

Received: 20 May 2025 • Accepted: 16 September 2025 • Published: 21 November 2025

Topic editor: Tony Robillard • Section editor: Gavin Broad • Desk editor: Lizeth Alonso

### Research article

[urn:lsid:zoobank.org/pub:AE8A88D7-28DE-4973-AEB2-2751D5D0A9F5](https://zoobank.org/pub:AE8A88D7-28DE-4973-AEB2-2751D5D0A9F5)

## A new genus and three new species of the subfamily Phygadeuontinae (Hymenoptera: Ichneumonidae) from northern Vietnam

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**Abstract.** A new Darwin wasp genus, *Longipectus* gen. nov., is described from northern Vietnam to include three new species *Longipectus hagiangensis* gen. et sp. nov., *Longipectus planus* gen. et sp. nov., and *Longipectus yagi* gen. et sp. nov. Morphologically, the new genus *Longipectus* differs from other phygadeuontine genera by the combination of the globular head, the long mesosoma, the long notauli, the short first tergite, and the longitudinal wrinkles on the first and second tergites.

**Key words.** Darwin wasp, parasitoid, taxonomy.

Pham N.T. & Cao N.T.Q. 2025. A new genus and three new species of the subfamily Phygadeuontinae (Hymenoptera: Ichneumonidae) from northern Vietnam. *European Journal of Taxonomy* 1026: 236–249. <https://doi.org/10.5852/ejt.2025.1026.3119>

### Introduction

The subfamily Phygadeuontinae Förster, 1869 consists of 125 genera with nearly 2000 species worldwide (Yu *et al.* 2016; Santos 2017; Pham *et al.* 2019; Reshchikov *et al.* 2019; Pham *et al.* 2020; Watanabe 2021; Pham *et al.* 2024; Lima & Fernandes 2024). This subfamily is most diverse in temperate regions and can be distinguished from the closely related Cryptinae by usually smaller body size, forewing cross-vein *2m-cu* usually distinctly inclivous with two bullae, and the sternaulus ending above the ventro-posterior corner of the mesopleuron (Santos 2017).

Members of Phygadeuontinae parasitize small cocoons or cocoon-like structures. Cocoons of many holometabolous insect groups have been recorded as hosts of phygadeuontine species such as Lepidoptera, Hymenoptera, Coleoptera, Diptera, as well as egg sacs of spiders. Some species are also recorded as secondary parasitoids (Townes 1970; Wahl & Sharke 1993). Since the seminal work of Townes (1970), no less than 20 genera and more than 650 species have been described as new within this subfamily, of which two genera and 84 species were discovered from the Oriental region (Yu *et al.* 2016; Pham *et al.* 2019, 2020, 2024; Reshchikov *et al.* 2019; Watanabe 2021; Lima & Fernandes 2024). That means taxonomic studies of Phygadeuontinae, particularly in the Oriental regions, are tremendously

scarce and invaluable. This work aims to describe a new genus of Phygadeuontinae, the first for the Oriental region since the discovery of the genus *Carinityla* Sheng & Sun, 2010, and to propose three new species on the basis of specimens from northern Vietnam.

## Material and methods

Thousands of ichneumonid wasps were collected in northern Vietnam from 2013 to 2024 by Malaise traps and sweep nets, however, very few specimens are used in this study due to their scarcity in our scientific collection; They are deposited at the Institute of Biology (IB), Vietnam Academy of Science and Technology, Hanoi, Vietnam.

Morphological terminology follows Broad *et al.* (2018). Photographs were taken with a Nikon SMZ800N M80 stereo microscope and an Olympus SZX 16 stereo microscope, and subsequently stacked with Helicon Focus.

## Abbreviations used in text

F1, F2, F3, ...Fn = Flagellomere 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, ...n  
T1, T2, T3, ...Tn = Metasomal tergite 1, 2, 3, ...n

## Results

### *Taxonomy*

Class Insecta Linnaeus, 1758  
Order Hymenoptera Linnaeus, 1758  
Superfamily Ichneumonoidea Latreille, 1802  
Family Ichneumonidae Latreille, 1802  
Subfamily Phygadeuontinae Förster, 1869

Genus *Longipectus* gen. nov.

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### Diagnosis

Head globular; occipital carina widely separated from posterior ocelli, ventrally meeting hypostomal carina about 0.6–1.0 × basal mandibular width from base of mandible; mesosoma elongate and dorso-ventrally compressed, 0.7–0.8 × as long as metasoma, with notauli distinct on anterior 0.5–0.7 of mesoscutum; mesopleuron with episternal scrobe connected to mesopleural furrow by a groove; posterior transverse carina of mesosternum short and v-shaped; propodeum with area petiolaris separated from area superomedia when the latter defined; first tergite short, about 0.4–0.7 × as long as second tergite, with ventrolateral carina complete; first and second tergites with longitudinal wrinkles; metasomal tergites 2 and 3 with laterotergite separated by distinct suture; ovipositor relatively slender.

### Etymology

The name of the new genus is derived from the Latin words ‘*longus*’, meaning ‘long’, and ‘*pectus*’, meaning ‘thorax’, referring to its long thorax. Gender: masculine.

### Type species

*Longipectus yagi* gen. et sp. nov.

## Description

Head globular. Occipital carina thickened, complete and widely separated from posterior ocelli, ventrally meeting hypostomal carina about  $0.6\text{--}1.0 \times$  basal mandibular width from base of mandible. Face as high as wide to higher than wide. Clypeal suture indistinct. Mandible short,  $2.0\text{--}2.5 \times$  as long as median width, weakly to distinctly narrowed towards apex, teeth sharp. Maxillary palp long to moderately long, reaching anterior to center part of mesopleuron. Basal flagellomeres long and narrow, F1  $7.0\text{--}11.0 \times$  as long as wide. Mesosoma  $0.7\text{--}0.8 \times$  as long as metasoma. Pronotum  $0.3\text{--}0.4 \times$  as long as mesosoma, epomia absent or present as a short stub, dorso-medially of pronotum, just behind pronotal collar without or with weak median carina. Mesoscutum  $1.2\text{--}1.9 \times$  as long as maximum width. Notauli distinct on anterior  $0.5\text{--}0.7$  of mesoscutum. Scutellum weakly to moderately convex, lateral carina present basally. Mesopleuron with epicnemial carina present ventrally or dorsally, sternaulus present or absent, episternal scrobe connected to mesopleural furrow by a groove. Posterior transverse carina of mesosternum short and v-shaped. Propodeum gradually sloping in lateral view, area petiolaris separated from area superomedia when the latter defined, propodeal spiracle small and round. T1 short,  $0.4\text{--}0.7 \times$  as long as T2, polished, dorsolateral and ventrolateral carinae distinct. T1–T2 with longitudinal wrinkles. T2–T3 with laterotergites separated by distinct sutures. Ovipositor thin, straight, lower valve with teeth apically. Ovipositor sheath  $0.18\text{--}0.38 \times$  as long as hind tibia length. Legs long, hind femur  $5.3\text{--}6.2 \times$  as long as wide, hind tarsus longer than hind tibia, hind basitarsus nearly  $0.5 \times$  as long as hind tarsus. Fore wing length  $3.5\text{--}5.1$  mm, vein *3rs-m* absent, vein *2m-cu* inclivous, with two bullae.

## Key to species of *Longipectus* gen. nov.

1. Mesosoma extremely elongate,  $0.8 \times$  as long as metasoma (Fig. 6); pronotum  $0.4 \times$  as long as mesosoma (Fig. 7E); propodeum with densely transverse striations dorsally (except smooth posteriorly), area superomedia absent, posterior transverse carina forming a crest (Fig. 7H); fore wing smoky medially (Figs 6, 7G) ..... *L. yagi* gen. et. sp. nov.
  - Mesosoma less elongate, about  $0.7 \times$  as long as metasoma (Figs 1, 3); pronotum  $0.3 \times$  as long as mesosoma (Figs 2E, 4E); propodeum punctate to matt, area superomedia weakly defined or open laterally, posterior transverse carina normal; fore wing hyaline (Figs 2G, 4G) ..... 2
2. Antenna with normally cylindrical flagellomeres; sternaulus distinct, reaching hind margin of mesopleuron (Fig. 2E); propodeum matt, area superomedia weakly defined (Fig. 2H); ovipositor sheath  $0.33\text{--}0.38 \times$  as long as hind tibia length..... *L. hagiangensis* gen. et. sp. nov.
  - Antenna with posterior flagellomeres thickened and flattened ventrally; sternaulus indistinct (Fig. 4E); propodeum punctate, area superomedia open laterally (Fig. 4H); ovipositor sheath  $0.18\text{--}0.19 \times$  as long as hind tibia length ..... *L. planus* gen. et. sp. nov.

*Longipectus hagiangensis* gen. et sp. nov.

[urn:lsid:zoobank.org:act:C13A91A0-2DBD-4C3B-9F28-99C27C631FEE](https://zoobank.org/urn:lsid:zoobank.org:act:C13A91A0-2DBD-4C3B-9F28-99C27C631FEE)

Figs 1–2

## Diagnosis

Sternaulus distinct, reaching hind margin of mesopleuron; area superomedia weakly defined; ovipositor sheath  $0.33\text{--}0.38 \times$  as long as hind tibia.

## Etymology

The specific name refers to its type locality, Ha Giang Province.

## Type material

### Holotype

VIETNAM • ♀; Ha Giang Province, Quan Ba district, Tung Vai commune; 23°03'18" N, 104°50'44" E; 1340 m a.s.l.; 26 Mar.–14 Apr. 2024; N.T. Pham leg.; Malaise trap; IB.

### Paratypes

VIETNAM • 1 ♀; Cao Bang Province, Phia Oac-Phia Den National Park; 8–18 May 2013; T.H. Pham leg.; Malaise trap; IB. • 2 ♀♀; Ha Giang Province, Meo Vac district, Chi San; 23°09.53' N, 105°25.023' E; 1149 m a.s.l.; 1 Apr.–31 May 2024; N.T. Pham and N.T.Q. Cao leg; Malaise trap; IB.

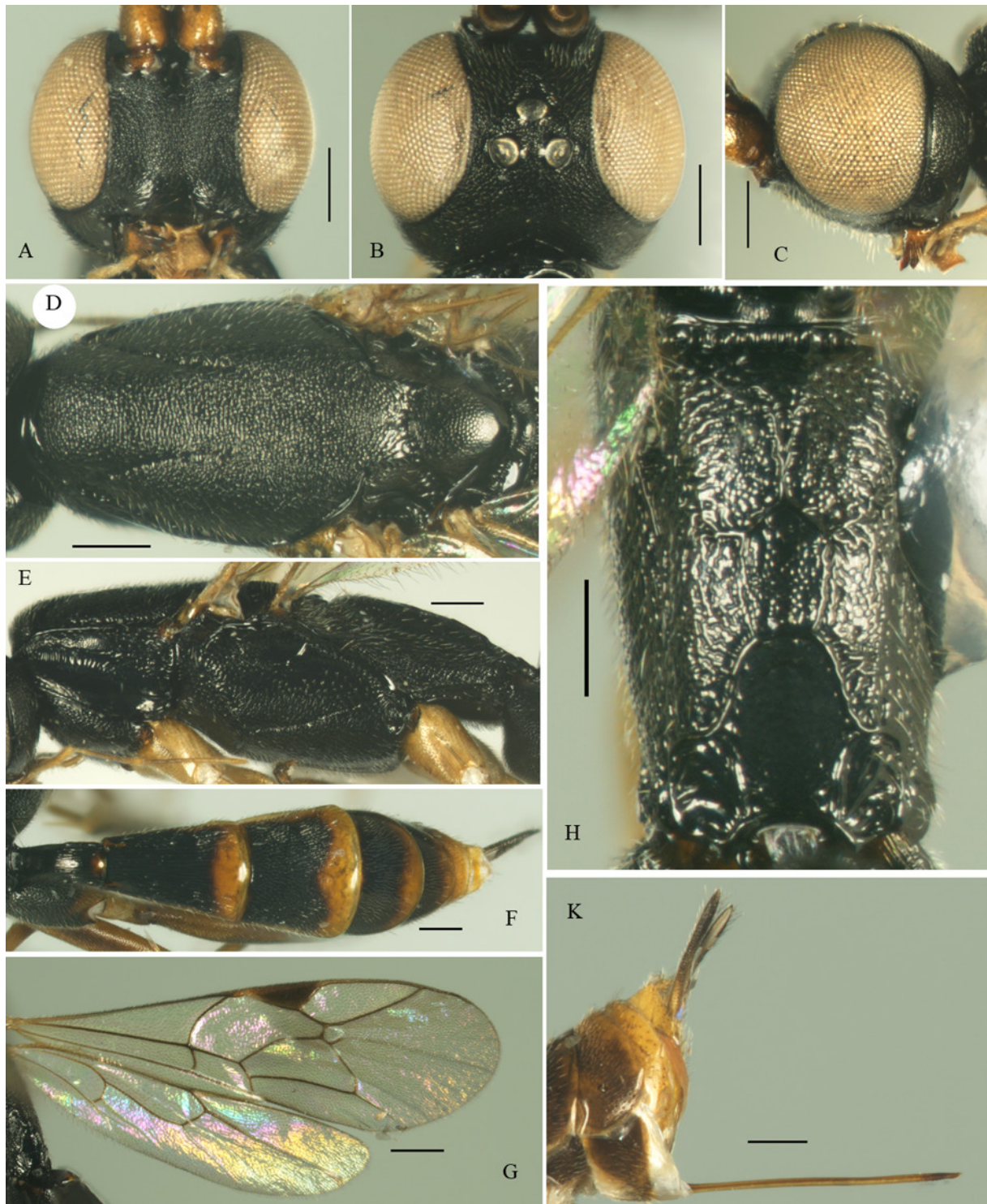
## Description

### Female

HEAD. Face  $1.0 \times$  as wide as high, granulate, with setae. Clypeal suture indistinct. Clypeus  $2.0 \times$  as wide as high, polished, sparsely punctate, with setae, ventral margin weakly impressed. Mandible short and stout,  $2.4 \times$  as long as median width, weakly narrowed towards apex, teeth sharp, upper tooth longer than lower tooth. Malar space granulate,  $0.7 \times$  as wide as mandibular basal width (Fig. 2A). Gena matt, with setae. Frons and vertex mat, with setae. Postero-ocellar distance  $1.2 \times$  ocular-ocellar distance,  $0.8 \times$  median ocellus diameter (Fig. 2B). Antenna with 32 flagellomeres, F1  $7.0 \times$  as long as wide,  $1.1 \times$  as long as F2. Occipital carina complete, ventrally meeting hypostomal carina about  $0.6 \times$  basal mandibular width from base of mandible.



**Fig. 1.** *Longipectus hagiangensis* gen. et sp. nov., holotype, ♀ (IB), habitus, lateral view Scale bar = 1 mm.



**Fig. 2.** *Longipectus hagiangensis* gen. et sp. nov., holotype, ♀ (IB). **A.** Head, frontal view. **B.** Head, dorsal view. **C.** Head, lateral view. **D.** Mesonotum. **E.** Mesosoma, lateral view. **F.** Metasomal tergites. **G.** Wings. **H.** Propodeum. **K.** Ovipositor. Scale bars: A–F, K = 0.2 mm; G = 0.5 mm.

**MESOSOMA.** 0.7 × as long as metasoma (Fig. 1). Pronotum 0.3 × as long as mesosoma, matt dorsally, posterior corner punctostriate, with setae, medially strongly impressed, subpolished, with striations. Epomia absent (Fig. 2E). Mesoscutum 1.4 × as long as its maximum width, granulate. Notauli present on anterior 0.5 of mesoscutum. Scutellum moderately weakly convex, finely granulate, except impunctate posteriorly, lateral carina present basally (Fig. 2D). Mesopleuron matt, punctate, with setae; epicnemial carina distinct on ventral 0.7 of mesopleuron. Sternaulus distinct, reaching hind margin of mesopleuron, distinctly dorsal of lower posterior. Metapleuron matt. Juxtacoxal carina complete (Fig. 2E). Propodeum gradually sloping in lateral view, matt, except area petiolaris smooth. Area superomedia weakly defined, separated from area petiolaris (Fig. 2H). Spiracle small, round.

**WINGS.** Fore wing length ca 3.6 mm, vein *1cu-a* postfurcal to *M&RS*, curved, vein *3rs-m* absent, vein *2rs-m* slightly longer than length of *M* between *2rs-m* and *2m-cu*, length of *CU* between *1m-cu&M* and *2cu-a* 1.1 × length of *2cu-a*. Hind wing with distal abscissa of *CU* present, length of *CU* between *M* and *cu-a* 1.3 × length of *cu-a*.

**LEGS.** Hind coxa matt. Hind femur 5.6 × as long as its maximum width, 0.8 × as long as hind tibia length. Hind tarsus 1.2 × hind tibia. Hind basitarsus 0.48 × as long as tarsus.

**METASOMA.** T1 and T2 subpolished, with longitudinal wrinkles, T3 matt, with longitudinal wrinkles on anterior 0.75, T4 onwards finely punctate. T1 2.5 × as long as posterior width, ventrolateral carina distinct; spiracle small, round. T2 1.5 × as long as T1, 2.9 × as long as anterior width, 1.5 × as long as posterior width (Fig. 2F). Ovipositor thin, straight, lower valve with teeth apically (Fig. 2K); ovipositor sheath 0.33 × as long as hind tibia.

**COLOUR.** Black with reddish brown markings. Head black, scape ventrally and mandible reddish brown, palpi yellow. T2–T5 reddish brown apically, T6 onward reddish brown. Fore and mid legs reddish brown, except coxae, trochanters, trochantelli yellow. Hind leg largely black except trochanter and trochantellus yellow. Wings hyaline, wing veins brown.

### Variation

Paratypes with malar space from 0.6–0.8 × as long as mandibular basal width, mandible 2.0–2.5 × as long as median width, hind femur varies from 5.3–5.6 × as long as wide, 0.85–0.9 × as long as hind tibia, T1 2.3–2.5 × as long as posterior width, T2 2.7–2.8 × anterior width, 1.4 × posterior width, ovipositor sheath 0.35–0.38 × hind tibia length. Paratype collected from Cao Bang Province has postero-ocellar distance 1.3 × ocular-ocellar distance, 1.0 × median ocellus diameter, fore wing 3.8 mm long, length of hind wing vein *CU* between *M* and *cu-a* 0.9 × length of *cu-a*.

### Male

Unknown.

### Distribution

Currently known only from evergreen montane forests in Ha Giang and Cao Bang provinces, northeastern Vietnam.

*Longipectus planus* gen. et sp. nov.

[urn:lsid:zoobank.org:act:56890433-4028-410E-A0C3-0F49424F2BED](https://doi.org/10.21203/rs.3.rs-56890433-v1)

Figs 3–5

**Diagnosis**

Antenna with F9 onwards thickened and flattened ventrally; sternaulus indistinct; area superomedia open laterally; ovipositor sheath  $0.18\text{--}0.19\times$  as long as hind tibia.

**Etymology**

The specific name ‘*planus*’ is a Latin adjective meaning ‘flat’, referring to its distally flattened antenna.

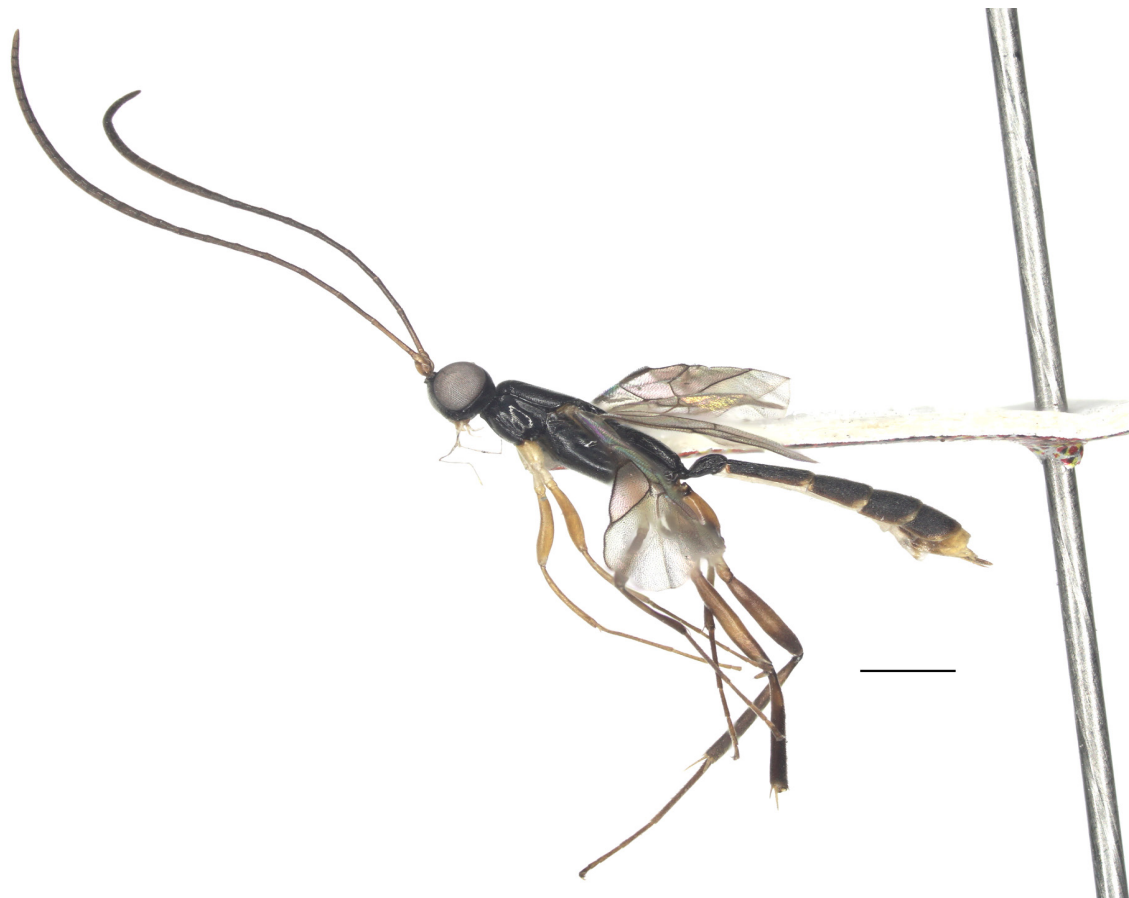
**Type material**

**Holotype**

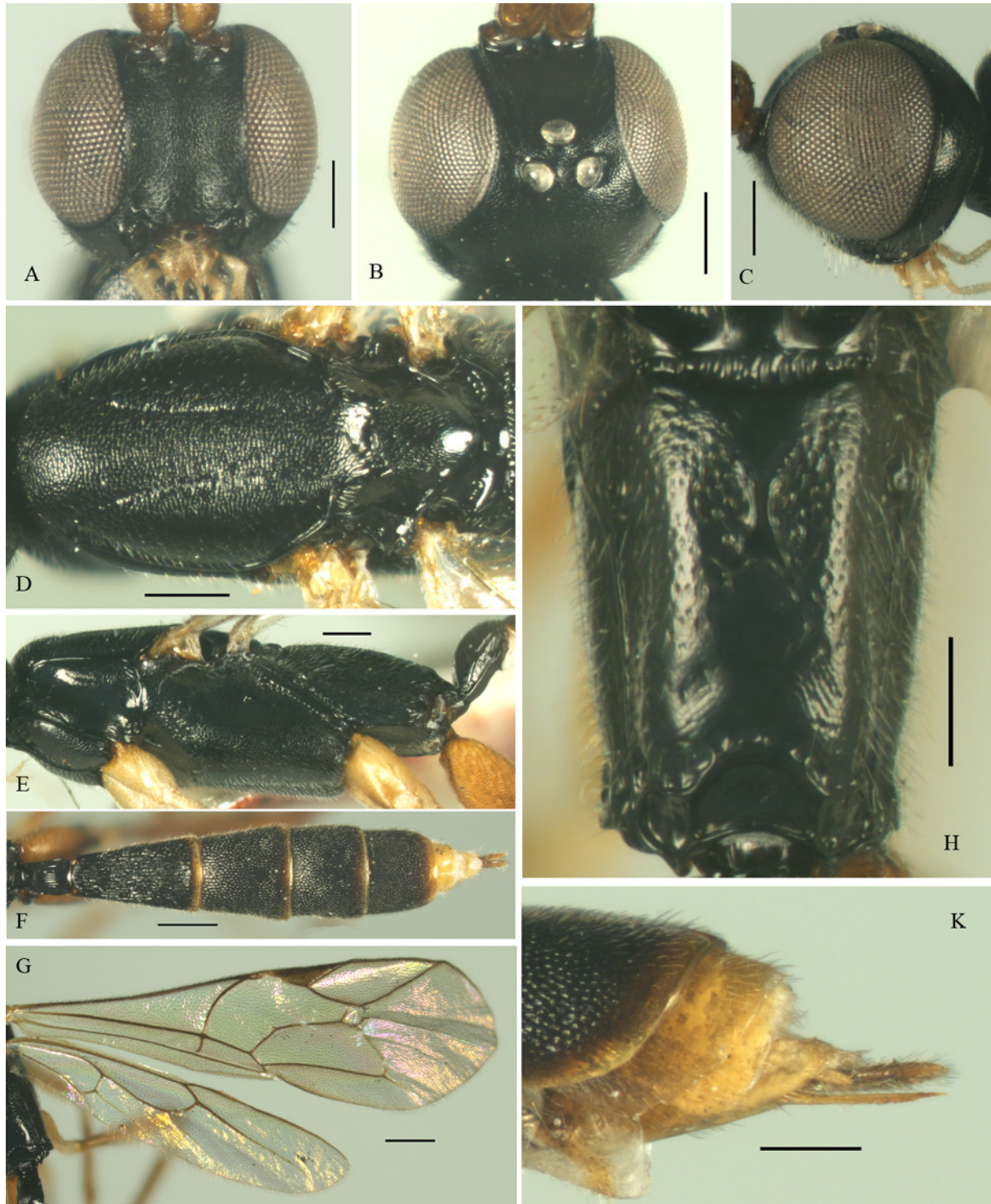
VIETNAM • ♀; Cao Bang Province, Phia Oac-Phia Den National Park;  $22^{\circ}36'12''$  N,  $105^{\circ}53'10''$  E; 980 m a.s.l.; 30 Apr. 2022; D.D. Tran leg.; Malaise trap; IB.

**Paratypes**

VIETNAM • 1 ♀; Hoa Binh Province, Mai Chau district, Hang Kia commune; 1400 m a.s.l.; 10 Oct. 2019; Long D.K. leg.; sweep net; IB • 1 ♂; Son La Province, Thuan Chau district, Co Ma commune;  $21^{\circ}19'2.2''$  N,  $103^{\circ}35'14.1''$  E; 1,591 m a.s. l.; 27 Apr.–2 May 2016; T.V. Hoang and B.V. Nguyen leg.; Malaise trap; IB.



**Fig. 3.** *Longipectus planus* gen. et sp. nov., holotype, ♀ (IB), habitus, lateral view. Scale bar = 1 mm.



**Fig. 4.** *Longipectus planus* gen. et sp. nov., holotype, ♀ (IB). **A.** Head, frontal view. **B.** Head, dorsal view. **C.** Head, lateral view. **D.** Mesonotum. **E.** Mesosoma, lateral view. **F.** Metasomal tergites. **G.** Wings. **H.** Propodeum. **K.** Ovipositor. Scale bars: A–E, H–K = 0.2 mm; F–G = 0.5 mm.

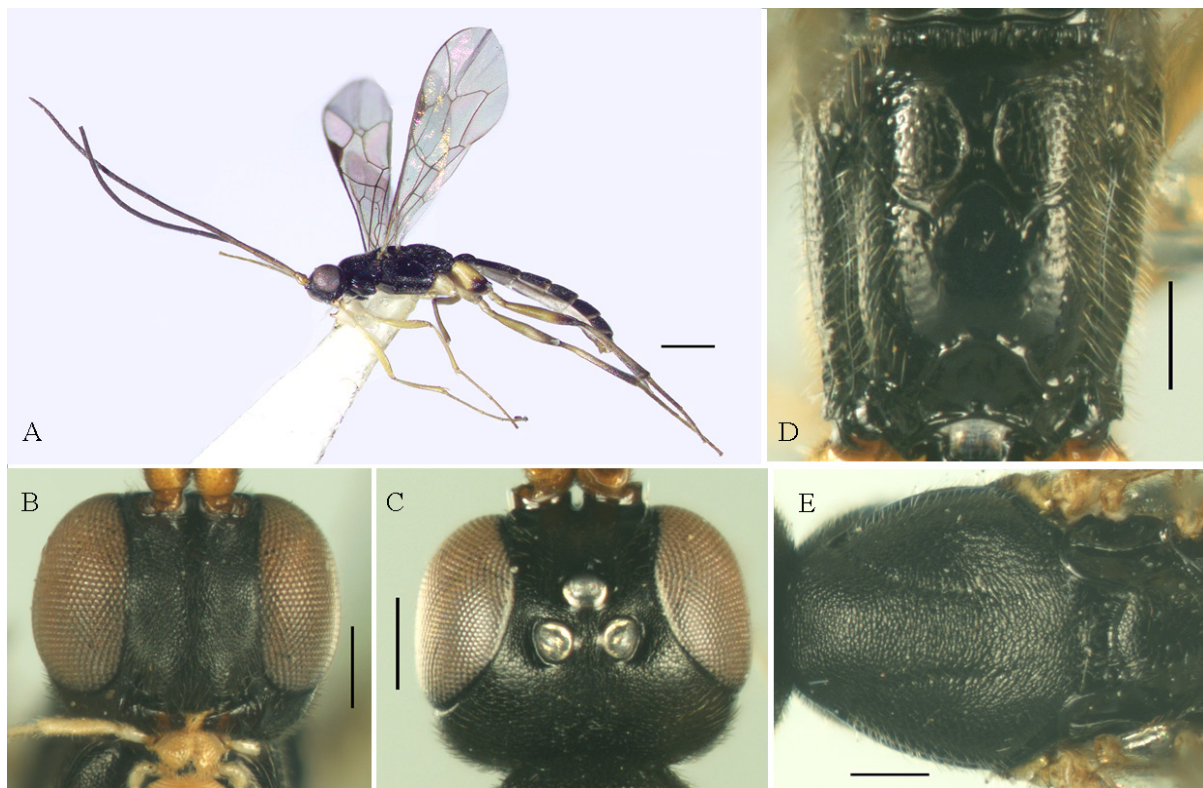
## Description

### Female

**HEAD.** Face  $0.8 \times$  as wide as high, granulate, with setae. Clypeal suture indistinct. Clypeus  $1.7 \times$  as wide as high, similar sculptures as face, ventral margin weakly impressed. Mandible short,  $2.5 \times$  as long as median width, gradually narrowed towards apex, teeth sharp, upper tooth longer than lower tooth. Malar space finely granulate,  $0.4 \times$  as wide as mandibular basal width (Fig. 4A). Gena, frons and vertex finely granulate, with setae. Postero-ocellar distance  $0.9 \times$  ocular-ocellar distance,  $0.8 \times$  median ocellus diameter (Fig. 4B). Antenna with 26 flagellomeres, F1  $9.0 \times$  as long as wide,  $1.2 \times$  as long as F2, ventral side of F9 onwards flattened and thickened. Occipital carina complete, ventrally meeting hypostomal carina about  $1.0 \times$  basal mandibular width from base of mandible.

**MESOSOMA.**  $0.7 \times$  as long as metasoma (Fig. 3). Pronotum  $0.3 \times$  as long as mesosoma, polished, finely granulate anteriorly and posteriorly, medially strongly impressed, smooth. Epomia short (Fig. 4E). Mesoscutum  $1.5 \times$  as long as its maximum width, granulate. Notauli present on anterior 2/3 of mesoscutum. Scutellum moderately convex, finely granulate, except impunctate posteriorly, lateral carina present basally (Fig. 4D). Mesopleuron finely granulate, with setae; epicnemial carina distinct on ventral 0.7 of mesopleuron. Sternaulus indistinct. Metapleuron finely granulate. Juxtacoxal carina absent (Fig. 4E). Propodeum gradually sloping in lateral view, punctate dorsally, smooth at level of area superomedia and area petiolaris. Area superomedia open laterally. Area petiolaris defined (Fig. 4H). Spiracle small, round.

**WINGS.** Fore wing length ca 4.1 mm, vein *Icu-a* interstitial to *M&RS*, weakly curved ventrally, vein *3rs-m* absent, vein *2rs-m* slightly longer than length of *M* between *2rs-m* and *2m-cu*, length of *CU*



**Fig. 5.** *Longipectus planus* gen. et sp. nov., paratype, ♂ (IB). **A.** Habitus, lateral view. **B.** Head, frontal view. **C.** Head, dorsal view. **D.** Propodeum. **E.** Mesoscutum. Scale bars: A = 1 mm; B–E = 0.2 mm.

between *Im-cu* & *M* and *2cu-a*  $1.1 \times$  length of *2cu-a*. Hind wing with distal abscissa of *CU* present, length of *CU* between *M* and *cu-a*  $1.1 \times$  length of *cu-a*.

LEGS. Hind coxa matt. Hind femur  $6.2 \times$  as long as its maximum width,  $0.8 \times$  as long as hind tibia length. Hind tarsus  $1.2 \times$  hind tibia. Hind basitarsus  $0.48 \times$  as long as tarsus.

METASOMA. T1 subpolished, with longitudinal wrinkles, T2 matt, with longitudinal wrinkles, T3 onwards matt, densely punctate. T1  $1.7 \times$  as long as posterior width, ventrolateral carina distinct; spiracle small, round. T2  $2.2 \times$  as long as T1,  $3.4 \times$  as long as anterior width,  $1.7 \times$  as long as posterior width (Fig. 4F). Ovipositor thin, straight, lower valve with teeth apically (Fig. 4K); ovipositor sheath  $0.19 \times$  as long as hind tibia.

COLOUR. Black. Scape reddish, flattened part of F9 onwards brown. Palpi yellow. T6 onward reddish brown. Fore and mid legs reddish brown, except coxae, trochanters, trochantelli yellow. Hind leg reddish brown with black markings. Wings hyaline, wing veins brown.

### Variation

Female paratype with 27 antennal flagellomeres. Postero-ocellar distance  $1.2 \times$  ocular-ocellar distance,  $0.6 \times$  median ocellus diameter. Mesoscutum  $1.3 \times$  as long as maximum width. Fore wing 4.0 mm long, length of hind wing *CU* between *M* and *cu-a*  $1.6 \times$  length of *cu-a*. Metasomal T2  $1.7 \times$  as long as T1,  $2.6 \times$  as long as anterior width,  $1.5 \times$  as long as posterior width. Ovipositor sheath  $0.18 \times$  as long as hind tibia.

### Male

Male paratype with 27 antennal flagellomeres, F1  $5.0 \times$  as long as wide, without any flattened and thickened flagellomeres. Postero-ocellar distance  $1.1 \times$  ocular-ocellar distance,  $0.6 \times$  median ocellus diameter (Fig. 5C). Mesoscutum is  $1.2 \times$  as long as maximum width (Fig. 5E). Fore wing 4.0 mm long, length of hind wing *CU* between *M* and *cu-a*  $1.6 \times$  length of *cu-a*. Sternaulus present on anterior 0.4 of mesopleuron. Metapleuron with juxtacoxal carina complete. Metasomal T1  $1.8 \times$  as long as posterior width, T2  $1.8 \times$  as long as T1,  $2.6 \times$  as long as anterior width,  $1.5 \times$  as long as posterior width.

### Distribution

Currently known only from evergreen montane forests in Cao Bang, Hoa Binh and Son La provinces, North Vietnam.

*Longipectus yagi* gen. et sp. nov.

[urn:lsid:zoobank.org:act:0816EE97-EE90-4C76-8D6E-13523FFCC6A1](https://zoobank.org/urn:lsid:zoobank.org:act:0816EE97-EE90-4C76-8D6E-13523FFCC6A1)

Figs 6–7

### Diagnosis

Sternaulus indistinct; area superomedia absent; posterior transverse carinae forming a crest; fore wing smoky medially; ovipositor sheath  $0.29 \times$  as long as hind tibia.

### Etymology

The species is named to commemorate all the victims of the typhoon Yagi which struck northern Vietnam in early September 2024.

## Type material

### Holotype

VIETNAM • ♀; Ha Giang Province, Meo Vac district, Chi San; 23°09.53' N, 105°25.023' E; 1149 m a.s.l.; 1 Aug.–15 Sep. 2024; N.T. Pham and N.T.Q. Cao leg.; Malaise trap; IB.

## Description

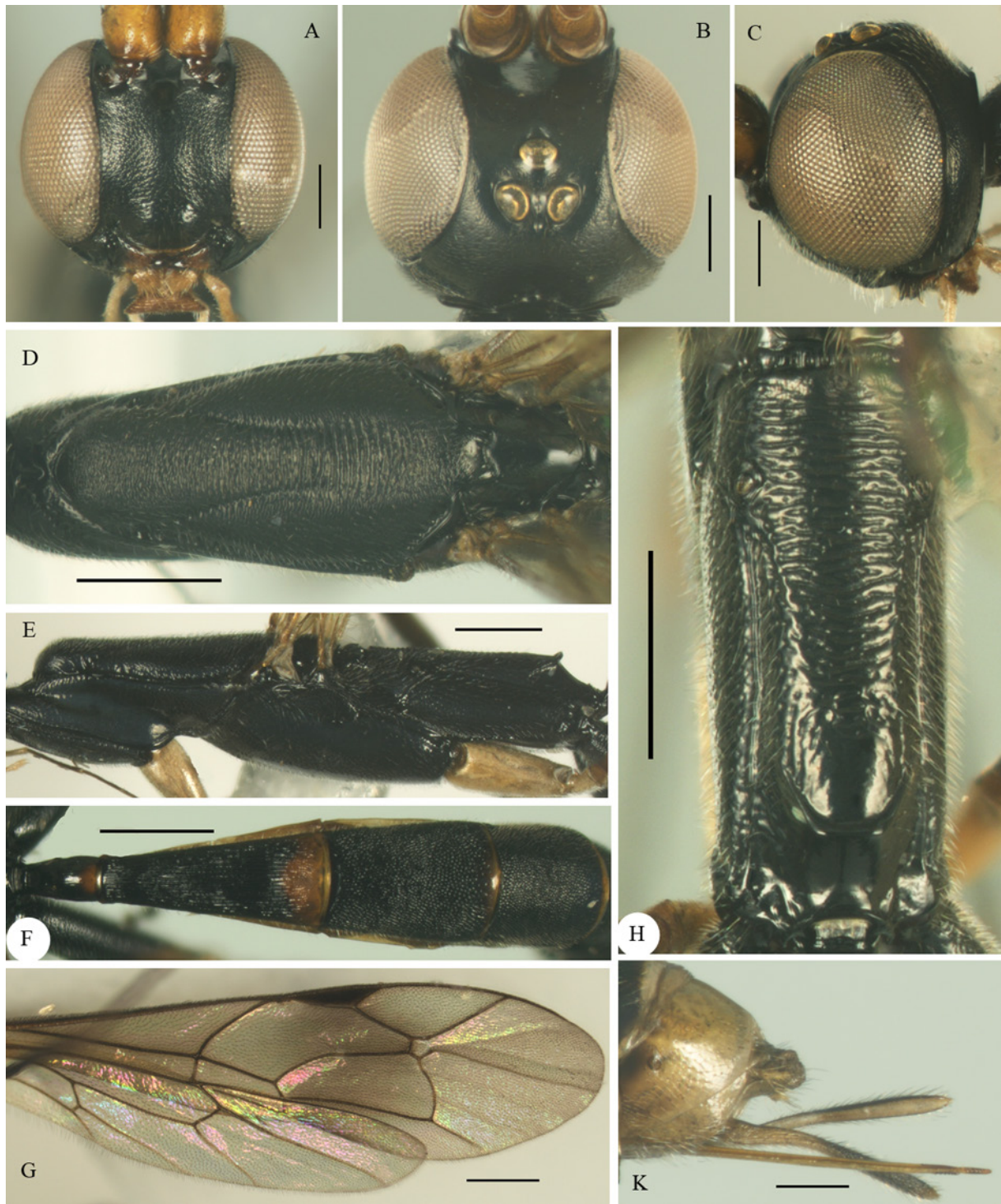
### Female

**HEAD.** Face  $0.9 \times$  as wide as high, punctulate, with setae. Clypeal suture indistinct. Clypeus convex,  $2.0 \times$  as wide as high, polished, sparsely punctate, with setae, ventral margin weakly impressed. Mandible short,  $2.1 \times$  as long as median width, distinctly narrowed towards apex, teeth sharp, upper tooth slightly longer than lower tooth. Malar space punctulate,  $0.6 \times$  as wide as mandibular basal width (Fig. 7A). Gena subpolished, finely punctate, with setae. Frons and vertex similarly sculptured as gena. Postero-ocellar distance  $0.5 \times$  ocular-ocellar distance,  $0.5 \times$  median ocellus diameter (Fig. 7B). Antenna with 34 flagellomeres, F1  $11 \times$  as long as wide,  $1.1 \times$  as long as F2. Occipital carina complete, sinuously dorsally, ventrally meeting hypostomal carina about  $1.0 \times$  basal mandibular width from base of mandible.

**MESOSOMA.**  $0.8 \times$  as long as metasoma (Fig. 6). Pronotum  $0.4 \times$  as long as mesosoma, with striations dorsally, posterior corner finely punctate, with setae, medially strongly impressed, polished, impunctate. Epomia absent (Fig. 7E). Mesoscutum  $1.9 \times$  as long as its maximum width, matt, punctulate, medially with transverse wrinkles. Notauli present on anterior 0.6 of mesoscutum. Scutellum moderately convex, polished, impunctate except finely granulate anteriorly, lateral carina present basally (Fig. 7D). Mesopleuron subpolished, finely punctate, with setae; epicnemial carina indistinct on ventral 0.5 of mesopleuron, dorsal 0.5 strong, curved, extending to upper margin of mesopleuron. Sternaulus indistinct. Metapleuron matt, densely punctate, with setae. Juxtacoxal carina absent (Fig. 7E). Propodeum gradually sloping in lateral view, with dense transverse striations, area supermedia absent, posterior transverse



**Fig. 6.** *Longipectus yagi* gen. et sp. nov., holotype, ♀ (IB), habitus, lateral view. Scale bar = 1 mm.



**Fig. 7.** *Longipectus yagi* gen. et sp. nov., holotype ♀ (IB). **A.** Head, frontal view. **B.** Head, dorsal view. **C.** Head, lateral view. **D.** Mesonotum. **E.** Mesosoma, lateral view. **F.** Metasomal tergites. **G.** Wings. **H.** Propodeum. **K.** Ovipositor. Scale bars: A–C, K = 0.2 mm; D–H = 0.5 mm.

carinae forming a crest, narrow area in front of crest and area petiolaris smooth, impunctate (Fig. 7H). Spiracle small, round.

WINGS. Fore wing length ca 5.1 mm, vein *Icu-a* antefurcal to *M&RS*, slightly curved, vein *3rs-m* absent, vein *2rs-m*  $1.3 \times$  as long as length of *M* between *2rs-m* and *2m-cu*, length of *CU* between *1m-cu&M* and *2cu-a*  $1.1 \times$  length of *2cu-a*. Hind wing with distal abscissa of *CU* present, length of *CU* between *M* and *cu-a*  $1.2 \times$  length of *cu-a*.

LEGS. Hind coxa long, matt, punctulate. Hind femur  $7.8 \times$  as long as its maximum width,  $0.8 \times$  as long as hind tibia length. Hind tarsus  $1.2 \times$  hind tibia. Hind basitarsus  $0.48 \times$  as long as tarsus.

METASOMA. T1 polished, with weak longitudinal wrinkles,  $2.5 \times$  as long as posterior width, ventrolateral carina distinct; spiracle small, round. T2 subpolished, with dense longitudinal wrinkles,  $2.6 \times$  as long as T1,  $5 \times$  as long as anterior width,  $2.4 \times$  as long as posterior width. T3–T4 matt, densely punctate, with setae. T5 subpolished, with fine punctures. T6 onward polished, with minute punctures (Fig. 7H). Ovipositor thin, straight, lower valve with teeth apically (Fig. 7K); ovipositor sheath  $0.29 \times$  as long as hind tibia.

COLOUR. Black with yellow markings. Head black, mandible (except apex) reddish, palpi, scape, pedicel and basal half of F1 yellow, fore leg reddish brown except coxa, trochanter, trochantellus yellow, mid leg black except coxa, trochanter, trochantellus yellow, hind leg black except trochanter, trochantellus and basitarsus yellow. Wings hyaline, median part of fore wing smoky, veins black. Metasomal tergites black, posterior parts of T1–T2 reddish.

#### Male

Unknown.

#### Distribution

Currently known only from evergreen montane forest in Ha Giang Province, northeastern Vietnam.

#### Discussion

The new genus shares several characters with many genera of the *Chirotica* genus-group (equivalent to the subtribe Chiroticina of Townes (1970)), including elongate mandibular palps, T1–T2 with longitudinal striae, and general wing venation. It differs from other known genera of the *Chirotica* group by the globular head combined with the long mesosoma. In comparison with *Palpostilpnus*, a genus of the *Chirotica* group that has recently been recorded from Vietnam, *Longipectus* can be distinguished by its occipital carina meeting the hypostomal carina ventrally at a distance from  $0.6$ – $1.0 \times$  mandibular basal width from the base of the mandible (vs meeting at the base of the mandible) and the area petiolaris separated from the area supermedia when the latter is defined (vs combined together when propodeal carinae are present). Since Townes's subtribal arrangement was mostly artificial (Santos 2017), comprehensive global knowledge of this subfamily, particularly from the tropical regions, is crucial for its reclassification into smaller, monophyletic groups.

#### Acknowledgements

We are grateful to Prof. Dr Wolfgang Böhme (Zoologisches Forschungsmuseum Alexander Koenig, Bonn, Germany) for his helpful advices on the nomenclature and our colleagues for providing awesome specimens. We thank Dr Bernardo Santos and an anonymous reviewer for their valuable comments on the manuscript. This research is funded by Vietnam National Foundation for Science and Technology Development (NAFOSTED) under grant number 106.05-2023.12.

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