

Description of *Nooliodes* gen. n. and Nooliodidae fam. n.
(Acari, Oribatei) from Madagascar.

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ABSTRACT

A new genus Nooliodes is described and a new family Nooliodidae is proposed and characterized (Acari, Oribatei).

The type species, Plateremaeus glaber Balogh, from Madagascar, is redescribed based on previous description and figures. The new genus is close to Octoliodes Paschoal, 1987 family Pherolioididae Paschoal.

Nooliodidae fam. n.

Type genus: *Nooliodes* gen. n.

Characteristics — Eupheredermes, i. e., previous instar exuviae held by nymphs. Tracheal system sub-normal, i. e., only sejugal and III tracheae present. Pycnonotics, i. e., without areae porosae on notogaster. Notogastral, prodorsal and ventral cuticle smooth, with no reticulum nor foveae. **Apo le**, **Apo bo** absent; **apo ro**, **apo ex**, **apo c** with mammillate protuberances. **le** dorso-lateral, anterior and away from **ro**; **in** on strong tubercle; bothridium dorso-lateral; **ss** pilose, distally expanded, forming no club-shaped head. Centro-dorsal setae absent on notogaster; with five pairs of notogastral setae; **hl** terminal, close to its homologous seta, without crossing it at the sagittal plane; **r2 (1p)** at notogastral margin. Notogaster flat, rounded. Presence of notogastral tectum between **bn λ** and **lambda** lines. Genital aperture square; anal aperture rectangular; genital and anal aperture rectangular; genital and anal aperture partially joint; **apo ad**, **apo pad**, **apo ag**, **apo pag** present. Eight pairs of genital setae, not on a sole longitudinal row; **ag** posterior to genital plate; three pairs of anal setae; three pairs of adanal setae. Tectopedia absent; pedotectal tooth **p** present; acetabula I, II cotyloid and integument forming a blunt structure. Leg articulations on

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proximal sockets, i. e., sockets on proximal tarsi, tibiae and genua; tarsi pedicels short, narrow; with three median size claws, the medial one strongest, the laterals slender.

Nooliodes gen. n.

Type species: *Plateremaeus glaber* Balogh, 1962

Diagnosis – *Nooliodes* is close to *Octoliodes* Paschoal, 1987a from which it differs mainly by the following characteristics: foveae absent from body and legs; long rod-like longitudinal cuticular thickenings present on anal region; **apo ro** strong; notogaster rounded; smaller species; **h1**, **r2** not on apophyses; anal aperture rectangular; eight pairs of genital setae; **g4** not aligned with the other genital setae; **ag** posterior to genitalia.

Description – Notogastral, prodorsal, ventral cuticle smooth, forming no reticulum nor foveae; with oblique, transversal and longitudinal bar-shaped cuticular thickenings on genito-anal region. **Apo le** absent; **apo ro** a well sclerotized transversal bar; **apo ro**, **apo ex**, **apo c** with mammillate protuberances pointing one to the other; **apo in** a convex bar bearing **in** setae; **apo bo** absent. **le** dorso-lateral, anterior and away from **ro**; **in** on strong tubercle; bothridium dorso-lateral; **ss** of median size, pilose, slightly expanded distally, forming no club-shaped head. Notogaster rounded, flat; with notogastral tectum between **bng** and **lambda** lines. **h1** short, falciform, not on apophysis, close to its homologous seta; **r2** falciform, not on apophysis, at notogastral margin. Epimeral apodemata without apodematic bonds generally. Epimeral chaetotaxy 3: 1: 3: 3. Genital and anal aperture contiguous, partially joint, the contours still visible at the contact area; genital aperture square; anal aperture rectangular. Adanal, paradanal, agenital, paragenital apodemata present on genital region. Genitoanal chaetotaxy 8 - 1 - 3 - 3; **g4** not aligned with the other genital setae; genital setae almost equidistant one from the other; **ag** posterior to genitalia. Leg articulations on proximal sockets, i. e., sockets on proximal ends of tarsi, tibiae, genua; tarsi pedicels short, narrow; with three claws, the medial one strongest, the laterals slender.

Discussion – *Nooliodes* (gr. **noo** + **liodes**) means a clever “**liodes**”. The genus is masculine in gender.

Nooliodes glaber (Balogh) comb. n.

Plateremaeus glaber Balogh, 1962: 421, fig. 7-8

Types – Holotype plus nine paratypes collected in Madagascar; substrate and collecting date not mentioned. Depository: Possibly at the “Collections of the Zoology Department”, “Hungarian Natural History Museum”, Budapest, Hungary.

Diagnosis — *N. glaber* is close to *Octoliodes luteomarginatus* (Hammer, 1966), New Zealand, by presenting cuticular thickenings on genitoanal region; prodorsum with well developed and sclerotized apodemata; **le** dorso lateral, anterior and away from **ro**; **ss** of median size slightly expanded distally; five pairs of notogastral setae; **r2**, **h1** at notogastral margin; epimeral apodemata poorly developed medianly (except **apo I**); epimeral chaetotaxy 3: 1: 3: 3; genital and anal apertures contiguous, partially joint; **apo ad**, **apo pad**, **apo ag**, **apo pag** present; with three pairs of anal setae; tarsi pedicels short, narrow; three claws, the medial one strongest, the laterals slender. It differs from this species mainly by the following features: absence of cuticular foveae dorsally and ventrally; **apo ro** a well sclerotized transversal bar; rounded notogaster; **r2**, **h1** not on apophyses; smaller species; anal aperture rectangular; the genitoanal cuticular sculpture; eight pairs of genital setae, not aligned in one sole longitudinal row; **ag** posterior to genitalia.

Description — (Based on the description and figures provided by Balogh, 1962). Body length 512 μ ; width 296 μ . Ventral and dorsal cuticle smooth; foveae absent. Notogaster smooth, finely punctate. Genitoanal region with well sclerotized sculptural cuticular thickenings forming oblique, transversal and longitudinal apodemata; with long rod-like cuticular structures, one to the side of the other, close to latero-posterior border of anal region; anal and genital plates with longitudinal cuticular thickenings. **Apo le** absent; **apo ro** strong, well sclerotized, in the shape of a transversal bar linking the homologous parts, with lateral extensions turned backward, presenting a mammillate protuberance; **apo c** a well sclerotized concave bar pointed to **apo ro** loop, linking the homologous parts; **apo ex** a short bar, joint anteriorly to **apo c**, also presenting a mammillate protuberance facing equal formation of **apo ro**; **apo in** a convex bar linking in setae, being joint to **apo c** transversal bar by two longitudinal extensions; **apo bo** absent. **le** dorso-lateral, anterior to **ro**, away from it; **in** short, on strong tubercle; bothridium dorso-lateral; **ss** of median size, turned sbliquely to the rear, emerging as a straight filament which bends at an obtuse angle to the side and to rear, forming a pilose, slightly expanded head distally. Notogaster flat, circular; notogastral tectum present; five pairs of notogastral setae; **r2** (**1p**) short, not on apophysis, bent to the sagital plane, at notogastral margin; **h1** short, falciform, not on apophysis, close to its homologous seta without crossing it; **ps** setae normal. Epimeral apodemata normally without apodematic extensions, except **apo I**; epimeral chaetotaxy 3: 1: 3: 3; epimeral setae equally short. Genital and anal apertures contiguous, partially joint, the contours still visible at the contact area; genital aperture almost square, the proximal margin a little wider than the distal one; anal aperture rectangular; **apo ad**, **apo pad**, **apo ag**, **apo pag** present. Genitoanal chaetotaxy 8 - 1 - 3 - 3; **g4** further away from genital plate inner margin than the others; genital setae almost equidistant one from the other; anal setae on a sole longitudinal row; **ag** posterior to the genital plate. Leg articulations on proximal sockets; tarsi pedicels short, narrow; three claws, the medial one strongest, the laterals slender.

Geographical distribution and habitat — Madagascar, from unknown substrate.

Discussion — In Balogh, 1962 original description of *N. glaber*, very peculiar features were noticed namely: the absence of epimeral neotrichy; eight pairs of genital setae; three pairs of anal setae; sensillum not flagellate; and the genitoanal cuticular ornaments, which were enough characteres to exclude it from *Plateremaeus*. Due to the lack of a better understanding of this genus, which only very recently was reviewed by Paschoal 1979, 1987b, *N. glaber* was described as a *Plateremaeus* by Balogh. The presence of eight pairs of genital setae, smooth cuticle, rectangular anal aperture are distinguishing features, among others, which strongly suggest the erection of the new genus *Nooliodes*.

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