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## Belgian Journal of Entomology

### *Pylaemenes scrupeus* sp. nov., a new Datamini from Thailand (Phasmida: Heteropterygidae: Dataminae)

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Front cover: *Pylaemenes scrupeus* sp. nov. mating pair. © Kawin Jiaranaisakul.

# *Pylaemenes scrupeus* sp. nov., a new Datamini from Thailand (Phasmida: Heteropterygidae: Dataminae)

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## Abstract

The new species *Pylaemenes scrupeus* sp. nov. from Ratchaburi province, Thailand is described and illustrated based on both sexes and the egg. The new species is diagnosed and differentiated from closely related species. The constitution of *Pylaemenes* Stål, 1875 and the problems arising with generic attribution of species, considering recent phylogenetic studies, are discussed. The genus is for the first time recorded from Thailand and pictures of living specimens and the habitat as well as a distribution map of continental *Pylaemenes* species are provided.

*Dares zieglerei* Zompro & Fritzsche, 1999 is transferred to *Orestes* Redtenbacher, 1906 leaving the genus *Dares* Stål, 1875 restricted to Borneo and Palawan.

**Keywords:** Myanmar, taxonomy, Phasmatodea, stick insect

## Introduction

Dataminae are small, robust stick insects predominantly living near the forest floor, they resemble small pieces of wood, bark or sticks. The subfamily currently comprises one tribe, eight genera and 54 species (BROCK *et al.*, 2021). Diversification of Dataminae was estimated to have started in Sundaland (current Borneo) between 45.6 and 28.1 mya (BANK *et al.*, 2021). Their current distribution ranges from Japan, Taiwan and China to the north over the entire Sundaland as far southeast as Seram and Halmahera in Wallacea (HENNEMANN *et al.*, 2016). Recent phylogenetic studies on the Heteropterygidae by BANK *et al.* (2021) have revealed the relationships between the three subfamilies and showed Dataminae to be the sister group of Heteropteryginae + Obriminae. Diagnostic morphological characters are the lack of a beak-like ovipositor, no medio-apical spine on the area apicalis, sensory areas on the prosternum and on the profurcasternum (HENNEMANN *et al.*, 2016; BRESSEEL & CONSTANT, 2020).

After examination of a Dataminae species collected from Ratchaburi prov., Suan Phueng district in Thailand, it keys out as *Pylaemenes* Stål, 1875, but could not be identified as any of the currently known species.

The stick insect fauna of Thailand is poorly studied with only 26 species currently recorded from the country (BROCK *et al.*, 2021). All species described in SORPONGPAISAL & THANASINCHAYAKUL (2006) are to be considered *nomen nudum* (CUMMING & LE TIRANT, 2019). The Dataminae are represented by two species: *Dares zieglerei* Zompro & Fritzsche, 1999 and *Orestes mouhotii* (Bates, 1865) (BROCK *et al.*, 2021).

This study aims to describe and differentiate the new species *Pylaemenes scrupeus* sp. nov. and transfer *Dares zieglerei* Zompro & Fritzsche, 1999 to *Orestes* Redtenbacher, 1906.

## Material and methods

Due to their nocturnal behaviour, as typical for most Phasmida, specimens of *Pylaemenes scrupeus* sp. nov. were collected at night. A water-proof head torch (Fenix HL60R) was used during collecting. The female was kept alive in a plastic box for producing eggs. The wild caught specimen was euthanized in a 50 ml centrifuge tube with ethylacetate (EtOAc) fumes. The specimens were mounted later on.

For each picture of the new species, a number of photographs were taken with a Canon 7D mark II camera equipped with the EF 100 mm f/2.8 Macro USM lens (for adults), or with a Leica EZ4W stereomicroscope with an integrated camera (for eggs). The pictures were stacked with CombineZ software and optimized with Adobe Photoshop CS3. The distribution map was produced with SimpleMappr (SHORTHOUSE, 2010). Observations were done with a Leica EZ4W stereomicroscope and measurements were taken with an electronic calliper.

For morphological characters we follow BRAGG (2001) and BRESSEEL & CONSTANT (2018, 2020) and for the egg morphology we follow CLARCK-SELLICK (1997; 1998). The description of the colouration is based on live and dried specimens.

For *Orestes*, only references relevant for this publication are provided. For more references for *Orestes* see BRESSEEL & CONSTANT, 2018

Acronyms used for the collections:

RBINS = Royal Belgian Institute of Natural Sciences, Brussels, Belgium

THNHM = Thailand Natural History Museum, Pathum Thani, Thailand.

Abbreviations:

HT: holotype

PT: paratype

## Taxonomy

**Family Heteropterygidae Kirby, 1869**  
**Subfamily Dataminae Rehn & Rehn, 1939**  
**Tribe Datamini Rehn & Rehn, 1939**

**Genus *Pylaemenes* Stål, 1875**

Type species: *Phasma (Pachymorpha) coronatum* Haan, 1842 by subsequent designation by KIRBY (1904).

*Pylaemenes* STÅL, 1875: 51 [described].

*Pylaemenes* – KIRBY, 1904: 400 [in Heteropteryginae, type-species designation]. — REDTENBACHER, 1906: 47 [redescription, key to species] — GÜNTHER, 1929: 613 [in Therameninae]. — RHEN & RHEN, 1938: 484 [in Obriminae, Datamini]. — BRADLEY & GALIL, 1977: 198 [in Heteropteryginae, Datamini]. — BRAGG, 1998: 84 [redescription, key to species]. — HENNEMANN, 1998: 125 [catalogued, synonymised with *Datames* Stål, 1875]. — BRAGG, 2001: 184 [species from Borneo]. — ZOMPRO, 2004: 225 [in Dataminae]. — OTTE & BROCK, 2005: 295 [catalogued]. — BROCK & OKADA, 2006: 24 [species list]. — HENNEMANN *et al.*, 2008: 26 [in catalogue of China]. — CHEN & HE, 2008 [in China]. — HO, 2013: 214 [species from China]. — HENNEMANN *et al.*, 2016: 12 [in Dataminae]. — HO, 2016: 1 [key to species of East Asia]. — SEOW-CHOEN, 2016: 391 [species from Borneo]. — SEOW-CHOEN, 2017: 134 [in

Singapore]. — HO, 2018: 276 [species from Vietnam]. — SEOW-CHOEN, 2018: 592; 2020: 305 [species from Sumatra]. — BANK *et al.*, 2021: 14 [in phylogeny of Heteropterygidae].

DISTRIBUTION. Currently known from China, Thailand, Peninsular Malaysia, Sumatra, Java, Borneo and Wallacea (BROCK *et al.*, 2021).

***Pylaemenes scrupeus* sp. nov.**

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(Figs 1–4)

ETYMOLOGY. The species epithet “*scrupeus*” (adjective, Latin) means rugged, referring to the general shape of this species.

TYPE MATERIAL. Holotype ♂: W’ THAILAND, Ratchaburi prov., Suan Phueng dist., 13°32’18.5”N 99°12’03.6”E, 980 m, 19.V.2020, K. Jiaranaisakul leg. (THNHM)

Paratypes (3♂♂, 4♀♀, 1♀ nymph): 1♀: same data as HT (THNHM); 1♂: W’ THAILAND, Ratchaburi prov., Suan Phueng dist., 13°32’20.2”N 099°12’10.3”E, 22.iii.2020, K. Jiaranaisakul leg. (RBINS); 1♀: W’ THAILAND, Ratchaburi prov., Suan Phueng dist., 13°32’20.2”N 99°12’02.6” E, 27.VII.2020, K. Wongdee leg. (RBINS); 1♂: W’ THAILAND, Ratchaburi prov., Suan Phueng dist., 19.V.2020, K. Wongdee leg. (RBINS); 1♀ nymph: W’ THAILAND, Ratchaburi prov., Suan Phueng dist., 26.i.2020, K. Jiaranaisakul leg. (THNHM); 1♂, 1♀: THAILAND, Ratchaburi prov., Khao Laem, 13°32’20.2”N 099°12’10.3”E, 27.IV.2021, K. Jiaranaisakul leg. (THNHM); 1♀: THAILAND: Ratchaburi Prov., Khao Laem, 13°32’18.5”N 99°12’02.6”E, 9.VIII.2021, K. Jiaranaisakul leg. (THNHM).

ADDITIONAL MATERIAL. 5 eggs: same data as holotype (RBINS).

DIAGNOSIS & DIFFERENTIATION. The new species is currently attributed to the genus *Pylaemenes* Stål, 1875 even though the current constitution of the genus has shown to be paraphyletic (BANK *et al.*, 2021; see discussion below). It is diagnosed by the conically elevated back of the head, formed by four converging carinae; the thickened lateral edges of meso- and metanotum, and the medially elevated and compound anterior margin of the mesonotum. The females resemble those of *Pylaemenes pui* Ho, 2013, with whom they share the short and broad mesonotum, the strongly widening abdominal terga II-IV and the straight lateral margins of the anal segment; but they can be differentiated by the lack of a central coronal and the less pronounced leg armature. The males resemble those of *Pylaemenes mitratus* (Redtenbacher, 1906), with whom they share the strongly developed supra-antennals, the triangularly raised anterior margin of the mesonotum and a pair of posteromedial mesonotal spines but can be differentiated by the presence of armature on the metanotum and a pair of rough blunt spines on tergum V instead of a pair of smooth conical spines as in *P. mitratus*.

DESCRIPTION. MALE (Figs 1, 4 A). Measurements: see Table 1.

*Head*: Supra-antennals strong and anterior supra-occipitals small, present as acute conical spines; posterior supra-occipitals present as minute granules. Vertex strongly raised and elongated, creating a distinct crest. Supra-orbitals at base of crest and about the same length and shape as the supra-antennals. Pro-coronals spinose, anterior coronals somewhat laterally flattened and lamellate on apex of crest; posterior coronals tuberculose. Pro-coronals about the same size as supra orbitals. Lateral coronals minute and conical. Postocular carina distinct with a blunt tubercle apically and a smaller one subapically. Eyes relatively small, almost circular in outline and projecting hemispherically. Antennae shorter than front legs, consisting of 23 segments ( $n=3$ ); scapus flattened dorsally, outer lateral margin with a median and apical blunt spine, inner margin gently rounded; pedicellus flattened dorsoventrally, indistinctly narrowing towards the posterior with the outer margin broadly rounded and the inner margin straight.

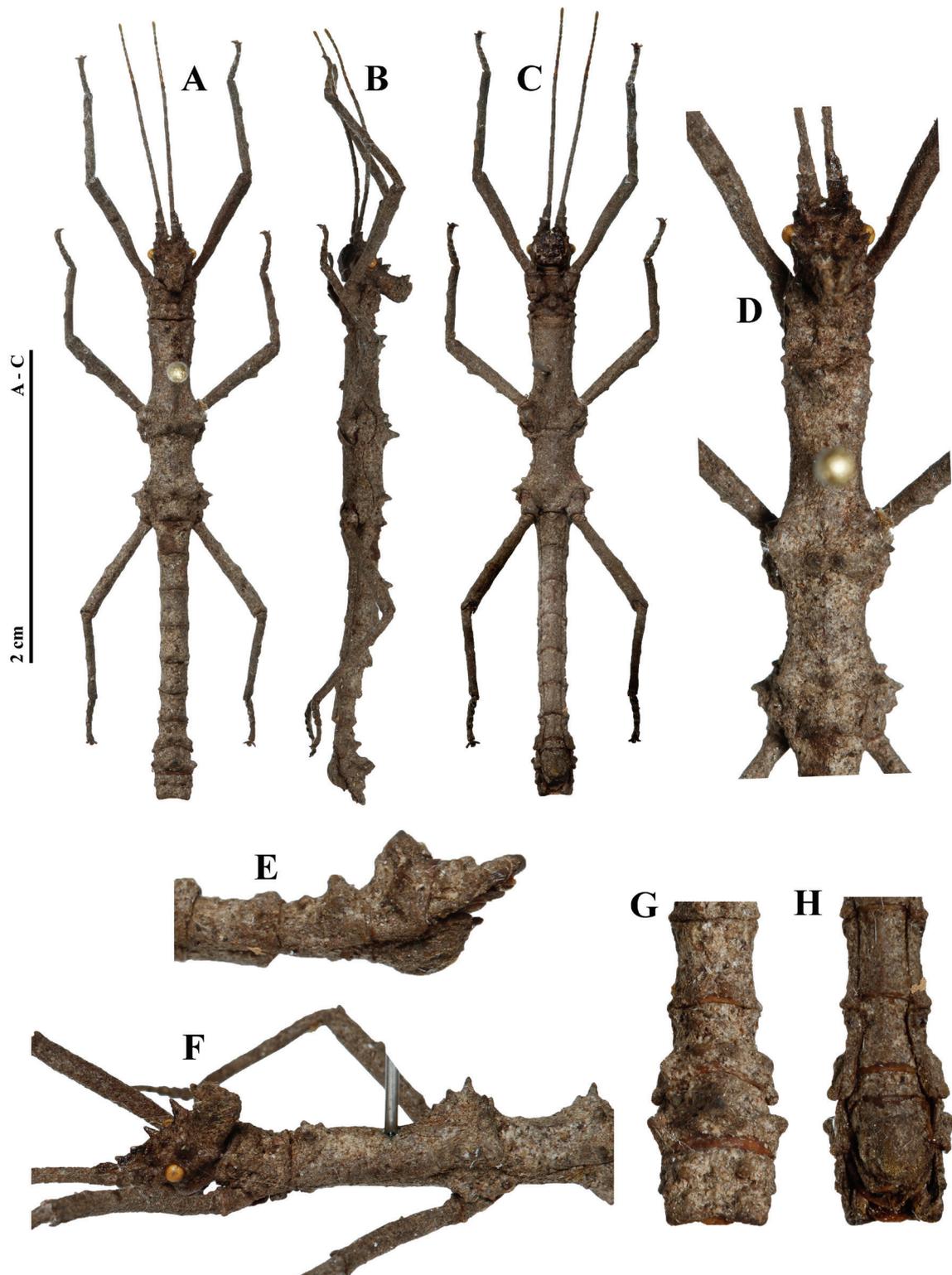


Fig. 1. *Pylaemenes scrupeus* sp. nov., Holotype ♂ (THNHM). A, habitus, dorsal view. B, habitus, lateral view. C, habitus, ventral view. D, head and thorax, dorsal view. E, terminalia, lateral view. F, head and thorax, lateral view. G, terminalia, dorsal view. H, terminalia, ventral view.

Third antennomere longer than pedicellus and longest segment of the antennae. Segment XIII with minute tubercle. Apical antennomere elongated, club-shaped and distinctly longer than preceding segments. Apical ten antennomeres yellowish.

*Thorax:* Pronotum transverse and more or less parallel-sided, lateral margins irregular with four evenly spaced tubercles; anterior margins strongly incurved, posterior margin straight; prozona slightly longer than metazona with a pair of tubercles anteromedially and a second pair posteromedially; metazona armed as prozona. Mesonotum elongated with anterior margin faintly wider than pronotum and with small triangular tubercle anterolaterally; narrowest centrally and nearly straight posteriorly; anterior margin triangularly raised in frontal view, compound medially with 3–4 tubercles medially; posterior margin raised medially with a pair of conical spines; posterolateral angles distinctly raised with central conical spine and with two smaller tubercles anterior and posteriorly; no mediolongitudinal carina present, except for short carina before posteromedial spines. Mesopleura laterally expanding above coxae, somewhat crenulated with four rounded humps. Metanotum longer than wide, somewhat concave laterally; anterior margin more or less straight; posterior margin incurved, medially raised with a single conical spine; posterolateral angles raised, armed with distinct conical spine. Metapleura laterally expanding posteriorly. Expanded portion with two small spines medially, the anterior one being distinctly larger; anteriorly and posteriorly with some minute granules. Prosternum with two sensory areas that are circular and not reaching lateral margins of segment. Sensory area on profurcasternum raised and circular.

*Legs:* Femora with carinae relatively indistinct except for anterodorsal carina of profemora which is slightly raised. Profemora about as long as metafemora, unarmed with some faint undulations. Mesofemora shorter than profemora with 3 indistinct minute humps on anterodorsal carina and two more distinct triangular teeth on posterodorsal carinae. Metafemora armed as mesofemora, but armature more distinct especially on posterodorsal carinae. Tibiae with carinae relatively indistinct, about as long as corresponding femora; posterodorsal carinae with some faint undulations. Tarsomeres I–III about the same length with a posteromedian rounded and flattened hump dorsally; IV distinctly shorter. Claws very small.

*Abdomen:* Median segment short and distinctly transverse; anterior margin indistinctly rounded, posterior margin straight with a pair of small conical spines medially. Terga II–V not differing much in length; tergum II trapezoidal, slightly narrowing towards the posterior with a pair of granules posteromedially; III–VII more or less parallel-sided. Tergum V with a distinct pair of raised triangular tubercles posteromedially; VI–VII indistinctly shortening with a tubercle posterolaterally and a pair of tubercles posteromedially; VIII trapezoidal, widening towards the posterior with a tubercle anterolaterally and a transverse row of six tubercles posteriorly, posterior margin concave. Tergum IX with distinct posteromedian crest; crest triangular in lateral view and diverging apically, posterior margin with distinct triangular tubercle sublaterally and a smaller blunt tubercle laterally. Anal segment flattened dorsally with lateral margins crenate and almost parallel-sided, indistinctly narrowing toward the posterior; anteriorly with a transverse row of five granules, posterior margin concave. Anterior portion of sternum IX reaching anterior margin tergum IX, short and concave posteriorly. Poculum shallow bowl-shaped with short mediolongitudinal carina and two elongated humps mediolaterally, carina not reaching anterior or posterior margin; outer rim dorsoventrally flattened and somewhat thickened; apex notched, projecting over base of vomer and reaching base of apical spine. Vomer well developed, more or less triangular with single, dark upcurving apical spine. Cerci short, strongly flattened and setose, not reaching apex of tergum X, with apices broadly rounded.

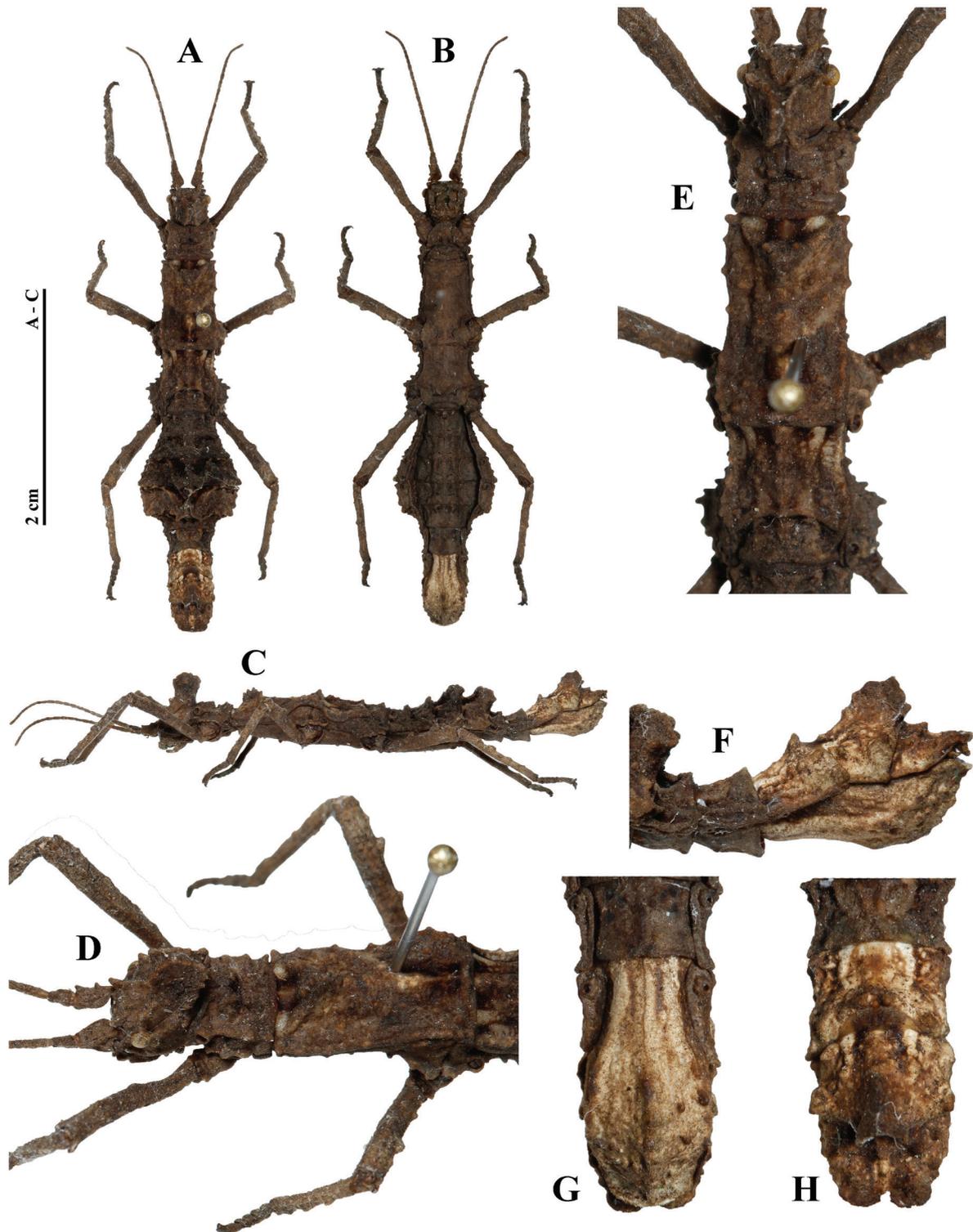


Fig. 2. *Pylaemenes scrupeus* sp. nov., paratype ♀ (THNHM). A, habitus, dorsal view. B, habitus, ventral view. C, habitus, lateral view. D, head and thorax, dorsolateral view. E, head and thorax, dorsal view. F, terminalia, lateral view. G, terminalia, ventral view. H, terminalia, dorsal view.

FEMALE (Figs 2, 4 A). Measurements: see Table 1.

*Head:* Supra-antennals strong, slightly laterally flattened and triangular in shape. Occipitals small, present as small, blunt spines; anterior ones being more prominent than posterior ones. Vertex strongly raised and elongated, creating a distinct crest. Supra-orbitals at base of crest, about the same length and shape as the supra-antennals. Pro-coronals, anterior- and posterior coronals present as laterally flattened and lamellate armature on apex of crest; anterior margin of crest broadly rounded, posterior margin more or less straight in lateral view. Lateral coronals minute and bluntly conical. Postocular carina distinct with a blunt tubercle apically and subapically. Eyes relatively small, almost circular in outline and projecting hemispherically. Antennae shorter than front legs, consisting of 25 segments ( $n = 1$ ); scapus and pedicellus as in male; third antennomere about as long as pedicellus; apical antennomere somewhat glossy, club-shaped and distinctly longer than preceding segments.

*Thorax:* Pronotum transverse and more or less parallel-sided, lateral margins irregular with four evenly spaced rounded tubercles; anterior margins strongly incurved, posterior margin straight; prozona medially raised with a pair of minute tubercles anteromedially and a second pair posteromedially; posteromedial portion of prozona higher in lateral view; between pro- and metazona a distinct transverse furrow, not reaching lateral edges; metazona armed as prozona. Mesonotum comparatively short, nearly parallel-sided with anterior and posterior margin straight; subanterior portion raised, triangular in frontal view with apex compound, armed with six conical tubercles ( $n=2$ ), raised portion not reaching halfway mesonotum; anterior half with lateral edges armed with four evenly spaced blunt tubercles; posterior half with lateral margins raised, rounded in lateral view and armed with several indistinct blunt tubercles; posteromedially with a pair of raised blunt tubercles, preceded by a short but distinct mediolongitudinal carina, not reaching halfway mesonotum; dorsally with few blunt tubercles. Mesopleura laterally expanding above coxae, somewhat crenulated with four rounded humps.

Metanotum longer than wide, somewhat incurved laterally; anterior margin more or less straight and posterior margin distinctly concave; dorsally with mediolongitudinal carina, armed with some minute granules and with a larger blunt tubercle posteriorly; posterolateral margins raised, armed with some blunt tubercles. Metapleura laterally expanding towards the posterior, somewhat flattened dorsoventrally and armed with some elongate blunt tubercles over its complete length. Prosternum with two raised sensory areas that are more or less circular, not reaching lateral margins. Profurcasternum with anterior margin straight; lateral margins somewhat thickened and sensory area distinctly raised and more or less oval.

*Legs:* femora with carinae relatively indistinct except for anterodorsal carina of profemora which is slightly raised. Profemora about as long as metafemora, dorsally with some minute humps. Mesofemora shorter than profemora with 3–4 tubercles alternating on both dorsal carinae; two most distinct teeth on posterodorsal carinae. Metafemora armed as mesofemora, but armature more distinct. Tibiae with carinae relatively indistinct, about as long as corresponding femora. Protibiae with three small humps on posterodorsal carina alternating with indistinct humps on anterodorsal carina. Meso- and metatibiae armed as protibiae. Tarsomeres I–III about the same length with a posteromedian rounded and flattened hump dorsally; IV distinctly shorter. Claws very small.

*Abdomen:* Median segment short and distinctly transverse; anterior margin convex, posterior margin straight with a pair of small tubercles medially. All abdominal terga transverse. Terga II–IV gradually widening towards the posterior with lateral margins crenate, posterior margin of tergum IV widest part of body. Tergum II armed as median segment. Tergum III as II but with indistinct oblique carinae starting submedially and reaching posterolateral angles. Tergum IV as III but with all armature more developed; oblique carinae more distinct and posteromedian

armature raised and compound, preceded by a short longitudinal carina. Tergum V almost parallel-sided, slightly narrowing towards the posterior and crenate laterally; armed as tergum IV with posteromedian armature projecting over tergum VI. Tergum VI with anterior portion vertical in lateral view, almost making a 90 degree angle; distinctly shorter than preceding segment and strongly narrowing towards the posterior. Tergum VII slightly longer than VI, indistinctly narrowing towards the posterior with armature indistinct. VIII slightly longer than VII with posterior margin armed with six blunt evenly spaced tubercles. IX with a distinct posteromedian crest; crest triangular in lateral view, apically diverging; posterior margin with a distinct triangular tubercle sublaterally and a smaller blunt tubercle laterally. Anal segment somewhat flattened with lateral margins crenate and indistinctly narrowing toward the posterior; subanteriorly with a transverse row of five granules and apically notched. Sternum VII without distinct praepercular organ. Subgenital plate with mediolongitudinal carina; posterior portion granulose, strongly rounded and swollen; with two oblique carinae submedially and with apical rim dorsoventrally flattened and rounded posteriorly.

EGG (Fig. 3). Measurements [mm]. Length: 3.2; width: 2.2; height: 2.5.

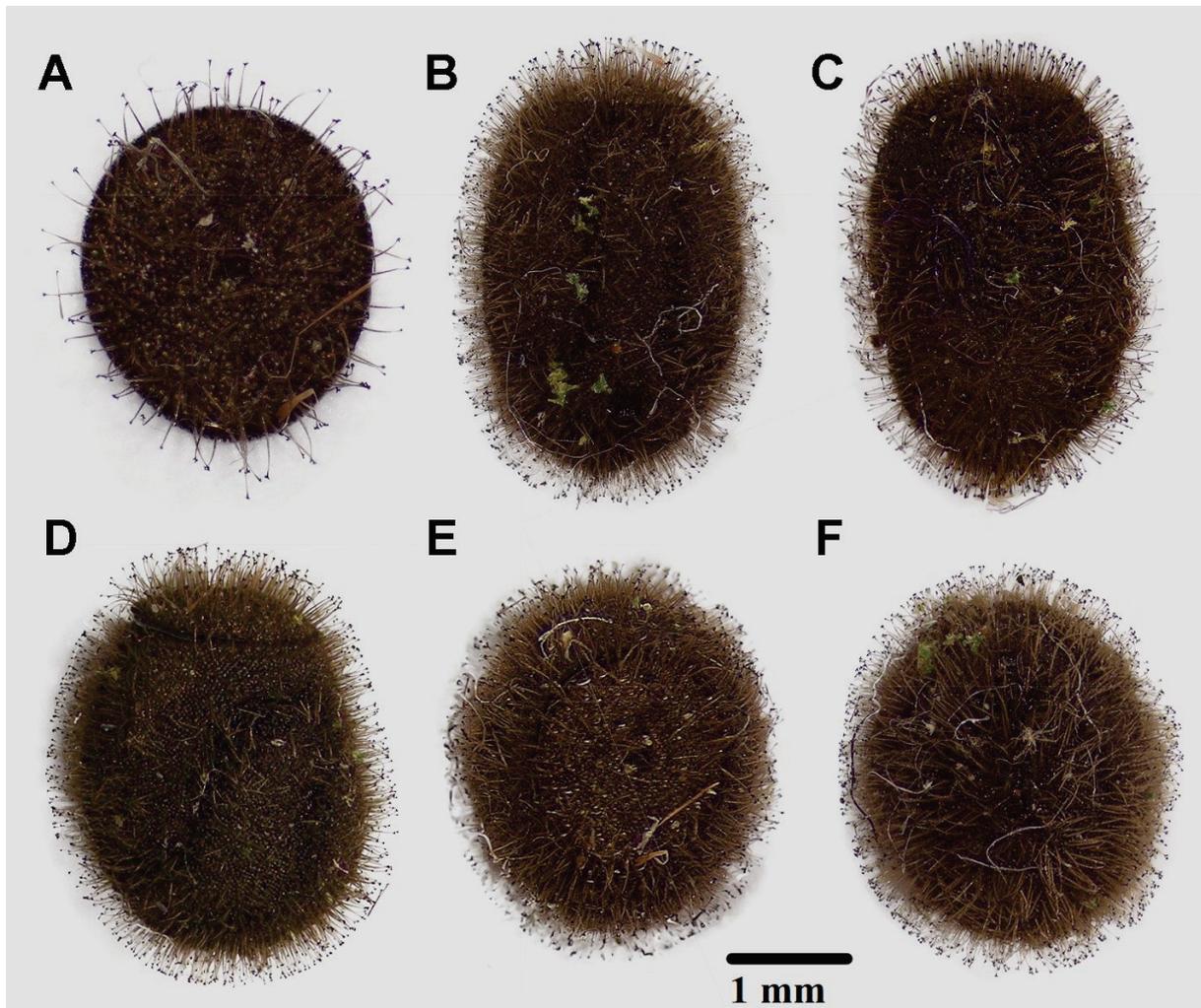


Fig. 3. *Pylaemenes scrupeus* sp. nov., eggs. A, operculum anterior view (not to scale). B, dorsal view. C, ventral view. D, lateral view E, anterior view. F, posterior view.

Egg capsule oval; grey brown. Operculum sub-circular and slightly convex; capsule including micropylar plate and operculum minutely pitted and densely covered with long setae (about 0.4 mm) bearing a distal black three-hooked grapnel-shaped structure. Micropylar plate, trilobate with one anterior expansion and two lateral expansions; coloured as capsule, but bordered by a dark narrow marking. Anterior expansion parallel-sided, rounded anteriorly and nearly reaching margin of the operculum. Posterior expansions projecting laterally, distinctly directed towards the anterior, apices visible anteroventrally, but not merging. Micropylar cup indistinct and cup-shaped; median line indistinct, somewhat raised, reaching polar area.



Fig. 4. *Pylaemenes scrupeus* sp. nov. A, maiting pair, in situ. B, habitat.

**BIOLOGY** (Fig. 3 B). The specimens were found and observed at 980 m asl. in tropical evergreen forest. Adults were fed different Araceae spp. e.g. *Epipremnum aureum* and *Syngonium* sp. The host plants in the wild remain unknown.

Table 1. Measurements [mm] of *Pylaemenes scrupeus* sp. nov.

Length of	HT ♂	PT ♂♂	PT ♀♀
Body:	37.3	37.6–38.7	39.7–41.5
Head (including crest):	5.2	5.2–5.3	6.9
Pronotum:	2.5	2.5–2.6	3.1–3.3
Mesonotum:	7.8	7.8–7.9	8.0–8.6
Metanotum:	4.3	4.2–4.4	3.7–3.9
Median segment:	1.3	1.3–1.4	2.0–2.4
Profemora:	8.0	7.9–8.0	7.9–8.5
Mesofemora:	6.8	6.7–6.8	6.9–7.5
Metafemora:	7.9	7.7–7.8	7.9–8.3
Protibiae:	7.5	7.5–7.7	7.9–8.0
Mesotibiae:	6.0	5.9–6.1	6.4–6.7
Metatibiae:	7.6	7.5–7.7	8.0–8.3

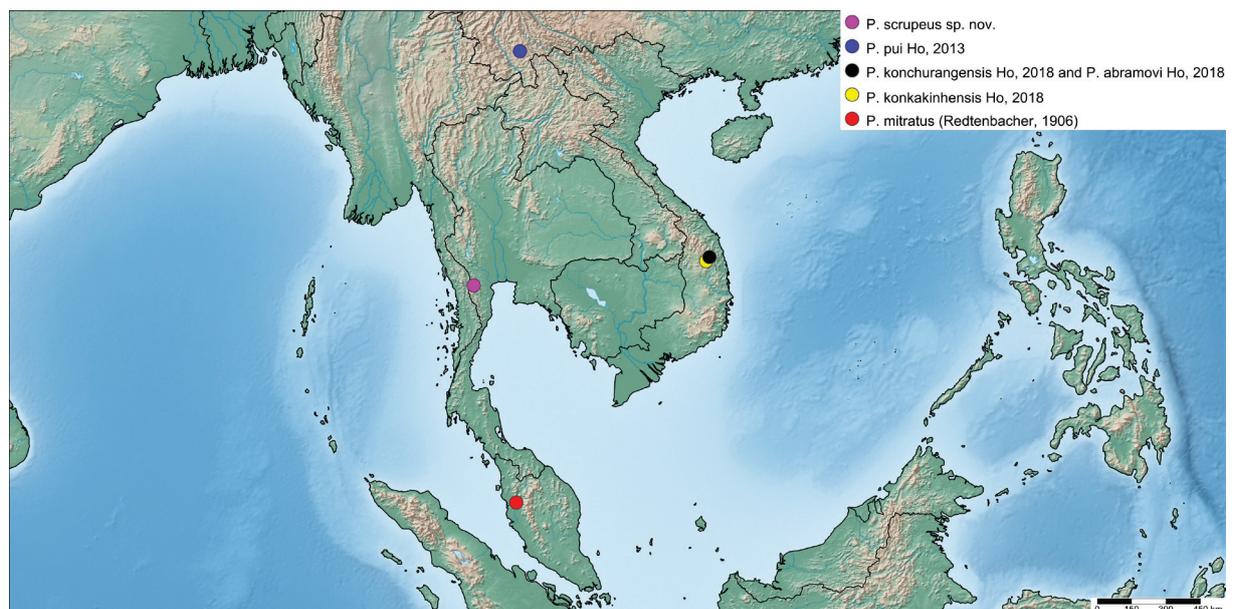


Fig. 5. *Pylaemenes* species of continental Asia, distribution map.

**DISTRIBUTION** (Fig. 5) Currently only known from Ratchaburi Province (Suan Phueng District).

### **Genus *Orestes* Redtenbacher, 1906.**

Type species: *Orestes verruculatus* Redtenbacher, 1906 by monotypy.

*Orestes* REDTENBACHER, 1906: 47 [described].

*Orestes* – REHN & REHN, 1938 [attributed to Datamini]. — BRAGG, 2001 [type specimen data].  
— ZOMPRO, 2004 [redescribed]. — HO, 2013 [recorded from China]. — SEOW-CHOEN, 2017

[recorded from Singapore]. — BROCK *et al.*, 2017 [catalogued]. — BRESSEEL & CONSTANT, 2018 [generic revision] — SEOW-CHOEN, 2018 [recorded from Sumatra].

***Orestes zieglerei* (Zompro & Fritzsche, 1999) comb. nov.**

*Dares zieglerei* ZOMPRO & FRITZSCHE, 1999:10, pl. 3, figs 1–5 [described and figured].

*Dares guangxiensis* – ZOMPRO, 2004: 219 [synonymy].

*Dares zieglerei* – OTTE & BROCK, 2005: 118 [catalogued]. — BROCK & OKADA, 2006: 24 [removed from synonymy with *Pylaemenes guangxiensis*].

COMMENTS. ZOMPRO & FRITZSCHE (1999) described this species in the genus *Dares* Stål, 1875 but gave no explanation as to why the species was attributed to this genus. ZOMPRO (2004) synonymised the species with *Pylaemenes guangxiensis* (Bi & Li, 1994), but BROCK & OKADA (2006) treated both *Dares zieglerei* Zompro and Fritzsche, 1999 and *P. guangxiensis* again as valid species. In both keys provided by ZOMPRO (2004) & BROCK & OKADA (2006), *D. zieglerei* keys out as *Pylaemenes* Stål, 1875 as it has the mesonotum more than two times longer than the pronotum, yet the species was retained in *Dares*.

BRESSEEL & CONSTANT (2018) redefined the characters of *Orestes* Redtenbacher, 1906 and transferred *P. guangxiensis* to *Orestes*. ZOMPRO (2004) already indicated a close relationship between *D. zieglerei* and *O. guangxiensis* when he synonymised both species and his description of the head armature (ZOMPRO & FRITZSCHE, 1999) agrees with the cephalic armature provided for *Orestes* by BRESSEEL & CONSTANT (2018).

The species is here transferred to *Orestes* because of the combination of following characters (based on the descriptions and figures by ZOMPRO & FRITZSCHE (1999)): the distinctive cephalic armature; tergum IV being the highest part of the abdomen and tergum V distinctly slanting; the semi-cylindrical mesonotum without distinctly raised mediolongitudinal and lateral carina; the rectangular anal segment and the egg morphology.

More material, including the unknown male, will shed more light on its relationship with other *Orestes* species.

### Discussion

Recent phylogenetic studies have shown *Pylaemenes* Stål, 1875 to be paraphyletic with three distinct lineages that are geographically restricted to Wallacea, Borneo and mainland Asia (BANK *et al.*, 2021). The type species *Pylaemenes coronatus* (Haan, 1842) has syntypes from Java/Sundaland and Amboina/Wallacea. Six species are currently found on mainland Asia including the here described species (BROCK *et al.*, 2021). One species is recorded from Peninsular Malaysia, one from Thailand, one from China and three from Vietnam (Fig. 5). The latter are not closely related to the other *Pylaemenes* species of mainland Asia and will be treated in a currently ongoing study aiming a comprehensive insight on the relationships between the different subtaxa of Dataminae (in prep.).

The generic attribution of the new species remains problematic due to the lack of reference material from Sumatra and especially Java. The latter also being the type locality of *Pylaemenes oileus* (Westwood, 1858), the type-species of *Datames* Stål, 1875 and currently a junior synonym of *Pylaemenes*. Redescription of the type-species for *Pylaemenes* and *Datames* is necessary to confirm or reject the current synonymy. Therefore, the new species is, considering the generic placement of its close relatives, described in *Pylaemenes*.

With *Dares zieglerei* Zompro & Fritzsche, 1999 transferred to *Orestes* comb. nov., the genus *Dares* Stål, 1875 is now restricted to Borneo and Palawan. This corresponds with the findings

of BANK *et al.* (2021) with a Bornean clade (including Palawan) as the sister group to all remaining genera.

With the description of *Pylaemenes scrupeus* sp. nov., the number of Dataminae recorded from Thailand is only three species. It is to be expected that many more species are present in the country, especially in mountainous areas.

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