

# ARTIGO / ARTÍCULO / ARTICLE Distributional notes on some Nosodendridae (Coleoptera) - XI. Descriptions of six new species from Indonesian Papua and Papua New Guinea.

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**Abstract:** The following six new species are described, illustrated and compared with related species: Nosodendron papuanense sp. nov. (Papua New Guinea, Indonesian Papua), N. jaechi sp. nov. (Indonesian Papua), N. riedeli sp. nov. (Indonesian Papua), N. irianense sp. nov. (Indonesian Papua), N. skalei sp. nov. (Papua New Guinea), and N. baloghi sp. nov. (Papua New Guinea).

Key words: Coleoptera, Nosodendridae, Nosodendron, Taxonomy, description, new species, Indonesian Papua, Papua New Guinea.

Resumen: Notas sobre la distribución de algunos Nosodendridae (Coleoptera) XI. Descripciones de seis nuevas especies de la Papúa indonesia y Papúa Nueva Guinea. Se describen seis nuevas especies, Nosodendron papuanense sp. nov. (Papúa Nueva Guinea, Papúa indonesia), N. jaechi sp. nov. (Papúa indonesia), N. riedeli sp. nov. (Papúa indonesia), N. irianense sp. nov. (Papúa indonesia), N. skalei sp. nov. (Papúa Nueva Guinea) y N. baloghi sp. nov. (Papúa Nueva Guinea), y se ilustran y comparan con especies próximas.

Palabras clave: Coleoptera, Nosodendridae, Nosodendron, Taxonomía, descripción, nuevas especies, Papúa indonesia, Papúa Nueva Guinea.

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## Introduction

The small family Nosodendridae contains 82 extant species and 4 fossil species worldwide (Háva 2005, 2012, 2014).

Only two species (*N. calvum* Tryon, 1892 and *N. vestitum* Tryon, 1892) were known to occur in Indonesian Papua (=Irian Jaya) and Papua New Guinea. Six new species are described below. All the species described belong to the nominotypical subgenus according to the characters mentioned by Háva (2003).

## Material and methods

The classification of the family Nosodendridae was done according to Bouchard et al. (2011).

Locality labels of the material studied are cited in the original version. The specimens were labelled with red, printed labels with the text as follows: "HOLOTYPE [or PARATYPE, respectively] name of species sp. n. Jiří Háva det. year".

Moreover, the following abbreviations refer to the collections where the examined material is deposited:

HNHM: Hungarian Natural History Museum, Budapest (O. Merkl), Hungary.
JHA: Jiří Háva, Private Entomological Laboratory and Collection, Prague-west, Czech Republic.
MHNG: Muséum d'Histoire Naturelle, Genève (G. Cuccodoro), Switzerland.
NHMW: Naturhistorisches Museum, Wien (M. Jäch), Austria.
NMED: Naturkundemuseum, Erfurt (M. Hartmann), Germany.
PCA: Private collection André Skale, Hof/Saale, Germany.
PCAW: Private collection Andreas Weigel, Wernburg, Germany.

## Descriptions

## Nosodendron papuanense sp. nov.

(Fig. 1)

**Type material.** Holotype (male): Papua New Guinea, Onerunka nr Kainantu [6°17' 5 145°52' E], ii. 1980, W. G. Ullrich lgt., (MHNG). Paratypes (2 males, 2 females): the same data as with the Holotype, (3 MHNG, 1 JHAC); (1 female): Irian Jaya: Paniai Prov., Bilogay, 2100-2200 m, 25.12.1995, A. Riedel lgt., (NHMW); (1 male, 1 female): Papua New Guinea: Morobe Prov., ridge betw. Aseki-Menyamya, 12.4.1998, 2200 m, A. Riedel lgt., (NHMW); (1 male): Papua New Guinea, Morobe prov., Mindik, 1400-1550 m, 27.4.1998, A. Riedel lgt., (JHAC).

**Description.** Measurements (in mm): total length 4.6-6.3; maximum elytral width 3.1-3.7. Cuticle black, shiny. Head very finely, but clearly punctate, with fine setation. Eyes large, visible from above. Antennae brown, with eleven segments, antennal club three-segmented, with yellow setae. Mentum punctate, with long yellow pubescence, without impression. Pronotum punctate as head; with fine pubescence. Pronotal anterior angle with small groove. Scutellum triangular, finely punctate. Elytra with fine short setae; each elytron with 11 striae with small simple punctures intermixed with small setigerous punctures. Mesosternum finely and regularly punctate. Metasternum without longitudinal carina, impunctate. Legs black, tibiae and femora finely punctate, with short brown setae. Abdominal ventrites black. Longitudinal striation of base of abdominal sternites very short. Male genitalia schematic dorsal view as in Fig. 1.

Females look similar to males, showing no difference in external morphology.

**Differential diagnosis**. *N. papuanense* sp. nov. belongs to the nominotypical subgenus and differs from other Papuanense species by the characters mentioned in the table below. From all other known species it differs by the shape of its aedeagus.

Distribution. Papua New Guinea, Irian Jaya.

Name derivation. The species is named after Papua, where the holotype was collected.

## Nosodendron riedeli sp. nov. (Fig. 2)

**Type material**. Holotype (male): Irian Jaya: Paniai Prov., Bilogay, 2100-2200 m, 25.12.1995, A. Riedel lgt., (NHMW).

**Description**. Measurements (in mm): total length 4.2; maximum elytral width 2.5. Cuticle black, shiny. Head very finely, but clearly punctate, with fine pubescence. Eyes large, visible from above. Antennae brown, with eleven segments, antennal club three-segmented, with yellow setae. Mentum punctate, with long yellow pubescence, without impression. Pronotum punctate as head; with fine pubescence. Pronotal anterior angle with small groove. Scutellum triangular, finely punctate. Elytra with fine setation; each elytron with 11 striae with small simple punctures intermixed with small setigerous punctures. Mesosternum finely and regularly punctate. Metasternum without longitudinal carina, impunctate. Legs dark brown, tibiae and femora finely punctate, with short brown setae. Abdominal ventrites dark brown. Longitudinal striation of base of abdominal sternites very short. Male genitalia schematic dorsal view as in Fig. 2.

Female unknown.

**Differential diagnosis**. *N. riedeli* sp. nov. belongs to the nominotypical subgenus and differs from other Papuanense species by the characters mentioned in the table below. From all other known species it differs by the shape of its aedeagus. The new species is very similar to *N. skalei* sp. nov., but differs from it by the form of its aedeagus, brown legs and yellow eyes.

Distribution. Irian Jaya: Paniai Prov.

Name derivation. Patronymic, dedicated to the collector of the new species, Mr. A. Riedel, Austria.

### Nosodendron irianense sp. nov.

(Fig. 3)

**Type material**. Holotype (male): Irian Jaya: Paniai Prov., Bilogay, 2100-2200m, 25.12.1995, A. Riedel lgt., (NHMW). Paratype (1 male): the same data as Holotype, (JHAC).

**Description**. Measurements (in mm): total length 4.2-4.3; maximum elytral width 2.3-2.4. Cuticle black, shiny. Head very finely, but clearly punctate, with fine setae. Eyes large, visible from above. Antennae brown, with eleven segments, antennal club three-segmented, with yellow setae. Mentum punctate, with long yellow pubescence, without impression. Pronotum punctate as head; with fine pubescence. Pronotal anterior angle without small groove. Scutellum triangular, finely punctate. Elytra with fine setation; each elytron with small simple punctures intermixed with small setigerous punctures. Mesosternum finely and regularly punctate. Metasternum without longitudinal carina, punctures very small on lateral margins. Legs dark brown, tibiae and femora finely punctate, with short brown pubescence. Abdominal ventrites dark brown. Longitudinal striation of base of abdominal sternites very short. Male genitalia schematic dorsal view as in Fig. 3.

**Differential diagnosis**. *N. irianense* sp. nov. belongs to the nominotypical subgenus and differs from other Papuanense species by the characters mentioned in the table below. From all other known species

it differs by the shape of its aedeagus.

Distribution. Irian Jaya: Paniai Prov.

Name derivation. The species is named after Irian Jaya, were the holotype was collected.

Nosodendron jaechi sp. nov. (Fig. 4)

**Type material**. Holotype (male): Irian Jaya: Jayawijaya Prov., Samboka, upper Kolff river, ca.200m, 10-14.10.1996, A. Riedel lgt., (NHMW). Paratypes (2 females): the same data as Holotype, (NHMW, JHAC).

**Description**. Measurements (in mm): total length 4.8-6.3; maximum elytral width 3.4-3.8. Cuticle black, shiny. Head very finely, but clearly punctate, with fine setation. Eyes large, yellowish-brown, visible from above. Antennae dark brown, with eleven segments, antennal club three-segmented, with yellow

setae. Mentum with large punctures, with long yellow pubescence, without impression. Pronotum punctate as head; with fine pubescence. Pronotal anterior angle with small groove. Scutellum triangular, finely punctate. Elytra with fine setation; with small ill-defined punctures intermixed small with setabearing punctures. Mesosternum finely and regularly punctate. Metasternum without longitudinal carina, punctures small on all margins. Legs black, tibiae and femora finely punctate, with short brown pubescence. Abdominal ventrites black. Longitudinal striation of the base of abdominal sternites very short. Male genitalia schematic dorsal view as in Fig. 4.

Females look similar to males, showing no difference in external morphology.

**Differential diagnosis.** *N. jaechi sp. nov.* belongs to the nominotypical subgenus and differs from other Papuanense species by the characters mentioned in the table below. From all other known species it differs by the shape of its aedeagus.

Distribution. Irian Jaya: Jayawijaya Prov.

Name derivation. Patronymic, dedicated to the curator of Coleoptera in NHMW, Dr. Manfred A. Jäch.

## Nosodendron skalei sp. nov.

(Fig. 5)

**Type material**. Holotype (male): W Papua, Manokwari Prov. Vic., Mokwam (Slyoubrig), 1400-1800 m, 01°06.26′S 133°54.4′E, 24-28.ii.2007, A. Skale lgt., (NMED). Paratypes (1 male): the same data as Holotype (JHAC); (5 males, 1 female): the same data as Holotype but A. Weigel lgt., (1 JHAC, 1 PCAS, 1 PCAW, 3 NMED).

**Description**. Measurements (in mm): total length 5.7-6.2; maximum elytral width 3.3-3.5. Cuticle black, shiny. Head very finely, but clearly punctate, with very short setation. Eyes large, black, visible from above. Antennae brown, with eleven segments, antennal club three-segmented, with yellow setae. Mentum with large punctures, with very short yellow pubescence, without impression. Pronotum punctate as head, with very short setae. Pronotal anterior angle with small groove. Scutellum triangular, finely punctate. Elytra with fine setation; each elytron with 11 striae with small punctures with intermixed small seta-bearing punctuation. Mesosternum finely and regularly punctate. Metasternum without longitudinal carina, punctures very small, individual on all margins. Legs black, tibiae and femora finely punctate, with short brown pubescence. Abdominal ventrites black. Longitudinal striation of the base of abdominal sternites very short. Male genitalia schematic dorsal view as in Fig. 5. Females look similar to males, showing no difference in external morphology.

**Differential diagnosis.** *N. skalei* sp. nov. belongs to the nominotypical subgenus and differs from other Papuanense species by the characters mentioned in the table below. From all other known species it differs by the shape of its aedeagus. The new species is very similar to *N. riedeli* sp. nov. but differs from it by the form of aedeagus, black legs and black eyes.

Distribution. W Papua New Guinea: Manokwari Prov.

Name derivation. Patronymic, dedicated to the collector of the new species, Mr. A. Skale, Germany.

## Nosodendron baloghi sp. nov. (Fig. 6)

**Type material**. Holotype (male): New Guinea (NE), Wau, Mt. Kaindi, Nami Creek, 22.viii.1968, No.NG-W.C.4, Dr. J. Balogh leg., (HNHM). Paratypes (5 males): the same data as Holotype, (4 HNHM, 1 JHAC).

Description. Measurements (in mm): total length 5.8-7.6; maximum elytral width 3.4-4.1. Cuticle black,

shiny. Head very finely, but clearly punctate, with very short setation. Eyes large, black, visible from above. Antennae brown, with eleven segments, antennal club three-segmented, with yellow setae. Mentum with large punctures, with very short yellow setation, without impression. Pronotum punctate as head, with very short setae. Pronotal anterior angle with small groove. Scutellum triangular, finely punctate. Elytra with fine setation; each elytron with 11 striae with small simple punctures intermixed with small setigerous punctures. Mesosternum finely and regularly punctate. Metasternum without longitudinal carina, impunctate. Legs black, tibiae and femora finely punctate, with short brown setation. Abdominal ventrites dark brown. Longitudinal striation of the base of abdominal sternites very short. Male genitalia schematic dorsal view as in Fig. 6. Females unknown.

**Differential diagnosis**. *N. baloghi* sp. nov. belongs to the nominotypical subgenus and differs from other Papuanense species by the characters mentioned in the table below. From all other known species it differs by the shape of its aedeagus. The new species is very similar to *N. riedeli* sp. nov. but differs from it by the form of aedeagus, black legs and black eyes.

Distribution. W Papua New Guinea: Manokwari Prov.

Name derivation. Patronymic, dedicated to the collector of the new species, Dr. J. Balogh, Hungary.

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## References

Bouchard, P.; Bousquet, Y.; Davies, A.E.; Alonso-Zarazaga, M.A.; Lawrence, J.F.; Lyal, Ch.H.C.; Newton, A.F.; Reid, Ch.A.M.; Schmitt, M.; Slipinski, S.A. & Smith, A.B.T. 2011. Family-group names in Coleoptera (Insecta). ZooKeys **88**: 1-972.

Háva, J. 2003. Distributional notes on some Nosodendridae (Insecta: Coleoptera) - III. Descriptions of a new subgenus and two new species from Nepal and China, pp. 247-249. In: Hartmann, M. & Baumbach, H. (eds.). Biodiversity and Natural Heritage in the Himalaya. Verein der Freunde und Förderer des Naturkundemuseums Erfurt e. V., 408 pp., 270 b/w figs., XVI coloured plates.

Háva, J. 2005. World Catalogue of the Nosodendridae (Coleoptera), with new faunistic records and descriptions of three new species. *Entomological Problems* **35**: 75-83.

Háva, J. 2012. Distributional notes on some Nosodendridae (Coleoptera) - IX. Third contribution to the Nosodendron species of the Himalaya, pp. 353-355. In: Hartmann, M. & Weipert, J. (eds.): Biodiversity and Natural Heritage in the Himalaya IV. Verein der Freunde und Förderer des Naturkundemuseums Erfurt e. V., 449 pp., many b/w figs., 39 coloured plates.

Háva, J. 2014. Updated World Catalogue of the Nosodendridae (Coleoptera: Derodontoidea). Heteropterus, Revista de Entomología **14**(1): 13-24.

#### Table 1. - Differential characters.

| Species                        | mentum /<br>pubescence            | punctuation on<br>metasternum                      | basal abdominal<br>striae | punctures on elytra / matt or<br>shiny                            |
|--------------------------------|-----------------------------------|--|---------------------------|---|
| N. vestitum Tryon              | with longitudinal<br>groove       | entire with large<br>punctures                     | short                     | without punctures / matt  |
| N. calvum Tryon                | without groove,<br>only punctured | entire with small<br>punctures                     | short                     | ill-defined band of large punctures<br>about the middle / matt    |
| N. irianense <b>sp. nov</b> .  | without groove,<br>only punctured | only laterally with small<br>punctures             | short                     | very small ill-defined / shiny                                    |
| N. riedeli <b>sp. nov</b> .    | without groove,<br>only punctured | without punctures                                  | very short                | defined 11 striae of smaller<br>punctures on each elytron / matt  |
| N. jaechi <b>sp</b> . nov.     | without groove,<br>only punctured | punctures small on all<br>margins                  | very short                | very small ill- defined / shiny                                   |
| N. papuanense <b>sp. nov</b> . | without groove,<br>only punctured | without punctures                                  | very short                | defined 11 striae with small<br>punctures on each elytron / shiny |
| N. baloghi <b>sp. nov</b> .    | without groove,<br>only punctured | without punctures                                  | very short                | defined 11 striae of smaller<br>punctures on each elytron / shiny |
| N. skalei <b>sp. nov.</b>      | without groove,<br>only punctured | punctures very small,<br>individual on all margins | very short                | defined 11 striae of smaller<br>punctures on each elytron / shiny |





2

5





**Figs. 1-6.-** Aedeagus, schematic dorsal aspect:

- 1. N. papuanense sp. nov.
- 2. N. riedeli sp. nov.
- 3. N. irianense sp. nov.
- 4. N. jaechi sp. nov.
- 5. N. skalei sp. nov.
- 6. N. baloghi sp. nov.