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The Vietnam species of the genus *Hormius* NEES, 1818, with a key to the Oriental species
(Hymenoptera, Braconidae)

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Abstract

Six new species and two new subspecies of the genus *Hormius* NEES, 1818 (Hym., Braconidae) from Vietnam are described and illustrated: *H. appositus* **sp. nov.**, *H. notus* **sp. nov.**, *H. ikarus* **sp. nov.**, *H. montanus* **sp. nov.**, *H. abnormis* **sp. nov.**, *H. paraphrasis* **sp. nov.**, *H. pallidus deviatus* **ssp. nov.** and *H. orientalis tulyensis* **ssp. nov.** *H. vitabilis* PAPP, 1990 and *H. amus* PAPP, 1990 are recorded for the first time for the fauna of Vietnam, and *H. pallidus* BELOKOBYLSKIJ, 1990 for the fauna of Malaysia, Thailand and Taiwan. The males of *H. pallidus* and *H. decembris* are described for the first time. A key for the Oriental species of *Hormius* is given.

Zusammenfassung

Sechs neue Arten und zwei neue Unterarten der Gattung *Hormius* NEES, 1818 (Hym., Braconidae) werden beschrieben und abgebildet: *H. appositus* **sp. nov.**, *H. notus* **sp. nov.**, *H. ikarus* **sp. nov.**, *H. montanus* **sp. nov.**, *H. abnormis* **sp. nov.**, *H. paraphrasis* **sp. nov.**, *H. pallidus deviatus* **ssp. nov.** and *H. orientalis tulyensis* **ssp. nov.** *H. vitabilis* PAPP, 1990 und *H. amus* PAPP, 1990 werden erstmals für die Fauna von Vietnam und *H. pallidus* BELOKOBYLSKIJ, 1990 für die Faunen von Malaysia, Thailand and Taiwan gemeldet. Die Männchen von *H. pallidus* and *H. decembris* werden beschrieben. Ein Bestimmungsschlüssel für die orientalischen *Hormius*-Arten ist enthalten.

Introduction

The genus *Hormius* NEES, 1818 comprises more than 45 species. Among them are about 30 species from the Old World, including 5 species in Afrotropical Region (SHENEFELT 1975), 10 species in Australian Region (BELOKOBYLSKIJ 1989) and 7 species in Palaearctic Region (SHENEFELT 1975; TOBIAS 1977; BELOKOBYLSKIJ 1980).

Nine species of *Hormius* have been described from the Oriental Region (SHENEFELT 1975; BELOKOBYLSKIJ 1988, 1990, 1993; PAPP 1990). Unfortunately, the taxonomic status of Oriental *Hormius pacificus* ASHMEAD, 1906 is uncertain, and this species is not included in the key of the Oriental species of *Hormius*.

According to BELOKOBYLSKIJ (1989) *Hormius* can be divided into two subgenera: *Hormius* NEES, 1818 and *Mediella* HEDQVIST, 1963. However, the study of *Hormius* species from different zoogeographical regions allows us to desagree with the use of such subgeneric division, because the main diagnostic feature of the subgenus *Mediella* (the brachial cell closed distinctly before recurrent vein) is highly variable.

In a recent paper, WHARTON (1993) synonymised the Australian genus *Anhormius* BELOKOBYLSKIJ, 1989 with *Hormius* and described an interesting Neotropical species (*H. deletus*) which lacks the second radiomedial vein of fore vein. The main distinguishing feature for *Anhormius* (the lack of the second radiomedial vein) and other characters (such as the number of maxillary and labial segments of palpi etc.) are variable. Since there is no apparent homoplasy in the radiomedial vein within *Hormius* and *Anhormius*, such as there is for example in the type species of *Hormisca tatianae* TELENGA, 1941 (TOBIAS 1974), I consider WHARTON's synonymy premature and I do not include *Anhormius* in synonymy of *Hormius*.

The morphological terms are used as defined by TOBIAS (1986). The following abbreviations are used: POL = postocellar line; OOL = ocular-ocellar line; Od = maximal diameter of lateral ocelli. Holotypes of all new taxa described are deposited in the Zoological Institute, St. Petersburg, Russia (ZIP). Paratypes are in ZIP; Texas A & M University, College Station, USA (TAMU); Rijksmuseum van Natuurlijke Historie, Leiden, the Netherlands (RMNH); Zoologische Staatssammlung München, BRD (ZSM).

Hormius NEES, 1818

Hormius NEES, 1818: 305 (Type species *Bracon moniliatus* NEES, 1812); SHENEFELT 1975: 1143.
Chlidonia HERRICH-SCHAEFFER, 1838: 157 (Type species *Chlidonia moniliatus* HERRICH-SCHAEFFER, 1838); SHENEFELT 1975: 1143.
Hormiellus ENDERLEIN, 1912: 20 (Type species *Hormiellus solocipes* ENDERLEIN, 1912); SHENEFELT 1975: 1142; WHARTON 1993: 136; BELOKOBYLSKIJ 1993: 149.
Hormisca TELENGA, 1941: 115 (Type species *Hormisca tatianae* TELENGA, 1941); TOBIAS 1974: 262; SHENEFELT 1975: 1142.
Mediella HEDQVIST, 1963: 52 (Type species *Mediella romani* HEDQVIST, 1963); BELOKOBYLSKIJ 1989: 380 (as subgenus).

Description. Head transverse. Ocelli usually small and in equilateral triangle. Eye glabrous. Occipital carina distinct, almost complete, usually absent below near mandible, often distinctly curved medio-dorsally. Maxillar palpi 6-segmented; labial palpi 4-segmented, but third labial segment very short, ovoid or discoidal, sometimes indistinct. Antennae filiform or weakly flagelliform, usually rather slender. In thorax notauli distinct, but often (almost) absent in distal half or third. Medial lobe usually with medial longitudinal furrow. Prepectal carina complete. Sternauli distinct, smooth or sculptured. Propodeum usually with areas, smooth or sculptured. Femora slender. Hind basitarsus long, usually equal to or slightly shorter than second-fifth segments combined. Tarsal claws simple. Radial cell of fore wing usually not shortened, but sometimes

distinctly shortened. Radial vein arising from middle of pterostigma or distinctly after it. Recurrent vein postfurcal. Nervulus interstitial or postfurcal. Parallel vein usually interstitial, sometimes not interstitial. In hind wing, submedial cell usually short. First abdominal tergite with distinct dorsope, dorsal carinae distinct and usually long. Other abdominal tergites weakly sclerotized and soft. Second tergite with two oblique basolateral depressions. Ovipositor sheath usually short, sometimes long. In male genitalia basal ring short, transverse and without medial lobe, digitus very long, cuspis absent.

Hormius appositus BELOKOBYLSKIJ sp. nov.

(figs 1 - 11)

Holotype: ♀, Vietnam, prov. Ha Son Bihn, Ky Son, Cao Phong, forest, 29.X.1990 (S. BELOKOBYLSKIJ) (ZIP).

Paratype: 1 ♀, same place as holotype, 25.X.1990 (ZIP).

Female. Body length 1.9 - 2.1 mm; fore wing length 2 - 2.1 mm. Head width 1.6 times its medial length. Temple distinctly and roundly narrowed behind eye. Transverse diameter of eye 2 - 2.5 times longer than temple. Ocelli small, POL nearly equal to or 1.5 times less than Od, 3 - 3.5 times less than OOL. Eye 1.3 times as high as broad. Cheek very short, its height 10-20 times less than eye height, 4-7 times less than basal width of mandible. Face width 1.25 - 1.3 times less than eye height and 1.5 times the height of face and clypeus combined. Clypeal and subocular suture distinct. Hypoclypeal depression large and oval, its width 1.7 - 2 times the distance from edge of depression to eye. Frons with short furrow posteriorly. Maxillary palpi slightly longer than height of head. Third labial segment very short, subglobular. Occipital carina distinctly curved medio-dorsally, absent ventrally near mandible.

Antennae rather slender, filiform, 17-18-segmented, 1.2 times longer than body. Scapus as long as pedicellus. First flagellar segment 4.8 - 5 times as long as its apical width, slightly longer than second segment. Penultimate segment 3.6 - 4.3 times as long as wide, nearly equal to apical segment.

Thorax. Length 2 - 2.1 times its height. Mesoscutum rather slightly and roundly elevated above prothorax. Prothorax with long neck which is almost straight anteriorly (in dorsal view) and without distinct dorsal carinae. Oblique lateral furrows of prothorax crenulate. Notauli deep, almost complete, finely crenulate. Medial lobe of mesoscutum with distinct and smooth medial longitudinal furrow in distal half. Prescutellar depression shallow, long, smooth, with 5 carinae, nearly half length of scutellum. Scutellum weakly convex and with weak lateral carinae. Subalar depression shallow and smooth. Sternauli distinct, straight, smooth, with small depression posteriorly. Propodeum weakly roundly narrowed posteriorly (in lateral view).

Wing. Length of fore wing 3 times its width. Radial cell unshortened. Pterostigma long and rather narrow, 5.5 - 6 times as long as wide. Radial vein arising near distal third of pterostigma or before it. Second radial abscissa 1.1 - 1.25 times longer than first abscissa, 3.9-4.3 times shorter than third abscissa, 1.7 times shorter than first radiomedial vein. Length of second radiomedial cell 2 - 2.5 times its maximum width. Distance from nervulus to basal vein 1 - 1.5 times nervulus length. Brachial cell closed on or slightly before recurrent vein. In hind wing, first abscissa of mediocubital vein 1.1 - 1.2 times shorter than second abscissa.

Legs long and slender. Hind femur 5.3 - 5.7 times as long as wide. Hind tarsus 1.1 - 1.2 times shorter than hind tibia. Hind basitarsus 1.1 - 1.3 times shorter than

secondfifth segments combined. Second tarsal segment 3.3 - 3.7 times shorter than basitarsus, 1.2 - 1.5 times shorter than fifth segment (without pretarsus).

Abdomen about as long as thorax, 2.3 - 2.5 times as long as wide. First abdominal tergite long and weakly widened apically, with distinct spiracular protuberances near middle, dorsal carinae distinct, long and irregular. Apical width of first tergite slightly greater than its width at level of spiracles, 1.6 times greater than its minimum width, 1.7 - 2 times less than its length. Length of second and third tergites combined nearly equal to basal width of second tergite. Second suture indistinct. Ovipositor long. Ovipositor sheath slender, 1.7 - 2.5 times longer than first abdominal tergite, 1.1 - 1.4 times shorter than hind tibia.

Sculpture and pubescence. Head, thorax and legs smooth. Propodeum smooth, finely rugulose laterally and on distal half or one third, with medial longitudinal carina in basal half, areola small and almost pentagonal. First abdominal tergite rugulose, almost smooth medially. Hind tibia with long and erect hairs dorsally, length of these hairs 1.4 - 2 times greater than maximum width of hind tibia. Ovipositor sheath densely and shortly setose.

Colour. Head light reddish brown, face darker. Antennae yellowish brown, 1-3 apical segments darker. Palpi pale yellow. Prothorax yellowish white. Mesoscutum light reddish brown. Other parts of thorax (dark) reddish brown. Abdomen yellowish white, with dark brown lateral spots. Legs yellow. Ovipositor sheath yellow, dark distally or almost completely brown. Wings light with two brownish bands. Pterostigma brown, yellow in basal half and usually apically.

Male unknown.

Discussion. This new species is related to Australian *H. longistigmus* BELOKOBYLSKIJ, 1989 and differs in having very short cheeks, a long, narrow and white first abdominal tergite, brachial cell closed near recurrent vein, long ovipositor, short second radial abscissa, and basal half of propodeum smooth.

Distribution. Vietnam.

Hormius notus BELOKOBYLSKIJ sp. nov.

(figs 12 - 22)

Holotype: ♀, Vietnam, prov. Ha Son Binh, Ky Son, Cao Phong, forest, 25.X.1990 (S. BELOKOBYLSKIJ) (ZIP).

Female. Body length 2.1 mm; fore wing length 2 mm. Head width 1 6 times its medial length. Temple distinctly and roundly narrowed behind eye. Transverse diameter of eye 2.5 times longer than temple. Ocelli small, POL 1.3 times less than Od, 3.7 times less than OOL. Eye 1.2 times as high as broad. Cheek short, its height 5 times less than eye height, almost twice less than basal width of mandible. Face width 1.2 times less than eye height and 1.25 times the height of face and clypeus combined. Clypeal and subocular suture distinct. Hypoclypeal depression oval, its width nearly equal to distance from edge of depression to eye. Frons without longitudinal furrow. Maxillary palpi 1.3 times less than height of head. Third labial segment short and elongate. Occipital carina not curved medio-dorsally, absent ventrally near mandible.

Antennae slender, filiform, 19-segmented, almost as long as body. Scapus as long as pedicellus. First flagellar segment 3.5 times as long as its apical width, almost equal

to second segment. Penultimate segment almost 3 times as long as wide, slightly shorter than apical segment.

Thorax. Length twice its height. Mesoscutum distinctly and roundly elevated above prothorax. Prothorax with rather short neck. Oblique lateral furrows of prothorax almost smooth. Notauli deep anteriorly and (very) shallow posteriorly, incomplete, almost smooth. Medial lobe of mesoscutum with distinct and smooth medial longitudinal furrow in distal two thirds. Prescutellar depression shallow, long, finely rugulose, with 3 carinae, 2.5 times shorter than scutellum. Scutellum weakly convex and with weak lateral carinae. Subalar depression shallow and smooth. Sternauli distinct, curved, smooth, without depression posteriorly. Propodeum distinctly roundly narrowed posteriorly (in lateral view).

Wing. Length of fore wing 3 times its width. Radial cell unshortened. Pterostigma long and wide, 4.3 times as long as wide. Radial vein arising almost from middle of pterostigma. Second radial abscissa 1.7 times longer than first abscissa, 2.8 times shorter than third abscissa, 1.2 times shorter than first radiomedial vein. Length of second radiomedial cell 2.8 times its maximum width. Distance from nervulus to basal vein 0.5 times nervulus length. Brachial cell closed slightly before recurrent vein. In hind wing, first abscissa of mediocubital vein 1.2 times shorter than second abscissa.

Legs long and slender. Hind femur 5.5 times as long as wide. Hind tarsus 1.2 times shorter than hind tibia. Hind basitarsus 1.2 times shorter than second-fifth segments combined. Second tarsal segment 3.3 times shorter than basitarsus, 1.3 times shorter than fifth segment (without pretarsus).

Abdomen slightly longer than thorax, 2.5 times as long as wide. First abdominal tergite long and weakly widened apically, with distinct spiracular protuberances near middle, dorsal carinae distinct and long. Apical width of first tergite 1.3 times greater than its width at level of spiracles, 1.7 times greater than its minimum width, 1.4 times less than its length. Length of second and third tergites combined 1.7 times greater than basal width of second tergite. Second suture weak. Ovipositor short. Ovipositor sheath distinctly widened distally, 1.2 times longer than first abdominal tergite, 2.5 times shorter than hind tibia.

Sculpture and pubescence. Head, thorax and legs smooth. Propodeum granulo-rugulose, almost smooth in basal one third, with distinct medial longitudinal carina in basal half, areola small and almost pentagonal. First abdominal tergite rugulose. Hind tibia with long and erect hairs dorsally, length of these hairs 1.8 - 2.2 times greater than maximum width of hind tibia. Ovipositor sheath densely and shortly setose.

Colour. Body light (reddish) brown, head and abdomen (except first tergite) yellow. Antennae light reddish brown, dark in distal half, scapus yellow. Palpi pale yellow. Legs yellow. Ovipositor sheath light brown, distinctly darker distally. Wings very weakly yellowish infuscate. Pterostigma completely yellow.

Male unknown.

Discussion. This new species is related to *H. pallidus* BELOKOBYLSKIJ, 1990 and *H. appositus* sp. nov. and differs in having the radial vein arising from middle of pterostigma, pterostigma completely yellow, ovipositor sheath short, abdomen yellow and without dark lateral spots, cheeks longer, hypoclypeal depression smaller, and wings without bands.

Distribution. Vietnam.

Hormius ikarus BELOKOBYLSKIJ sp. nov.

(figs 23 - 33)

Holotype: ♀, Vietnam, prov. Ha Son Binh, Ky Son, Cao Phong, forest, 29.X.1990 (S. BELOKOBYLSKIJ) (ZIP).

Paratypes: Vietnam: 3 ♀♀, 2 ♂♂, prov. Ha Son Binh, Ky Son, Cao Phong, 26, 29.X.1990 (S. BELOKOBYLSKIJ) (ZIP); - 5 ♀♀, prov. Ha Son Binh, Mai Chau, forest, 31.X. & 1, 3.XI.1990 (S. BELOKOBYLSKIJ) (ZIP, TAMU, ZSM); - 1 ♀, Malaysia, SW Sabah, Long Maga, c. 1210 m, Malaise trap, 2.-4.IV.1987 (C. v. ACHTERBERG) (RMNH).

Female. Body length 2.5 - 2.6 mm; fore wing length 1.8 - 2.2 mm. Head width 1.7 - 1.8 times its medial length. Temple strongly and roundly narrowed behind eye. Transverse diameter of eye 2.3 - 2.7 times longer than temple. Ocelli middle size, POL 1.2 - 2 times less than Od, 2-3 times less than OOL. Eye 1.2 - 1.3 times as high as broad. Cheek short, its height 5-6 times less than eye height, 1.5 times less than basal width of mandible. Face width 1.1 - 1.2 times less than eye height and slightly greater than height of face and clypeus combined. Clypeal and subocular suture distinct. Hypoclypeal depression oval, its width 1.3 - 1.5 times the distance from edge of depression to eye. Frons without longitudinal furrow. Maxillary palpi slightly longer or shorter than height of head. Third labial segment very short, subglobular. Occipital carina distinctly curved medio-dorsally, absent ventrally near mandible.

Antennae slender, filiform, 19-21-segmented, slightly longer than body. Scapus as long as pedicellus. First flagellar segment 6-7 times as long as its apical width, 1.1 - 1.2 times longer than second segment. Penultimate segment 3.5 - 4 times as long as wide, slightly shorter than apical segment.

Thorax. Length 1.6 - 1.7 times its height. Mesoscutum rather slightly and roundly elevated above prothorax. Prothorax with short neck which is distinctly emarginate anteriorly (in dorsal view) and with distinct dorsal carinae. Oblique lateral furrows of prothorax deep and crenulate. Notauli deep, absent in posterior one third, crenulate. Medial lobe of mesoscutum usually with distinct and smooth medial longitudinal furrow in distal half. Prescutellar depression shallow, long, smooth or finely rugulose, with 1-3 carinae, 2 - 2.5 times shorter than scutellum. Scutellum weakly convex and with weak lateral carinae. Subalar depression shallow and smooth. Sternauli distinct, weakly curved, smooth, with distinct round depression almost medially. Propodeum strongly and weakly roundly narrowed posteriorly (in lateral view).

Wing. Length of fore wing 3 times its width. Radial cell unshortened. Pterostigma short and wide, 3.5-4.5 times as long as wide. Radial vein arising slightly after middle of pterostigma. Second radial abscissa 1.3-1.4 times longer than first abscissa, 3 - 3.4 times shorter than third abscissa, 1.2 - 1.3 times shorter than first radiomedial vein. Length of second radiomedial cell 2.7 - 3 times its maximum width. Distance from nervulus to basal vein 0.2 - 0.3 times nervulus length, sometimes nervulus almost interstitial. Brachial cell closed distinctly before recurrent vein. In hind wing, first abscissa of mediocubital vein 1.7 - 2 times shorter than second abscissa.

Legs long and slender. Hind femur 6 - 6.5 times as long as wide. Hind tarsus 1.1 - 1.2 times shorter than hind tibia. Hind basitarsus almost equal to second-fifth segments combined. Second tarsal segment 3.4 - 3.6 times shorter than basitarsus, nearly equal to fifth segment (without pretarsus).

Abdomen 1.4 - 1.6 times longer than thorax, 3.5 times as long as wide. First abdominal tergite long and weakly widened apically, with (very) weak spiracular

protuberances near middle, dorsal carinae distinct, long and irregular, with elongate medial marginated by carinae area in distal half. Apical width of first tergite 1.8 - 2 times greater than its minimum width, 1.4 - 1.5 times less than its length. Length of second and third tergites combined 1.6 - 2.2 times greater than basal width of second tergite. Second suture distinct. Ovipositor short. Ovipositor sheath slender, 1.5 times longer than first abdominal tergite, 1.7 - 2 times shorter than hind tibia.

Sculpture and pubescence. Head, thorax and legs smooth. Propodeum almost completely smooth, finely rugulose laterally and distally, with distinct medial carina in basal third, areola wide and pentagonal. First abdominal tergite rugose, distal marginated area almost smooth. Hind tibia with long and erect hairs dorsally. length of these hairs 1.5 - 2 times greater than maximum width of hind tibia. Ovipositor sheath with long outstanding and rather dense hairs.

Colour. Head and mesoscutum light reddish brown, other parts of thorax and first abdominal tergite dark reddish brown. Sometimes thorax almost completely and first abdominal tergite (light) reddish brown. Abdomen yellowish brown, laterally brown. Antennae black, light reddish brown in basal one fifth. Palpi and legs yellow. Ovipositor sheath light brown, dark posteriorly. Wings infuscate. Pterostigma dark brown, pale yellow in basal half.

Male. Body length 1.8 - 1.9 mm; fore wing length 1.6 mm. Antennae 17-19-segmented. Antennal segments thickened; first flagellar segment 4.5 - 5 times as long as its maximum width. Second radial abscissa 2.5 - 3.8 times shorter than third abscissa, 1.6 times shorter or almost equal to first radiomedial vein. Brachial cell sometimes closed slightly before recurrent vein. Pterostigma brown, lighter basally. Otherwise similar to female.

Discussion. This new species is related to Australian *H. longipilosus* BELOKOBYLSKIJ, 1989 and differs in having long antennal segments, long mesoscutum, smooth vertex, mesoscutum and propodeum, distinct areola of propodeum and area marginated by carinae in distal half of first abdominal tergite.

Distribution. Vietnam, Malaysia.

Hormius montanus BELOKOBYLSKIJ sp .nov.

(figs 34 - 44)

Holotype: ♀, Vietnam, prov. Vinh Phu, Tam Dao, 1000 m, forest, 13.XI.1990 (S. BELOKOBYLSKIJ) (ZIP).

Paratypes: 13 ♀♀, 2 ♂♂, Vietnam, prov. Vinh Phu, Tam Dao, 1000 m, forest, 11-13, 16.XI.1990 (S. BELOKOBYLSKIJ) (ZIP, TAMU, ZSM); - 3 ♀♀, same place, 10, 14, 16.XI.1990 (E. Nartshuk) (ZIP); - 1 ♀, same place, 10.-16.XI.1990 (A. GOROCHOV) (ZIP).

Female. Body length 2.5-3 mm; fore wing length 2.3 - 2.6 mm. Head width 1.6 - 1.7 times its medial length. Temple distinctly and roundly narrowed behind eye. Transverse diameter of eye 2.3 - 2.5 times longer than temple. Ocelli medial size, POL 1.3 - 1.6 times less than Od, 2.3 - 3.2 times less than OOL. Eye 1.3 - 1.4 times as high as broad. Cheek short, its height 5-6 times less than eye height, 1.4 - 1.6 times less than basal width of mandible. Face width 1.3 - 1.4 times less than eye height and nearly equal to or 1.2 times greater than height of face and clypeus combined. Clypeal and subocular suture distinct. Hypoclypeal depression large and oval, its width 1.5 - 1.8

times greater than distance from edge of depression to eye. Frons with long deep longitudinal medial furrow. Maxillary palpi slightly less than height of head. Third labial segment very short, subglobular. Occipital carina distinctly curved medio-dorsally, absent ventrally near mandible.

Antennae slender, filiform, 20-21-segmented, nearly equal to body. Scapus equal to or 1.2 times longer than pedicellus. First flagellar segment 3.5 - 4 times as long as its apical width, 1.1 - 1.2 times longer than second segment. Penultimate segment 3-4 times as long as wide, slightly shorter than apical segment.

Thorax. Length 1.8 times its height. Mesoscutum distinctly and roundly elevated above prothorax. Prothorax with long neck which is emarginate anteriorly (in dorsal view) and without distinct dorsal carinae. Oblique lateral furrows of prothorax crenulate. Notauli distinct anteriorly, absent posteriorly, crenulate. Medial lobe of mesoscutum with distinct and finely crenulate medial longitudinal furrow in distal one third. Prescutellar depression shallow, long, rugulose, with medial carina, 2.5 -2.7 times shorter than scutellum. Scutellum weakly convex and without distinct lateral carinae. Subalar depression deep and smooth. Sternauli distinct, straight, smooth, with big round depression posteriorly. Propodeum distinctly roundly narrowed posteriorly (in lateral view).

Wing. Length of fore wing 2.6 - 3 times its width. Radial cell unshortened. Pterostigma long and wide, 3.7 - 4 times as long as wide. Radial vein arising slightly after middle of pterostigma. Second radial abscissa 1.4 - 1.7 times longer than first abscissa, 2.4 - 2.6 times shorter than third abscissa, nearly equal to or 1.2 times shorter than first radiomedial vein. Length of second radiomedial cell 2.8 - 3 times its maximum width. Distance from nervulus to basal vein 0.2 - 0.6 times nervulus length; sometimes nervulus almost interstitial. Brachial cell closed on recurrent vein. Parallel vein interstitial or almost interstitial. In hind wing, first abscissa of mediocubital vein nearly equal to second abscissa.

Legs long and slender. Hind femur 5 - 5.3 times as long as wide. Hind tarsus 1.2 times shorter than hind tibia. Hind basitarsus 1.3 times shorter than second-fifth segments combined. Second tarsal segment 3.5 - 3.7 times shorter than basitarsus, 1.5 times shorter than fifth segment (without pretarsus).

Abdomen 1.2 - 1.3 times longer than thorax, 2.5 - 2.7 times as long as wide. First abdominal tergite long and distinctly widened apically, without spiracular protuberances, dorsal carinae distinct and long. Apical width of first tergite 1.5 - 1.8 times greater than its minimum width, 1.3 - 1.4 times less than its length. Length of second and third tergites combined 1.3 - 1.6 times greater than basal width of second tergite. Second suture distinct. Ovipositor short. Ovipositor sheath widened, equal to or 1.1 - 1.3 times longer than first abdominal tergite, 1.8 - 2.1 times shorter than hind tibia.

Sculpture and pubescence. Head, thorax and legs smooth. Propodeum almost completely smooth, with sparse rugae in distal half and laterally, with distinct medial carina, areola wide and almost pentagonal. First abdominal tergite completely rugulose. Hind tibia with very long and erect hairs dorsally, length of these hairs 2 - 2.5 times greater than maximum width of hind tibia. Ovipositor sheath with long and rather dense hairs.

Colour. Body black or dark reddish brown. Head (light) reddish brown, dark reddish brown dorsally. Abdomen (except first tergite) brown, usually dark laterally and distally, almost yellow ventrally. Antennae dark reddish brown, scapus lighter. Palpi

yellow. Legs yellowish brown. Ovipositor sheath light brown. Wings infuscate. Ptero stigma yellow or light brown, dark marginally.

Male. Body length 2.6 mm; fore wing length 2.2 - 2.3 mm. Antennae weakly flagelliform, 18-19-segmented. Penultimate segment 4.5 times as long as wide. First abdominal tergite usually with distinct spiracular protuberances near middle. Body (light) reddish brown, sometimes with dark spots, abdomen (except first tergite) sometimes yellow. Otherwise similar to female.

Discussion. This new species is related to *H. moniliatus* (NEES, 1812) and differs in having a long first abdominal tergite, long antennal segments, occipital carina distinctly curved apically, metapleurae and propodeum almost completely smooth, mesoscutum smooth in distal one third, and hind tibiae with very long hairs.

Distribution. Vietnam.

Hormius abnormis BELOKOBYLSKIJ sp. nov.

(figs 45 - 55)

Holotype: ♀, Vietnam, prov. Ha Son Binh, Da Bac, Tuly, forest, 19.X.1990 (S. BELOKOBYLSKIJ) (ZIP).

Paratypes: Vietnam: 1 ♀, prov. Ha Son Binh, Mai Chau, forest, 31.X.1990 (S. BELOKOBYLSKIJ) (ZIP); - 1 ♂, prov. Ha Son Binh, Ky Son, Cao Phong, forest, 29.X.1990 (E. SUGONYAEV) (ZIP).

Female. Body length 1.6 - 1.8 mm; fore wing length 1.7 - 1.9 mm. Head width 1.6 times its medial length. Temple distinctly and roundly narrowed behind eye. Transverse diameter of eye 2.3 - 2.5 times longer than temple. Ocelli small, POL 1.5 times less than Od, 3 - 3.5 times less than OOL. Eye 1.2 - 1.3 times as high as broad. Cheek short, its height 3 - 3.5 times less than eye height, nearly equal to or 1.2 times less than basal width of mandible. Face width equal to eye height and slightly greater than height of face and clypeus combined. Clypeal suture distinct. Subocular suture absent. Hypoclypeal depression small and oval, its width nearly equal to distance from edge of depression to eye. Frons without furrow. Maxillary palpi nearly as long as height of head. Third labial segment short, slender, elongate. Occipital carina not curved mediodorsally, absent ventrally near mandible.

Antennae slender, filiform, 18-segmented, 1.4 - 1.5 times longer than body. Scapus 1.4 - 1.5 times longer than pedicellus. First flagellar segment 5 - 5.3 times as long as its apical width, slightly longer than second segment. Penultimate segment 4 - 4.3 times as long as wide, equal to or slightly shorter than apical segment.

Thorax. Length 1.4 times its height. Mesoscutum distinctly highly and roundly elevated above prothorax. Prothorax with short neck which is almost straight anteriorly (in dorsal view) and without distinct dorsal carinae. Oblique lateral furrows of prothorax sparsely crenulate. Notauli deep in anterior half, absent in posterior half, crenulate. Medial lobe of mesoscutum with distinct and smooth medial longitudinal furrow in distal half. Prescutellar depression deep, long, smooth or finely sculptured, with 3 carinae, half length of scutellum. Scutellum weakly convex and without lateral carinae. Subalar depression shallow and smooth. Sternauli distinct, curved, finely crenulate or smooth, without depression posteriorly. Propodeum distinctly roundly narrowed posteriorly (in lateral view).

Wing. Length of fore wing 2.8 - 3 times its width. Radial cell unshortened. Pterostigma short and wide, 3.5 - 3.7 times as long as wide. Radial vein arising from middle of pterostigma. Second radial abscissa 1.3 - 1.5 times longer than first abscissa, 3.2 - 4.4 times shorter than third abscissa, 1.2 - 1.8 times shorter than first radiomedial vein. Length of second radiomedial cell 2.1 - 2.5 times its maximum width. Distance from nervulus to basal vein 0.3 - 0.7 times nervulus length. Parallel vein not interstitial, arising from middle of distal margin of brachial cell. In hind wing, first abscissa of mediocubital vein 1.5 times shorter than second abscissa.

Legs long and slender. Hind femur 4.2 - 4.5 times as long as wide. Hind tarsus slightly shorter than hind tibia. Hind basitarsus slightly shorter than second-fifth segments combined. Second tarsal segment 3 times shorter than basitarsus, almost equal to fifth segment (without pretarsus).

Abdomen 1.3 - 1.4 times shorter than thorax, 2 - 2.2 times as long as wide. First abdominal tergite short and weakly widened apically, with small spiracular protuberances near middle, dorsal carinae distinct and long. Apical width of first tergite 1.7 - 2 times greater than its minimum width, almost equal to its length. Second tergite with 2 oblique and crenulate basolateral furrows. Length of second and third tergites combined 1.5 times greater than basal width of second tergite. Second suture distinct, but shallow. Ovipositor long. Ovipositor sheath slender, 1.7 - 1.9 times longer than first abdominal tergite, 1.4 - 1.5 times shorter than hind tibia.

Sculpture and pubescence. Head smooth, face finely sculptured. Thorax and legs smooth. Propodeum smooth, with distinct areas, medial carina very short, areola large and pentagonal. First abdominal tergite very finely granulate, almost smooth. Hind tibia with short and semi-erect hairs dorsally, length of these hairs 1.5 - 2 times less than maximum width of hind tibia. Ovipositor sheath with short and semi-erect hairs.

Colour. Head yellowish brown. Thorax light reddish brown, darker laterally and distally. Abdomen (dark) reddish brown, yellow medially in oval spot. Three basal antennal segment light reddish brown, other segments dark reddish brown, apical segment yellowish brown. Palpi pale yellow. Legs light (reddish) brown. Ovipositor sheath brown. Wings weakly infuscate. Pterostigma brown, pale yellow in basal third.

Male. Body length 1.4 mm; fore wing length 1.4 mm. Transverse diameter of eye almost twice temple. Antennae 17-segmented; apical segment dark. Nervulus interstitial. Parallel vein arising from anterior one third of distal margin of brachial cell. First abdominal tergite slender, its length 1.2 times apical width. Yellow medial spot of abdomen large. Otherwise similar to female.

Remark. In addition, I have seen specimen (not paratype) of this species from Philippines (1 ♂, "Philippines, Negros Oriental: Cuernos de Negros, 7 km W Valencia, 700 m, Malaise w/pans, 7-10 Oct. 1987. ROM 873074, D.C. DARLING, E. MAYORDO").

Discussion. This new species can be separated from others by having the parallel vein not interstitial, arising distinctly below the anterior margin of the brachial cell, lateral and distal parts of abdomen strongly sclerotized, apical segment of antenna yellowish brown, subocular suture absent, scapus long.

Distribution. Vietnam, Philippines.

Hormius paraphrasis BELOKOBYLSKIJ sp. nov.
(figs 56 - 66)

Holotype: ♀, Vietnam, prov. Ha Son Binh, Mai Chau, forest, 2.XI.1990 (S. BELOKOBYLSKIJ) (ZIP).

Female. Body length 2 mm; fore wing length 2 mm. Head width 1.8 times its medial length. Temple distinctly and weakly roundly narrowed behind eye. Transverse diameter of eye 2.5 times longer than temple. Ocelli small, POL 1.5 times less than Od, 3 times less than OOL. Eye 1.3 times as high as broad. Cheek short, its height 10 times less than eye height, 3 times less than basal width of mandible. Face width 1.3 times less than eye height and 1.2 times the height of face and clypeus combined. Clypeal and subocular suture distinct. Hypoclypeal depression oval, its width almost twice the distance from edge of depression to eye. Frons with distinct longitudinal furrow. Maxillary palpi 1.2 times shorter than height of head. Third labial segment absent. Occipital carina weakly and widely curved dorsally, absent ventrally near mandible.

Antennae slender, filiform, 21-segmented, slightly longer than body. Scapus as long as pedicellus. First flagellar segment 4.5 times as long as its apical width, slightly longer than second segment. Penultimate segment 4 times as long as wide, slightly longer than apical segment.

Thorax. Length twice its height. Mesoscutum highly and roundly elevated above prothorax. Prothorax with long neck which is weakly emarginate anteriorly (in dorsal view) and without distinct dorsal carinae. Oblique lateral furrows of prothorax renulate. Notauli deep and almost complete, shallow posteriorly, crenulate. Medial lobe of mesoscutum with distinct and smooth medial longitudinal furrow in distal half. Prescutellar depression shallow, short, crenulate, 3.5 times shorter than scutellum. Scutellum weakly convex and with weak lateral carinae. Subalar depression shallow and smooth. Sternauli distinct, straight, smooth, with round depression medially. Propodeum roundly narrowed posteriorly (in lateral view).

Wing. Length of fore wing 3 times its width. Radial cell unshortened. Pterostigma long and rather narrow, 5.25 times as long as wide. Radial vein arising distinctly after middle of pterostigma. Second radial abscissa equal to first abscissa, almost 4 times shorter than third abscissa, 1.6 times shorter than first radiomedial vein. Length of second radiomedial cell almost 3 times its maximum width. Nervulus interstitial. Parallel vein not interstitial, arising from anterior third of distal margin of brachial cell. In hind wing, first abscissa of mediocubital vein 1.5 times shorter than second abscissa.

Legs long and slender. Hind femur 5 times as long as wide. Hind tarsus slightly shorter than hind tibia. Hind basitarsus 1.2 times shorter than second-fifth segments combined. Second tarsal segment 3.5 times shorter than basitarsus, 1.3 times shorter than fifth segment (without pretarsus).

Abdomen slightly longer than thorax, 2.6 times as long as wide. First abdominal tergite long and weakly widened apically, with weak spiracular protuberances near middle, dorsal carinae distinct, long and irregular. Apical width of first tergite 1.2 times greater than its width at level of spiracles, 1.6 times greater than its minimum width, 1.4 times less than its length. Length of second and third tergites combined 1.5 times longer than basal width of second tergite. Second suture shallow. Ovipositor short. Ovipositor sheath slender, 1.7 times longer than first abdominal tergite, 1.8 times shorter than hind tibia.

Sculpture and pubescence. Head, thorax and legs smooth, mesoscutum mediodistally finely rugulose. Propodeum mostly smooth, sparsely rugose laterally and posteriorly, with distinct medial carina in basal half, areola wide, short and almost round. First abdominal tergite sparsely and almost completely rugose-striate. Hind tibia with long and erect hairs dorsally, length of these hairs 1.5 - 2 times greater than maximum width of hind tibia. Ovipositor sheath with long erect and rather dense hairs.

Colour. Head, prothorax and mesoscutum light reddish brown, other parts of thorax and first abdominal tergite dark reddish brown. Abdomen brown, yellowish basally. Antennae dark reddish brown, light brown in basal quarter. Palpi pale yellow. Legs yellow. Wings light, medially infuscate along veins. Pterostigma brown in distal half, pale yellow in basal half.

Male unknown.

Discussion. This new species is closely related to *H. pallidus* BELOKOBYLSKIJ, 1990 and differs in having the first abdominal tergite distinct sculpture, parallel vein not interstitial, cheeks very short, occipital carina widely curved dorsally.

Distribution. Vietnam.

Hormius pallidus BELOKOBYLSKIJ, 1990: 119

I have recently obtained additional material of this species. This material makes it possible to study the variability of some morphological characters of *H. pallidus* and to describe the male of this species for the first time.

Material. Vietnam: 9 ♀♀, 4 ♂♂ , prov. Ha Son Binh, Ky Son, Cao Phong, forest, 25, 27, 28.X.1990 (S. BELOKOBYLSKIJ). - Malaysia: 1 ♀, SE Sabah, nr Danum Valley, Field C. El, c. 150 m, Malaise trap 7, 21.-25.III.1987 (C. v. ACHTERBERG); - 1 ♀, Selangor, Gombak, 16th mile University of Malaya, Field Study Center, 29.III-6.IV. 1989 (L. CARROLL). - Taiwan: 1 ♀, Kenting, at light, 26-31.VIII. 1983 (J.B. HEPPNER). - Thailand: 1 ♂ , Suphanburi, Khao Yai National Park, Khong Kheo Waterfall, 900 m, rainforest, 30.VI.1990 (J. HERATY).

Female. Body length 1.8 - 2.6 mm; fore wing length 1.9 - 2.2 mm. Transverse diameter of eye 2.3 - 2.8 (sometimes almost 2) times longer than temple. Antennae 18-21-segmented. Second radial abscissa of fore wing 0.8 - 1.2 times length of first abscissa, 3.6 - 4.8 times shorter than third abscissa. Distance from nervulus to basal vein 0.5 - 1 times nervulus length. Length of second radiomedial cell 2.5 - 3 times its maximum width. First abdominal tergite usually rugulose in apical third or fifth, its length 1.5 - 1.7 times its apical width. Ovipositor sheath 1.3 - 2 times first abdominal tergite, 1.8 - 2.1 times shorter than hind tibia. Propodeum and first abdominal tergite usually dark reddish brown.

Male (first record). Body length 1.5 - 1.9 mm; fore wing length 1.5 - 1.7 mm. Transverse diameter of eye 2.8 - 3.2 times longer than temple. Cheek shorter, its height 8-10 times less than eye height, 2.5 - 3.3 times less than basal width of mandible. First flagellar segment of antenna 4 times as long as its maximum width. Apical width of first abdominal tergite 1.3 - 1.8 times less than its length, almost equal to or 1.3 times less than its width at level of spiracles. Otherwise similar to female.

Discussion. This species is very closely related to Taiwanese *H. solocipes* (ENDERLEIN, 1912) (WHARTON 1993); the differences between these species are indicated in the key.

Distribution. Vietnam, Taiwan, Thailand, Malaysia.

Hormius pallidus deviatus BELOKOBYLSKIJ ssp. nov.

(figs 69, 70)

Holotype: ♀, Vietnam, prov. Ha Son Binh, Ky Son, Cao Phong, forest, 28.X.1990 (S. BELOKOBYLSKIJ) (ZIP).

Paratypes: Vietnam: 1 ♀, prov. Ha Son Binh, Ky Son, Cao Phong, forest, 25.X.1990 (S. BELOKOBYLSKIJ) (ZIP); - 1 ♀, prov. Vinh Phu, Tam Dao, 1000 m, forest, 12.XI.1990 (S. BELOKOBYLSKIJ) (ZIP); - 1 ♀, same place and date (E. NARTSHUK) (ZIP).

Description. Female. Body length 2 - 2.3 mm; fore wing length 1.8 - 2.1 mm. Transverse diameter of eye 2.5 - 2.7 times longer than temple. Temples roundly narrowed behind eye. Cheek height 5.5 - 6.3 times less than eye height, 1.7-2 times less than basal width of mandible. Antennae 19-21-segmented. First flagellar segment 4.3 - 4.8 times as long as its apical width, slightly longer than second segment. Penultimate segment 3.5 - 4 times as long as wide. In fore wing, radial vein arising distinctly after middle of pterostigma. Second radial abscissa 1.1 - 1.2 times longer than first abscissa, 3.5 - 4 times shorter than third abscissa, 1.6 - 1.7 times shorter than first radiomedial vein. Second radiomedial cell 2.6 - 3 times as long as wide. Nervulus almost interstitial or slightly postfurcal. Parallel vein not interstitial, arising from anterior third or quarter of distal margin of brachial cell. In hind wing, first abscissa of mediocubital vein almost as long as second abscissa or 1.2 - 1.3 times shorter. Hind basitarsus as long as second-fifth segments combined or slightly shorter. Apical width of first abdominal tergite 1.4 - 1.6 times less than its length; dorsal carinae almost parallel-sided. Ovipositor sheath 1.8 - 2 times longer than first abdominal tergite, 1.5 - 1.8 times shorter than hind tibia.

Propodeum almost smooth in basal half, sparsely rugulose in apical half, with long medial carina in basal half, areola small and distinct. First abdominal tergite very weakly striate posteriorly, almost smooth. Body light reddish or yellowish brown, abdomen yellowish grey. Wings in medial half infuscate along vein. Pterostigma pale yellow, brown in distal two fifths.

Male unknown.

Discussion. The differences between nominative subspecies of *H. pallipes* and the new subspecies are indicated in the following key:

1 (2) Parallel vein interstitial. Brachial cell closed not far before recurrent vein ..... *H. pallidus pallidus* BELOKOBYLSKIJ, 1990

2 (1) Parallel vein not interstitial, arising from anterior third or quarter of distal margin of brachial cell. Brachial cell closed after recurrent vein (fig. 69) ..... *H. pallidus deviatus* ssp. nov.

Distribution. Vietnam.

Hormius orientalis tulyensis BELOKOBYLSKIJ ssp. nov.

(figs 67, 68)

Holotype: ♀, Vietnam, prov. Ha Son Binh, Da Bac, Tuly, shrubs, 17.X.1990 (S. BELOKOBYLSKIJ) (ZIP).

Description. Female. Body length 2.5 mm; fore wing length 2.2 mm. Transverse diameter of eye 3 times longer than temple. Cheek height almost 10 times less than eye height, 3 times less than basal width of mandible. Antennae 22-segmented. First antennal segment 3.3 times as long as its maximum width, as long as second segment. Penultimate segment 3.2 times as long as wide. In fore wing, radial vein arising slightly after middle of pterostigma. Second radial abscissa equal to first abscissa, 4.7 times shorter than third abscissa, twice shorter than first radiomedial vein. Recurrent vein slightly postfurcal. Nervulus postfurcal. Brachial cell closed distinctly before recurrent vein. In hind wing, first abscissa of mediocubital vein 1.4 times longer than second abscissa. Hind basitarsus 1.5 times shorter than second-fifth segments combined. Apical width of first abdominal tergite 1.2 times less than its length, 1.2 times less than posterior width of propodeum; first tergite slightly longer than propodeum. Ovipositor sheath 1.5 times longer than first abdominal tergite, 1.7 times shorter than hind tibia.

Propodeum smooth in basal one third, with distinct, long and rather wide areola. First abdominal tergite coarsely rugose, with distinct and almost parallel-sided dorsal carinae from base to apex. Body light reddish brown, first abdominal tergite darker. Wings finely infuscate. Pterostigma yellow, brown in distal margins.

Male unknown.

Discussion. The differences between this new subspecies and the nominative one are indicated in the following key:

1 (2) Brachial cell closed on or (sometimes) slightly after recurrent vein. First abscissa of mediocubital vein of hind wing nearly equal to second abscissa. Russia (Chita Prov., Khabarovsk and Primorsk Terr.)
. . . . . *H. orientalis orientalis* BELOKOBYLSKIJ, 1980

2 (1) Brachial cell closed distinctly before recurrent vein (fig. 67). First abscissa of mediocubital vein of hind wing 1.4 times longer than second abscissa (fig. 68). Vietnam
. . . . . *H. orientalis tulyensis* ssp. nov.

Distribution. Vietnam.

Hormius decembris BELOKOBYLSKIJ, 1990: 121

Material. Vietnam: 2 ♀♀, 20 km N Buon Luoi, Tram Lap, forest, 1. & 6.XII.1988 (A. SHARKOV) (holotype and paratype); - 1 ♀, 1 ♂, prov. Ha Son Binh, Da Bac, Tuly, meadow, 16.X.1990 (S. BELOKOBYLSKIJ); - 1 ♀, same place, 20.X.1990 (E. NARTSHUK); - 1 ♀, 1 ♂, prov. Ha Son Binh, Ky Son, Cao Phong, forest, 27 & 29.X.1990 (S. BELOKOBYLSKIJ).

Male (first record). Body length 1.8 - 2 mm; fore wing length 1.8 - 1.9 mm. Antennae 20-22-segmented. Radial vein arising from middle of pterostigma. Second radial abscissa 1.6 - 2 times longer than first abscissa, 2.8 - 3.4 times shorter than third abscissa, almost equal to or 1.3 times shorter than first radiomedial vein. Nervulus slightly or distinctly postfurcal. Brachial cell sometimes closed before recurrent vein.

Hind femur 4.7 - 5.4 times as long as wide. Apical width of first abdominal tergite 1.2 times greater than its length. Propodeum with long and weak areola. Dorsal carinae of first abdominal tergite distinct and long. Otherwise similar to female.

Distribution. Vietnam.

Hormius vitabilis PAPP, 1990: 184

Material. Vietnam: 1 ♀, prov. Ha Son Binh, Ky Son, Cao Phong, forest, 26.X.1990 (S. BELOKOBYLSKIJ).

Distribution. India, Vietnam (first record).

Hormius amus PAPP, 1990: 179

Material. Vietnam: 1 ♀, 40 km W Hanoi, rice, 8.X.1989 (Khuat Dang Long); - 1 ♀, prov. Son La, Song Ma, 5.-6.V.1986 (V. TRJAPITZYN).

Distribution. India, Vietnam (new record).

Remark. The specimens of *H. amus* from Vietnam have differences to the paratype of this species, which I examined (1 ♀, "India, Goa Molem", "No 113, 20.11.1980, leg. TOPAL", "Paratype ♀ *Hormius amus* sp. n. PAPP, 1990"). The Vietnamese specimens have the parallel vein interstitial, longer dorsal hairs on the hind tibia, the ovipositor sheath sometimes thicker and with more long hairs. The record of *H. moniliatus* (NEES, 1812) from Vietnam (BELOKOBYLSKIJ 1990) was erroneous and this specimen is actually *H. amus*.

Key to the Oriental species of the genus *Hormius*

1 (4) Medial lobe of mesoscutum with complete medial furrow from anterior margin to prescutellar depression.

2 (3) Antennae filiform. Propodeum with long and narrow areola; medial carina short. First abdominal tergite slender and short, its apical width distinctly less than posterior width of propodeum, almost equal to or slightly less than length of first tergite or length of propodeum. Ovipositor sheath shortly and densely setose. Body length 2.5 mm. Vietnam.
. . . . . ***H. orientalis tulyensis* ssp. nov.**

3 (2) Antennae weakly narrowed apically. Propodeum with short and wide areola; medial carina long. First abdominal tergite rather thick and long, its apical width distinctly greater than posterior width of propodeum, distinctly greater than length of first tergite or length of propodeum. Ovipositor sheath with long and rather sparse hairs. Body length 2.8 - 3.2 mm. India.
. . . . . ***H. lamidae*** PAPP, 1990

4 (1) Medial lobe of mesoscutum without medial furrow or it is present only in distal third or half.

5 (10) Mesoscutum medio-distally, subalar depression and sternauli rugulose. First abdominal tergite short and wide, its apical width nearly equal to or greater than its length, coarsely rugulose. Occipital carina not curved medio-dorsally.

6 (7) Antennal segment slender and long, first flagellar segment 3.7 - 4.5 times as long as its apical width. Ovipositor sheath very slender, compressed and long, 1.5 - 1.8 times first abdominal tergite. Pterostigma completely pale yellow. Body length 1.8 - 2.2 mm. Vietnam.
. . . . . ***H. decembris*** BELOKOBYLSKIJ, 1990

7 (6) Antennal segments thicker and short, first flagellar segment 3 - 3.3 times as long as its apical width. Ovipositor sheath rather thick, not compressed and short, almost as long as first abdominal tergite or slightly longer. Pterostigma yellow, distinctly darker distally or marginally.

8 (9) Head in dorsal view less transverse, its width 1.5 - 1.6 times its medial length. Temple weakly and roundly narrowed behind eye. Penultimate segment of antenna nearly 3 times as long as wide. Thorax long, its length 1.8 - 1.9 times its height. Body length 2-3 mm. All Palaearctic, Taiwan.
. . . . . ***H. moniliatus*** (NEES, 1812)

9 (8) Head in dorsal view distinctly transverse, its width 1.8 times its medial length. Temple distinctly and almost straight narrowed behind eye. Penultimate segment of antenna 2.2 - 2.3 times as long as wide. Thorax short, its length 1.5 - 1.6 times its height. Body length 2.2 - 2.6 mm. India, Vietnam.
. . . . . ***H. amus*** PAPP, 1990

10 (5) Mesoscutum, subalar depression and sternauli smooth. First abdominal tergite long and rather narrow, its apical width distinctly less than its length, usually smooth or finely sculptured. Occipital carina usually curved medio-dorsally.

11 (16) Parallel vein not interstitial, arising from anterior quarter or half of distal margin of brachial cell (figs 49, 61, 69).

12 (13) Parallel vein arising from half of distal margin of brachial cell (fig. 49). Subocular suture absent (fig. 45). Scapus long, 1.4 - 1.5 times longer than pedicellus (fig. 47). Medial carina of propodeum very short, areola almost connected with anterior margin of propodeum (fig. 52). First abdominal tergite wide, its length almost equal to its apical width (fig. 53). Abdomen dark reddish brown, yellow medially in oval spot. Apical segment of antenna yellowish brown. Body length 1.4 - 1.8 mm. Vietnam, Philippines.
. . . . . ***H. abnormis*** **sp. nov.**

13 (12) Parallel vein arising from anterior third or quarter of distal margin of brachial cell (figs 61, 69). Subocular suture present (fig. 56). Scapus short, almost equal to pedicellus (fig. 58). Medial carina of propodeum long, areola not connected with anterior margin of propodeum (fig. 60). First abdominal tergite narrow, its length 1.4 - 1.6 times greater than its apical width (fig. 63). Abdomen yellowish brown almost completely. Apical segment of antenna dark brown.

14 (15) First abdominal tergite almost completely smooth, finely striate medio-distally. Cheek longer, 5.5 - 6.5 times less than eye height, 1.7 - 2 times less than

basal width of mandible. Occipital carina curved medio-dorsally only. Body length 2 - 2.3 mm. Vietnam. ..... ***H. pallidus deviatus*** **ssp. nov.**

15 (14) First abdominal tergite almost completely rugose-striate (fig. 63). Cheek shorter, 10 times less than eye height, 3 times less than basal width of mandible (fig. 56). Occipital carina widely curved dorsally (fig. 57). Body length 2 mm. Vietnam. ..... ***H. paraphrasis*** **sp. nov.**

16 (11) Parallel vein distinctly interstitial.

17 (18) Abdomen very long, elongate form, 1.4 times as long as head and thorax combined. First abdominal tergite 2.2 times as long as its apical width. Anterior margin of pronotum with distinct medial excision. Body length 3.3 mm. Taiwan. ..... ***H. longiventris*** BELOKOBYLSKIJ, 1988

18 (17) Abdomen short, oval form, distinctly shorter than head and thorax combined. First abdominal tergite 1.3 - 1.7 times as long as its apical width. Anterior margin of pronotum straight or with weak excision.

19 (22) First abdominal tergite almost completely smooth, finely striate medio-distally.

20 (21) Transverse diameter of eye 2.3 - 2.8 (rarely 2) times longer than temple. Temple almost straight narrowed behind eye. Brachial cell closed usually not far before recurrent vein. First abdominal tergite of female narrow apically, its length 1.5 - 1.7 times greater than apical width. Fore wing distinctly infuscate along veins. Nervulus postfurcal. Body length 1.5 - 2.6 mm. Taiwan, Vietnam, Thailand, Malaysia.
..... ***H. pallidus*** BELOKOBYLSKIJ, 1990

21 (20) Transverse diameter of eye 1.8 times longer than temple. Temple roundly narrowed behind eye. Brachial cell closed distinctly before recurrent vein. First abdominal tergite of female wide apically, its length 1.3 times greater than apical width. Fore wings completely light. Nervulus interstitial. Body length 2.2 mm. Taiwan.
..... ***H. solocipes*** (ENDERLEIN, 1912)

22 (19) First abdominal tergite (almost) completely rugulose.

23 (24) First abdominal tergite completely yellow. Ovipositor sheath long, 1.7 - 2.5 times longer than first abdominal tergite, 1.1 - 1.4 times shorter than hind tibia (fig. 5). Cheek very short, 4-7 times smaller than basal width of mandible (fig. 1). Body length 1.9 - 2.1 mm. Vietnam.
..... ***H. appositus*** **sp. nov.**

24 (23) First abdominal tergite completely (dark) brown. Ovipositor sheath shorter, 1.1 - 1.5 times longer than first abdominal tergite, 1.7 - 2.5 times shorter than hind tibia. Cheek longer, 1.4 - 2 times less than basal width of man-dible.

25 (26) First abdominal tergite in distal half with distinct elongate medial area marginated by carinae (fig. 26). Antennal segments very thin, first flagellar segment 6-7 times as long as its maximum width (fig. 25). Brachial cell closed distinctly before recurrent vein (fig. 31). Body length 1.8 - 2.6 mm. Vietnam, Malaysia. ..... ***H. ikarus*** **sp. nov.**

26 (25) First abdominal tergite without such medial area in distal half. Antennal segments thick, first flagellar segment 3.5 - 4.5 times as long as its maximum width. Brachial cell closed on or slightly before recurrent vein.

27 (28) Pterostigma completely yellow. Medial carina of propodeum longer than propodeal half, areola short and almost round (fig. 20). Body almost completely yellowish brown. First abdominal tergite weakly widened distally. Body length 2.1 mm. Vietnam. . . . . ***H. notus* sp. nov.**

28 (27) Pterostigma yellow, dark in distal third or marginally. Medial carina of propodeum distinctly shorter than propodeal half, areola long and pentagonal (fig. 42). Body dark brown or light reddish brown. First abdominal tergite distinctly widened distally.

29 (30) Brachial cell closed on recurrent vein (fig. 39). Metapleura almost completely smooth. Propodeal carinae high. Pterostigma usually dark marginally. Body completely black or dark reddish brown. Antenna dark reddish brown completely. Body length 2.5 - 3 mm. Vietnam. . . . . ***H. montanus* sp. nov.**

30 (29) Brachial cell closed before recurrent vein. Metapleura rugulose almost completely. Propodeal carinae fine. Pterostigma dark in distal third. Body yellow or light reddish brown. Antenna yellow in basal half, then darker. Body length 2.1 - 2.5 mm. India, Vietnam. . . . . ***H. vitabilis*** PAPP, 1990

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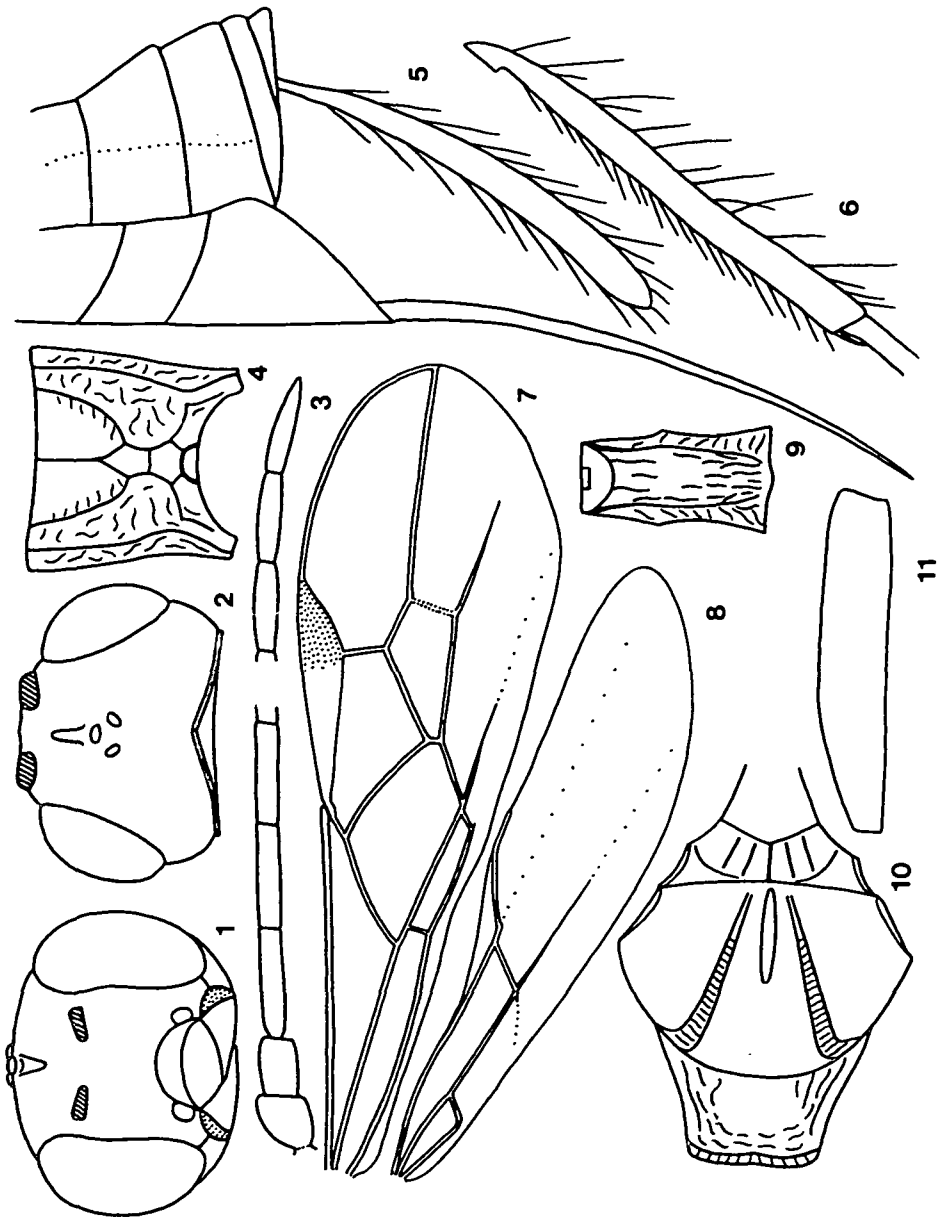
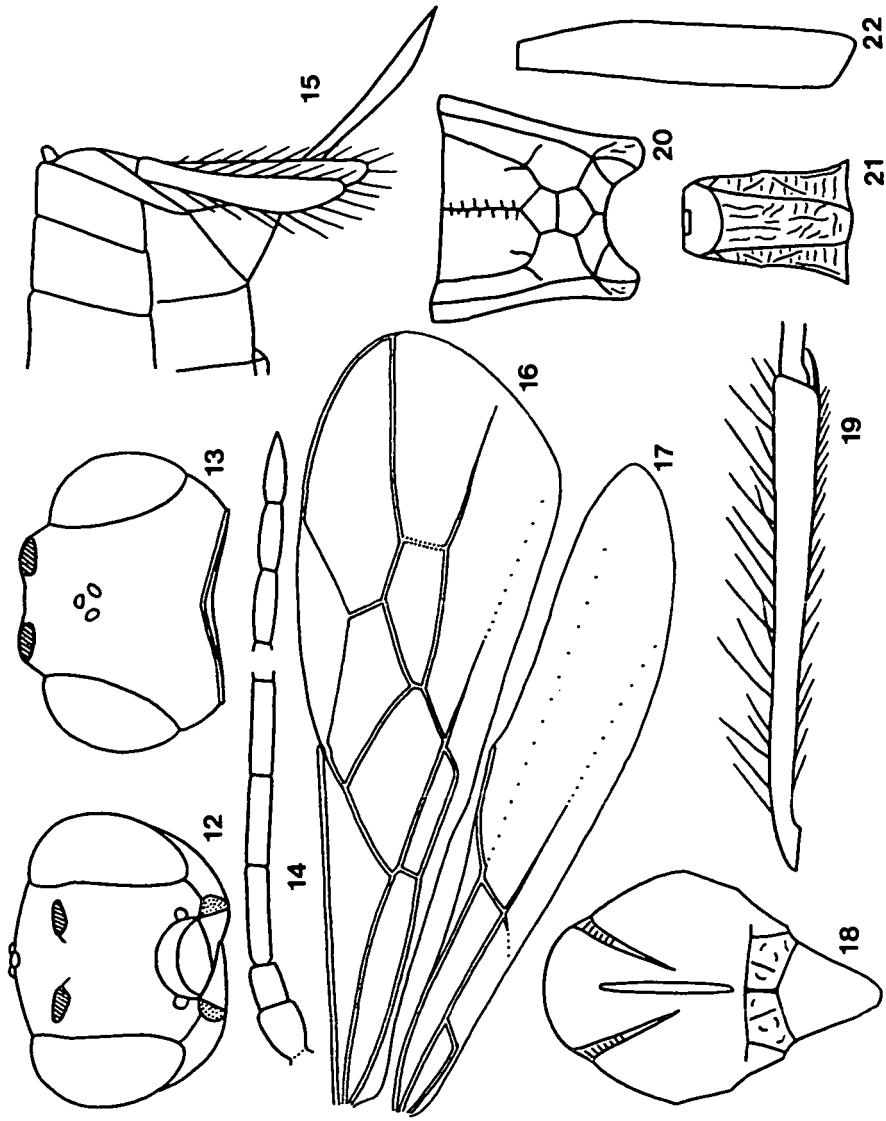
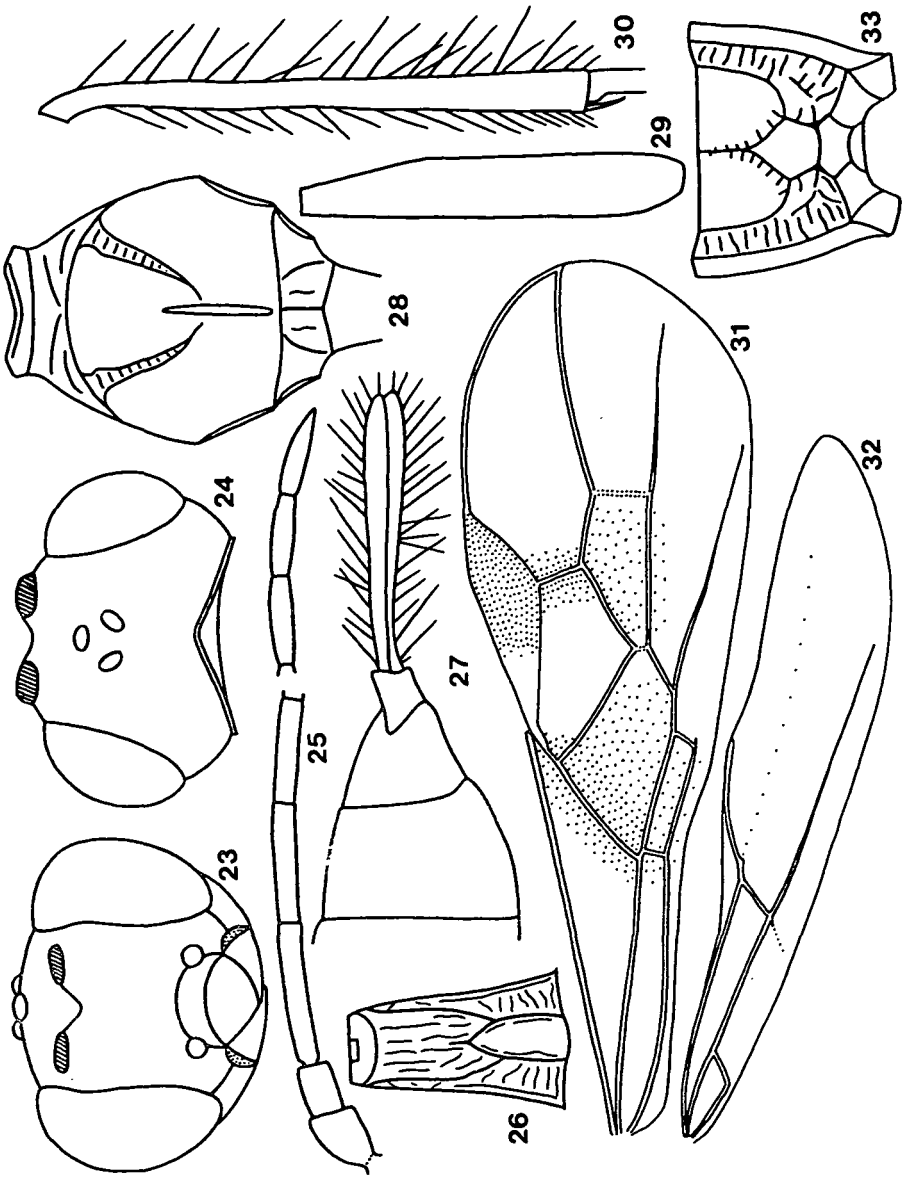


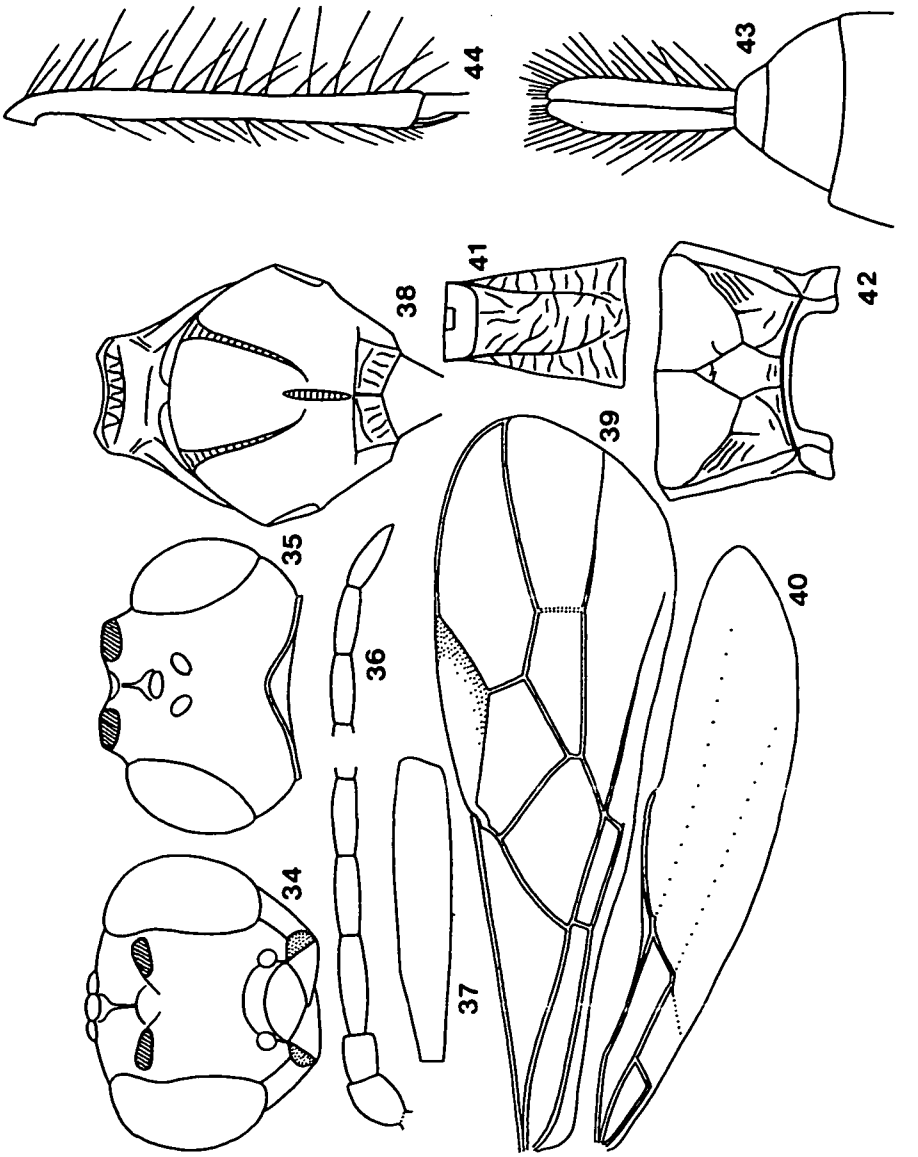
Figs 1-11. ***Hormius appositus*** **sp. nov. - 1)** head, frontal view; **2)** head, dorsal view; **3)** basal and apical segments of antennae; **4)** propodeum, dorsal view; **5)** distal part of abdomen and ovipositor, lateral view; **6)** hind tibia; **7)** fore wing; **8)** hind wing; **9)** first abdominal tergite; **10)** prothorax and mesoscutum, dorsal view; **11)** hind femur.



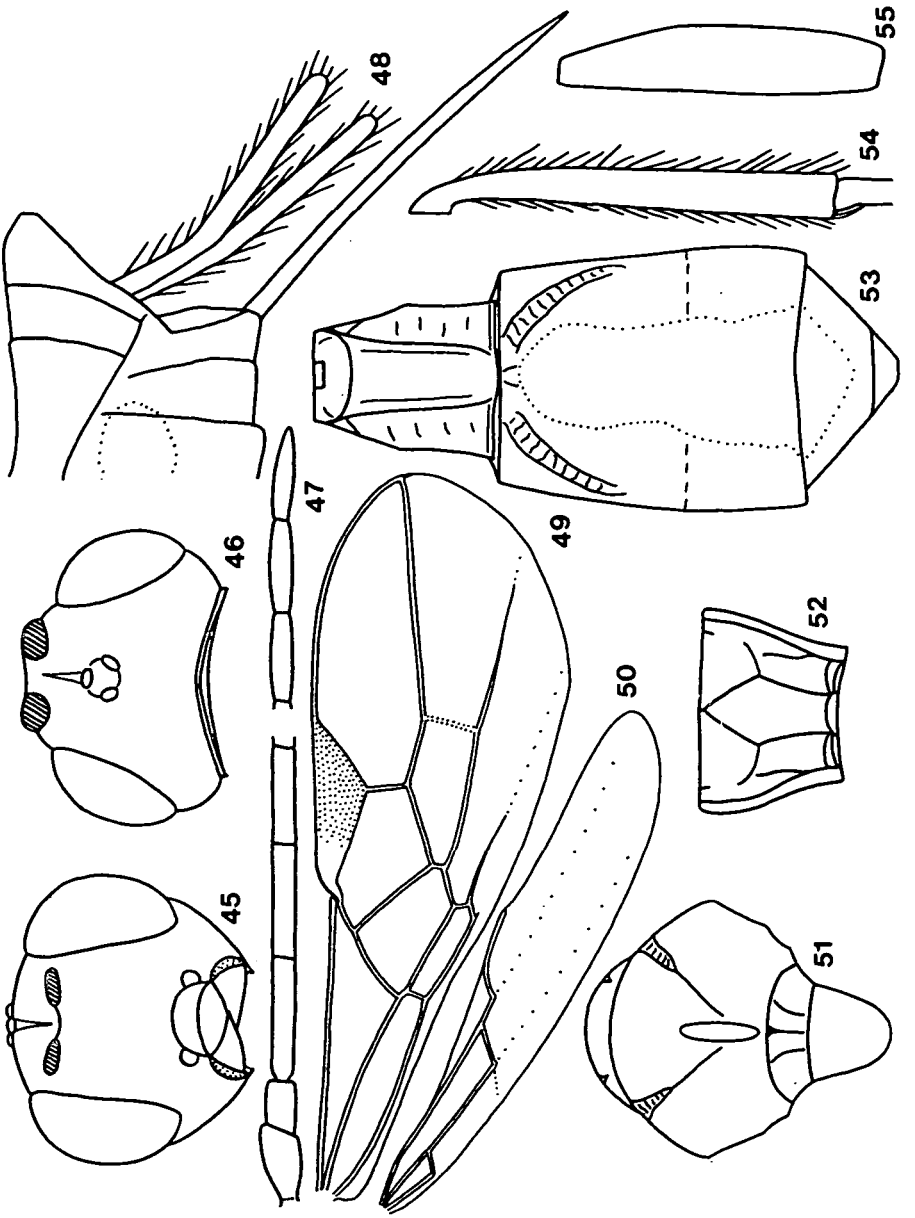
Figs 12-22. ***Hormius notus*** **sp. nov. - 12)** head, frontal view; **13)** head, dorsal view; **14)** basal and apical segments of antennae; **15)** distal part of abdomen and ovipositor, lateral view; **16)** fore wing; **17)** hind wing; **18)** mesonotum, dorsal view; **19)** hind tibia; **20)** propodeum, dorsal view; **21)** first abdominal tergite; **22)** hind femur.



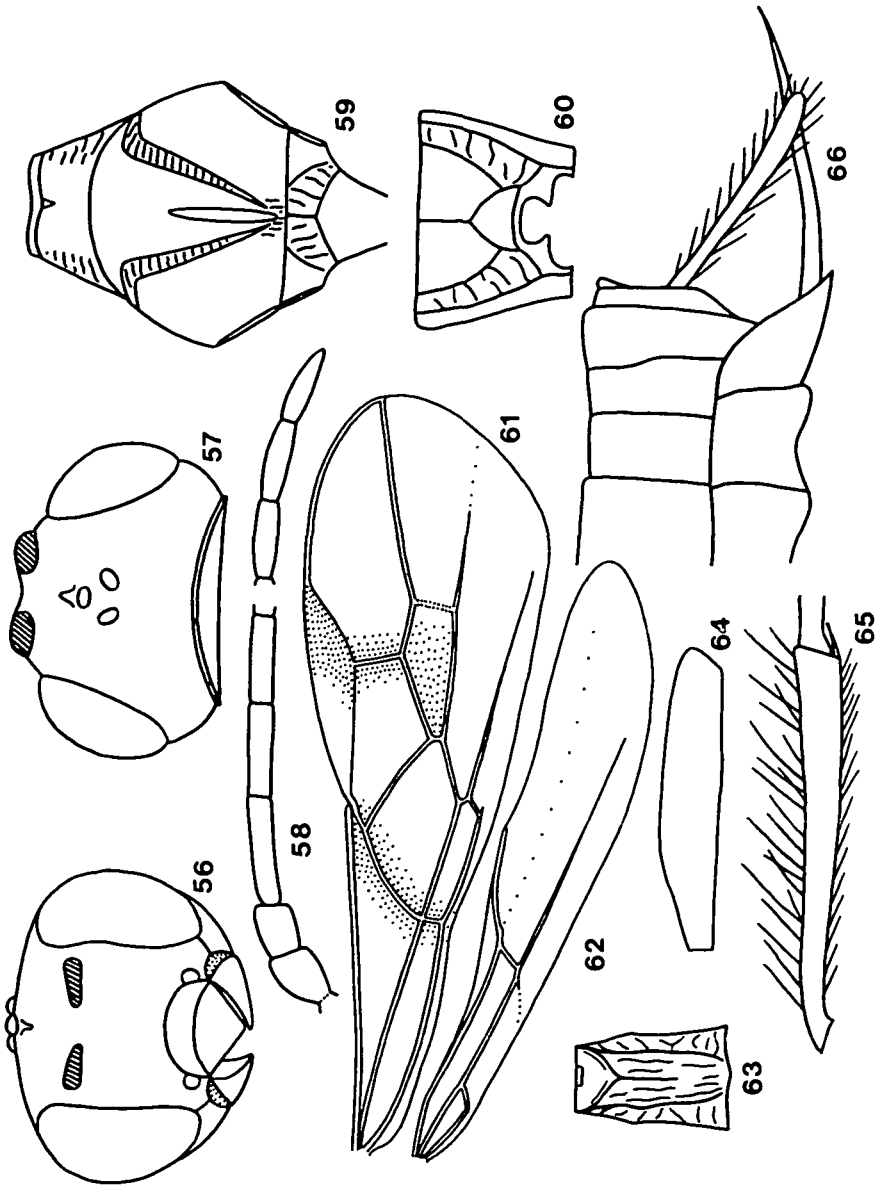
Figs 23-33. ***Hormius ikarus*** **sp. nov. - 23)** head, frontal view; **24)** head, dorsal view; **25)** basal and apical segments of antennae; **26)** first abdominal tergite; **27)** distal part of abdomen and ovipositor, dorsal view; **28)** prothorax and mesoscutum, dorsal view; **29)** hind femur; **30)** hind tibia; **31)** fore wing; **32)** hind wing; **33)** propodeum, dorsal view.



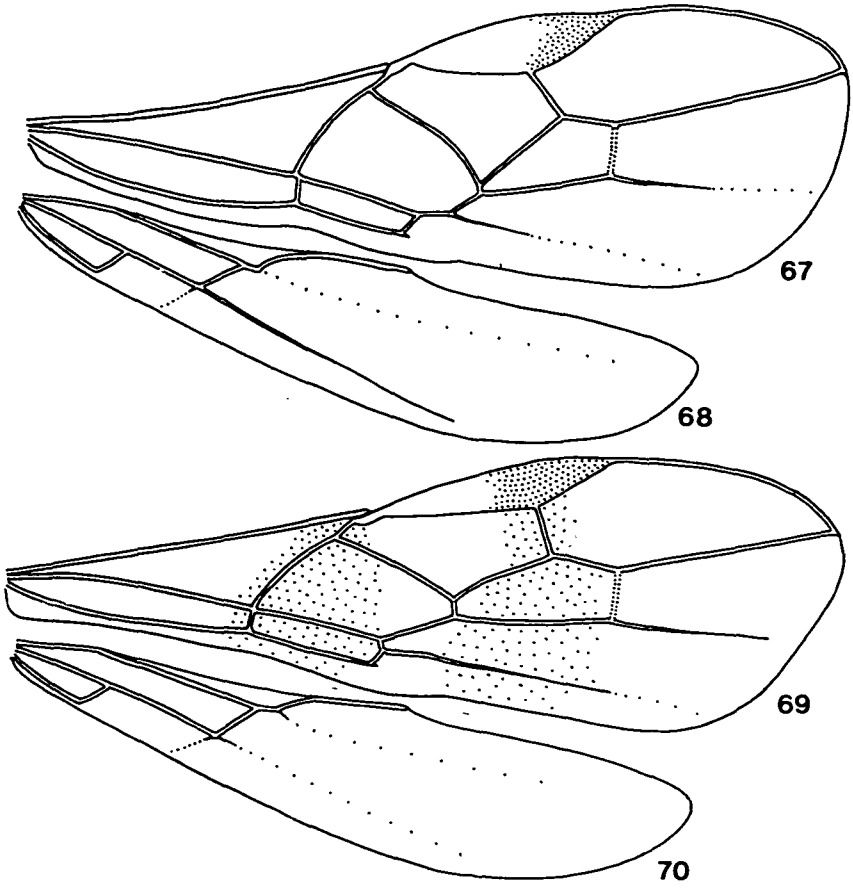
Figs 34-44. ***Hormius montanus*** **sp. nov. - 34)** head, frontal view; **35)** head, dorsal view; **36)** basal and apical segments of antennae; **37)** hind femur; **38)** prothorax and mesoscutum, dorsal view; **39)** fore wing; **40)** hind wing; **41)** first abdominal tergite; **42)** propodeum, dorsal view; **43)** distal part of abdomen and ovipositor, lateral view; **44)** hind tibia.



Figs 45-55. ***Hormius abnormis*** **sp. nov. - 45)** head, frontal view; **46)** head, dorsal view; **47)** basal and apical segments of antennae; **48)** distal part of abdomen and ovipositor, lateral view; **49)** fore wing; **50)** hind wing; **51)** prothorax and mesoscutum, dorsal view; **52)** propodeum, dorsal view; **53)** abdomen, dorsal view; **54)** hind tibia; **55)** hind femur.



Figs 56-66. ***Hormius paraphrasis*** **sp. nov. - 56)** head, frontal view; **57)** head, dorsal view; **58)** basal and apical segments of antennae; **59)** prothorax and mesoscutum, dorsal view; **60)** propodeum, dorsal view; **61)** fore wing; **62)** hind wing; **63)** first abdominal tergite; **64)** hind femur; **65)** hind tibia; **66)** distal part of abdomen and ovipositor, lateral view.



Figs 67-68. ***Hormius orientalis tulyensis*** **ssp. nov. - 67)** fore wing; **68)** hind wing.
Figs 69-70. ***H. pallidus deviatus*** **ssp. nov. - 69)** fore wing; **70)** hind wing.

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Literaturbesprechungen

PAYNE, J., CUBITT, G., LAU, D.: This is Borneo. - New Holland Publishers, London, 1994, 176 S.

Dieser Bildband ist in zwei Teile gegliedert: "Profile of Borneo" beschreibt die eher "nüchternen" Tatsachen und Fakten über Borneo (Klima, Landschaften, Pflanzen, Tiere, Geschichte, Regierung, Menschen und Religionen, Wirtschaft, Tourismus und Naturschutz) und ist dementsprechend wohl auch nur mit SW-Fotos unterlegt. Der farbige Teil "Portrait of Borneo" stellt in brillianten Farbfotos Land. Leute und Natur dieser vielfältigen Insel vor; hier beschränken sich die Texte auf die Bildlegenden.

Ein fantastischer Bildband, der nicht nur speziell Borneo-Reisende interessiert.

R. GERSTMEIER

MOLLOY, L., CUBITT, G.: Wild New Zealand. - New Holland Publishers, London, 1994. 208 S.

Ein weiteres Meisterwerk dieser großartigen, großformatigen Bildband-Reihe über tropische Reiseländer (wie z.B. Indien, Indonesien, Malaysia). In dieser fantastischen Ausstattung ist dies eine Serie, die man gerne auch von einem deutschsprachigen Verlag sehen würde.

Eine sehr ausführliche Einführung beschreibt die Entwicklung Neuseelands in ihren klimatischen, floristischen und faunistischen Zügen, schildert das Eintreffen der ersten Menschen (Maori) und die Ankunft der europäischen Siedler; Nationalparks und die Naturschutz-Problematik werden kurz aufgezeigt. Danach werden die wesentlichen Landschaftsabschnitte, die Hauptinseln, vorgestellt: Nord- und Südinsel, Kermadec Islands, Chatham Islands, Stewart Island und subantarctic Islands. Ein Land und ein Bildband der Superlative.

R. GERSTMEIER

TRENDLIMONE (Autorenteam) (1995): OS/2 Warp Version 3. Tewi Verlag München, 964 S., zahlr. s/w-Abb., Shareware CD-ROM.

Dieses für das Betriebssystem OS/2 nicht nur als Nachschlagewerk gedachte Anwenderbuch wirft ein Schlaglicht auf die zur Zeit tobende Schlacht um den PC-Betriebssytemstandard zwischen IBM und Microsoft. Während OS/2 schon seit einigen Monaten auf dem Markt ist und immer noch unter mangelnder Anwendersoftware leidet, befindet sich Windows 95 immer noch im bugbehafteten Betastadium. Wahrlich keine leichte Sache für den Anwender, der sich nur zu gerne für das "richtige" Programm entscheiden würde.

Etwas Klarheit in das Propagandagewitter bringt das vorliegende Handbuch, das dem Leser nicht ganz alltägliche Einblicke hinter die elegante Arbeitsoberfläche von OS/2 gewährt. Das vorliegende Buch ist somit auch als Entscheidungshilfe für oder gegen den Umstieg auf OS/2 zu sehen, vermeidet es doch weitgehend die sonst üblichen Lobpreisungen der Softwarehäuser.

Neben den Grundlagen zum Verständnis der Struktur eines 32-Bit Multitasking Betriebssystemes für PC werden folgende Punkte ausführlich diskutiert: Installation, Arbeitsoberfläche, Zusammenarbeit mit Windows und DOS, Konfiguration und Leistungssteigerung, Systemdatei-Referenz, Befehlszeilenreferenz, Anwendungen (u.a. Bonuspack), Multimedia, Database 2 und andere Anwendungen, Netzwerkfähigkeit einschl. Internet, Entwicklungssysteme (Programiersprachen). Ganz besonders die wertvolle Einführung in einige Anwendungsprogramme wird der handbuchgeschädigte Anfänger und Fortgeschrittene zu schätzen wissen.

Erwähnenswert ist noch die begefügte CD, die einige "Zuckerl" für den OS/2-User enthält.

M. CARL

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