s. and *Orientidiscus*, are easily distinguished, both by morphological characters and geographical distribution. In addition, *Crinitodiscus* being a non-phoretic free living genus, i.e. with less opportunity for dispersal than the phoretic Uropodina (ATHIAS-BINCHE, 1984), one may assume that it could be regarded as a witness to past continental movements. These interesting questions require further studies on the ecology and biogeography of this genus.

**ACKNOWLEDGEMENT**

We wish to thank Prof. J. PAWŁOWSKI, Cracow, and Prof. W. N. NIEDBALA, Poznan who provided us with so much valuable material.

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