

ORIGINAL ARTICLE

New taxa of Clitumninae from Vietnam (Phasmatodea: Phasmatidae)

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Abstract In this study, one new genus and seven new species from the Clitumninae of Vietnam are described and illustrated, namely *Interphasma lineatum* **sp. nov.**, *Medauroidea cattienensis* **sp. nov.**, *M. cornuta* **sp. nov.**, *M. fasciata* **sp. nov.**, *Neomedaura yokdonensis* **gen. & sp. nov.**, *Parapachymorpha pseudospinosa* **sp. nov.** and *Prosentoria vietnamensis* **sp. nov.**

Key words Stick insects, new genus, new species, Vietnam.

1 Introduction

Clitumninae is one of the speciose subfamilies in the Phasmatodea and six genera and 19 species were recognised in the Clitumninae of Vietnam (Brock *et al.*, 2020). In this study, the author examined various Vietnamese phasmid collections and identified eight new taxa, including one new genus and seven new species from the Clitumninae of Vietnam, described as *Interphasma lineatum* **sp. nov.**, *Medauroidea cattienensis* **sp. nov.**, *M. cornuta* **sp. nov.**, *M. fasciata* **sp. nov.**, *Neomedaura yokdonensis* **gen. & sp. nov.**, *Parapachymorpha pseudospinosa* **sp. nov.** and *Prosentoria vietnamensis* **sp. nov.** Key to the species of studied genera including *Medauroidea* Zompro, 2000 and *Parapachymorpha* Brunner von Wattenwyl, 1893 are provided.

2 Materials and methods

The examined materials were pinned and dried. The systematic treatment is according to Otte & Brock (2005), Hennemann & Conle (2008) and Brock *et al.* (2020). The sequence of genera and species is in alphabetical order. Morphological terms follow Bragg (2001), Zompro (2004) and Bradler (2009). Ootaxonomic descriptions refer to Clark (1976, 1988, 1998), Clark-Sellick (1997) and Zompro (2004). All measurements are given in millimetres (mm). The types are deposited in China Agricultural University, Beijing, China (CAU), Hong Kong Entomological Society, Hong Kong, China (HKES) and Manchester Museum, The University of Manchester, U.K. (MMUE).

3 Taxonomy

3.1 *Interphasma* Chen & He, 2008

Interphasma Chen & He, 2008: 328. Type species: *Interphasma lushanense* Chen & He, 2008: 329, by original designation.

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Description. Small size for Clitumninae. Apterous. Body unarmed in both sexes, slender in male and robust in female; rough, with sparse and small granulations which may be absent in the male of some species. Head oblong. Occiput flat. Antennae distinctly segmented, shorter than profemora. Thorax slender. Abdomen cylindrical. Seventh sternum with distinct praeopercular organ in most species in female. Anal segment tectiform in female, distinctly dilated into two semi-tergites in male. Supra-anal plate small or indistinct in female. Cerci short and cylindrical. Legs slender and unarmed.

Distribution. China and Vietnam.

Remarks. This genus currently consists of 17 species and two subspecies and is reported for the first time from Vietnam. Ho (2017) provided a taxonomic review for this genus.

***Interphasma lineatum* sp. nov.** (Figs 1–4, 27–34)

Diagnosis. This new species is closely related to *I. marginatum* Chen & Zhang, 2008, but differs in the presence of a small median elevation on the cerci and the shape of semi anal abdominal tergites in the male and the hump-like praeopercular organ on the posteromedian area of seventh abdominal sternum in the female.

Description. Male. Medium-sized. Body slender and slim, distinctly slimmer than female. General colour of body and legs light brown or dark brown, with a black stripe along lateral margins of thorax and abdomen. Head oval, roughly as long as pronotum, with sparse and small granules. Vertex with two obscure elevations between compound eyes. Occiput flat, median longitudinal and lateral furrows distinct. Genae with a blackish postocular stripe. Compound eyes oval, its length about three times that of genae. Antennae short, reaching subapical area of profemora, with 21 segments; scapus flattened and constricted at base, median longitudinal carina distinct, as long as third segment, longer than pedicellus. Thorax sparsely covered with a few small granules. Pronotum rectangular, longer than wide, anterior margin gently curved inwards, posterior margin truncate, transverse and longitudinal sulci crossing at middle point. Mesonotum slender and elongate, longer than combined length of metanotum and median segment, gently expanded posteriorly in second half, with a few minute pits along lateral margins. Metanotum longer than median segment, with a few minute pits along lateral margins. Abdomen sparsely covered with a few granules. Median segment rectangular, longer than wide. Parallel-sided from second to seventh tergites. Eighth tergum gently expanded posteriorly, longer than ninth tergum. Anal segment tapering posteriorly, as long as ninth tergum, dilated into two distinct semi-tergites. Inner margins of semi-tergites curved inwards, apices obtuse and pointing downwards in lateral view, with a few minute teeth. Poculum cup-shaped, with a rounded hump basally, posterior margin rounded, reaching anterior area of anal segment. Cerci with a small elevation near middle area, cylindrical, weakly curved inwards, apices rounded. Legs very slender and long. Unarmed, sparsely covered with short bristles. All femora thicker than corresponding tibiae. Profemora curved basally.

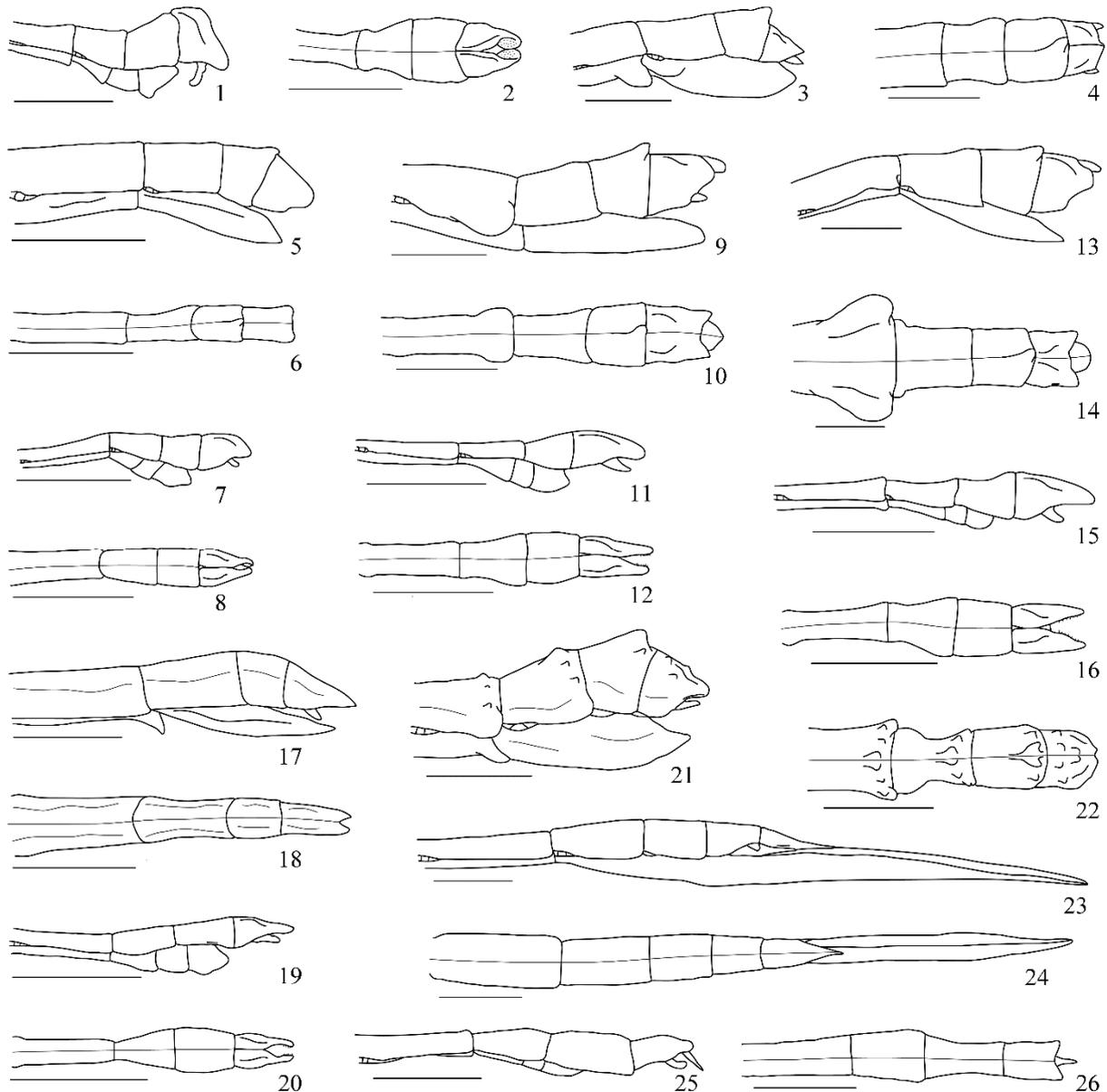
Female. Medium-sized. Body slender, distinctly larger and more robust than male. General colour of body and legs light brown or dark brown. Head oval, longer than pronotum. Sparsely covered with small granules. Occiput moderately convex, with distinct median longitudinal furrow, with a few enlarged granules. Genae with a blackish postocular stripe. Compound eyes oval, its length about four times that of genae. Antennae with short bristles, reaching middle area of profemora, with 16 to 17 segments; scapus dorsoventrally flattened, basally constricted, distinctly carinate medio-longitudinally, longer than pedicellus, as long as third segment. Thorax wrinkled, sparsely covered with small granules and interspersed with a few enlarged granules. Pronotum trapezoidal, gently expanded posteriorly, anterior margin curved inwards, posterior margin truncate, transverse and longitudinal sulci just crossing after middle point. Mesonotum gently expanded posteriorly, median longitudinal line distinct. Metanotum longer than median segment. Abdomen cylindrical, gradually tapering posteriorly. Sparsely covered with small granules and interspersed with a few enlarged granules. Median segment wider than long. Seventh sternum with a flattened praeopercular organ on posterior area, tapering posteriorly, apex blunt. Eighth tergum almost as long as ninth tergum. Anal segment shorter than ninth tergum, with rounded posterior margin. Supra-anal plate indistinct. Subgenital plate scoop-shaped, mediolongitudinally carinate, apex pointed and reaching posterior area of anal segment. Cerci short, apices pointed and not surpassing posterior margin of anal segment. Legs slender and long. Unarmed. All femora thicker than corresponding tibiae. Profemora curved at base.

Measurements. Length. Body, ♂ 52.0–58.0 mm, ♀ 60.0–70.0 mm; antennae, ♂ 16.0–18.0 mm, ♀ 10.0–12.0 mm; head, ♂ 3.0 mm, ♀ 3.5–5.0 mm; pronotum, ♂ 2.5–3.0 mm, ♀ 3.0–4.0 mm; mesonotum, ♂ 13.0–14.0 mm, ♀ 13.0–16.0 mm; metanotum, ♂ 7.0–8.0 mm, ♀ 7.0–8.0 mm; median segment, ♂ 2.0 mm, ♀ 2.0–3.0 mm; profemora, ♂ 27.0–33.0 mm, ♀ 25.0–32.0 mm; mesofemora, ♂ 17.0–19.0 mm, ♀ 14.0–18.0 mm; metafemora, ♂ 23.0–25.0 mm, ♀ 19.0–25.0 mm; protibiae, ♂ 32.0–38.0 mm, ♀ 27.0–36.0 mm; mesotibiae, ♂ 18.0–20.0 mm, ♀ 15.0–19.0 mm; metatibiae, ♂ 26.0–31.0 mm, ♀ 22.0–27.0 mm.

Material examined. Holotype ♂, Vietnam, Nge An Prov., c. 21 km NW of Kim Son Town, Pu Hoat Nature Reserve, elev. 840 m, 5–15 May 2018, Abramov, A. V. (MMUE). Paratypes. 8♀, 4♂, same data as holotype (HKES & MMUE).

Distribution. Vietnam.

Etymology. The specific epithet of this new species is derived from the postocular stripe on the genae in the both sexes.



Figures 1–26. Clitumninae spp. 1–4. *Interphasma lineatum* sp. nov. 5–8. *Medauroidea cattienensis* sp. nov. 9–12. *Medauroidea cornuta* sp. nov. 13–16. *Medauroidea fasciata* sp. nov. 17–20. *Neomedaura yokdonensis* gen. & sp. nov. 21–22. *Parapachymorpha pseudospinosa* sp. nov. 23–26. *Prosentoria vietnamensis* sp. nov. 1, 7, 11, 15, 19, 25. Male end of abdomen, lateral view. 2, 8, 12, 16, 20, 26. Male end of abdomen, dorsal view. 3, 5, 9, 13, 17, 21, 23. Female end of abdomen, lateral view. 4, 6, 10, 14, 18, 22, 24. Female end of abdomen, dorsal view. Scale bars = 5 mm.

3.2 *Medauroidea* Zompro, 2000

Medauroidea Zompro, 2000: 68. Type species: *Clitumnus extradentatus* Brunner von Wattenwyl, 1907: 193, by original designation.

Description. Medium-sized for Clitumninae. Apterous. Body slender and long. Female distinctly larger and more robust than male. Head oval. Vertex unarmed or with a pair of spines or horns in both sexes. Occiput flat. Antennae short, distinctly segmented. Thorax slender and elongate, with granules and/or spine-like tubercles. Mesonotum parallel-sided or gently expanded posteriorly in female, parallel-sided or broadly emarginated medially in male. Abdomen cylindrical. Female

lacking noticeable praeopercular organ or with horn-like praeopercular organ on posteromedian area of seventh sternum. Anal segment with a broad V-shaped emargination on posterior margin in female, dilated into two semi-tergites in male. Female supra-anal plate distinct and small, indistinct in male. Female subgenital plate scoop-shaped. Male poculum small and cup-shaped. Cerci short in both sexes. Legs slender and long. Female femora with distinct serrations, male with indistinct serrations. Tibiae with small serrations or small spines in both sexes. Egg capsule oval.

Distribution. Cambodia, China, Laos and Vietnam.

Remarks. In Vietnam, five species of *Medauroidea* including *M. cattienensis* sp. nov., *M. cornuta* sp. nov., *M. extradentata* (Brunner von Wattenwyl, 1907), *M. fasciata* sp. nov. and *M. regula* (Brunner von Wattenwyl, 1907) are currently recognised. Keys to the species (females and males) of the genus are provided.

Key to females of *Medauroidea* from Vietnam.

- | | |
|---|--|
| 1. Seventh abdominal tergum with laterally expanded lobe..... | 2 |
| Seventh abdominal tergum parallel-sided..... | 3 |
| 2. Head armed with a pair of horns..... | <i>Medauroidea cornuta</i> sp. nov. |
| Head unarmed..... | <i>Medauroidea fasciata</i> sp. nov. |
| 3. Head unarmed..... | <i>Medauroidea cattienensis</i> sp. nov. |
| Head armed with a pair of horns or spines..... | 4 |
| 4. Femora lacking noticeable armature..... | <i>Medauroidea regula</i> |
| Femora with distinct serrations..... | <i>Medauroidea extradentata</i> |

Key to males of *Medauroidea* from Vietnam.

- | | |
|--|--|
| 1. Thorax and abdomen with a distinct mediolongitudinal band..... | <i>Medauroidea cattienensis</i> sp. nov. |
| Thorax and abdomen uniformly coloured..... | 2 |
| 2. Ventral carinae of mesofemora with distinct serrations..... | <i>Medauroidea extradentata</i> |
| Ventral carinae of mesofemora with indistinct serrations..... | 3 |
| 3. Anal abdominal segment longer than eighth abdominal tergum..... | <i>Medauroidea cornuta</i> sp. nov. |
| Anal abdominal segment as long as eighth abdominal tergum..... | <i>Medauroidea fasciata</i> sp. nov. |

Medauroidea cattienensis sp. nov. (Figs 5–8, 35–42)

Diagnosis. This new species is related to *Medauroidea fasciata* sp. nov., but can be separated by the weakly emarginated posterior margin of the anal abdominal segment and the absence of laterally expanded lobe on the seventh tergum in the female and the unarmed mesofemora and metafemora in the male.

Description. Female. Body elongate and slender, distinctly larger and more robust than male. General colouration of body and legs brown. Head sparsely granulated. Oblong, longer than wide. Vertex obscurely convex, unarmed. Occiput flat, median and lateral longitudinal furrows indistinct, posterior margin weakly raised, with six small swellings. Compound eyes small and rounded, its length about four times of genae. Antennae short, with 22 segments, reaching middle area of profemora; scapus flattened, constricted anteriorly and posteriorly, longer than combined length of pedicellus and third segment; and pedicellus shorter than third segment. Thorax sparsely granulated. Pronotum trapezoidal, gently expanded posteriorly, shorter than head, anterior margin strongly incurved, posterior margin truncate, transverse and longitudinal sulci crossing at middle point. Mesonotum parallel-sided, longer than combined length of metanotum and median segment, lateral margins with a few acute granules. Metanotum longer than median segment. Abdomen cylindrical, lacking granulation. Median segment rectangular, longer than wide. Seventh sternum lacking noticeable praeopercular organ. Eighth tergum longer than ninth tergum. Ninth tergum with a small crest posteromedially. Anal segment longer than ninth tergum, posterior margin with a small, broad V-shaped emargination, posterolateral angles obtuse, median longitudinal carina weakly elevated. Supra-anal plate distinct, small, median longitudinal carina distinct, posterior margin pointed and not exceeding posterolateral angles of anal segment. Subgenital plate scoop-shaped, posterior apex pointed and reaching middle area of anal segment. Cerci short, flattened, apices rounded and not surpassing posterior margin of anal segment. Legs slender and long. Femora thicker than corresponding tibiae. Profemora curved basally, posterodorsal carina with a few serrations, other carinae unarmed. Anterodorsal and posterodorsal carinae of mesofemora and metafemora with a few minute serrations, other carinae unarmed. Tibiae unarmed.

Male. Body slender and slim, distinctly smaller and slenderer than female. General colouration of body and legs brown to dark brown. Head sparsely granulated. Oblong, longer than head. Vertex flat, unarmed. Occiput flat, with indistinct median and lateral longitudinal furrows, posterior margin weakly raised, with four small swellings. Compound eyes small and rounded, its length about three times of genae. Antennae short, with 26 segments, apices reaching subapical area of profemora;

scapus flattened, as long as combined length of pedicellus and third segment; third segment longer than pedicellus. Thorax covered with very few granules. Pronotum rectangular, longer than wide, anterior margin strongly incurved, posterior margin truncate, transverse and longitudinal sulci crossing at middle point. Mesonotum longer than combined length of metanotum and median segment, parallel-sided. Metanotum longer than median segment. Abdomen slender and cylindrical. Median segment rectangular, longer than wide. Ninth tergum shorter than eighth tergum. Anal segment as long as eighth tergum, dilated into two distinct semi-tergites, tapering posteriorly, inner margin with minute dentations, apices obtuse. Poculum small, cup-shaped, posterior margin pointed and reaching posterior area of ninth tergum. Cerci cylindrical, short, apices obtuse and not exceeding posterior apices of anal segment. Legs slender and long. Femora thicker than corresponding tibiae. Profemora curved basally, posterodorsal carina with a few small serrations, other carinae unarmed. Mesofemora and metafemora unarmed. Protibiae unarmed. Anterodorsal and posterodorsal carinae of mesotibiae and metatibiae with a few minute spines subapically, other carinae unarmed.



Figures 27–34. *Interphasma lineatum* **sp. nov.** 27. Male habitus. 28. Male abdomen, lateral view. 29. Male abdomen, dorsal view. 30. Female habitus. 31. Female abdomen, lateral view. 32. Female abdomen, dorsal view. 33. Male head and thorax, dorsolateral view. 34. Female head and thorax, dorsolateral view. Scale bars = 5 mm.



Figures 35–42. *Medauroidea cattienensis* **sp. nov.** 35. Female habitus. 36. Female abdomen, lateral view. 37. Female abdomen, dorsal view. 38. Male habitus. 39. Male abdomen, lateral view. 40. Male abdomen, dorsal view. 41. Female head and thorax, dorsolateral view. 42. Male head and thorax, dorsolateral view. Scale bars = 5 mm.

Measurements. Length. Body, ♀ 77.0 mm, ♂ 60.0–64.0 mm; antennae, ♀ 12.0 mm, ♂ 20.0–22.0 mm; head, ♀ 5.0 mm, ♂ 3.0 mm; pronotum, ♀ 3.0 mm, ♂ 2.0 mm; mesonotum, ♀ 17.0 mm, ♂ 13.0–14.0 mm; metanotum, ♀ 8.0 mm, ♂ 7.0 mm; median segment, ♀ 3.0 mm, ♂ 3.0 mm; profemora, ♀ 27.0 mm, ♂ 26.0–29.0 mm; mesofemora, ♀ 18.0 mm, ♂ 16.0–17.0 mm; metafemora, ♀ 22.0 mm, ♂ 21.0–24.0 mm; protibiae, ♀ 32.0 mm, ♂ 31.0–34.0 mm; mesotibiae, ♀ 20.0 mm, ♂ 19.0–20.0 mm; metatibiae, ♀ 27.0 mm, ♂ 27.0–28.0 mm.

Material examined. Holotype ♀, Vietnam, Dong Nai, Tan Phu, Cat Tien National Park, Nui Tuong Station, 20 September 2011, Liu Xingyue (CAU). Paratypes. 2♂, same data as holotype (CAU & HKES).

Distribution. Vietnam.

Etymology. The specific epithet of this new species is derived from the type locality, Cat Tien National Park, Dong Nai, Vietnam.

***Medauroidea cornuta* sp. nov.** (Figs 9–12, 43–50)

Diagnosis. This new species is similar to *Medauroidea fasciata* sp. nov., but can be separated by its smaller size in the both sexes, the presence of paired horns on the vertex of head in the female and the slenderer thorax and longer anal abdominal segment in the male.

Description. Female. Body elongate, slender and long. General colouration of body brown, legs greenish brown, with blackish markings. Head sparsely granulated. Oval, longer than wide, gently tapering posteriorly behind compound eyes. Vertex weakly convex, with a pair of horns between compound eyes. Occiput flat, median and lateral longitudinal furrows distinct, posterior margin weakly raised, with six small swellings. Compound eyes small and rounded, its length about six times of genae. Antennae short, with 22 (paratype) or 25 (holotype) segments, reaching middle area of profemora; scapus flattened, constricted anteriorly and posteriorly, longer than combined length of pedicellus and third segment; and pedicellus shorter than third segment. Thorax sparsely and obscurely granulated, also interspersed with a few enlarged granules. Pronotum trapezoidal, gently expanded posteriorly, shorter than head, anterior margin distinctly incurved, posterior margin rounded, transverse and longitudinal sulci crossing at middle point. Mesonotum parallel-sided, longer than combined length of metanotum and median segment. Metanotum longer than median segment. Abdomen cylindrical, sparsely and obscurely covered with small granules, also interspersed with a few enlarged granules. Median segment rectangular, wider than long. Seventh tergum with laterally expanded lobe. Seventh sternum lacking noticeable praeopercular organ. Eighth tergum longer than ninth tergum. Ninth tergum with a small crest posteromedially. Anal segment long than ninth tergum, posterior margin with a broad V-shaped emargination, posterolateral angles obtuse, median longitudinal carina weakly elevated. Supra-anal plate distinct, small, posterior margin rounded and exceeding posterolateral angles of anal segment. Subgenital plate scoop-shaped, mediolongitudinally carinate, posterior apex pointed and reaching posterior margin of anal segment. Cerci short, flattened, apices pointed and not surpassing posterior margin of anal segment. Legs slender and long. Femora thicker than corresponding tibiae. Profemora curved basally, anterodorsal and posteroventral carinae with dense and small serrations, other carinae unarmed. Anterodorsal, posterodorsal, anteroventral and posteroventral carinae of mesofemora and metafemora with sparse and small serrations. Anterodorsal and posterodorsal carinae of protibiae with small, tooth-like spines, other carinae unarmed. Anterodorsal, posterodorsal, anteroventral and posteroventral carinae of mesotibiae and metatibiae with small, tooth-like spines.

Male. Body slender and slim, distinctly slenderer and smaller than female. General colouration of body brown, legs brown, with blackish markings. Head oval, gently tapering posteriorly behind compound eyes. Vertex with two obscure, flattened elevations between compound eyes, with a pair of enlarged and indistinct granules on the elevations. Occiput with distinct median and lateral longitudinal furrows, posterior margin weakly raised, with four small swellings. Compound eyes small and rounded, its length about three times of genae. Antennae short, with 24 segments, apices reaching subapical area of profemora; scapus flattened, constricted anteriorly and posteriorly, as long as third segment, longer than pedicellus. Thorax obscurely covered with very few small granules. Pronotum trapezoidal, gently expanded posteriorly, anterior margin distinctly incurved, posterior margin rounded, transverse and longitudinal sulci crossing at middle point. Mesonotum longer than combined length of metanotum and median segment, broadly emarginated medially. Metanotum longer than median segment. Abdomen slender and cylindrical. Median segment rectangular, slightly longer than wide. Third to eighth tergites with a small anterolateral hump. Eighth tergum expanded posteriorly, longer than ninth tergum. Anal segment elongated, longer than eighth tergum, dilated into two semi-tergites; semi-tergites straight, medially tapering posteriorly, inner margin with minute dentations, apices obtuse. Poculum small, cup-shaped, posterior margin rounded and reaching posterior area of ninth tergum. Cerci flattened, short, apices obtuse and not exceeding posterior apices of anal segment. Legs slender and long. Femora thicker than corresponding tibiae. Profemora curved basally, anterodorsal and posteroventral carinae with sparse and small serrations, other carinae unarmed. Anterodorsal and posterodorsal carinae of mesofemora and metafemora with

three small serrations, anteroventral and posteroventral carinae unarmed, medioventral carina with one to two small serrations subapically. Posteroventral carina of protibiae with a few spines, other carinae unarmed. Anteroventral and posteroventral carinae of mesotibiae and metatibiae with a few spines, other carinae unarmed.

Measurements. Length. Body, ♀ 84.0–85.0 mm, ♂ 69.0–76.0 mm; antennae, ♀ 10.0–14.0 mm, ♂ 18.0–25.0 mm; head, ♀ 5.5 mm, ♂ 4.0–4.5 mm; pronotum, ♀ 3.5–4.0 mm, ♂ 2.5 mm; mesonotum, ♀ 20.0 mm, ♂ 15.5–17.0 mm; metanotum, ♀ 11.0 mm, ♂ 10.5–11.5 mm; median segment, ♀ 3.0 mm, ♂ 2.0 mm; profemora, ♀ 29.0–32.0 mm, ♂ 32.0–34.0 mm; mesofemora, ♀ 18.0–20.0 mm, ♂ 20.0–22.0 mm; metafemora, ♀ 23.0–27.0 mm, ♂ 26.0–28.0 mm; protibiae, ♀ 34.0–35.0 mm, ♂ 38.0–40.0 mm; mesotibiae, ♀ 19.0–20.0 mm, ♂ 22.0–25.0 mm; metatibiae, ♀ 27.0–30.0 mm, ♂ 32.0–34.0 mm.

Material examined. Holotype ♀, Vietnam, Thua Thien Hue, Bachma Mountain, 18–19 September 2016, He Li (HKES). Paratypes. 1 ♀, 4 ♂, same data as holotype (HKES).

Distribution. Vietnam.

Etymology. The specific epithet of this new species is derived from the pair of horns on the vertex of head in the female.



Figures 43–50. *Medauroidea cornuta* sp. nov. 43. Female habitus. 44. Female abdomen, lateral view. 45. Female abdomen, dorsal view. 46. Male habitus. 47. Male abdomen, lateral view. 48. Male abdomen, dorsal view. 49. Female head and thorax, dorsolateral view. 50. Male head and thorax, dorsolateral view. Scale bars = 5 mm.

***Medauroidea fasciata* sp. nov.** (Figs 13–16, 51–60)

Diagnosis. This new species is similar to *Medauroidea cornuta* sp. nov., but can be separated by its larger size in the both sexes, the indistinct horns on the vertex of head and the rough thorax and abdomen in the female and more robust thorax and shorter anal abdominal segment in the male.

Description. Female. Body elongate, slender and long, distinctly larger and more robust than male. General colouration of body brown, with dark brown longitudinal stripes dorsally, legs brown. Head sparsely granulated. Oval, longer than wide, gently tapering posteriorly behind compound eyes. Vertex weakly convex, with a transverse carina between compound eyes, also elevated with a pair of obscure, hump-like horns on the carina. Occiput flat, median and lateral longitudinal furrows distinct, posterior margin weakly raised, with six small swellings. Compound eyes small and rounded, its length about five times of genae. Antennae short, with 23 segments, reaching middle point of profemora; scapus flattened, constricted anteriorly and posteriorly, longer than combined length of pedicellus and third segment; and pedicellus shorter than third segment. Thorax rough, sparsely and obscurely covered with small granules, also interspersed with a few enlarged granules. Pronotum trapezoidal, gently expanded posteriorly, shorter than head, anterior margin incurved, posterior margin nearly truncate, transverse and longitudinal sulci crossing at middle point. Mesonotum parallel-sided, longer than combined length of metanotum and median segment. Metanotum longer than median segment. Abdomen cylindrical, rough, sparsely and obscurely covered with small granules, also interspersed with a few enlarged granules. Median segment rectangular, wider than long. Seventh tergum with laterally expanded lobe. Seventh sternum lacking noticeable praeopercular organ. Eighth tergum longer than ninth tergum. Ninth tergum with a small crest posteromedially. Anal segment as long as ninth tergum, posterior margin with a broad V-shaped emargination, posterolateral angles obtuse, median longitudinal carina weakly elevated. Supra-anal plate distinct, small, posterior margin rounded and exceeding posterolateral angles of anal segment.

Subgenital plate scoop-shaped, mediolongitudinally carinate, posterior apex pointed and reaching middle area of anal segment. Cerci short, flattened, apices obtuse and not surpassing posterior margin of anal segment. Legs slender and long. Femora thicker than corresponding tibiae. Profemora curved basally, anterodorsal and posteroventral carinae with dense and small serrations, other carinae unarmed. Anterodorsal, posterodorsal, anteroventral and posteroventral carinae of mesofemora and metafemora with sparse and small serrations. Posterodorsal carina of mesofemora also with a rounded and small lamella subbasally. Anterodorsal, posterodorsal, anteroventral and posteroventral carinae of tibiae with small, tooth-like spines. Posterodorsal carina of mesotibiae also with a rounded and small lamella subbasally.

Male. Body slender and slim, distinctly smaller and slenderer than female. General colouration of body brown or dark brown, legs brown or reddish brown, with blackish markings. Head oval, gently tapering posteriorly behind compound eyes. Vertex with a transverse carina between compound eyes, also elevated with a pair of small horns on the carina or lacking horns. Occiput with distinct median and lateral longitudinal furrows, posterior margin weakly raised, with four small swellings. Compound eyes small and rounded, its length about four times of genae. Antennae short, with 24 segments, apices reaching subapical area of profemora; scapus flattened, constricted anteriorly and posteriorly, almost as long as third segment, longer than pedicellus. Thorax covered with very few granules. Pronotum nearly trapezoidal, gently expanded posteriorly, anterior margin incurved, posterior margin almost truncate, transverse and longitudinal sulci crossing at middle point. Mesonotum longer than combined length of metanotum and median segment, broadly emarginated medially. Metanotum longer than median segment. Abdomen slender and cylindrical. Median segment rectangular, longer than wide. Third to eighth tergites with a small anterolateral hump. Eighth tergum expanded posteriorly, longer than ninth tergum. Anal segment elongated, as long as eighth tergum, dilated into two semi-tergites; semi-tergites straight, medially tapering posteriorly, inner margin with minute dentations, apices obtuse. Poculum small, cup-shaped, posterior margin rounded and reaching posterior area of ninth tergum. Cerci flattened, short, apices obtuse and not exceeding posterior apices of anal segment. Legs slender and long. Femora thicker than corresponding tibiae. Profemora curved basally, anterodorsal and posteroventral carinae with sparse and small serrations, other carinae unarmed. Anterodorsal and posterodorsal carinae of mesofemora and metafemora with three small serrations, anteroventral and posteroventral carinae unarmed, medioventral carina with one to two small serrations subapically. Posteroventral carina of protibiae with a few spines, other carinae unarmed. Anteroventral and posteroventral carinae of mesotibiae and metatibiae with a few spines, other carinae unarmed.

Measurements. Length. Body, ♀ 100.0–103.0 mm, ♂ 82.0–90.0 mm; antennae, ♀ 14.0–15.0 mm, ♂ 24.0–26.0 mm; head, ♀ 6.5–7.0 mm, ♂ 4.0–4.5 mm; pronotum, ♀ 4.0–4.5 mm, ♂ 3.0–3.5 mm; mesonotum, ♀ 24.0 mm, ♂ 19.0–21.0 mm; metanotum, ♀ 13.0–14.0 mm, ♂ 13.0–14.0 mm; median segment, ♀ 3.0 mm, ♂ 2.0–3.0 mm; profemora, ♀ 34.0–40.0 mm, ♂ 36.0–44.0 mm; mesofemora, ♀ 22.0–24.0 mm, ♂ 22.0–27.0 mm; metafemora, ♀ 30.0–31.0 mm, ♂ 30.0–35.0 mm; protibiae, ♀ 40.0–46.0 mm, ♂ 44.0–50.0 mm; mesotibiae, ♀ 22.0–25.0 mm, ♂ 27.0–32.0 mm; metatibiae, ♀ 32.0–37.0 mm, ♂ 37.0–42.0 mm.

Egg. Capsule brown, rough, weakly wrinkled and inconspicuously granulated; oval, posteriorly pole rounded, with a '中'-shaped marking dorsally. Micropylar plate nearly rounded. Micropylar cup placed at posterior margin of micropylar



Figures 51–60. *Medauroidea fasciata* sp. nov. 51. Female habitus. 52. Female abdomen, lateral view. 53. Female abdomen, dorsal view. 54. Egg, lateral view. 55. Egg, dorsal view. 56. Male habitus. 57. Male abdomen, lateral view. 58. Male abdomen, dorsal view. 59. Female head and thorax, dorsolateral view. 60. Male head and thorax, dorsolateral view. Scale bars: 51–53, 56–60 = 5 mm; 54–55 = 1 mm.

plate. Median line long. Operculum marginally elevated, centrally elevated with a close-stalked capitulum, apically rounded.

Measurements. Capsule length 3.0 mm, width 1.5 mm, height 1.8 mm.

Material examined. Holotype ♀, Vietnam, Thua Thien Hue, Bachma Mountain, 19 September 2016, He Li (HKES). Paratypes. 1 ♀, 1 ♂, 16 eggs, same data as holotype (HKES); 1 ♀, 2 ♂, Vietnam, Thua Thien Hue, Phu Loc, Bach Ma (elev. 150 m), 27 September 2011, Liu Xingyue (CAU & HKES).

Distribution. Vietnam.

Etymology. The specific epithet of this new species is derived from the longitudinal stripes on the body in the female.

3.3 *Neomedaura* gen. nov.

Type species: *Neomedaura yokdonensis* sp. nov.

Diagnosis. *Neomedaura* gen. nov. is currently known only from Vietnam and is closely related to *Medaura* Stål, 1875, but can be separated by smaller size and scarcely armed legs in the both sexes.

Description. Medium-sized for Clitumninae. Apterous. Body unarmed, slender and long. Female larger and more robust than male. Head oblong. Vertex with a pair of minute horns in female, unarmed in male. Occiput flat. Antennae short, distinctly segmented. Thorax unarmed, only with small granules, slender and elongate. Mesonotum parallel-sided in female, broadly emarginated medially in male. Abdomen cylindrical. Female with distinct praeopercular organ on posteromedian area of seventh sternum. Supra-anal plate indistinct in both sexes. Anal segment with a small emargination on posterior margin in female, dilated into two semi-tergites in male. Female subgenital plate scoop-shaped and elongate. Male poculum small and cup-shaped. Cerci short, flattened and apically pointed in female, cylindrical and apically rounded in male. Legs slender and long, armature indistinct and scarce.

Distribution. Vietnam.

Remarks. This new genus only includes the type species *Neomedaura yokdonensis* sp. nov.

Etymology. The specific epithet of this new genus is derived from the Latin words 'Neo' (= new) and 'medaura' referring to the relationship with *Medaura* Stål, 1875.

Neomedaura yokdonensis sp. nov. (Figs 17–20, 61–68)

Diagnosis. As in the generic diagnosis.

Description. Female. Body slender and long, larger and more robust than male. General colouration of body and legs brown. Head densely granulated. Oblong, longer than pronotum, slightly tapering posteriorly behind compound eyes. Vertex obscurely elevated between compound eyes, with a pair of minute horns. Occiput flat, median and lateral longitudinal furrows distinct, posterior margin weakly raised, with four small swellings. Compound eyes small and rounded, its length about five times of genae. Antennae short, with 15 segments, reaching middle area of profemur; scapus flattened, constricted anteriorly and posteriorly, longer than combined length of pedicellus and third segment; and pedicellus longer than third segment. Thorax rough, densely covered with small granules. Pronotum trapezoidal, gently expanded posteriorly, shorter than head, anterior margin strongly incurved, posterior margin truncate, transverse and longitudinal sulci just crossing after middle point. Mesonotum parallel-sided, longer than combined length of metanotum and median segment. Metanotum more than four times longer than median segment. Abdomen cylindrical, rough, covered with obscure granulations. Median segment rectangular, wider than long. Seventh sternum with distinct praeopercular organ posteromedially, horn-like, apex pointed. Eighth tergum longer than ninth tergum, also longer than anal segment. Anal segment longer than ninth tergum, posterior margin with a small V-shaped emargination, posterolateral angles pointed. Supra-anal plate indistinct. Subgenital plate scoop-shaped, laterally carinate, posterior apex pointed and reaching posterior area of anal segment. Cerci short, flattened, apices pointed and not surpassing posterior margin of anal segment. Legs slender and long. Right foreleg lost. Femora thicker than corresponding tibiae. Left profemur curved basally, anterodorsal carina with six small and indistinct serrations subbasally, other carinae unarmed. Anterodorsal and posterodorsal carinae of mesofemora with one to two small and indistinct serrations subbasally. Other carinae of mesofemora and metafemora unarmed. Protibia and metatibiae almost as long as corresponding femora, mesotibiae as long as mesofemora. Posterodorsal carina of metatibiae with one to two small spines subapically, other carinae unarmed.

Male. Body slender and slim, distinctly smaller and slenderer than female. General colouration of body and legs brown. Head obscurely granulated. Oblong, longer than pronotum, gently tapering posteriorly behind compound eyes. Vertex gently elevated. Occiput flat, with distinct median and lateral longitudinal furrows, posterior margin with four small swellings. Compound eyes small and rounded, its length about four times of genae. Antennae short, with 26 segments, apices reaching subapical area of profemora; scapus flattened, constricted anteriorly and posteriorly, as long as combined length of pedicellus

and third segment; and third segment longer than pedicellus. Thorax obscurely granulated. Pronotum rectangular, longer than wide, anterior margin incurved, posterior margin truncate, transverse and longitudinal sulci crossing at middle point. Mesonotum elongate, longer than combined length of metanotum and median segment, broadly emarginated medially. Metanotum more than three times longer than median segment. Abdomen slender and cylindrical. Median segment rectangular, longer than wide. Second to seventh tergites parallel-sided. Third to seventh tergites almost equal in length. Eighth tergum expanded posteriorly, as long as ninth tergum. Anal segment as long as ninth tergum, dilated into two semi-tergites; semi-tergites straight, medially tapering posteriorly, inner margin incurved, with minute dentations, apices pointed. Poculum small, cup-shaped, posterior margin rounded and reaching posterior area of ninth tergum. Cerci cylindrical, short, apices obtuse and not exceeding posterior apices of anal segment. Legs slender and long. Femora thicker than corresponding tibiae, anterodorsal, posterodorsal, anteroventral and posteroventral carinae unarmed, medioventral carina with a very few minute teeth subapically. Profemora curved basally. Tibiae unarmed, longer than corresponding femora.

Measurements. Length. Body, ♀ 75.0 mm, ♂ 68.0 mm; antennae, ♀ 9.0 mm, ♂ 19.0 mm; head, ♀ 6.0 mm, ♂ 3.0–3.5 mm; pronotum, ♀ 3.0 mm, ♂ 2.0 mm; mesonotum, ♀ 14.0 mm, ♂ 15.0–16.0 mm; metanotum, ♀ 9.0 mm, ♂ 9.0–9.5 mm; median segment, ♀ 2.0 mm, ♂ 3.0 mm; profemora, ♀ 25.0 mm, ♂ 30.0–31.0 mm; mesofemora, ♀ 18.0 mm, ♂ 18.0–19.0 mm; metafemora, ♀ 25.0 mm, ♂ 23.0–24.0 mm; protibiae, ♀ 27.0 mm, ♂ 34.0–38.0 mm; mesotibiae, ♀ 18.0 mm, ♂ 20.0–22.0 mm; metatibiae, ♀ 27.0 mm, ♂ 29.0–31.0 mm.

Material examined. Holotype ♀, Vietnam, Dak Lak, Yok Don, 8 May 2012, Liu Xingyue (CAU). Paratypes. 2♂, same data as holotype (CAU & HKES).

Distribution. Vietnam.

Etymology. The specific epithet of this new species is derived from the type-locality, Yok Don, Dak Lak, Vietnam.

3.4 *Parapachymorpha* Brunner von Wattenwyl, 1893

Parapachymorpha Brunner von Wattenwyl, 1893: 96. Type species: *Parapachymorpha nigra* Brunner von Wattenwyl, 1893: 96, by subsequent designation of Kirby, 1904: 342.

Description. Small to medium-sized for Clitumninae. Body slender and long. Apterous. Head rounded or oval, with granules or spines. Antennae short, distinctly segmented, not surpassing apices of profemora. Thorax wrinkled and granulated, with a few spines in both sexes. Abdomen cylindrical. Female with distinct praeopercular organ on posteromedian area of seventh sternum. Supra-anal plate indistinct in both sexes. Anal segment with a small emargination on posterior margin in female, dilated into two semi-tergites in male. Female subgenital plate scoop-shaped. Male poculum small and cup-shaped. Cerci small and short in both sexes. Legs slender, femora and tibiae armed with serrations or waved with indistinct elevations or unarmed.

Distribution. China, Myanmar, Thailand and Vietnam.

Remarks. In Vietnam, currently two species are recognised including *Parapachymorpha pseudospinosa* **sp. nov.** and *P. spinigera* (Brunner von Wattenwyl, 1907).

Key to females of *Parapachymorpha* from Vietnam.

1. Body robust, head with spines..... *Parapachymorpha pseudospinosa* **sp. nov.**
Body slender, head unarmed..... *Parapachymorpha spinigera*

Parapachymorpha pseudospinosa **sp. nov.** (Figs 21–22, 69–71)

Diagnosis. This new species is related to *Parapachymorpha spinosa* Brunner von Wattenwyl, 1893, but can be separated by the presence of large spines on the lateral margins of mesonotum and metanotum, the presence of large second posterior spines on the second to fifth abdominal tergites, the unarmed anterodorsal carina of mesofemora and metafemora and the unarmed tibiae in the female.

Description. Female. Body slender, covered with small granulations. General colouration of body brown, legs brown with blackish markings. Head oval, longer than wide, gently tapering posteriorly behind compound eyes. Vertex convex. Occiput distinctly convex, with paired supra-orbital spines and occipital medial spines. Compound eyes small and rounded, its length about five times of genae. Antennae incomplete, scapus flattened, as long as combined length of pedicellus and third segment; and pedicellus shorter than third segment. Pronotum trapezoidal, gently expanded posteriorly, anterior margin gently incurved, posterior margin rounded, transverse and longitudinal sulci crossing at middle point, with paired posterior medial spines. Mesonotum parallel-sided, about four times length of pronotum; with paired pre-median medial, post-median medial and posterior medial spines; also with paired pre-median and post-median spines, lateral margins with a few spines.

Metanotum with paired pre-median and posterior medial spines, lateral margins with a few spines. Mesopleurae and metapleurae with a supra-coxal spine. Abdomen cylindrical and tapering posteriorly, shorter than combined length of head and thorax, with a few enlarged granules. Median segment square, with paired posterior medial spines. Second to sixth tergites with paired posterior medial, posterior spines and second posterior spines, reduced in size on sixth tergum. Seventh tergum with rounded posterolateral expansions. Seventh tergum with a bifurcate praeopercular organ on posteromedian area. Ninth tergum shorter than eighth tergum, with a small crest on posteromedian area. Anal segment as long as ninth tergum, median longitudinal carina gently elevated, posterior margin with a small emargination, posterolateral angles rounded. Subgenital plate scoop-shaped, posterior apex pointed, reaching anterior area of anal segment. Cerci long, flattened, apices pointed and not surpassing posterior apices of anal segment. Legs slender and long. Femora thicker than corresponding tibiae. Profemora unarmed, curved basally. Posterodorsal, anteroventral and posteroventral carinae of mesofemora and metafemora with three to four serrations, anterodorsal carina unarmed. Tibiae longer than corresponding femora, unarmed.

Measurements. Length. Body, ♀ 75.0mm; head, ♀ 5.5mm; pronotum, ♀ 4.0mm; mesonotum, ♀ 15.5mm; metanotum, ♀ 9.0mm; median segment, ♀ 3.5mm; profemora, ♀ 33.0mm; mesofemora, ♀ 18.0mm; metafemora, ♀ 22.0mm; protibiae, ♀ 40.0mm; mesotibiae, ♀ 20.0mm; metatibiae, ♀ 27.0mm.

Material examined. Holotype ♀, Vietnam, Ninh Binh, Cuc Phuong, 16 May 2012, Liu Xingyue (CAU).

Distribution. Vietnam.

Etymology. The specific epithet of this new species is derived from the similar morphology with the taxa of *P. spinosa* (Brunner von Wattenwyl, 1893) in the genus.

3.5 *Prosentoria* Brunner von Wattenwyl, 1907

Prosentoria Brunner von Wattenwyl, 1907: 207. Type species: *Prosentoria arrogans* Brunner von Wattenwyl, 1907: 207, by original designation.

Description. Large size for Clitumninae. Body unarmed, with a few small granules; cylindrical, very slender and elongate. Head oval. Vertex flat, with a pair of spine-like horns. Occiput weakly convex. Antennae short. Pronotum trapezoidal in female, rectangular in male. Mesonotum slender and elongate. Metanotum longer than median segment. Abdomen cylindrical. Anal segment broadly emarginated posteriorly in both sexes. Supra-anal plate distinct. Female subgenital plate lanceolate, elongate, scoop-shaped, apex pointed, distinctly surpassing posterior margin of supra-anal plate. Male poculum cup-shaped, tapering posteriorly, apex pointed. Cerci short. Legs very slender and long. Profemora distinctly incurved basally. Egg oval, with rounded micropylar plate.

Distribution. Brunei, Malaysia, Philippines and Vietnam.

Remarks. Currently two species are recognised including *Prosentoria arrogans* Brunner von Wattenwyl, 1907 (= *Prosentoria lobicornis* Brunner von Wattenwyl, 1907; = *Cuniculina longelaminata* Brunner von Wattenwyl, 1907) and *P. vietnamensis* **sp. nov.** The discovery of *P. vietnamensis* **sp. nov.** not only contributes to the knowledge of the geographical distribution pattern for the genus, but also the knowledge of zoogeographical relationship between Indochinese Subregion and Sundaic Subregion in the Oriental Region. Based on the current distribution of the genus in Vietnam, which is restricted to central part, potential distributions can be discovered in southern and northern Vietnam and its neighbouring countries such as Cambodia, Laos and Thailand.

Prosentoria vietnamensis **sp. nov.** (Figs 23–26, 72–81)

Diagnosis. This new species is similar to *Prosentoria arrogans* Brunner von Wattenwyl, 1907, but can be diagnosed by the densely serrate femora and tibiae and the elongate supra-anal plate in the both sexes.

Description. Female. Large size. Body cylindrical, very slender and long, larger and more robust than male. General colouration of body and legs green. Head oval, gently tapering posteriorly behind compound eyes. Vertex weakly convex, with a pair of long horns between compound eyes. Occiput flat, median and lateral longitudinal furrows distinct, posterior margin with indistinct swellings. Compound eyes small and oval, its length about three times of genae. Antennae short, with 25 segments, reaching middle point of profemora; scapus flattened, constricted anteriorly and posteriorly, longer than combined length of pedicellus and third segment; and pedicellus as long as third segment. Thorax sparsely and obscurely covered with a few small granules. Pronotum trapezoidal, gently expanded posteriorly, shorter than head, anterior and posterior margins truncate, transverse and longitudinal sulci crossing after middle point. Mesonotum elongate, longer than combined length of metanotum and median segment. Metanotum longer than median segment. Abdomen cylindrical, tapering posteriorly, sparsely and obscurely covered with a few small granules. Median segment rectangular, longer than wide. Seventh sternum lacking noticeable praeopercular organ. Eighth tergum longer than ninth tergum. Anal segment

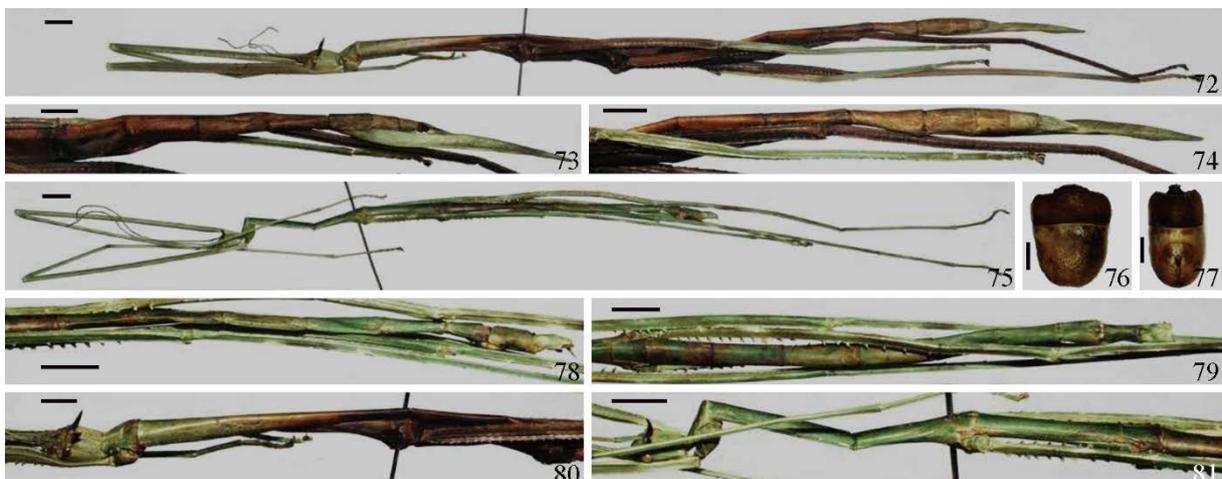
shorter than ninth tergum, posterior margin broadly emarginated posteriorly. Supra-anal plate distinct, lanceolate, longer than eighth tergum, tapering posteriorly, apex pointed and reaching middle area of subgenital plate. Subgenital plate lanceolate, elongate, longer than mesonotum, posterior apex pointed. Cerci short, flattened, apices obtuse and not surpassing posterior margin of anal segment. Legs very slender and long. Profemora curved basally, anterodorsal, posterodorsal and



Figures 61–68. *Neomedaura yokdonensis* **gen. & sp. nov.** 61. Female habitus. 62. Female abdomen, lateral view. 63. Female abdomen, dorsal view. 64. Male habitus. 65. Male abdomen, lateral view. 66. Male abdomen, dorsal view. 67. Female head and thorax, dorsolateral view. 68. Male head and thorax, dorsolateral view. Scale bars = 5 mm.



Figures 69–71. *Parapachymorpha pseudospinosa* **sp. nov.** 69. Female habitus. 70. Female abdomen, lateral view. 71. Female abdomen, dorsal view. Scale bars = 5 mm.



Figures 72–81. *Prosentoria vietnamensis* **sp. nov.** 72. Female habitus. 73. Female abdomen, lateral view. 74. Female abdomen, dorsal view. 75. Male habitus. 76. Egg, lateral view. 77. Egg, dorsal view. 78. Male abdomen, lateral view. 79. Male abdomen, dorsal view. 80. Female head and thorax, dorsolateral view. 81. Male head and thorax, dorsolateral view. Scale bars: 72–75, 78–81 = 5 mm; 76–77 = 1 mm.

posteroventral carinae with dense and small serrations, anteroventral carina unarmed. Anterodorsal, posterodorsal, anteroventral and posteroventral carinae of mesofemora and metafemora with dense and small serrations. Anterodorsal and posterodorsal carinae of protibiae unarmed, anteroventral and posteroventral carinae with dense and small serrations. Anterodorsal, posterodorsal, anteroventral and posteroventral carinae of mesotibiae and metatibiae with dense and small serrations.

Male. Body slender and long, distinctly slenderer than female. General colouration of body and legs green. Head oval, longer than pronotum, gently tapering posteriorly behind compound eyes. Vertex weakly convex, with a pair of long horns between compound eyes. Occiput flat, with distinct median and lateral longitudinal furrows, posterior margin with six small swellings. Compound eyes small and rounded, its length about three times of genae. Antennae short, with 23 segments, apices reaching subapical area of profemora; scapus flattened, constricted anteriorly and posteriorly, longer than combined length of pedicellus and third segment; and third segment longer than pedicellus. Thorax with a few small granules. Pronotum rectangular, longer than wide, anterior and posterior margins truncate, transverse and longitudinal sulci crossing after middle point. Mesonotum elongate, longer than combined length of metanotum and median segment. Metanotum longer than median segment. Abdomen slender and cylindrical. Median segment rectangular, longer than wide. Second to seventh tergites parallel-sided. Eighth tergum weakly expanded posteriorly, as long as ninth tergum. Anal segment shorter than ninth tergum, posterior margin broadly emarginated. Supra-anal plate distinct, lanceolate, shorter than anal segment, tapering posteriorly, apex pointed. Poculum small, cup-shaped, posterior margin rounded and reaching middle area of ninth tergum. Cerci cylindrical, short, apices obtuse and not exceeding posterior margin of anal segment. Legs very slender and long. Profemora curved basally, anterodorsal and posteroventral carinae with dense and small serrations, other carinae unarmed. Anterodorsal and posterodorsal carinae of mesofemora and metafemora with sparse and small serrations, anteroventral and posteroventral carinae with dense and small serrations. Protibiae unarmed. Anterodorsal, posterodorsal, anteroventral and posteroventral carinae of mesotibiae and metatibiae with small spines.

Measurements. Length. Body, ♀ 155.0–160.0 mm, ♂ 95.0–105.0 mm; antennae, ♀ 22.0–23.0 mm, ♂ 28.0–30.0 mm; head, ♀ 7.0 mm, ♂ 5.0 mm; pronotum, ♀ 6.0 mm, ♂ 4.0 mm; mesonotum, ♀ 33.0–34.0 mm, ♂ 22.0–25.0 mm; metanotum, ♀ 15.0–15.5 mm, ♂ 12.0–14.0 mm; median segment, ♀ 4.5 mm, ♂ 3.0 mm; profemora, ♀ 50.0 mm, ♂ 42.0–45.0 mm; mesofemora, ♀ 38.0 mm, ♂ 31.0 mm; metafemora, ♀ 45.0 mm, ♂ 37.0–40.0 mm; protibiae, ♀ 62.0–69.0 mm, ♂ 58.0–65.0 mm; mesotibiae, ♀ 40.0–43.0 mm, ♂ 40.0–42.0 mm; metatibiae, ♀ 58.0–62.0 mm, ♂ 55.0 mm.

Egg. Capsule brown, oval, densely granulated, posterior pole rounded. Micropylar plate brown, nearly rounded. Micropylar cup placed at posterior margin of micropylar plate. Median line short. Operculum dark brown, thick-built, centrally concave, with a small closed-stalked capitulum.

Measurements. Capsule length 2.5 mm, width 2.0 mm, height 3.0 mm.

Material examined. Holotype ♀, Vietnam, Thua Thien Hue, Bachma Mountain, 19 September 2016, He Li (HKES). Paratypes. 2♀, 2♂, 1 egg, same data as holotype (HKES).

Distribution. Vietnam.

Etymology. The specific epithet of this new species is derived from the type-locality, Vietnam.

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