New data on the Oriental Xantholinini. 43. New species and new records from Thailand in the Naturhistorisches Museum of Basel (Coleoptera Staphylinidae)

281° contribution to the knowledge of the Staphylinidae

Arnaldo BORDONI

A b s t r a c t : The following new species are described and illustrated: *Neoxantholinus thailandicus* nov.sp., *Metolinus squamifer* nov.sp., *Mahavana eximia* nov.sp., *Denon silvestris* nov.sp., *Indolinus inermis* nov.sp., *Erymus filiformis* nov.sp. New records are listed.

K e y w o r d s : Coleoptera, Staphylinidae, Xantholinini, *Neoxantholinus*, *Metolinus*, *Denon*, *Mahavana*, *Indolinus*, *Erymus*, new species, Thailand.

Introduction

This contribution shows the result of a study of some specimens from Thailand preserved in the Naturhistorisches Museum of Basel, Switzerland. Other material come from the collection of Yasuhiko Hayashi (Kawanishi, Japan) and from my private collection. This contribution follows another paper dedicated recently to the same region (BORDONI 2017a).

Acronyms:

cBcoll. Bordoni, Florence, Italy	
cHcoll. Y. Hayashi, Kawanishi, Japan	
NHMB Naturhistorisches Museum, Basel, Switzerl	and

Taxonomy (in systematic order)

Pachycorynus thai BORDONI, 2002

E x a m i n e d m a t e r i a l : Thailand, Umphang, 500 m, 16.04N, 98.53E, V. Kuban 26.IV-6.V.1991, 2 exx. (NHMB); same data, D. Kral, 1 ex. (NHMB), 1 ex. (cB); same data, 16.07B, 99.00E, D. Kral 28.IV-6.V.1991, 1 ex. (cB).

D is tr i b u t i o n : This taxon was described from Thailand (Mae Hong Son) and Malaysia (Penang, Pulo Panang, Selangor and Singapore). This is the first record since the description of the species.

Pachycorynus ulodeus BORDONI, 2002

E x a m i n e d m a t e r i a l : Thailand, Umphang, 500 m, 16.07B, 99.00E, D. Kral 28.IV-6.V.1991, 3 exx. (NHMB), 1 ex. (cB); same data, V. Kuban 28.IV-6.V.1991, 2 exx. (NHMB), 2 exx. (cB); Champhong, Pha To env., 9.48N, 98.47E, K. Majer 27.III-14.IV.1996, 2 exx. (NHMB).

D is tr i b u t i o n : This species was described from Thailand (Ranong, Pankampanwng; Chiang Mai and Mae Hong Son). This is the first record since the description of the species.

Neoxantholinus thailandicus nov.sp. (Figs 1-3)

E x a m i n e d m a t e r i a l : <u>Holotype</u> ♂: Thailand, Ranong prov., Ranong: Hot Springs, 9.56N, 98.40E, K. Majer 23-27.II.1996 (NHMB).

D e s c r i p t i o n : Length of body 4.5 mm; from anterior margin of head to posterior margin of elytra: 2.5 mm. Reddish brown light; antennae and legs brown yellowish. Head sub-rectangular, with sub-parallel and sub-rectilinear sides and rounded posterior angles. Eyes medium-sized and not protruding. Surface of head shiny, with traces of more or less longitudinal micro-striations and fine, very sparse punctation; one setiferous puncture at the end of the groove along the inner edge of the eyes and one big puncture posteriad, near the lateral margin of head. Pronotum a little shorter than head, as wide as it, with oblique anterior margins and largely rounded anterior angles. Surface with evident, more or less longitudinal micro-striations and with 4 evident puntures along a horizontal line, on the anterior half. Elytra longer and wider than pronotum, a little dilated posteriad, with almost obsolete humeral angles. Surface slightly wrinkled, with three series of very fine punctures, one juxtasutural, one median and one lateral. Abdomen shiny, with traces of fine, transverse micro-striation and fine, very spaced punctation.

Male genital segment as in Fig. 1; sternite of the same sub-triangular (Fig. 2). Aedeagus (Fig. 3) 0.55 mm long, elongated, with short and narrow parameres; inner sac broad, covered partially with fine spinules and scales.

E t y m o l o g y : The specific epithet refers to Thailand.

D i s t r i b u t i o n : The species is known only from the type locality.

R e m a r k s : The species is similar to *N. merkli* BORDONI, 2002 from Malaysia but differs by the following characters: body smaller, visibly lighter; head shorter, with very shorter ocular grooves and with lateral, big punctures located further forward; pronotum smaller and shorter, elytra shorter; different aedeagus. *N. thailandicus* is the northernmost species of this genus in the Oriental Region and the first record from Thailand.

Metolinus squamifer nov.sp. (Figs 4-6)

E x a m i n e d m a t e r i a l : <u>Holotype</u> ♂: Thailand, Chumphong prov., Pha To env., 8.48N, 98.47E, K. Majer 1-21.III.1996 (NHMB); <u>paratype</u>: same data, 1♂ (cB).

D e s c r i p t i o n : Length of body 3.7 mm; from anterior margin of head to posterior margin of elytra: 2 mm. Body shiny, reddish brown very dark; antennae and legs brown. Head sub-quadrangular, slightly dilated forward, with sub-parallel and sub-rectilinear sides and rounded posterior angles. Eyes large and a little protruding. Surface of head with few, very sparse punctures. Pronotum longer than head, a little dilated anteriorly

where is wide as head, with very oblique anterior margins, largely rounded anterior angles and feebly sinuate sides. Surface with dorsal series of 2 anterior and 3 posterior punctures; lateral series of 2 very fine, anterior punctures. Elytra sub-rectangular, dilated posteriad, longer and wider than pronotum, with marked humeral angles. Surface with three series of very fine punctures, one juxtasutural, one median and one lateral. Abdomen without micro-sculpture, with fine and very sparse punctation.

Tergite and sternite of the male genital segment as in Figs 4-5. Aedeagus (Fig. 6) 0.81 mm long, ovoid elongate, with short, narrow parameres; inner sac with a long, narrow, left spine, next to a series of square, small scales; in the middle of the sac are present numerous square scales, roughly on two juxtaposed files, shaped like a tapered spine.

E t y m o l o g y : The specific epithet is the Latin squamifer- a- um (squamous).

D i s t r i b u t i o n : The species is known only from the type locality.

R e m a r k s : This species, for the external characters and those of the inner sac of the aedeagus, is isolated from the congeners, so it is difficult to compare with other taxa.

Mahavana eximia nov.sp. (Figs 7-9, photo 1)

E x a m i n e d m a t e r i a l : <u>Holotype</u> δ : Thailand, Nan prov., Doi Phuka Nat. Park, P. Prudek & M. Oboril 28.IV-12.V.2002 (cB).

D e s c r i p t i o n : Length of body 4.3 mm; from anterior margin of head to posterior margin of elytra: 2.4 mm. Body (photo 1) shiny, amaranth, with lighter elytra; antennae and legs amaranth. Head large, sub-rectangular, a little convex, with sub-parallel and sub-rectilinear sides and largely rounded posterior angles. Eyes medium-sized and protruding. Surface of head with spaced, more or less fine punctures. Pronotum slender, narrow, very narrower and shorted than head, with oblique anterior margins, rounded anterior angles and sinuate sides. Surface with dorsal series of 8-9 punctures and lateral series of 3 very spaced and fine punctures. Elytra large, very longer and wider than pronotum, slightly dilated posteriad, with marked humeral angles. Surface with some series of very fine and sparse puntures. Abdomen with traces of micro-sculpture and fine, very spaced punctation.

Tergite and sternite of the male genital segment very membranous and therefore difficult to draw with precise contours (Figs 7-8). Aedeagus (Fig. 9) 0.7 mm long, sub-spherical, with asymmetric, long and narrow parameres; inner sac tape-like, rolled on it once, covered with fine spinulae.

E t y m o l o g y : The specific epithet is the Latin *eximius- a- um* (remarkable).

D i s t r i b u t i o n : The species is known only from the type locality.

R e m a r k s : As indicated in another contribution (BORDONI 2013a) the geus *Mahavana* BORDONI, 2002 is composed by two group of species, one that occurs in the Indochinese Peninsula [*M. antennalis* (CAMERON, 1932) from North Myanmar, *M. anotera* BORDONI, 2002 from North Thailand, *M. esophthalma* BORDONI, 2002 from North Vietnam and *M. miranda* BORDONI, 2002 from Malaysia, *M. anomala* BORDONI, 2010a from Laos] and Yunnan (*M. gaoligong* BORDONI 2010, *M. rhododendri* BORDONI, 2013a and *M. evestigata* BORDONI, 2013a). This group includes species usually reddish brown, with big eyes and often with very long and great last antennomeres. The second group includes yellowish pale, sub-anophthalmous species

(*M. watanabei* BORDONI, 2009, *M. daliana* BORDONI, 2010, *M. schuelkei* BORDONI, 2013a, *M. acinosa* BORDONI, 2013a, *M. caeca* BORDONI, 2013a), all from Yunnan.

M. eximia belongs to the first group and differs from the known species by shape of the body and aedeagus. Actually the genus includes 14 species.



Figs 1-9: Male genital segment, sternite of the same and aedeadus (1-3) of *Neoxantholinus thailandicus* nov.sp. Tergite and sternite of the male genital segment and aedeagus (4-6) of *Metolinus squamifer* nov.sp. Tergite and sternite of the male genital segment and aedeagus (7-9) of *Mahavana eximia* nov.sp. (m= membranous part) (scale bar: 0.1 mm).



Photo 1-2: (1) Habitus of *Mahavana eximia* nov.sp. (total lenght: 4.3 mm) and (2) *Denon silvestris* nov.sp. (total lenght: 4.2 mm) (photo S. Cuoco).

Denon silvestris nov.sp. (Figs 10-12, photo 2)

E x a m i n e d m a t e r i a l : <u>Holotype</u> \mathcal{S} : W Thailand, Tak prov., Mae Wong Nat. Park, 600 m, Li 15.IV.2001 (cB).

D e s c r i p t i o n : Length of body 4.2 mm; from anterior margin of head to posterior margin of elytra: 2.3 mm. Body (photo 2) shiny, amaranth with lighter elytra and abdomen; antennae and legs brown light. Head sub-rectangular, slightly dilated posteriad, with sub-parallel and sub-rectilinear sides and largely rounded posterior angles. Eyes medium-sized and a little protruding. Surface of head with evident and sparse punctation. Pronotum longer and anteriorly a little narrower than head, dilated forward, with oblique anterior margins, largely rounded anterior angles and sinuate sides. Surface with dorsal series of 5 fine and spaced punctures and lateral series of 3 very fine punctures. Elytra long, sub-rectangular, not dilated posteriad, longer and wider than pronotum in its widest point, with sub-rectilinear and sub-parallel sides and marked humeral angles. Surface with three series of very fine punctures, one juxtasutural, one median and one lateral. Abdomen with traces of fine, transverse micro-striation and fine, sparse punctation.

Tergite and sternite of the male genital segment as in Figs 10-11. Aedeagus (Fig. 12) 0.77 mm long, ovoid elongated, with thick, short parameres; inner sac tape-like, covered with fine and very dense spinulae.

E t y m o l o g y : The specific epithet is the Latin *silvestris- e* (sylvan).

D i s t r i b u t i o n : The species is known only from the type locality.

R e m a r k s : The genus *Denon* BORDONI, 2002 was described for a species (D. *silvaticus* BORDONI, 2002) from South central Thailand (Nakhon Nayok prov., Ban Na) and it is characterized by the following characters: upper epipleural line of pronotum present only in the proximal and distal portions and therefore not joint with the lower line; by the long and deep frontal grooves, by the prosternum with rectilinear posterior margin and very reduced intercoxal apophysis, and by the shape of the aedeagaus (cfr Figs 1412-1422 in BORDONI 2002).

Until now I do not see other specimens of this genus. The collection of a new species is evidently of great interest. The genus seems actually present only in Thailand.

The new species differs from *D. sylvaticus* by the following characters: head more narrow and long, less dilated posteriad, with more dense punctation; eyes a little larger; pronotum longer and less dilated forward; elytra evidently sub-rectangular, narrower, not dilated posteriad; aedeagus a little longer (0.77/0.74 mm), with different parametes and inner sac.

Indolinus inermis nov.sp. (Figs 13-15)

E x a m i n e d m a t e r i a l : <u>Holotype</u> ♂: Thailand, Chiang Dao, 600 m, 19.24N, 98.55E, V. Kuban 10-16.V.1991 (NHMB); <u>paratypes</u>: same data, 9-14.V.1991, 1♀ (cB); Fang, 300 m, 19.55N, 99.12E, V. Kuban 25.V.1991, 1♀ (NHMB).

D e s c r i p t i o n : Length of body 4.8 mm; from anterior margin of head to posterior margin of elytra: 2.6 mm. Body shiny, slender. Reddish brown light; antennae and legs yellowish pale. Head ovoid, narrow, slightly dilated forward, with rounded sides from the eyes to the neck, and obsolete posterior angles. Eyes medium-sized and protruding. Surface of head with very few punctures. Pronotum sub-rectangular, more or less as long



Figs 10-15: Tergite and sternite of the male genital segment and aedeagus (10-12) of *Denon silvestris* nov.sp., Male genital segment, sternite of the same and aedeagus (13-15) of *Indolinus inermis* nov.sp. (scale bar: 0.1 mm).

as head, narrower than it, with very oblique anterior margins, obsolete anterior angles and a little sinuate sides. Surface with dorsal series of 5-6 superficial, spaced punctures and lateral series of 2 posterior punctures. Elytra sub-rectangular, not dilated posteriad, longer and wider than pronotum, with rounded humeral angles. Surface with three series of very fine punctures, one juxtasutural, one median and one lateral. Abdomen with traces of fine, transverse micro-striation and fine, very sparse punctation.

Male genital segment long and narrow (Fig. 13); sternite of the same as in Fig. 14, with 2 long setae on the lateral, posterior lobules. Aedeagus (Fig. 15) 1.3 mm long, oblong, narrow, with long, peculaiar parameres; inner sac long, covered in the distal portion with two parallel series of pale scales.

E t y m o l o g y : The specific epithet is the Latin *inermis-* e (unarmed) in relation to the few, pale scales of the inner sac.

D i s t r i b u t i o n : The species is known only from the type locality.

R e m a r k s : When the genus *Indolinus* (BORDONI, 2002) was described, the known species were only three (*I. mitomorphoides* (COIFFAIT, 1984) from India, Nepal, Myanmar, Thailand and Laos, *I. formosae* BORDONI, 2002 from Taiwan and *I. sculptilis* BORDONI, 2002 from Hong Kong. Further researchs has shown that this genus is present in the Oriental Region with other species, though not common and usually represented by isolated specimens.

Also known are *I. vietnamicus* BORDONI, 2012 from Vietnam, *I. laosianus* BORDONI, 2013b from Laos and Vietnam and *I. leigong* BORDONI, 2013a from China (Guizou). *Indolinus inermis* is therefore the seventh known species of this genus.

Phacophallus japonicus (CAMERON, 1933)

E x a m i n e d m a t e r i a l : Thailand, Fang, 300 m, 19.55N, 99.12E, V. Kuban 25.V.1991, 11
ex. (NHMB), 2 exx. (cB); same data, D. Kral, 1 ex. (NHMB); Palong, 750 m, 19.55N, 99.06E, V.
Kuban 28.V.1991, 20 ex. (NHMB), 7 exx. (cB); Chiang Dao, 600 m, 19.24N, 98.55E, V. Kuban 10-16.V.1991, 1 ex. (NHMB); same data, D. Kral, 1 ex. (NHMB); Chumphong, Pha To env., 9.48N, 98.47E, K. Majer 1.III-14.IV.1996, 7 exx. (NHMB); same data, P. Prudek & R. Sigut 1-11.V.1998, 1 ex. (cH); Betong, S. Bily 25.IV.1992, 1 ex. (NHMB); Ranong, Ban Na env., 9.34N, 98.42E, K. Majer 22-26.III.1996, 1 ex. (NHMB); Chom Thong,18.26N, 98.01E, L. Dembicky 20-27.IV.1991, 1 ex. (NHMB); same data, J. Horak 24-27.IV.1991, 1 ex. (NHMB).

D i s t r i b u t i o n : This species is known from Thailand, Malaysia, Laos, Vietnam, Sumatra, Bali, Java, China (BORDONI 2002), Myanmar (BORDONI 2017).

Erymus filiformis nov.sp. (Figs 16-18)

E x a m i n e d m a t e r i a l : <u>Holotype</u> δ : Thailand, Khao Yai Nat. Park, Nakkon Ratchasima, Pha Kluai Mai, 650 m, Maruyama & Katayama 27.IX-4.X.2007 (cH); <u>paratypes</u>: same data, 1 \circ (cH), 1 δ (cB).

D e s c r i p t i o n : Length of body 4.4 mm; from anterior margin of head to posterior margin of elytra: 2.3 mm. Body slender, narrow, brown yellowish; antennae brown with the first 3 articles yellowish pale; legs yellowish pale, semitransparent. Head ovoid, with a little rounded sides and largely rounded posterior angles. Eyes large and very protruding. Surface of head with some very fine and sparse punctures. Pronotum a little longer and narrower than head, with oblique anterior margins, largely rounded anterior angles and slightly sinuate sides. Surface with dorsal series of 5 very spaced, fine

punctures and lateral series sof 3-4 punctures. Elytra long, dilated posteriad, very longer and wider than pronotum, with marked humeral angles. Surface a little wrinkled, with three series of very fine punctures, one juxtasutural, one median and one lateral. Abdomen with traces of fine, transverse micro-striation and fine, spaced punctation.

Tergite and sternite of the male genital segment as in Figs 16-17. Aedeagus (Fig. 18) 0.85 mm, ovoid truncate, with very long parameres; inner sac with a tufts of fine, distal spinulae, followed by a broad area covered with fine scales.

E t y m o l o g y : The specific epithet is the Latin *filiformis-* e (filiform), in relation to the slender body.

D i s t r i b u t i o n : The species is known only from the type locality.

R e m a r k s : This species differs from the congeners by the slender, narrow body, the color of the antennae and legs, and the structure of the inner sac of the aedeagus.



Figs 16-18: Tergite and sternite of the male genital segment and aedeagus of *Erymus filiformis* nov.sp. (scale bar: 0.1 mm).

1228

Xanthophius filum (KRAATZ, 1859)

E x a m i n e d m a t e r i a 1 : Thailand, Chiang Dao, 600 m, 19.24N, 98.55E, V. Kuban 10-16.V.1991, 27 exx. (NHMB), 5 exx. (cB); same data, D. Kral 9-16.V. 1991, 6 exx. (NHMB), 2 exx. (cB); Fang, 300 m, 19.55N, 99.12E, V. Kuban 25.V.1991, 34 exx. (NHMB), 8 exx. (cB); Palong, 750 m, 19.55N, 99.06E, V. Kuban 28.V.1991, 41 exx. (NHMB), 6 exx. (cB); same data, D. Kral 26-28.V.1991, 4 exx. (NHMB), 1 ex. (cB); Lansang, 500 m, 16.48N, 98.57E, V. Kuban 18-24.IV.1991, 1 ex. (NHMB); a exa. (cB); Lansang, 500 m, 16.48N, 98.57E, V. Kuban 18-24.IV.1991, 1 ex. (NHMB); a exx. (cB); Lansang, 500 m, 16.48N, 98.57E, V. Kuban 18-24.IV.1991, 1 ex. (NHMB); a exx. (cB); Lansang, 500 m, 16.48N, 98.57E, V. Kuban 18-24.IV.1991, 1 ex. (NHMB); a exx. (cB); Chumphong, Pha To env., 9.48N, 98.35E, V. Kuban 9-13.IV.1991, 25 exx. (NHMB), 4 exx. (cB); Chumphong, Pha To env., 9.48N, 98.47E, K. Majer 27.III-14.IV.1996, 6 exx. (NHMB); Mae Hong Son, 350 m, S. Bily 30.IV.1992, 1 ex. (NHMB); Nao prov., Ban Bo Klua env., P. Prudek 13-26.V.2002, 4 exx. (cH), 2 exx. (cB).

Distribution: This species is widespread in the Oriental Region (BORDONI 2002).

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Zusammenfassung

6 Kurzflügler-Arten (Coleoptera, Staphylinidae) werden aus Thailand beschrieben und illustriert: *Neoxantholinus thailandicus* nov.sp., *Metolinus squamifer* nov.sp., *Mahavana eximia* nov.sp., *Denon silvestris* nov.sp., *Indolinus inermis* nov.sp. und *Erymus filiformis* nov.sp.

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Author's addess:

Arnaldo BORDONI Museo di Storia Naturale dell'Università di Firenze, sezione di Zoologia "La Specola", via Romana 17 I-50125 Firenze, Italy E mail: arnaldo.bordoni@fastwebnet.it

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