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Contribution to the Ichneumoninae (Hymenoptera, Ichneumonidae) of Southeastern Asia: 2. Tribe Heresiarchini

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Abstract: In this publication, distributional records are given for 83 species and subspecies of Oriental Heresiarchini (Hymenoptera: Ichneumonidae, Ichneumoninae) including a preliminary key of the known species of the genus *Heresiarches* WESMAEL. 23 species and three subspecies are described as new. New species are *Aglaojoppa nepalensis* nov.sp., *Coburus rufigaster* nov.sp., *Coburus laoticus* nov.sp., *Coelichneumon flavotibialis* nov.sp., *Coelichneumon laoticus* nov.sp., *Coelichneumon parachinicus* nov.sp., *Coelichneumon pseudoneotypus* nov.sp., *Coelichneumon pterostigmator* nov.sp., *Coelichneumon sabahensis* nov.sp., *Coelichneumon sichuanensis* nov.sp., *Coelichneumon tonkinensis* nov.sp., *Cratojoppa nigrifemur* nov.sp., *Cratojoppa scutellata* nov.sp., *Heresiarches flavomaculatus* nov.sp., *Heresiarches formosanus* nov.sp., *Heresiarches indicus* nov.sp., *Heresiarches minor* nov.sp., *Heresiarches rufocoxatus* nov.sp., *Heresiarches rufomaculatus* nov.sp., *Heresiarches tarsator* nov.sp., *Heresiarches tyloides* nov.sp., and *Trogichneumon maculatus* nov.sp. New subspecies are *Atanyjoppa rufomaculata* nov.ssp. *malayana*, *Coelichneumon flavoguttatus* nov.ssp. *himalayensis*, and *Coelichneumon taihorinus* nov.ssp. *nigrifemur*. The hitherto unknown males of eight species were described for *Atanyjoppa lineata* HEINRICH, *Atanyjoppa rufipes* HEINRICH, *Coelichneumon hormaleoscelus* ssp. *silvaemontis* HEINRICH, *Heresiarches felix* HEINRICH, *Heresiarches himalayanus* (GUPTA), *Ileanta fulvipes* (CAMERON), *Naenaria erythropus* HEINRICH, and *Neocratojoppa flavescipes* HEINRICH.

Key words: Ichneumonidae, Ichneumoninae, Heresiarchini, Oriental, new species, new subspecies.

Introduction

The subfamily Ichneumoninae represents a very large group of Ichneumonidae (Hymenoptera) usually parasitizing Lepidoptera. Although this group includes many large and colourful species, our knowledge of the Oriental Ichneumoninae is still incomplete.

After sporadic descriptions of Ichneumoninae species from Southern and Southeastern Asia by earlier hymenopterologists such as P. CAMERON and J. TOSQUINET in the late nineteenth and early twentieth century, a more comprehensive study of the Oriental Ichneumoninae fauna had been published by G. HEINRICH in several parts over many years. In the last years, I was able to examine a large part of his collection that is now

housed in the Zoologische Staatssammlung in Munich. Together with his publications on Oriental Ichneumoninae, this collection builds the foundation of the present study.

Up to now, about 644 species in almost 190 genera are listed for the Oriental region in recent catalogues (GUPTA 1987, GUPTA 1988, YU et al. 2012), but it is clear that many species have been undescribed yet. After a first publication covering some smaller tribes of Oriental Ichneumoninae (RIEDEL 2011), this publication describes the material of the larger tribe Heresiarchini.

Methods

For this study, I had the opportunity to study two larger collections of Oriental Ichneumoninae housed in the NATURALIS in Leiden/Netherlands (Leiden) and Biozentrum in Linz/Austria (Linz), mainly from Laos and Vietnam. Some material from the Zoologische Staatssammlung Munich (ZSM) mainly from Taiwan, from the Senckenberg Deutsches Entomologisches Institut in Eberswalde (SDEI) from China, and from my own collection of Oriental Ichneumonidae (Coll. RIEDEL) was included. The collections from these countries revealed many interesting and new taxa supplementing the findings of HEINRICH who had mainly collected on Sulawesi (Indonesia) and in Myanmar.

Here, I use the nomenclature proposed by HEINRICH (1966-1968) for body structures of the Ichneumoninae except that the area posteromedia (of HEINRICH) is called area petiolaris here. The distributional records were taken from the catalogue of YU et al. (2012).

For the measurements I used an Olympus SZX 7 stereo microscope with dividing eyepiece. The figures were taken with an Olympus SC 30 CCD-camera with the AnalySIS getIT software.

Material and Results

Aglaojoppa caeruleodorsata (CAMERON 1903)

Material: Laos: Phongsaly province, 21°41'N 102°06'E, Phongsaly environment, ca. 1500 m, 2♂ 28.V.-20.VI.2003, leg. Kuban (Linz).

Distribution: Known from China, India and Myanmar, new for Laos.

Aglaojoppa caeruleodorsata ssp. *sauteri* (UCHIDA 1932)

Material: Taiwan: Kaohsiung Co., Jungyang Mts Tengir Endemic Spec. Res. Institute, 1700 m, ca. 23°07'N 120°47'E, 1♀ 14-19.XI.2002, leg. Schacht et al. (ZSM).

Distribution: Known from China and Taiwan.

Aglaojoppa femorata CAMERON 1903

Material: China: Yunnan, Pianma env., 25°97.3'N 98°70.8'E, 2500 m, 1♀ 3.VI.2009, leg. Blank, Liston & Taeger (SDEI).

Distribution: Known from India and Myanmar, new for China.

***Aglaojoppa malaisei* HEINRICH 1967**

M a t e r i a l : Laos: Phongsaly province, 21°41'N 102°6'E, Phongsaly environment, ca. 1500 m, 1♂ 28.V.-20.VI.2003, 1♂ 6-17.V.2004, leg. Kuban (Linz).

D i s t r i b u t i o n : Known from China, Malaysia, Myanmar, Nepal, new record for Laos.

***Aglaojoppa nepalensis* nov.sp. (figs 1, 9, 28)**

H o l o t y p u s (♂): "Nepal, Khumbu, Khumdzung, 3900 m, 16.7.62, leg. Ebert & Falkner" (ZSM).

D e s c r i p t i o n of ♂: Body length 19.5 mm. Flagellum with 45 flagellomeres, first flagellomere (without anellus) 2.0x as long as wide, long-oval tyloids on flagellomeres 8-21. Temple strongly and concavely narrowed behind the eye. Occipital carina lamelliform. Distance of lateral ocellus to the eye 1.0x as long as its diameter. Face and clypeus with coarse puncture, shining. Malar space 0.5x as long as width of mandibular base. Genal carina reaching the hypostomal one far from mandibular base. Hypostomal carina lamelliform elevated.

Mesosoma with pale brownish hairs. Mesoscutum, mesopleurum, and metapleurum densely punctured, shining, coxal carina distinct. Scutellum almost flat, longer than wide and with dense puncture, without lateral carina. Propodeum rounded, area superomedia small, elevated and halfmoon-shaped, smooth. Area petiolaris rugulose. Femur III slender, with very scattered puncture basally and ventrally, 5.7x as long as high.

Areolet pentagonal, frontal distance of intercubiti 2-3x their diameter, 2mcu reaching areolet lateral to its middle, Nervulus strongly postfurcal.

Postpetiolus moderately widened, lateral field punctured, median field rugulose. Gastrocoelus strongly impressed, almost smooth. Thyridium large, about as wide as the thyridial interval. Second tergite 1.05x as long as wide. Tergites with strong sutures, tergites 2-4 with somewhat extended posterolateral edges. Tergites 2-6 densely punctured and with strong aciculation medially.

C o l o u r : Head, mesosoma, legs, and tergite 1 black. Metasoma otherwise strongly metallic blue. Ivory are palps, mandible except teeth, clypeus except its margins, face except black central stripe, gena and lower outer orbit, stripe of frontal orbit reaching the occipital carina, scapus beneath, propleurum, collare, lateral anterior margin and wide upper margin of pronotum, tegula, long median stripes on mesoscutum, spot on upper mesopleurum and large mark on lower mesopleurum/lateral mesosternum, subtegular ridge, prescutellar carina, scutellum completely, spot on postscutellum, carinal triangle, stripe on apical half of area superoexterna and complete area dentipara, hind half of postpetiolus and posterolateral spots on all tergites, coxae I-II, anterodorsal spot on coxa III, all trochanteres, frontal side of legs I-II, subapical rings of all femora and median rings of all tibiae, all tarsomeres except narrow apices and sometimes bases. Wing slightly infusate, pterostigma black.

♀ unknown.

R e m a r k : In the key of HEINRICH (1968) the new taxon runs to *Aglaojoppa caeruleodorsata* CAMERON, but differs by ivory marks on prescutellar carina, the completely ivory scutellum, long ivory stripes on the mesoscutum, and the colour pattern of mesopleurum and tergites.

D i s t r i b u t i o n : Nepal.

***Aglaojoppa rothneyi* CAMERON 1902**

M a t e r i a l : NW Vietnam: Tonkin, Hoang Lien N.R. 10 km SW Sa Pa, c. 1900 m, 1 ♂ 19.X.1999, Malaise traps, leg. van Achterberg (Leiden).

R e m a r k : The available ♂ differs from the Vietnamese one of *A. rufofemorata* CAMERON by its colour pattern: the area superomedia, apical half of area dentipara, and frontal and apical parts of area spiraculifera are ivory. The ivory stripe on flagellum begins at ventral side of first flagellomere. Scutellum ivory, with a narrow median black stripe.

D i s t r i b u t i o n : Known from India and Myanmar, new for Vietnam.

***Agalojoppa rufofemorata* CAMERON 1903**

M a t e r i a l : India NE: Maghalaya, SW of Cherrapunjee, 25°14'N 91°40'E, 1 ♂ 5-24.V.2005, leg. Pacholatko (Linz); Nepal: Kathmandu environment, 1 ♀ 19.V.1990, leg. Smäll (Linz); S Vietnam: Dak Lak, Chu Yang Sin N.P., Krong K Mar, Malaise trap 840-940 m, 1 ♂ 2-10.VI.2007, leg. van Achterberg & de Vries (Leiden).

R e m a r k : The ♂ from Vietnam has a completely ivory scutellum and black areas superomedia and spiraculifera. Ivory are the areas superoexterna and dentipara. The ivory stripe on flagellum begins on ventral side of flagellomere 6.

D i s t r i b u t i o n : Widespread in Southern and Southeastern Asia, new for Vietnam.

***Aglaojoppa rufofemorata* ssp. *flavodis* (TOSQUINET 1903)**

M a t e r i a l : Indonesia Java, Tjibodas, 1 ♂ 2.I.1961, 1 ♀ II.1961, 1 ♀ and 1 ♂ 25.VI.1961, leg. Hamann (Linz).

D i s t r i b u t i o n : Known from Indonesia.

***Aglaojoppa violaceipennis* CAMERON 1903**

M a t e r i a l : India NE: Arunachal province, Etalin vicinity 800 m, 25°35'N 95° 52'E, 1 ♂ 1.-3.VI.2007, leg. Pacholatko (Linz).

D i s t r i b u t i o n : Known from India.

***Amblyjoppa annulitarsis* ssp. *horishana* (MATSUMURA 1912)**

M a t e r i a l : Taiwan: Taichung Co., Taiwan Mts westside, Huesien Experimental Forest, ca. 24°07'N 121°03'E, 600 m, 3 ♀ ♀ 3-8.IX.2002, leg. W. Schacht et al. (ZSM).

D i s t r i b u t i o n : Known from China, Korea, and Taiwan.

***Amblyjoppa fumipennis* (CAMERON 1904)**

M a t e r i a l : Laos: Phongsaly province, 21°41'N 102°6'E, Phongsaly environment, ca. 1500 m, 1 ♂ 28.V.-20.VI.2003, 1 ♂ 6-17.V.2004, leg. Kuban (Linz); Laos: Phongsali Prov., Oa Tai, 21°50'N 102°18'O, 3 ♂ ♂ 19-30.V.2008, leg. Li (Coll. RIEDEL); China: Sichuan, Schanglian, 1 ♂ 24.V.2005, leg. Kacara (Linz); China: Beijing Shi, 60 km NW Beijing, Badaling, 40.3° N 116.0° E, 1 ♂ 7.VII.2001, leg. Turin (Linz).

D i s t r i b u t i o n : Known from China, India, and Korea, new for Laos.

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***Amblyjoppa rufobalteata* CAMERON 1902**

M a t e r i a l : India N: Uttar Pradesh, 3200-3600 m, Bachrinath, 1♂ 1.VIII.1989, leg. Riedel (ZSM).

D i s t r i b u t i o n : Known from China, India, Myanmar.

***Amblyjoppa sinensis* (HEINRICH 1931)**

M a t e r i a l : Laos Central: Kammouan province, Ban Khoun Ngeun 250 m, 18°07'N 104°29'E, 1♀ 20-29.V.2004, leg. Jendek & Sausa (Linz); Laos N: Louangphrabang, Thong Khan 750 m, 19°35'N 101°58'E, 1♂ 11-21.V.2002, leg. Kuban (Linz); Vietnam N: Ninh Binh, Cuc Phuong N.P. nr entrance, c 225 m, 1♂ 1-15.V.2000, leg. Quy (Leiden); Vietnam N: Ninh Binh, Cuc Phuong N.P. nr entrance, c 225 m, 1♂ 29.VI.-18.VII.2000, Mal. trap II, leg. Quy (Leiden).

R e m a r k : The colour pattern of the available ♀ is intermediate to the *A. s. ssp. sinensis* and *A. s. ssp. birmanica*: clypeus and face centrally black as in *A. s. ssp. sinensis*, coloration otherwise as described for *A. s. ssp. birmanica* (see HEINRICH 1968a).

D i s t r i b u t i o n : Known from China and Myanmar, new for Laos and Vietnam.

***Amblyjoppa sulcata* (CAMERON 1906)**

M a t e r i a l : India: Kerala, Malampuzha Palakkad 100 m, 10°50,1'N 76°39,1'E, 1♀ 28.IV.2005, leg. Halada (Linz); Laos Central: Kammouan province, Ban Khoun Ngeun 250 m, 18°07'N 104°29'E, 1♂ xi.2000, leg. Jendek (Linz); Vietnam: Vluh Phu Prov., Thung Luu 30 km S of Than Sou, 1♀ 10-16.XI.1999, 20.59°N 105.08°E, 3000 m, leg. de Jong, at light (Leiden).

D i s t r i b u t i o n : Known from Myanmar, new for India, Laos and Vietnam.

***Atanyjoppa lineata* HEINRICH 1968, new ♂**

M a t e r i a l : S Vietnam: Dak Lak, Chu Yang Sin N.P., near dam, c. 800-940 m, 1♂ 2-10.VI.2007, Mal. traps, leg. van Achterberg & de Vries (Leiden).

D e s c r i p t i o n o f ♂ : Body length 17 mm. Flagellum with 39 flagellomeres, long-oval tyloids on flagellomeres 9-18. Mesoscutum with coarse, but superficial and scattered puncture. Mesopleurum with fine scattered puncture, Metapleurum coarsely rugose. Areolet almost quadrangular, frontal distance of intercubiti 1x their diameter. Structure otherwise as in the ♀.

Coloration: Black. Basal four flagellomeres yellowish beneath, flagellomeres 9-19 ivory stripe. Mesoscutum with two longer median stripes not reaching the anterior or posterior margins and two lateral spots near tegulae. Base of propodeum yellowish-red, area dentipara reddish centrally, areae petiolaris and posteroexterna blackish. Tergites 2-3 with narrow apical yellow margins. Tarsus III ivory, only apical tarsomere darkened. Pterostigma reddish-brown, with blackish margins. Coloration otherwise as in ♀.

D i s t r i b u t i o n : Known from India and Myanmar.

***Atanyjoppa rufipes* HEINRICH 1968, new ♂**

M a t e r i a l : Malaysia: Pahang, 30 km northeast of Raub, Lata Lenbik 300 m, 3°56'N 101°38'E, 1♂ iv-v.2002, leg. Jendek & Sausa (Linz); S Vietnam: Dong Nai, Cat Tien N.P., ficus trail, Mal. traps, c. 100 m, 1♀ 9-30.IV.2007, leg. Quy & Manh (Leiden).

Description of ♂: Body length 13.5 mm. Flagellum with more than 36 flagellomeres (tips broken off), first flagellomere 3.0x as long as wide, long-oval tyloids on flagellomeres 9-19. Distance of lateral ocellus to eye 1.5x its diameter. Mesoscutum with very superficial puncture, almost smooth. Mesopleurum with fine and scattered puncture, Metapleurum coarsely rugose. Femur III 4.7x as long as high. Otherwise as in the ♀.

Coloration: Black. Flagellomeres 13-18 with ivory stripe. tergites 1-3 with narrow apical yellowish bands. Femur III reddish, infuscate in the apical 0.2, tibia III black, with a subbasal yellowish ring. Coloration otherwise as in the ♀.

Distribution: Known from Myanmar, new for Malaysia and Vietnam.

Atanyjoppa rufomaculata* nov.ssp. *malayana

Holotypus (♀): Malaysia West, Perak, Maxwell Hill 900-1000 m, above Taiping city, 12-16.I.1995, leg. Becvar (Linz)

Remark: The available ♀ resembles *A. rufomaculata* s.str. CAMERON, but differs as follows: Flagellum with 42 flagellomeres, the 13-14th ones square. Prescutellar carina black, metapleurum with yellowish spot apically, propodeum otherwise black. Tergites 2 and 3 without narrow apical yellowish bands.

Distribution: Malaysia.

***Atanyjoppa rufomaculata rufomaculata* CAMERON 1901**

Material: India Northeast: Megakalaya, Cherrapunjee 900 m, 25°1'N 91°40'E, 1♀ 10.V.2006, leg. Pacholatko (Linz); C Vietnam: Thua Thien Hué, Phong Dien N.R. near base-camp 50-100 m, 1♀ 3.IV.2001, leg. de Vries (Leiden); N Vietnam: Viet Try nr. Thanh Son, Thuong Cuu, 20°59'N 105°8'E, 350-400 m, 2♂♂ 11-16.X.1999, Malaise traps, leg. de Vries (Leiden); NW Vietnam: Tonkin, Hoang Lien N.R. 10 km SW Sa Pa, c. 1550 m, 1♂ 22-29.X.1999, Malaise traps, leg. van Achterberg (Leiden); N Vietnam: Ninh Binh, Cuc Phuong N.P. nr entrance, c 225 m, 1♂ 15.IV.-1.V.2000, Mal. trap II, leg. Quy(Leiden).

Distribution: India, China, Myanmar, new for Vietnam.

***Atanyjoppa violaceipennis* (CAMERON 1902)**

Material: Malaysia: Cameron Highlands, Ringlet environment, 1♀ 23.II.2000, leg. Kantner (Linz); Malaysia: Pahang 30 km NE Raub, Lata Lenbik 300 m, 3°56'N 101°38'E, 2♂♂ IV.-V.2002, leg. Jendek & Sausa (Linz).

Distribution: Known from Indonesia and Malaysia.

***Atanyjoppa sumatrana* HEINRICH 1968 (fig. 37)**

Material: Malaysia: Kanjung-ulu-Dong, 25 km northeast of Raib, 1♀ iii.2001, leg. Kudrna (Linz).

Distribution: Only known from Sumatra, new for Malaysia.

***Callajoppa taiwana* UCHIDA 1940**

Material: Taiwan NE: Fushan Botanical Garden, 650 m, 1♀ 24°47'N 121°33'E, 1♀ 17-22.VI.2000, leg. Schacht (ZSM).

Distribution: Known from China, Japan, and Taiwan.

***Cobunus filicornis* UCHIDA 1931**

M a t e r i a l : China; Yunnan, Gongshan 10 km NW N 27,798° E 98, 583°, 2150 m, 1♀
12.VI.2009, leg. Blank, Liston, Taeger (SDEI).

D i s t r i b u t i o n : Known from China and Myanmar.

***Cobunus rufigaster* nov.sp. (fig. 10)**

H o l o t y p u s (♀): "Taiwan, Taoyuan Co. Tungyenshan-Region, Shayin ca. 500 m, ca.
24°49'N/121°23'E, 22.XI.2002, leg. W. Schacht et al." (ZSM)

D e s c r i p t i o n of ♀: Body length 20 mm. Flagellum slightly lanceolate, with 45 flagellomeres, first flagellomere (without anellus) 3.0x as long as wide, the two basal flagellomeres together 0.75x as long as compound eye, the widest ones about 1.7x as wide as long. Temple parallel behind the eye, roundly narrowed behind, with dense puncture. Distance of lateral ocellus to eye about 1.4x as long as its diameter. Frons smooth below, with some fine oblique striation above, face with scattered puncture, clypeus slightly concave, almost smooth. Malar space about 0.75x as long as the width of mandibular base. Genal carina reaches hypostomal carina far from mandibular base.

Mesosoma with fine dense, short whitish hairs. Notauli impressed anteriorly. Mesoscutum with very fine and dense puncture, matte; mesopleurum and metapleurum with coarse striated puncture, coxal carina strong. Scutellum strongly convex, about as long as wide, with lateral carina in the basal half, with striated puncture. Propodeum strongly rounded, with coarse rugulose puncture. Area superomedia strongly elevated, 2x as wide as long, sickle-shaped, smoothed. Coxa III with dense puncture, without scopa. Femur III with coarse puncture, about 4.1x as long as high.

Areolet almost quadrangular, frontal distance of intercubiti about 1x their diameter. Nervulus slightly postfural.

Metasoma oxypygous. Postpetiole with a typical strong hump medially, densely punctured. Gastrocoelus deeply impressed. Thyridium very large, transverse, about 2.5x as wide as the thyridial interval. Second tergite 0.9x as long as wide. Tergites 2-3 densely punctured and striate medially (tergite 4 in the basal half only), tergite 5 with very superficial puncture, shining. Ovipositor sheath short, not extending the metasomal apex.

Colour: reddish-yellow. Flagellum reddish on basal 6 flagellomeres, becoming yellowish from the seventh to fourteenth flagellomere, apical flagellomeres black. Mesoscutum with three wide brown stripes. Blackish are a lateral spot on pronotum, anterior margin of mesopleurum and of propodeum, coxal area, and apex of area petiolaris. Wings yellowish including the pterostigma, not distinctly infuscate apically.

♂ unknown.

R e m a r k : The new species is characterized by its completely yellowish-red metasoma, the wing colour resembles *C. pallidiolus* MATSUMURA.

D i s t r i b u t i o n : Taiwan.

***Cobunus laoticus* nov.sp.**

H o l o t y p u s (♀): "Laos, Phongsaly province, 21°41'N 102°6'E, PHONGSALY environment, 6-
17.V.2004, ca. 1500 m, leg. Vit Kuban"(Linz).

Description of ♀: Body length 17 mm. Flagellum very slightly lanceolate, with 43 flagellomeres, first flagellomere (without anellus) 3.1x as long as wide, the widest ones about 1.2x as wide as long. Temple linearly narrowed behind the eye, with dense puncture. Distance of lateral ocelli to eye about 1.5 times as long as their diameter. Frons smooth below, with some fine oblique striation above. Face with scattered puncture, clypeus slightly concave, almost smooth. Malar space about 0.8 times as long as the width of mandibular base. Genal carina reaches hypostomal carina far from mandibular base

Mesosoma with fine dense short whitish hairs. Notauli impressed anteriorly. Mesoscutum with very fine and dense puncture, matte; mesopleurum and metapleurum with coarse striated puncture, coxal carina strong. Scutellum strongly convex, about as long as wide, with lateral carina in the basal 0.5, with striated puncture. Propodeum strongly rounded, with coarse rugulose puncture. Area superomedia strongly elevated, 3x as wide as long, sickle-shaped, smoothened. Coxa III with fine dense puncture basally getting coarser apically, without scopa. Femur III with very scattered puncture in the ventral half, about 4.5x as long as high.

Areolet almost quadrangular, frontal distance of intercubiti about 1x their diameter. Nervulus strongly postfurcal.

Metasoma almost semi-amblypygous. Postpetiole with a typical strong hump medially, densely punctured. Gastrocoelus deeply impressed. Thyridium very large, transverse, about 2x as wide as the thyridial interval. Second tergite 0.85x as long as wide. Tergites 2-4 densely punctured and striated medially (fourth tergite in the basal half only), tergite 5 with very superficial puncture, shining. Ovipositor sheath short, not extending over metasomal apex.

Colour: red. Blackish are flagellum, tarsus III, tergites 5-7 and sternites 5-6. Wings yellowish including pterostigma, strongly infusate lateral to areolet.

♂ unknown.

Remarks: This new taxon is closely related to *C. birmanicus* HEINRICH, but differs by the form and black colour of flagellum, and the black tarsus III

Distribution: Laos.

***Coelichneumon (Coelichneumon) birmanicus* HEINRICH 1966**

Material: S Vietnam: Dak Lak, Chu Yang Sin N. P. nr river, c 740 m, 1♂ 1-10.VI.2007, Mal. traps, leg. van Achterberg & de Vries (Leiden).

Distribution: Known from Myanmar, new for Vietnam.

***Coelichneumon (Coelichneumon) chinicus* HEINRICH 1966**

Material: India: W Meghalay, 33 km North of Shillong, 26°05'N 92°23'E, 1♀ x.1997, leg. Murzin (Linz); Laos: Phongsaly province, 21°41'N 102°6'E, Phongsaly environment, ca. 1500 m, 1♂ 6-17.V.2004, leg. Kuban (Linz).

Distribution: Known from Myanmar, new record for India and Laos.

***Coelichneumon (Coelichneumon) decemguttatus* UCHIDA 1932**

M a t e r i a l : China: Yunnan, Pianma environment, N 25.973° E 98.708°, 2500 m, 1 ♀ 3.VI.2009, leg. Blank, Liston & Taeger (SDEI); Laos: Phongsaly province, 21°41'N 102°6'E, Phongsaly environment, ca. 1500 m, 1 ♂ 6-17.V.2004, leg. Kuban (Linz).

R e m a r k : The Chinese ♀ is intermediate to the known subspecies (see HEINRICH 1967): flagellum with 45 flagellomeres, with ivory stripe on flagellomeres 8-15, scutellum completely ivory, coxa III with distinct scopa.

D i s t r i b u t i o n : Known from China, Myanmar and Taiwan, new for Laos and Yunnan.

***Coelichneumon (Exephanides) exephanopsis* ssp. *burmae* HEINRICH 1966**

M a t e r i a l : NE India: Meghalay, Tura 25°30'N 90°14'E, ca. 550 m, 1 ♀ V.2002, leg. Tryzna (Linz).

D i s t r i b u t i o n : The subspecies was only known from Myanmar, new for India.

Coelichneumon (Coelichneumon) flavoguttatus* nov.ssp. *himalayensis

H o l o t y p u s (♀): "Nepal: Distr. Humla 18 km NW Simikot Brücke an Chumsa Khola 2950 m, 30°02'25"N 81°39'06"E, 20-22.VI.2001, leg. F. Creutzburg, yellow trap" (SDEI).

D e s c r i p t i o n of ♀: Flagellum lanceolate, with 42 flagellomeres, the first one (without anellus) 2.2x as long as wide, the 13th segment square, the widest about 2x as wide as long. Temple strongly narrowed behind eye. Distance of lateral ocellus to eye about 1.0x as long as its diameter. Frons, face, clypeus and gena with rather dense puncture, epistoma and frons also with fine granulation. Malar space about 0.5x as long as the width of mandibular base.

Mesosoma with short pale hairs. Notauli indistinct. Mesoscutum with rather scattered puncture and fine granulation, mesopleurum and metapleurum with coarse puncture, coxal carina strong. Scutellum almost flat, about as long as wide, without lateral carina, with scattered puncture. Propodeum rounded, area superomedia hexagonal, slightly wider than long, finely rugulose and somewhat elevated, costula the middle. Coxa III and femur III densely punctured, coxa III without scopa, Femur III slender, about 5x as long as high.

Areolet almost quadrangular, frontal distance of intercubiti about 1x their diameter.

Metasoma oxypygous. Lateral field of postpetiole punctate, about 0.8 as wide as middle field, the latter with about five longitudinal striae. Thyridium very large, oblique, about 2x as wide as the thyridial interval. Second and third tergites with coarse and dense puncture, tergite 2 and base of the third with strong longitudinal striation medially, fourth tergite finely punctured, shining, the fifth more or less smooth.

Colour: black. Yellow are stripes or rings on flagellomeres 1-17, palps, spot on mandibular base, clypeus except a small median spot, face except triangular central spot, wide orbit except narrow interruption on malar space, scape beneath, anterior and upper margin of pronotum, propleurum, spot on tegula, subtegular ridge, smaller anterior and large central spot on mesopleurum (which are confluent partly), hind upper edge of mesopleurum, carinal triangle and central spot of metapleurum, area spiraculifera in front of spiracle, area posteroexterna and area superomedia, hind margin of postpetiole, large dor-

solateral spots on tergites 2-5, and very small on sides of tergite 6, front and middle coxae completely, anterodorsal and posteroventral spots on hind coxa, all trochanters and trochantelli, subbasal rings of all tibiae, frontal side of front and middle legs, all tarsomeres except the darkened apical tarsomeres. Wings slightly yellowish infuscate, pterostigma brownish-black.

Remark: This new subspecies differs from *C. flavoguttatus* s.str. (UCHIDA) by the ivory stripe of basal flagellomeres, black longitudinal stripe of scutellum, and black central spot on clypeus.

Distribution: Nepal.

***Coelichneumon (Coelichneumon) flavolineatus* (CAMERON 1903)**

Material: China: Yunnan, Tengchong 35 km SE Gogshan, N 24.828° E 98.767°, 2200 m, 1 ♀ 28.V.2009, 1 ♀ 2.VI.2009, leg. Blank, Liston & Taeger (SDEI); Laos: Phongsaly province, 21°41'N 102°6'E, Phongsaly environment, ca. 1500 m, 1 ♂ 6-17.V.2004, leg. Kuban(Linz).

Distribution: Known from India and Myanmar, new for China and Laos.

***Coelichneumon (Coelichneumon) flavotibialis* nov.sp. (figs 13, 33)**

Holotypus (♀): "China-Shaanxi Lüeyang 18.5.00" (Linz).

Description of ♀: Body length 19 mm. Flagellum slightly lanceolate, tips broken off, first flagellomere (without anellus) 2.2x as long as wide, the second one 1.9x, both flagellomeres together about 0.63 as long as the compound eyes, the 13th or 14th flagellomere square, the widest ones 1.2x as wide as long. Temple roundly narrowed behind the eye. Distance of lateral ocellus to the eye about 1.3x as long as its diameter. Frons with scattered puncture, face punctured and granulated, clypeus punctured, smooth. Malar space about 0.6x as long as the width of mandibular base, temple wide, seen from lateral about 0.9x as wide as the compound eye, with very superficial punctures below.

Mesosoma with light brownish hairs. Notauli distinct at the frontal 1/5 of mesoscutum. Mesoscutum with rather scattered puncture, finely granulated but shining; mesopleurum punctured and smooth, metapleura with denser puncture and smooth, coxal carina strong. Scutellum slightly convex, about as long as wide, without lateral carinae, with scattered puncture. Propodeum rounded, area superomedia heart-shaped, about as long as wide, anterior transverse carina obsolete, costula clearly behind the middle; area petiolaris with transverse rugae. Coxa III densely punctured and granulated, with distinct scopa of 1/3 of coxal length. Femur III with superficial puncture, about 3.8x as long as high. Third segment of tarsus II about 1.5x as long as wide.

Areolet almost quadrangular, frontal distance of intercubiti about 0.5x their diameter, 2mcu reaching the middle of areolet. Nervulus strongly postfurcal.

Metasoma strongly oxyptygous. Lateral fields of postpetiole about 0.7x as wide as median field, the latter with strong longitudinal striae. Thyridium strongly impressed, oblique, about 0.7x as wide as the thyridial interval. Tergites 2-3 coarsely and densely punctured and more or less longitudinally rugose-striate medially. Seen from above ovipositor sheath about 0.6x as long as the seventh tergite.

Colour: black. Yellowish are stripes on flagellomeres 8-15, basal spot on mandible, lab-

rum, wide sides of clypeus, gena, wide facial and narrower frontal orbits confluent with the spot on vertex, collare and upper margin of pronotum, subtegular ridge, sides of scutellum, small spot on lower mesopleurum anterior of epicnemium, coxae I-II mainly, all trochanters and trochantelli, anterodorsal and apical-ventral spots on coxa III. Legs I-II yellowish in front. Femur II black in the basal half. Femur III black, its apex narrowly yellow. Tibia III and tarsus III completely yellow. Metasoma black, without bluish shine. Pterostigma blackish.

♂ unknown.

Remark: With its black mesoscutum, black metasoma, and yellow hind leg (except coxa), the new taxon resembles *Coelichneumon chinicus* HEINRICH, but the coxa III has a weak scopa and a yellow spot ventrodorsal, the femur II is black with an apical yellow spot on front, and the black coxa II is yellow in the apical half only.

Distribution: China.

***Coelichneumon (Coelichneumon) hormaleoscelus* ssp. *silvaemontis* HEINRICH 1966, new ♂ (fig. 35)**

Material: Laos: Phongsaly province, 21°41-2'N 102°00-8'E, Phongsaly, ca. 1500 m, 1 ♂ v-vi.2003, 1 ♀ 6-17.V.2004, leg. Kuban (Linz).

Remark: The available ♂ from Laos differs from ♂♂ of *C. hormaleoscelus* s.str. UCHIDA by its more extensive yellow coloration as it was described for the ♀ ssp. *silvaemontis* by HEINRICH (1966): lower mesopleurum and complete mesosternum yellowish, also apical spot on metapleurum. Coxa III with ventral and dorsal yellow stripes, all tibiae with subbasal yellow rings. Colour pattern otherwise as in the other subspecies.

Distribution: This subspecies is known from India and Myanmar, new for Laos.

***Coelichneumon (Coelichneumon) laoticus* nov.sp. (fig. 14)**

Holotypus (♀): Laos: Phongsali Prov., Oa Tai vill., 21°50'N 102°18'O, 19-30.V.2008, leg. Li (Coll. RIEDEL)

Description of ♀: Body length 27 mm. Flagellum moderately lanceolate, with 56 flagellomeres, first flagellomere about 2.2x as long as wide, the second 2.0x, both segments together 0.57x as long as the compound eye, about 10th flagellomere square, widest flagellomeres about 2x wider than long. Temples slightly narrowed behind eye, seen from lateral as wide as eye. Distance of lateral ocellus to compound eye about 1.4x its diameter. Frons with transverse rugae, shining. Face with dense puncture, clypeus with dense coarse puncture, shining and with long projecting hairs. Gena below with dense puncture, malar space 0.6x as long as the basal mandibular width, with narrow granulated longitudinal stripe. Hypostomal carina not elevated.

Mesosoma with pale brownish hairs. Sides of pronotum with dense puncture dorsally, ventrally with strong striae. Notaulus impressed in the anterior 1/4. Lateral fields of mesoscutum with dense puncture, granulated but shining. Mesopleurum and metapleurum with coarse rugulo-puncture. Scutellum about as long as wide, without lateral carina and with dense puncture. Area superomedia barrel-shaped, slightly longer than wide, with fine transverse striation, basal and apical carinae indistinct. costula indistinct. Late-

ral carinae of area petiolaris strong, area petiolaris finely rugulose. Coxae II and III with dense puncture, coxa III finely granulated, with strong brown scopa of about 1/4 of coxal length. Femur III about 3.2x as long as high, with dense puncture. Third tarsomere II about 1.3x as long as wide.

Areolet pentagonal, frontal distance of intercubiti 3x its diameter, 2mcu reaching areolet lateral to its middle. Nervulus postfurcal.

Postpetiole moderately widened. Lateral field of postpetiole with scattered puncture, smooth, 0.7x as wide as the median field, median field striate, with about 15 fine longitudinal striae. Gastrocoelus large, with longitudinal striae. Thyridium oblique, about 0.8x as wide as the thyridial interval. Second tergite about 0.95x as long as wide, with median longitudinal striation, laterally as third tergite with fine granulation and dense puncture. Ovipositor sheath seen from dorsal about 0.3 as long as the tergite 7. Apical sternites, tergites and ovipositor sheath with long and projecting dark hairs.

Coloration: black. Yellowish are a ring on flagellomeres 7-20, palps, mandibular base, labrum, sides of clypeus, face, malar space, gena, complete orbits, collare and wide upper margin of pronotum, two longitudinal stripes on mesoscutum, wide longitudinal stripe on mesopleurum, spot on tegula, subtegular ridge, coxae I-II, all trochanters and trochantelli. Coxa III with yellowish marks. Legs otherwise reddish-yellow, femur I caudally black. Wings yellowish tinged, pterostigma dark brown.

♂ unknown.

R e m a r k : In the key of HEINRICH (1968a), the new taxon runs to *Coelichneumon piceipennis* (MORLEY 1915), syn. *C. fuscipennis* (CAMERON) praeocc., but differs by its unusual large size and completely yellowish scutellum. The colour pattern is similar otherwise. This specimen might therefore represent a subspecies of *C. piceipennis* (MORLEY) only.

D i s t r i b u t i o n : Laos.

***Coelichneumon (Coelichneumon) maculiscutis* (CAMERON 1905) (fig. 34)**

M a t e r i a l : Laos: Phongsaly province, 21°41'N 102°6'E, Phongsaly environment, ca. 1500 m, 1♂ 6-17.V.2004, leg. Kuban (Linz).

D i s t r i b u t i o n : Known from India and Myanmar, new for Laos.

***Coelichneumon (Coelichneumon) mandibularis* HEINRICH 1966**

M a t e r i a l : India: Assam, 1♀ (without date), leg. Victor (ZSM).

R e m a r k : Flagellum with 42 flagellomeres. Hypopygium somewhat stretched, almost semi-amblypogous

D i s t r i b u t i o n : Known from Myanmar, new for India.

***Coelichneumon (Intermedichneumon) ocellus* (TOSQUINET 1903) (fig. 15)**

M a t e r i a l : Pakistan: Punjab, Islamabad, Area of Narc, Malaise trap, 1♀ 9.-11.VI.2007, leg. Schönitzer (ZSM); India: Karnataka Sulya, Medikeri 150 m, 12° 31' N 75°29,0'E, 1♀ 8.V.2005, leg. Halada (Linz); S Vietnam: Dong Nai, Cat Tien N.P., ficus trail, Mal. traps, c 100 m, 9.IV.-13.V.2007, leg. Quy, Manh & van Achterberg (Leiden); Indonesia: Java, Ngantang, 1♀, (no date) leg. Neuhaus; Laos south: Ban Houay Kong, 1♀ 18-30.IV.1999, leg. Sausa (Linz).

D i s t r i b u t i o n : Widespread in Southern and Southeastern Asia, new for Laos, Pakistan and Vietnam.

***Coelichneumon (Coelichneumon) parachinicus* nov.sp.**

H o l o t y p u s (♀): "China: Yunnan: Tengchong, 35 km SE Gongshan N 24,828° E 98,767° 2200 m, 2.VI.2009, leg. Blank, Liston, Taeger" (SDEI).

D e s c r i p t i o n of ♀: Body length 17 mm. Flagellum strongly lanceolate, with 39 flagellomeres, first flagellomere (without anellus) 2.0x as long as wide, the second one 1.9x, both flagellomeres together about 0.5x as long as the compound eyes, the eighth segment square, widest flagellomeres 2.4x as wide as long. Temple roundly narrowed behind eye, seen from lateral 0.9x as wide as eye, at lower eye margin with very scattered puncture. Distance of lateral ocelli to the eyes about 1x as long as their diameter. Frons with scattered puncture, face with coarse puncture and fine granulation, clypeus with puncture, intervals smooth. Malar space about 0.6 times as long as the width of mandibular base. Hypostomal carina not elevated.

Mesosoma with light brownish hairs. Notauli distinct at the frontal 1/5 of mesoscutum. Mesoscutum with rather dense puncture and fine granulation; mesopleurum punctured, punctures in the dorsal and apical parts smaller and denser, metapleurum with distinctly coarser puncture, coxal carina strong. Scutellum almost flat, slightly wider than long, without lateral carinae, and with scattered punctures. Propodeum rounded, area supero-media heart-shaped, slightly wider than long, smoothed centrally, anterior transverse carina obsolete, costula behind the middle. Area superoexterna punctured, area petiolaris with lateral carinae, rugulose. Coxa II with scattered puncture, coxa III densely punctured, without scopa. Femur III with scattered puncture in the lower half, about 3.7 times as long as high. Third tarsomere II about 1.3x as long as wide.

Areolet almost quadrangular, frontal distance of intercubiti about 1x their diameter, 2mcu distal to its middle. Nervulus postfurcal.

Metasoma strongly oxypygous. Lateral field of postpetiole about 0.75x as wide as median field, punctured, median field with about 9 strong striae. Gastrocoelus strongly impressed, with longitudinal ridges. Thyridium almost transverse, 1.1x as wide as the thyridial interval. Tergite 2 as long as wide. Tergites 2-3 densely punctured, strongly striate medially. Tergite 4 punctured, and with some striae basally, tergite 5 with superficial puncture, more or less shining. Seen from above ovipositor sheath about 0.7x as long as the seventh tergite.

Colour: black, apical tergites with slightly bluish shine. Ivory are stripes on flagellomeres 6-15, spot on mandibular base, labrum, wide sides of clypeus, gena except black stripe on malar space, wide facial orbits that are almost confluent below the antenna, frontal and vertical orbits confluent with outer orbit, collare and upper margin of pronotum, spot on tegula, mark on lower mesopleurum in front of epicnemium, subtegular ridge, scutel-

lum except a black median line, coxae and trochanters I-II, mark on inner side of trochanter III. Legs except coxae and trochanter reddish, All tibiae more yellowish-red with cream-yellow frontal stripes or subbasal rings. tarsi I-II on front sides, and tarsus III completely yellow. Pterostigma black, wings somewhat infuscate in the apical and frontal parts.

♂ unknown.

Remark: This species runs to *Coelichneumon chinicus* HEINRICH in his key of the Oriental *Coelichneumon*-species. It differs by its larger size, wider temple, and the structure of flagellum with shorter first flagellomere and wider apical segments. However, these differences might represent individual variations only. To solve the question of a probable synonymy, one should wait for more material together with a description of the unknown males.

Distribution: China.

***Coelichneumon (Coelichneumon) pieli* UCHIDA 1937 (fig. 16)**

Material: N Vietnam: Vinh Phuc, Tam Dao N.P. 960 m, at light in village, 1 ♀ 16-20.IV.2001, leg. de Vries, RMNH '01 (Leiden).

Description of ♀: Body length 21 mm, Flagellum very slightly lanceolate, with 47 flagellomeres. First flagellomere (without anellus) 2.4x as long as wide, the second one 2.2x, both flagellomeres together 0.64x as long as eye, about the 14th flagellomere square, widest flagellomeres about 1.3x as long as wide. Temple strongly and roundly narrowed. Distance of lateral ocellus from eye 1.4x its diameter. Frons smooth below and rugulose-punctured above. Face and clypeus with strong rugulose-puncture. Temples below with scattered puncture, smooth. Hypostomal carina not elevated.

Mesosoma with whitish hairs, with coarse puncture. Scutellum slightly longer than wide, moderately elevated, without lateral carina. Area superomedia heart-shaped, rugulose, costula behind the middle. Area superoexterna rugulose, area petiolaris with strong lateral carina and transverse striation. Coxa III with a small but distinct scopa, femur III about 4.0x longer than high. Third tarsomere II about 1.6x as long as wide.

Lateral field of postpetiole about 0.7x as wide as the median field, median field striate, with about 10 longitudinal stripes. Thyridium about 1.1x as wide as the thyridial interval, the interval as wide as the median field of postpetiole. Tergites 2 and 3 with coarse puncture, medially striate, tergite 4 with fine puncture, more or less smooth and shining. Apex of metasoma blunt, ovipositor about 0.4x as long as the tergite 7, tergite 7 with long black hairs.

Coloration: black. Yellow are flagellomeres 8-16, palps, sides of clypeus, outer orbits below, inner orbits up to the vertex (widened at frontal orbits and vertex), collare and upper margin of pronotum, subtegular ridge, small spot on lower mesopleurum, two longitudinal stripes on mesoscutum, scutellum and postscutellum, area dentipara, posterolateral marks on tergites 1-5 (largest on tergite 2), spots on coxae I-II and trochanters I-III, coxa III with anterodorsal and posteroventral marks, apical spots on femora I-III, subbasal rings on tibiae I-III, all tarsi centrally. Sternites with reddish apical bands. Wings darkened, pterostigma blackish.

Distribution: Known from China, new for Vietnam.

***Coelichneumon (Coelichneumon) popae* HEINRICH 1966**

M a t e r i a l : Laos: Phongsaly province, 21°41'N 102°6'E, Phongsaly environment, ca. 1500 m, 1 ♀ 6-17.V.2004, leg. Kuban(Linz).

R e m a r k : The available ♀ has 44 flagellomeres, first flagellomere only 2.5x as long as wide. However, the colour pattern is exactly as described for *C. popae*. As it was already mentioned by HEINRICH (1966a), the taxon is probably a synonym of *Coelichneumon decemguttatus* UCHIDA.

D i s t r i b u t i o n : Known from India and Myanmar, new for Laos.

***Coelichneumon (Exephanides) pseudoneotypus* nov.sp.**

H o l o t y p u s (♀): India W Meghalay 25°40'N 91°04' E, Nokrek Nat. Park, XII.1997, leg. Murzin (ZSM)

D e s c r i p t i o n of ♀: Body length 15 mm. Flagellum strongly lanceolate, with 38 flagellomeres, first flagellomere (without anellus) 2.5x and second one 2.4x as long as wide, both flagellomeres together about 0.58x as long as the compound eye, about the 12th segment square, flagellomeres beyond the middle strongly attenuated, the widest about 2.5x as wide as long. Temple roundly narrowed behind the eye, seen from lateral 0.75x as wide as eye, at lower eye margin with scattered puncture. Distance of lateral ocelli to the eyes about 1.4x as long as their diameter. Frons almost smooth, face and clypeus with coarse puncture, intervals smooth and shining. Malar space about 0.7 times as long as the width of mandibular base. Hypostomal carina not elevated.

Mesosoma with whitish hairs. Sides of pronotum mainly with superficial puncture. Mesoscutum with coarse puncture, with wider intervals in the apical fifth. Mesopleurum, and metapleurum with rather dense and coarse puncture, shining, coxal carina strong. Scutellum slightly convex, slightly wider than long, without lateral carinae, with scattered puncture. Propodeum rounded, area superomedia hexagonal, wider than long, sculpture smoothened, costula behind the middle. Area superoexterna with some coarse puncture, area petiolaris with lateral carina, transversely striate. Coxa III punctured, with slightly elevated, small dark scopa of 1/6 of coxal length. Femur III with scattered puncture in the lower third, about 3.5x as long as high. Third tarsomere II about 1.4x as long as wide.

Areolet pentagonal, frontal distance of intercubiti about 2x their diameter, 2mcu in its middle. Nervulus postfural.

Metasoma strongly oxygygous and narrowed from the third tergite on. Postpetiolus strongly widened, dorsal carina not developed, median field with coarse puncture and some striae. Tergite 2 about 0.9x as long as wide. Gastrocoelus impressed. Thyridium transverse, large, about 0.9x as wide as the thyridial interval. Tergites 2-3 with coarse puncture, and strong striation covering the central 2/3 of tergites, tergite 4 with some basal striation, tergite 5 with superficial puncture. Seventh tergite longer than the sixth one. Seen from above ovipositor sheath about 0.5 times as long as the seventh tergite.

Colour: black. Ivory are stripe on flagellomeres 6-17, base of mandible, palps, clypeus except narrow median stripe, face except an heart-shaped black central mark, complete orbits, collare and upper margin of pronotum, propleurum apically, large longitudinal stripe on lower mesopleurum, subtegular ridge, scutellum except a median black stripe, postscutellum, apical band of postpetiole, large posterolateral transverse marks on tergi-

tes 2-5, apical band of tergite 6, coxa and trochanters I-II, and ventral and dorsal spots on coxa III and trochanter III. Legs yellowish-red. Femur I caudally, and femora II-III apically infusate, apical third to half of all tergites and tarsi I-II infusate. Tarsus III cream-yellow. Pterostigma blackish.

♂ unknown.

R e m a r k : This taxon differs from *Coelichneumon neotypus* HEINRICH by a small but distinct scopa on coxa III and the colour pattern of the head: ivory are clypeus except an apical median black spot, face except an heart-like central black patch, and complete gena and orbits.

D i s t r i b u t i o n : India.

Coelichneumon (Coelichneumon) pterostigmator nov.sp.

H o l o t y p u s (♀): "China: Yunnan: Tengchong 45 km NNW: Houqiao N 25,368° E 98,210°, 1700 m, 01.VI.2009, leg. Blank, Liston, Taeger" (SDEI)

D e s c r i p t i o n of ♀: Body length 14 mm. Flagellum strongly lanceolate, with 39 flagellomeres, first flagellomere (without anellus) 1.8x as long as wide, the second one 1.7x, both flagellomeres together about 0.5x as long as the compound eyes, the eighth flagellomere square, flagellomeres beyond the middle attenuated, the widest 2.5x as wide as long. Temple roundly narrowed behind the eye, seen from lateral 0.95x as wide as eye, at lower eye margin with very scattered puncture. Distance of lateral ocellus to the eye about 1.3 times as long as its diameter. Frons with fine transverse rugulo-puncture, face and clypeus with coarse puncture, more or less shining. Malar space about 0.6 times as long as the width of mandibular base. Hypostomal carina not elevated.

Mesosoma with light brownish hairs. Notauli distinct at the frontal 1/5 of mesoscutum. Mesoscutum with rather dense puncture, shining; mesopleurum punctured, in the caudal half as the metapleurum striate-punctured, coxal carina strong. Scutellum slightly convex, about as long as wide, without lateral carina, with scattered punctures. Propodeum rounded, area superomedia sickle-shaped, wider than long, smoothed, anterior transverse carina obsolete, costula behind the middle. Area superoexterna punctured, area petiolaris with lateral carina, rugulose. Coxa II and III densely punctured, coxa III with distinct scopa of 2/5 of coxal length. Femur III with dense puncture, about 3.7x as long as high. Third tarsomere II about 1.4x as long as wide.

Areolet pentagonal, frontal distance of intercubiti about 2-3x their diameter, 2mcu in the middle of areolet. Nervulus slightly postfurcal.

Metasoma strongly oxygygous. Lateral fields of postpetiole about 0.6x as wide as median field, the latter finely striate. Gastrocoelus strongly impressed, with longitudinal ridges. Thyridium oblique, about 1.2x as wide as the thyridial interval. Tergites 2-3 densely punctured, matte and striate medially. Tergite 4 with superficial puncture, more or less shining. Seen from above ovipositor sheath about 0.5x as long as the seventh tergite.

Colour: black, metasoma with slightly bluish tint. Ivory are stripes on flagellomeres 7-13, spot on mandibular base, labrum, wide sides of clypeus, gena except black stripe on malar spcae, wide facial and narrower frontal orbits confluent with large triangular spot on vertex, lower outer orbit, collare, spot on lateral edge and wide upper margin of pronotum, spot on tegula, two short longitudinal stripes on mesoscutum, large spot on lower mesopleurum anteriorly, subtegular ridge, scutellum and postscutellum, area dentipara,

apical half of postpetiolus, large posterolateral marks on tergites 2-4 and smaller spot on tergite 5, coxae and trochanters I-II mainly, dorsal and ventral spots of coxa III and trochanter III, apically spots on all femora frontally, tibia I on frontal side, and subapical rings of all tarsomeres. Pterostigma reddish-brown.

♂ unknown.

Remarks: In the key of HEINRICH the species runs to no. 39 *C. kompensis*, but differs mainly by its large scopa and black tibiae II-III.

Distribution: China.

***Coelichneumon (Coelichneumon) quinquemaculatus* (CAMERON 1903)**

Material: Taiwan NW: Hueisuen exp. Forest, 600 m, 24°07'N 121°03'E, E Taichung, 1 ♀ 23-27.VI.2000, leg. Schacht (ZSM).

Distribution: Known from India and Myanmar, new for Taiwan.

***Coelichneumon (Coelichneumon) rufofemoratus* (CAMERON 1903)**

Material: India: Khasia Hills, Assam, 2 ♀ ♀ (without date), leg. Athimus (ZSM).

Remark: Flagellum with 39 flagellomeres. Femur III 3.8x as long as high, in the lower half almost unpunctured and smooth.

Distribution: Known from India and Myanmar.

***Coelichneumon (Coelichneumon) sabahensis* nov.sp. (fig. 17, 38)**

Holotypus (♂): "Malaysia-SW Sabah nr Long Pa Sin (East) c. 1000 m, Malaise trap 1, 1-14.IV.1987, RMNH'87 C. van Achterberg" (Leiden).

Description of ♂: Body length 17 mm. Flagellum 46 flagellomeres, first flagellomere (without anellus) 2.0x as long as wide, small long-oval tyloids on flagellomeres 10-21. Temple moderately and roundly narrowed behind eye. Distance of lateral ocellus to the eye 1x as long as its diameter. Frons with fine granulation and few punctures, but shining, face and clypeus with puncture, shining. Lower mandibular tooth slightly bent inwards. Genal carina reaches the hypostomal one near mandibular base.

Mesosoma with brownish hairs dorsally and whitish ones ventrally. Mesoscutum with rather dense puncture and fine granulation, shining; mesopleurum and metapleurum with dense puncture, shining, coxal carina distinct. Scutellum slightly convex, slightly longer than wide, with lateral carina in the basal 0.3. Area superomedia and basalis confluent, area superomedia hexagonal, costula in the middle. Propodeum with coarse puncture, smoothed basally. Femur III about 4.7x as long as high.

Areolet almost quadrangular, frontal distance of intercubiti 1x their diameter. Nervulus postfurcal.

Postpetiolus moderately widened. Lateral field with fine granulation, more or less smooth, median field with fine striation. Gastrocoelus strongly impressed, with few longitudinal ridges. Thyridium almost transverse, large, about 1.2x as wide as the thyridial interval. Second tergite 0.95x as long as wide. Tergites 2-3 with rugulose-puncture, striate medially. Tergites 4-5 with superficial puncture, the fourth with some median striation basally.

Colour: black. Ivory are mandible except teeth, palps, clypeus and face, gena and outer orbit, frontal orbit, triangular spot on vertex, scapus beneath, propleurum, collare and upper margin of pronotum, spot on tegula, stripe on lower mesopleurum, spot on apical mesosternum, subtegular ridge, sides of scutellum and postscutellum, area spiraculifera with spot frontal to spiracle and apically, area superomedia, apical half of area dentipara, postpetiolus mainly, large triangular posterolateral spots on tergites 2-4, narrow apical bands on tergites 5-7 and on sternites 2-6, medial stripe on sternites 2-4, coxae I-II, all trochanteres, dorsal spot and ventral stripe on coxa III, Legs I-II mainly ivory, with dorsal brown stripes on femora and tibiae, femur III black, tibia III black, with subbasal ivory ring, tarsus II brownish, tarsus III black. Wings brownish, getting darker laterally. Perostigma black.

♀ unknown.

Remark: The ♂ runs to *Coelichneumon popae* HEINRICH in the key of HEINRICH (1966a), but differs by the black mesoscutum and prescutellar carina, and the form of posterolateral spots on tergites.

Distribution: Malaysia.

***Coelichneumon (Exephanides) sichuanensis* nov.sp. (figs 18, 39)**

Holotypus (♀): "China S. Sichuan pr., mts Dafengding, 3100 m, 50 km N Meiju, 14-16.VIII.2007, S. Murzin" (Coll. RIEDEL).

Description of ♀: Body length 16 mm. Flagellum strongly lanceolate, with 39 flagellomeres, first flagellomere (without anellus) about 2.0x as long as wide, the second 1.8x, both segments together 0.57x as long as the compound eye, about the 8th flagellomere square, widest flagellomeres about 3x as wide as long. Temple strongly and almost linearly narrowed behind eye, seen from lateral at most 0.8x as wide as eye. Distance of lateral ocellus to compound eye about 1.2x its diameter. Frons with very scattered puncture, almost smooth and strongly shining. Face and clypeus with scattered puncture, puncture getting very scattered laterally, smooth. Gena with very scattered puncture, malar space 1.3x as long as the basal mandibular width, with narrow granulated longitudinal stripe. Hypostomal carina not elevated.

Mesosoma with whitish hairs. Sides of pronotum with fine puncture dorsally, ventrally with some striae. Notaulus impressed anteriorly. Lateral field of mesoscutum with very fine and scattered puncture, smooth. Mesopleurum and metapleurum with coarser but scattered puncture. Scutellum about as long as wide, with lateral carina in the basal 0.2, with very scattered fine puncture. Area superomedia horseshoe-shaped, slightly longer than wide, almost smooth, basal and apical transverse carinae indistinct. costula basal to its middle. Lateral carina of area petiolaris obsolete, the area rugose. Coxa II with scattered puncture apically, coxa III finely rugulose in the basal half, with fine puncture and granulation apically, with distinct whitish scopa. Femur III about 4.6x as long as high, with scattered puncture in the lower half. Third tarsomere II about 1.9x as long as wide. Claws large, apically bent by about 90°.

Areolet almost quadrangular, frontal distance of intercubiti 1x their diameter, 2mcu reaching areolet lateral to its middle. Nervulus postfurcal.

Metasoma slender. Postpetiole only slightly widened. Lateral field of postpetiole smooth, 0.7x as wide as the median field, median field striate, with about 8 strong longitudinal

striae. Gastrocoelus large, with longitudinal striae. Thyridium very oblique, about 1.5x as wide as the thyridial interval. Second tergite about 1.3x as long as wide, with median longitudinal striae, laterally with fine granulation, shining, third tergite with median striation in the basal half, as the following tergites with fine granulation and shining. Seen from dorsal, ovipositor sheath about 0.2 as long as the tergite 7.

Coloration: Whole body with strong metallic shine. Head and mesosoma copper-metallic; flagellum, propodeum, metasoma, and legs strongly metallic blue. Flagellomeres 9-13 with ivory stripe. Femora I-II apically and tibia I frontally reddish-yellow. Pterostigma yellowish-brown. Wings slightly darkened.

♂ unknown.

Remark: The new species runs to *Coelichneumon godwinausteni* (CAMERON) in HEINRICH's key, but is clearly different by the form of metasoma. Additionally, the head has no ivory colour pattern, and head and mesosoma show a strong metallic shine.

Distribution: China.

***Coelichneumon (Exephanides) strigosus* (MORLEY 1915)**

Material: Malaysia W: Kalanian, 1550 m, 04°63'N 101°45'E, 1♂ IV.2006, leg. Cechovsky (Linz).

Distribution: Known from India, new for Malaysia.

***Coelichneumon (Coelichneumon) taihorinus* UCHIDA 1932**

Material: Thailand North: Mae Hong San province, Southeast of Soppong 1500m, 19°27'N 98°20'E, 1♂ 15-17.XI.1996, leg. Becvar, 1♀ 23-27.V.1999, leg. Riha (Linz); India: W-Bengal, Darjeeling Distr., Kalimpong 1000 m, 26.56N 86°08E, 1♀ 27.V.1982 (ZSM); Laos N: Luoang Phrabang prov, Ban Song Cha env. 1200 m, 1♀ V.1999, leg. Kuban (Linz); Laos N: Louang Phrabang prov., Thong Khan, 750 m, 19°35'N 101°58'E, 1♂ 11-21.V.2002, leg. Kuban (Linz); Laos: Bolikhamxai prov. Ban Nape env.350 m, 18°20'N 105°08E, 2♀ and 2♂ 7-16.V.2004, leg. Jendek & Sausa (Linz); Laos: Ban Itou env., 5♂ 10-18.IV.1999, leg. Sausa (Linz); Nepal: Tampa Khosi Tal, 2400 m, 1♂ 12.V.1962, leg. Ebert & Falkner (ZSM); Laos: Phongsaly province, 21°41'N 102°6'E, Phongsaly environment, ca. 1500 m, 2♂ 6-17.V.2004, leg. Kuban(Linz).

var.: Differs from the description from HEINRICH by its black flagellum, basal flagellomeres reddish below, without ivory ring.

Material: C Vietnam: Thua Thien Hué, Phong Dien N.R., W Phung My, c. 100 m, 1♂ 22.III-6.IV.2001, Malaise trap 1-3, leg. van Achterberg & de Vries (Leiden), Laos Centr: Khammouan prov., Nakai, 500-600 m, 17°43'N 105°09'E, 1♂ vi.2011, leg. Jendek; Indonesia: Bali, Bedugul reg. 1300 m, Tamblingan Lak N. R., 1♂ iii.2005, leg. Jakl (Linz).

Distribution: Widespread in the Oriental region, new for Bali, Laos, Nepal, Thailand and Vietnam

Coelichneumon (Coelichneumon) taihorinus* nov.ssp. *nigrifemur

Holotypus (♀): "NO-Sumatra: 1200 m Siuntar, Holzweg, Prabat 1200 m, 10.V.-3.VII.1981, leg. Dr. E. Diehl" (ZSM)

Remark: Flagellum with 45 segments. This ♀ differs from the main subspecies by its black (instead of reddish) hind legs. Ivory are antero-dorsal and ventral-apical marks on coxa III, trochanter III and basal half of trochantellus III, and subbasal ring of tibia III. Otherwise as described for the species (Heinrich 1966a).

Distribution: This new subspecies has only been found in Sumatra so far.

***Coelichneumon (Coelichneumon) tonkinensis* nov.sp.**

Holotypus (♂): "NW Vietnam: Tonkin, Hoang Lien N.R. 10 km SW Sa Pa, c. 1900 m, 15-21.X.1999 and 15-21.X.1999, Malaise traps, C. v. Achterberg, RMNH '99" (Leiden).

Paratypus (♂): "NW Vietnam: Tonkin, Hoang Lien N.R. 10 km SW Sa Pa, c. 1900 m, 15-21.X.1999 and 15-21.X.1999, Malaise traps, C. v. Achterberg, RMNH '99" (Leiden).

Description of ♂: Body length 17 mm. Flagellum with 37-38 flagellomeres, first flagellomere (without anellus) 1.8x as long as wide, long-oval tyloids on flagellomeres 6-18. Temple strongly, almost linearly narrowed behind the eye. Distance of lateral ocellus to the eye 1.2x as long as its diameter. Frons, face, and clypeus with scattered puncture, shining. Hypostomal carina not elevated.

Mesosoma with whitish hairs. Mesoscutum with rather dense puncture and fine granulation, shining; mesopleurum and metapleurum with scattered puncture, strongly shining, coxal carina strong. Scutellum almost flat, about as long as wide, without lateral carina. Propodeum rounded, area superomedia in the holotype heart-shaped, about as long as wide, smoothed centrally, costula behind the middle, in the paratype smooth and elevated above other areae (as in *Aglaojoppa*). Area superoexterna punctured, area petiolaris with lateral carina, rugulose. Femur III about 4.0x as long as high. Metatarsus I without apical tooth.

Areolet quadrangular, intercubiti meeting frontally. Nervulus postfurcal.

Postpetiolus moderately widened. Lateral field about 0.75x as wide as median field, punctured, median field with fine striation. Gastrocoelus strongly impressed, with longitudinal ridges. Thyridium oblique, about 0.8x as wide as the thyridial interval. Tergite 2 as long as wide. Tergites 2-3 densely punctured, strongly striate medially. Tergites 4-5 with superficial puncture.

Colour: Body with strong bluish shine, metasoma more metallic violet. Flagellum, tibiae and tarsi black. Ivory are stripe on flagellomeres 10-12 (holotype) or 12 only (paratype), clypeal sides, facial and frontal orbits, outer orbit below and spot on vertex, collare and upper margin of pronotum, spot on tegula, mark on lower mesopleurum, subtegular ridge, scutellum completely, apical half of area dentipara, hind margin of postpetiolus and posterolateral spots on tergites 2-4, frontal spots on coxae I-II, anterodorsal spot on coxa III, frontal stripes on the apical half of femora I-II, on tibiae I-II and basal half of metatarsus I. Wings brownish, pterostigma black.

♀ unknown.

Remark: In the key of HEINRICH (1966a) this new taxon runs to *Coelichneumon albonotatus* (CAMERON) but differs by the completely ivory scutellum, ivory marks on mesopleurum and on area dentipara, ivory spots on all coxae, and the darkened wings. From *Coelichneumon cyaniventrops* HEINRICH, it can be distinguished by the bluish colour of head and mesosoma. However, it is not impossible that the new species represents the unknown ♂ of *C. cyaniventrops*.

The available ♂♂ show remarkable differences in the structure of area superomedia. In the holotype, the form is typical for *Coelichneumon*, but in the paratype the elevated and smooth area superomedia is sculptured as in the genus *Aglaojoppa*. A similar variation has been found in the European species *Coelichneumon bohemani* (HOLMGREN) (RIEDEL 2012). Hence, the intermediate forms found in both genera, even in one species, would be a strong argument to synonymize these genera.

Distribution: Vietnam.

***Coelichneumon (Coelichneumon) victorianus* HEINRICH 1966**

Material: NW Vietnam: Tonkin, Hoang Lien N.R. 10 km SW Sa Pa, c. 1550 m, 1♂ 22-29.X.1999, Malaise traps, leg. van Achterberg (Leiden).

Distribution: Known from Myanmar, new for Vietnam.

***Cratojoppa maculata* CAMERON 1907**

Material: N Vietnam: Ninh Binh, Cuc Phuong N.P. near entrance, c. 225 m, 1♂ 15-27.V.2000, Mal. trap, leg. Quy (Leiden); Taiwan NE: Fushan Botanical Garden, 650 m, 24°47'N 121°33' E, 1♂ 17.-22.VI.2000, leg. Schacht (ZSM); Taiwan NW: Hueisuen exp. Forest, 600 m, 24°07'N 121°03' E, E Taichung, 1♀ 23-27.VI.2000, leg. Schacht (ZSM).

Distribution: Widespread in the Oriental region, new for Malaysia, Taiwan and Vietnam.

***Cratojoppa nigrifemur* nov.sp.**

Holotypus (♂): "Malaysia-SW Sabah nr Long Pa Sin (East) c. 1000 m, 1-13.IV.1987, Malaise trap 4, RMNH'87 C. van Achterberg" (Leiden)

Paratypus (♂): with same label

Description of ♂: Body length 18.5 mm. Flagellum with 43 flagellomeres. Long-oval tyloids on flagellomeres 9-22, situated in the center of segments. Temple roundly narrowed behind eye. Distance of lateral ocellus to compound eye about 1.2x its diameter. Frons slightly concave, smooth. Face and clypeus with superficial puncture, intervals smooth. Apical margin of clypeus with a small median tubercle.

Mesosoma with whitish hairs. Notauli strongly impressed in the anterior half of mesoscutum. Mesoscutum with scattered puncture and fine granulation, slightly shining. Mesopleurum with smaller and dense puncture, speculum smooth. Metapleurum with coarse rugulo-puncture, coxal area smoothed. Coxal carina distinct. Scutellum flat, without lateral carina and coarse puncture. Area basalis and superomedia slender, confluent and smooth. Area petiolaris with coarse transverse striae. Propodeum otherwise with coarse puncture. Femur III about 5.0x as long as high.

Areolet quadrangular, nervulus postfurcal.

Postpetiole moderately widened. Lateral field with puncture, median field smooth. Gastrocoelus large, smooth. Thyridium large, oblique, 1x as wide as the thyridial interval. Second tergite as long as wide. Tergites 2-5 with puncture, tergites 2-3 and basal half of tergite 4 with median striation.

Coloration: Black. Ivory are long stripe or ring on flagellomeres 13-38, palps, mandible, clypeus and face, gena, complete orbits except a narrow interruption at vertex, scapus beneath, apical margin of propleurum, collare and upper margin of pronotum, tegula, subtegular ridge, two short median stripes on mesoscutum, lower mesopleurum and mesosternum, prescutellar carina, sides and apex of scutellum, postscutellum, spot of area spiraculifera in front of spiracle, combined areae basalis and superomedia, area posteroexterna and dentiparal edge, apical bands of all tergites, coxae I-II, all trochanters, coxa III ventrally and partly on dorsal side, frontal parts of legs I-II. Legs I-II otherwise brownish. Femur III black, tibia III black, with subbasal ivory ring. Tarsus III completely ivory. Pterostigma blackish.

Remark: The new taxon differs from the other known *Cratojoppa*-species by its black femur III and the longer ivory stripe on flagellum.

Distribution: Malaysia.

***Cratojoppa robusta* CAMERON 1901**

Material: India South: Kerala state, Cardamom hills, Pamba environment, ca. 50 km Northwest of Pathanamthitta valley, 77°05'E 9°25'N, 1 ♀ 15-18.V.1999, leg. Kejval & Tryzna (Linz); India S: Tamil Nadi, 11 km SE Kotagiri, Kunchapani 1100 m, 11° 24'N 76°56'E, 1 ♂ V.2003, leg. Pacholatko (Linz); W Malaysia: Cameron Highlands, Ringlet, 1 ♀ 27.III.-1.IV.2000, leg. Snizek (Linz); Laos South: Ban Itou env. 1 ♂ 10-18.IV.1999, leg. Sausa (Linz); S Vietnam: Dong Nai, Cat Tien N.P., Dong trail, Mal. traps, c. 100 m, 1 ♀ 13-19.V.2007, leg. van Achterberg & de Vries (Leiden); S Vietnam: Dak Lak, Chu Yang Sin N.P. Krong K'Mar, Malaise traps 740-900 m, 1 ♀ and 1 ♂ 2-10.VI.2007, leg. van Achterberg & de Vries (Leiden); S Vietnam: Dong Nai, Cat Tien N.P., Dong trail, Mal. traps, c. 100 m, 1 ♂ 9-30.IV.2007, leg. Quy & Mank (Leiden); S Vietnam: Dak Lak, Chu Yang Sin N.P. Krong K'Mar, Malaise traps 800-940 m, 1 ♂ 2-10.IV.2007, leg. van Achterberg and de Vries (Leiden).

Remark: The ♀ has the following features: Flagellum with 47 flagellomeres, first flagellomere 2.9x as long as wide. Femur III 4.5x as long as high, with scattered puncture in the lower half, granulated.

Distribution: Known from Bhutan, India, and Myanmar, new for Laos, and Vietnam.

***Cratojoppa scutellata* nov.sp. (fig. 19, 40)**

Holotypus (♀): "S Vietnam: Dong Nai Cat Tien N.P., ficus trail, c100 m, 9-30.IV,2007, Mal.trap, M.P. Quy & N.T. Mank RMNH'07" (Leiden)

Paratypus (♂): with same label (Leiden)

Description of ♀: Body length 15 mm. Flagellum slightly lanceolate, with 43 flagellomeres. First flagellomere (without anellus) 3.0x as long as wide, two basal flagellomeres together 0.75x as long as eye, widest flagellomeres 1.7x as wide as long. Temple roundly narrowed behind eye. Distance of lateral ocellus to compound eye about 1.3x its diameter. Frons smooth, with very few punctures laterally. Face, gena and clypeus with superficial puncture, intervals smooth. Apical margin of clypeus slightly biconcave, with a small median tubercle.

Mesosoma with whitish hairs. Sides of pronotum with small and dense puncture dorsally. Central parts of mesoscutum with coarse puncture, puncture at sides and anterior parts becoming much smaller, granulate. Mesopleurum with fine dense puncture, speculum smooth. Metapleurum with coarse rugulose-puncture. Coxal carina distinct. Scutellum flat, with complete thickened lateral carina, puncture somewhat striate in the apical half. Area basalis and superomedia slender, confluent and finely rugulose, about 3x as long as wide, costula in the middle of area superomedia. Propodeum otherwise with coarse puncture. Coxa III with fine puncture and weak scopa. Femur III with scattered puncture in the ventral third, about 4.6x as long as high.

Areolet almost quadrangular, frontal distance of intercubiti 1x their diameter, nervulus postfurcal.

Metasoma oxygygous. Postpetiole moderately widened, median field smooth, with few punctures. Gastrocoelus large, smooth. Thyridium large, oblique, 1x as wide as the thyr-

dial interval. Second tergite 1.1x as long as wide. Tergite 2 with coarse rugose puncture and median striation. Tergites 3-4 with dense fine puncture, median striation on base of tergite 3 only. Ovipositor sheath not extending metasomal apex.

Coloration: Black. Ivory are stripe on flagellomeres 8-16, palps, mandible except teeth, clypeus and face, gena, orbits except two narrow interruptions on vertex, scapus beneath, propleurum, collare and upper margin of pronotum, spot on tegula, subtegular ridge, two short and more reddish median stripes on mesoscutum, lower mesopleurum, prescutellar carina, apex of scutellum, postscutellum, apical margin of metapleurum, spot of area spiraculifera in front of spiracle, area basalis, area posteroexterna, apical band of postpetiolus and subapical bands of tergites 2-3, apical band on tergite 6, tergite 7 completely, coxae I-II, all trochanters, base of coxa III. Legs reddish-yellow. Femur III black, narrowly reddish at base, tibia III black, with subbasal ivory ring. Tarsus III completely black. Pterostigma brownish.

Description of ♂: Body length 16.5 mm. Flagellum with 41 flagellomeres. Long-oval tyloids on flagellomeres 8-21, longest ones as long as their flagellomere. Femur III 3.7x as long as high, with scattered puncture in the ventral third. Second tergite 1.05x as long as wide. Tergites 2-3 with rugulo-puncture and median striation, tergites 4-5 with fine superficial puncture, tergite 4 with some median striae at base. Otherwise structured as the ♀.

Coloration: As in the ♀, with the following differences: flagellum without ivory ring, orbits completely ivory, lower mesopleurum and mesosternum ivory, area basalis black, base and ventral side of coxa III ivory; femur II reddish, infusate in the apical 0.4. Metasoma black. Base of petiolus and apical band of postpetiolus ivory, tergites 2-3 with apical ivory band (narrowed medially), tergite 4 with posterolateral ivory spots, tergite 5 black, tergite 6 with ivory apical band, tergite 7 completely ivory.

Remark: This taxon differs from the known species of *Cratojoppa* mainly by the carinated scutellum, black tarsus III, and completely black tergite 5.

Distribution: Vietnam.

***Dimaetha ferruginea* (CAMERON 1902)**

Material: Laos North: Phongsaly province, 21°42,2'N 102°06,8'E, Phongsaly environment, ca. 1500 m, 1♂ vi.2003, leg. Kuban (Linz).

Distribution: Known from India, new for Laos.

***Dimaetha tibialis* CAMERON 1901**

Material: Thailand: Corat, 1♂ 15.III.1994, leg. Lehmann (Coll. Riedel).

Distribution: Known from China, India, Indonesia, and Japan, new for Thailand

***Euhesiarches amoenus* HEINRICH 1970 (fig. 20, 36)**

Material: China: Yunnan, Tengchong 35 km NNW: Jongshan N 24.828° E98.767°, 2200 m, 1♀ 28.V.2009, leg. Blank, Liston, Taeger (SDEI).

Distribution: Known from Myanmar, new for China.

***Euhesiarches insulindicus* HEINRICH 1934**

Material: Indonesia: N Sumatra Aceh, Gunung Leuser Nat. Park, Soraya (Bengkong), 1♂ ix.1996, Mal. trap, leg. van Nierop & van Achterberg, RMNH'99 (Leiden).

Distribution: Known from Java, new for Sumatra.

***Facydes nigroguttatus* UCHIDA 1935**

Material: China: Yunnan, Gongshan 10 km NW N 27,797° E 98, 585°, 2150 m, 1♀ 6.VI.2009, leg. Blank, Liston, Taeger (SDEI); Thailand: Chiangmai Zoo, light trap 400 m, 98°57'N 18°49' E, 1♂ 25.XII.1989, leg. Chantamongkol & Malicky (Linz); Laos North, Phongsaly province, 21°42,2'N 102°06,8' E, Phongsaly environment, ca. 1500 m, 1♀ and 4♂♂ 6-17.V.2001, leg. Kuban (Linz).

Distribution: Known from Japan and China, new for Laos and Thailand.

***Hesiarches* WESMAEL 1859**

Species of this genus has been found in the Palaearctic and Oriental regions so far. HEINRICH (1970: 72-89) gave a first account of the species known to him, but the Oriental fauna seems to contain a much larger number of *Hesiarches* species. So, even the new taxa described below do certainly not reflect the complete biodiversity of this genus in Southeastern Asia. In addition, for several species only one sex is known yet, and the combination of sexes questionable in several cases. Therefore, the presented key below is very preliminary.

According to HEINRICH (1970: 72) the species of the genus *Hesiarches* WESMAEL have the following morphological characteristics: Mandibles sickle-shaped, with sharp upper tooth, the lower one rudimentary and situated on the inner side and not visible if mandibles are closed. Propodeum from the basal to the apical margin with a continuous sloping the apical carina of area dentipara and the frontal carina of the area supermedia lacking, area supermedia confluent with area basalis, presenting as a smooth and shining area that reaches almost the hind margin of the postscutellum. Gastrocoeli not very deeply impressed, almost triangular, thyridia usually not very impressed.

***Hesiarches atanyjoppoides* nov.sp. (figs 6, 27, 32, 47)**

Holotypus (♀): "Nepal Centr., Bagmati Zone, Rasuwat Distr., Langtang Nat. P., Dhunche-Bharkun-Syabru, 2000-2800 m, 6-13.V.1996, P. Cechorsky lgt." (Linz).

Description of ♀: Body length 10 mm. Flagellum slightly lanceolate, with 35 flagellomeres, first flagellomere (without anellus) 4x as long as wide, two basal flagellomeres together about 0.8x as long as the compound eye, flagellomeres beyond the middle slightly attenuated, the widest about as wide as long. Genal carina reaches mandibular base. Temple short and strongly narrowed behind the eye, the distance of lateral ocellus to the eye about 1.0x as long as its diameter. Frons smooth below and with scattered puncture above. Face, clypeus and gena with superficial puncture, shining. Epistoma and clypeus moderately convex.

Mesosoma with short whitish hairs. Notauli distinct at the frontal third of mesoscutum. Mesoscutum with superficial puncture, shining, puncture of mesopleurum and metapleurum stronger. Coxal carina not developed. Scutellum slightly convex, slightly wider than

long, with lateral carina in the basal 0.5, with scattered punctures. Propodeum rounded, rugulose-punctured. Areae basalis and superomedia confluent, smooth, elevated basally. Costula in the middle of area superomedia. Coxa III with fine puncture, without scopa. Femur III punctured, 4.3x as long as high.

Areolet pentagonal, frontal distance of intercubiti 3x their diameter, nervulus slightly postfurcal.

Metasoma oxygygous. Postpetiolus moderately widened, with distinct median field, with irregular striation, smoothened apically. Gastrocoelus triangularly impressed. Thyridium slightly oblique, about 0.8x as wide as the thyridial interval. Second tergite 0.77x as long as wide. Tergites 2-5 with dense but superficial puncture and with bluntly extended posterolateral corners (as in *Atanyjoppa*), tergites 2-4 striate medially. Ovipositor sheath slightly surpassing the metasomal apex.

Colour: black. Flagellum with ivory stripe on flagellomeres 8-12. Yellowish are wide sides of clypeus, wide facial and narrower frontal orbits, gena and outer orbit up to vertex, anterior and upper margins of pronotum, subtegular ridge, two median stripes on mesoscutum, long stripe on lower mesopleurum extending to epicnemial carina, carinal triangle, prescutellar carina, sides of scutellum, postscutellum, hind half of area dentipara, large transverse posterolateral marks on tergites 1-5, spots on coxae I-II, apical margins of trochanters I-II, dorsal spot on coxa III. Femora and tibiae I-II yellowish-brown on frontal side, tibia III with a narrow subbasal yellowish ring, metatarsus III reddish in the basal half. Pterostigma blackish.

♂ unknown.

R e m a r k : This taxon differs from other species of *Heresiarches* by complete lack of coxal carina, and extended posterolateral corners on tergites 2-5.

D i s t r i b u t i o n : Nepal.

***Heresiarches felix* HEINRICH 1934, new ♂ (fig. 21, 49)**

M a t e r i a l : Laos: Phongsaly province, 21°41'N 102°6'E, Phongsaly environment, ca. 1500 m, 2♂ 6-17.V.2004, leg. Kuban (Linz).

D e s c r i p t i o n of ♂: Body length 9.5 mm. Flagellum with 32-34 flagellomeres, first flagellomere 3.0x as long as wide. Linear tyloids on flagellomeres 10/11-17/18. Distance of lateral ocellus to eye 1.4x its diameter. Scutellum with complete lateral carina. Femur III 4.1x as long as high. Second tergite 0.9x as long as wide, Gastrocoelus wide, triangular, striate. Thyridium very small, transverse, about 0.25x as wide as the thyridial interval. Tergite 2 with median striaion.

Coloration: black. Cream-yellow are stripe on flagellomeres 11-16, mandible except teeth, clypeus, face, gena, complete orbit, scapus beneath, anterior and upper margins of pronotum, subtegular ridge, long stripe on lower mesopleurum (narrowed medially), sides of scutellum, postscutellum, small spot on apical metapleurum, apical half of area dentipara, posterolateral spot on postpetiolus, sometimes apical margin of tergite 6, tergite 7 completely, parameres, coxae and trochanters I-II, anterodorsal spot on coxa III, basal 2/3 of tibia III, and tarsus III. Legs otherwise reddish, femur III infusate in the apical half, and tibia III in apical third. Tergite 2 with a wide yellowish-or reddish-yellow apical band. Pterostigma dark brown.

D i s t r i b u t i o n : Only known from Java, new for Laos.

***Heresiarches flavomaculatus* nov.sp. (fig. 29)**

Holotypus (♂): "S Vietnam: Dak Lak, Chu Yang Sin N.P. Krong K`Mar, Malaise traps 13-23, 590-840 m, 22-26.X.2005, leg. C. v. Achterberg, R. de Vries RMNH '05" (Leiden).

Paratypus (♂): "S Vietnam: Dak Lak, Chu Yang Sin N.P. nr dam, 800-940 m, 2-10.VI.2007, Mal. traps, C. v. Achterberg & R. de Vries RMNH '07" (Leiden).

Description of ♂: Body length 10.0 mm. Flagellum with 33 flagellomeres, first flagellomere 3.7x as long as wide. Long-oval tyloids on flagellomeres 9-17, situated in the center of segments. Temple short, strongly narrowed behind eye. Distance of lateral ocellus to compound eye about 1.2x its diameter. Frons smooth, above with superficial puncture. Face and clypeus with scattered puncture, intervals smooth. Malar space about 0.5x as long as width of mandibular base. Genal carina meets the hypostomal one close to mandibular base. Hypostomal carina not elevated.

Mesosoma with pale brownish hairs. Mesoscutum with coarse puncture and fine granulation, but shining. Mesopleurum with dense puncture, speculum smooth. Metapleurum with dense puncture. Coxal carina distinct. Scutellum moderately convex, wider than long, with complete lateral carina and scattered puncture. Areae basalis and superomedia confluent and smooth. Area superomedia wider than long. Propodeum otherwise with coarse puncture. Femur III about 4.0x as long as high.

Areolet pentagonal, frontal distance of intercubiti 2x its diameter, nervulus slightly postfurcal.

Postpetiole moderately widened. Median field with distinct striation. Gastrocoelus large, triangular, with striae. Thyridium quite large, transverse, 0.5x as wide as the thyridial interval. Second tergite as long as wide. Tergites 2-4 with rugulo-puncture, tergite 2 with coarse median striation.

Coloration: Black. Cream-yellow are palps, clypeus except a narrow black apical margin, face, gena, complete orbit, scapus beneath, anterior and upper margins of pronotum, subtegular ridge, longitudinal stripe on lower mesopleurum reaching the epicnemium, sides of scutellum, postscutellum, carinal triangle, apical half of area dentipara, coxae I-II, all trochanters, anterodorsal spot on coxa III. Coxa III otherwise black (in holotype) or with posterodorsal reddish spot (in paratype). Legs otherwise reddish-yellow. Femur III infuscate in the apical 0.2, tibia III yellowish, infuscate in the apical 0.3, tarsus II brown, tarsus III blackish. Postpetiolus apically and tergites 2-4 red, in the paratype tergite 2 infuscate in the basal 0.3. Postpetiolus and tergites 2-4 with posterolateral yellowish spots. Tergites 5-7 blackish with yellow apical bands. Pterostigma brownish.

♀ unknown.

Remark: The taxon seems to be related to *H. pseudobirmanicus* HEINRICH, but differs by its yellowish spots on tergites 1-4 and completely black mesosternum and metapleurum,

Distribution: Vietnam.

***Heresiarches formosanus* nov.sp. (fig. 22, 30, 43)**

Holotypus (♀): "Taiwan, Kaohsiung Co., Jungyang Mts., Tengir Endemic Spec. Res. In. ca 23°07'N/ 120°47'E, 1700 m, 14.-19.XI.2002, leg. W. Schacht et al." (ZSM).

Paratypes (2 ♀♀ and 1 ♂): same data (ZSM and Coll Riedel).

Description of ♀: Body length 9-9.5 mm. Flagellum lanceolate, with 33 flagellomeres, first flagellomere (without anellus) 3.2x as long as wide, both basal flagellomeres together about 0.74x as long as compound eye, about 11th or 12th flagellomere square, widest flagellomeres 1.5x as wide as long. Temple short, strongly narrowed behind eye, with superficial puncture. Distance of lateral ocellus to compound eye about 1.2x its diameter. Frons smooth, above with superficial puncture. Face and clypeus with puncture, intervals smooth. Genal carina meets the hypostomal one close to mandibular base.

Mesosoma with short whitish hairs. Notaulus not impressed. Mesoscutum with coarse puncture and granulation, matte. Mesopleurum densely punctured, speculum smooth. Metapleurum with dense puncture. Coxal carina distinct. Scutellum moderately convex, wider than long, with strong lateral carina in the basal 0.7 and scattered puncture. Propodeum with coarse puncture, shining. Areae basalis and superomedia confluent and smooth. Coxa III with dense puncture, without scopa. Femur III with dense puncture, about 4.2x as long as high.

Areolet pentagonal, frontal distance of intercubiti 2x its diameter, nervulus slightly postfurcal.

Postpetiole slightly widened. Median field with very fine striation. Gastrocoelus small, impressed. Thyridium very small, about 0.2x as wide as the thyridial interval. Second tergite as long as wide. Tergites 2-3 with dense puncture, tergite 2 with fine median striation in the basal 2/3. Tergite 4 with superficial puncture. Ovipositor sheath long, seen from dorsal 1.5x as long as the seventh tergite.

Coloration: black. Cream-yellow are stripe on flagellomeres 8-12, palps, labrum, clypeus and face, gena and complete orbit, anterior and upper margins of pronotum, subtegular ridge, longitudinal stripe on lower mesopleurum, sides of scutellum, postscutellum, carinal triangle, small spot on posterior propodeum at dentiparal edge, coxae I-II, trochanters I-III, anterodorsal spot on coxa III. Coxa III red ventrally, with black apical mark dorsally. Legs otherwise yellowish-red. Femur III red, infusate in the apical 0.2. Tibia III dark reddish, infusate in the apical 0.3, tarsus III blackish. Postpetiolus with yellow posterodorsal spot, tergite 2 with a wide yellowish apical band, tergite 3 with a more diffuse reddish-yellow hind margin. Tergite 6 with a yellowish apical band, tergite 7 mainly yellow. Pterostigma brownish.

Description of ♂: Body length 8 mm. Flagellum with 30 flagellomeres, first flagellomere 2.5x as long as wide. Linear tyloids on flagellomeres 9-14. Femur III 4.2x as long as high. Metapleurum with superficial and scattered puncture. Structure otherwise as in ♀.

Coloration: as described for the ♀ except an cream-yellow spot on scapus beneath, and a narrow black interruption of orbit between frontal and vertical orbits. Tergite 2 with a reddish-yellow apical band, tergites 3-4 with diffus reddish-brown apical bands.

Distribution: Taiwan.

***Heresiarches himalayanus* (GUPTA 1955), new ♂**

syn. *Heresiarches birmanicus* HEINRICH 1970

Material: NW Vietnam: Tonkin, Hoang Lien N.R. 10 km SW Sa Pa, c. 1550 m, 1♂ 22-29.X.1999, Malaise traps, van Achterberg, RMNH '99 (Leiden).

Description of ♂: Body length 12 mm. Flagellum with 37 flagellomeres, first flagellomere 3.3x as long as wide. Long-oval tyloids on flagellomeres 10-18. Femur III 4.5x as long as high. Coxal carina largely obsolete. Second tergite 1.4x as long as wide. Structure otherwise as in ♀.

Coloration: as described for the ♀ except yellow spot on scapus beneath, yellow propleurum. Flagellum black. Coxa III black, with anterodorsal yellow spot, Femora I-II yellowish-red, brownish caudally. Femur III reddish-brown, diffusely infuscate apically and ventrally. Tarsus III reddish. Tergite 1 black, postpetiolus with small yellow posterodorsal spots, all following tergites reddish.

Distribution: Known from Myanmar, new for Vietnam.

***Heresiarches indicus* nov.sp. (fig. 2, 23)**

Holotypus (♀): "India, Kerala, Pooparai, 2.5.2005, 10°02,2'N 77°07,3'E, leg. M. Halada, 1700 m" (Linz).

Description of ♀: Body length 10.5 mm. Flagellum slender and slightly lanceolate, with 38 flagellomeres, first flagellomere 4.3x, and the second one 3.5x as long as wide, together about 0.93x as long as compound eye, widest flagellomeres 1.2x as wide as long. Temple short, strongly narrowed behind eye, seen from lateral 0.62x as wide as eye, with superficial puncture. Distance of lateral ocellus to compound eye about 0.8x its diameter. Frons smooth, above with superficial puncture. Face and clypeus with scattered puncture, intervals smooth.

Mesosoma with short whitish hairs. Mesoscutum with coarse puncture and granulation, matte. Mesopleurum punctured, speculum smooth. Metapleurum with denser puncture. Coxal carina distinct. Scutellum moderately convex, wider than long, with strong lateral carina and scattered puncture. Areae basalis and superomedia confluent and smooth, costula behind the middle of area superomedia. Area petiolaris with lateral carina, rugose. Coxa III with dense rugulo-puncture, matte, without scopa. Femur III with dense puncture, about 4.8x as long as high.

Areolet pentagonal, frontal distance of intercubiti 3x its diameter, nervulus strongly postfurcal.

Postpetiole moderately widened. Lateral field of postpetiole punctured, median field with striation. Gastrocoelus deeply impressed, with some longitudinal striae. Thyridium oblique, about 0.6x as wide as the thyridial interval. Second tergite as long as wide. Tergites 2-3 with coarse rugulo-puncture, matte, with fine median striation. Tergite 4 with superficial puncture. Ovipositor sheath long, seen from dorsal almost as long as the sixth and seventh tergites together.

Coloration: Black. Cream-yellow are stripe on flagellomeres 7-13, palps, labrum, sides of clypeus, facial orbits, widened and almost confluent below antenna, gena except narrow black line on malar space, orbits completely, spot on scapus beneath, anterior and upper margins of pronotum, spot on tergula, subtegular ridge, longitudinal line on lower mesopleurum, sides of scutellum, postscutellum, carinal triangle, apical half of area dentipara, apical bands on all tergites (on tergites 1-4 narrowed medially), coxae and trochanters I-II, basal spot on coxa III dorsally. Coxa III red ventrally, with black dorsal

mark apically. Legs otherwise red. Tibia III slightly infusate apically, tarsus III reddish-brown. Pterostigma brownish.

♂ unknown.

D i s t r i b u t i o n : India.

***Heresiarches megaleudoxius* HEINRICH 1970**

M a t e r i a l : NW Vietnam: Tonkin, Hoang Lien N.R. 10 km SW Sa Pa, c. 1550 m, 2♂♂ 15-21.X.1999, Malaise traps, leg. van Achterberg (Leiden).

D i s t r i b u t i o n : Known from Myanmar, new for Laos and Vietnam.

***Heresiarches minor* nov.sp. (fig. 3, 31)**

Holotypus (♂): "Taiwan, Kaohsiung Co., Jungyang Mts., Tengir Endemic Spec. Res. In. ca 23°07'N/ 120°47'E, 1700 m, 14.-19.XI.2002, leg. W. Schacht et al." (ZSM).

D e s c r i p t i o n of ♂: Very small, body length 6.0 mm. Flagellum with 27 flagellomeres, first flagellomere 3.0x as long as wide. Long-oval tyloids on flagellomeres 8-15. Temple short, strongly narrowed behind eye. Distance of lateral ocellus to compound eye about 1.2x its diameter. Frons smooth, above with superficial puncture. Face and clypeus very wide, with scattered puncture, intervals smooth. Malar space about 0.5x as long as width of mandibular base. Genal carina meets the hypostomal one close to mandibular base. Hypostomal carina not elevated.

Mesosoma with short whitish hairs. Mesoscutum with coarse puncture and fine granulation, but more or less shining. Mesopleurum punctured, speculum smooth. Metapleurum with dense puncture. Coxal carina distinct. Scutellum moderately convex, wider than long, with strong lateral carina in the basal 0.6 and scattered puncture. Area basalis and superomedia confluent and smooth. Area petiolaris with lateral carina, punctured. Femur III about 3.9x as long as high.

Areolet almost quadrangular, frontal distance of intercubiti 1x its diameter, nervulus slightly postfurcal.

Postpetiole moderately widened. Median field with fine striation basally, but smooth apically. Gastrocoelus large, triangular. Thyridium transverse, 0.3x as wide as the thyridial interval. Second tergite as long as wide. Tergites 2-3 with coarse puncture, with coarse median striation in the basal 2/3. Tergite 3 with superficial puncture, tergite 4 almost smooth.

Coloration: Black. Cream-yellow are mandible, palps, clypeus except a small triangular median spot at apex, face, gena, orbits except two narrow interruptions (on malar space and vertex), scapus beneath, anterior and upper margins of pronotum, subtegular ridge, longitudinal stripe on lower mesopleurum, sides of scutellum, postscutellum, carinal triangle, apical half of area dentipara, dorsolateral spots on postpetiolus and tergite 2, apical band on tergite 6 and tergite 7 almost completely, coxae I-II, all trochanters, anterodorsal spot on coxa III. Coxa III otherwise black. Legs otherwise red. Femur III infusate in the apical half, tibia III infusate apically, tarsus III blackish. Pterostigma brownish.

♀ unknown.

Remark: The available ♂ was collected together with *Heresiarches formosanus* nov. sp. and seems to be closely related to that taxon. However, it differs by its smaller size, wider face and clypeus, mainly black coxa III, and different coloration of the metasoma.

Distribution: Taiwan.

Heresiarches rotundus HEINRICH 1970

Material: Laos: Phongsaly province, 21°41'N 102°6'E, Phongsaly environment, ca. 1500 m, 1♂ 6-17.V.2004, leg. Kuban (Linz); Laos North: Phongsaly province, 21°42,2'N 102°06,8'E, Phongsaly environment, ca. 1500 m, 1♂ v-vi.2003, leg. Kuban (Linz).

Remark: Femur III and tarsus III completely red, tibia III only slightly darkened at apex. Otherwise as described by HEINRICH (1970).

Distribution: Known from Myanmar, new for Laos.

Heresiarches rufocoxatus nov. sp. (figs 4, 11)

Holotypus (♀): "S Vietnam: Dak Lak, Chu Yang Sin N. P. nr river, c 750 m, 1-10.VI.2007, Mal. traps 3-5, C. v. Achterberg & R. de Vries RMNH '07" (Leiden).

Paratypus (♂): "S Vietnam: Dak Lak, Chu Yang Sin N.P. Krong K'Mar, Malaise traps 740-900 m, 2-10.VI.2007, leg. C. v. Achterberg and R. de Vries, RMNH '07" (Leiden).

Description of ♂: Body length 9 mm. Flagellum lanceolate, with 44 flagellomeres, first flagellomere 3.4x, the second one 2.9x as long as wide, together about 0.7x as long as compound eye, widest flagellomeres 1.6x as wide as long. Temple short, strongly narrowed behind eye, seen from lateral 0.6x as wide as eye, with superficial puncture. Distance of lateral ocellus to compound eye about 1.0x its diameter. Frons smooth below, above with fine transverse median striation, sides punctured. Face with scattered puncture, intervals smooth, clypeus almost completely smooth. Malar space 0.5x as long as width of mandibular base. Hypostomal carina not elevated.

Mesosoma with short whitish hairs. Sides of pronotum with superficial puncture dorsally and some strong striae ventrally. Notaulus impressed at the anterior margin of mesoscutum. Mesoscutum with coarse puncture and granulation, matte. Mesopleurum punctured, anteriorly and below the speculum with some longitudinal striae. Metapleurum with scattered puncture, especially on ventral margin. Coxal carina distinct. Scutellum slightly convex, wider than long, with strong lateral carina and scattered puncture. Area basalis smooth with median tubercle, Area superomedia with complete carination, dome-shaped, almost 2x as long as wide, smooth, costula in its middle. Area petiolaris with lateral carina, rugose. Coxa III punctured, without scopa. Femur III with superficial puncture, about 4.0x as long as high.

Postpetiole moderately widened. Lateral field of postpetiole punctured, median field smooth, dorsal carina not developed. Gastrocoelus deeply impressed, with some longitudinal striae. Thyridium slightly oblique, about as wide as the thyridial interval. Second tergite 0.95x as long as wide. Tergites 2-4 with coarse rugulo-puncture, matte, tergite 2 with irregular median striation. Ovipositor sheath seen from dorsal about as long as the seventh tergite.

Coloration: Black. Basal flagellomeres reddish-brown ventrally, infusate dorsally. Cream-yellow are stripe on flagellomeres 8-16, mandible except teeth, palps, labrum, clypeus, face, gena, orbit completely, scapus beneath, anterior and upper margins of

pronotum, subtegular ridge, lower half of mesopleurum and complete mesosternum, two longitudinal stripes on mesoscutum, prescutellar ridge, sides of scutellum, postscutellum, carinal triangle, metapleurum centrally, area dentipara, apical bands on tergites 1-4 (on tergites 3-4 with narrow interruption medially), very small lateral spot on tergite 5 (on the left side only), small apical mark on tergite 6 and tergite 7 mainly, coxae and trochanters I-II, and dorsal spot on coxa III. Legs including coxa III reddish. Femur III red, infuscate in the apical 0.2, tibia III yellowish medially and infuscate basally and apically. Tarsus III cream-yellow. Pterostigma yellowish, margins darkened.

Description of ♂: Body length 11 mm. Flagellum with 36 flagellomeres, first flagellomere about 2.3x as long as wide. Tyloids on flagellomeres 10-16, long oval. Scutellum with lateral carina in the basal 0.5. Area superomedia with weak but complete carination, heart-shaped, about as long as wide. Median field of postpetiolus with fine superficial striation. Structure otherwise as in ♀.

Coloration: Flagellum infuscate, without ivory stripe. Coxa III red, dorsally with basal ivory mark and infuscate apical margin. Postpetiolus with ivory apical band, tergites 2-5 with large transverse ivory spots posterolaterally. Tergite 7 with central ivory spot. Pterostigma dark brown. Colour pattern otherwise as in ♀.

Distribution: Taiwan.

***Heresiarches rufomaculatus* nov.sp. (figs 24, 44)**

Holotypus (♂): "Laos N. 1200 m, Louang Phrabang pr., BAN SONG CHA env., leg. Kuban, V.1999" (Linz).

Description of ♂: Body length 9.5 mm. Flagellum with 33 flagellomeres, first flagellomere 2.5x as long as wide. Linear tyloids on flagellomeres 10-16. Distance of lateral ocellus to eye 1.3x its diameter, malar space 0.7x as long as width of mandibular base. Frons with scattered puncture above, face and clypeus with dense puncture.

Mesosoma with whitish hairs. Mesoscutum and mesopleurum with dense puncture, speculum smooth. Metapleurum with superficial puncture, especially in the apical half. Scutellum moderately elevated, wider than long, lateral carina in the basal 0.5. Costula in the middle of area superomedia, area petiolaris with coarse puncture. Femur III 4.0x as long as wide. Gastrocoelus small, triangular, Thyridium very small, 0.2x as wide as the thyridial interval, second tergite 0.9x as long as wide. Tergites 2-3 with superficial puncture, tergite 2 with median striation in the basal 2/3.

Coloration: Blackish and reddish. Flagellum black. Black are ocellar field and occiput, mesoscutum, upper third of mesopleurum, pronotum laterally, area petiolaris, basal half of tergite 2 and basal third of tergite 3. Reddish are base of propodeum, metasoma mainly, and legs. Cream yellow are mandibles, clypeus, face, gena, complete orbit, anterior and upper margins of pronotum, two median and two lateral stripes of mesoscutum, metapleural triangle, apical spot on metapleurum, prescutellar carina, sides of scutellum, postscutellum, area dentipara, posterolateral spots on tergites 1-2, coxae I-II, anterodorsal spot on coxa III, all trochanters. Femur III reddish, diffusely darkened ventrally, tibia III in the apical 0.4 and tarsus III infuscate. Pterostigma dark-brown.

♀ unknown.

Remark: The described ♂ probably belongs to *Heresiarches rufus* CAMERON which is only known to me from its short description given by HEINRICH (1970).

Distribution: Laos.

***Heresiarches secundus* HEINRICH 1970 (fig. 45)**

Material: Laos North: Louangphrabang, Thong Khan 750 m, 19°35'N 101°58'E, 2♂♂ 11-21.V.2002, leg. Kuban (Linz); Laos: Phongsaly province, 21°41'N 102°6'E, Phongsaly environment, ca. 1500 m, 1♂ 7-17.V.2004, leg. Kuban (Linz); Sumatra North, Brastagi, 76 km south of Medan, 1♀ 30.III.-1.IV.1996, leg. Becvar (Linz); C Vietnam: Thua Thien Hué, Phong Dien N.R. nr base-camp, 1♂ 24.III.-6.IV.2001, Malaise trap, leg. van Achterberg & de Vries (Leiden); S Vietnam: Dak Lak, Chu Yang Sin N.P., Krong K'Mar, Malaise trap 840-940 m, 2♂♂ 2-10.VI.2007, Malaise traps 740-900 m, 1♂ 2-10.VI.2007, near river, c. 750 m, 1♂ 1-10.VI.2007, Mal. traps 3-5, leg. van Achterberg & de Vries (Leiden).

Description of the ♂: Body length 8-10 mm. Flagellum with 32-33 flagellomeres, first flagellomere about 3.3x as long as wide. Long-oval tyloids on flagellomeres 9-17. Scutellum with lateral carina in the basal 0.5. Femur III 4.2x as long as high. Median field of postpetiolus striate as well as tergites 2-3 medially. Gastrocoelus very large, thyridium about 0.3x as wide as the thyridial interval. Second tergite 0.95x as long as wide. Structure otherwise as in ♀.

Coloration: Mainly as in the ♀, differences are: flagellum without ivory stripe. Postpetiolus with apical ivory band. Tergites 2-4 with posterolateral ivory marks and narrow yellowish apical margins, tergite 5 with narrow ivory apical band, tergite 6-7 with wider bands apically. Parameres yellowish-brown. Pterostigma brownish.

Distribution: Known from India and Myanmar, new for Laos, Sumatra and Vietnam.

***Heresiarches secundus* var.**

Material: Laos central: Bolikhamsai province, Ban Nape environment 350 m, 18°20'N 105°08'E, 1♂ 7-16.V.2004, leg. Jendek & Sausa (Linz)

Remark: This ♂ might represent a closely related, but different species: Body length 8 mm. Flagellum with 28 flagellomeres, tyloids on flagellomeres 8-14. Metapleurum with scattered puncture. Femur 3.6x as long as high. Tergite 3 without distinct medial aciculation. Otherwise structured as *H. secundus*. Malar space and clypeus blackish medially. Tergites 3-4 with narrow apical ivory bands only, colour otherwise as in *H. secundus*.

***Heresiarches tarsator* nov. sp. (figs 25, 46)**

Holotypus (♀): "Laos-CE, 1-18.V.2001, Boli Khan Xai prov. 18°21'N 105°08'E, BAN NAPE (8 km NE) ca. 600 m, Vit Kuban leg." (Linz).

Paratypus (♀): "S Vietnam: Dak Lak, Chu Yang Sin N.P. Krong K'Mar, Malaise traps 740-900 m, 2-10.VI.2007, leg. C. v. Achterberg and R. de Vries, RMNH '07" (Leiden).

Description of ♀: Body length 14-15 mm. Flagellum slender, very slightly lanceolate, with 39-42 flagellomeres, first flagellomere 5.0x as long as wide, two basal flagellomeres together about 0.9x as long as compound eye, widest flagellomeres about as wide as long. Temple short, strongly narrowed behind eye, with superficial puncture. Distance of lateral ocellus to eye about 0.9x its diameter. Frons smooth, above with superficial puncture. Face and clypeus with puncture, intervals smooth.

Mesosoma with pale brownish hairs. Notaulus impressed anteriorly. Sides of pronotum with smoothed sculpture. Mesoscutum with very dense puncture and granulation, matte. Mesopleurum and metaspleurum densely punctured, speculum smooth. Coxal

carina distinct. Scutellum moderately convex, wider than long, with strong complete lateral carina and scattered puncture. Propodeum with coarse puncture, shining. Areae basalis and superomedia confluent, but area superomedia with carinae, heart-shaped and with some coarse punctures, costula in the middle. Coxa III with dense rugulo-puncture, without scopa. Femur III with superficial puncture, about 4.7-4.9x as long as high.

Areolet pentagonal, frontal distance of intercubiti 2x its diameter, nervulus strongly postfurcal.

Postpetiole slightly widened. Median field with weak fine striation, dorsal carina not developed. Gastrocoelus large, triangular, with longitudinal striae. Thyridium very small, about 0.2x as wide as the thyridial interval. Second tergite 1.1x as long as wide. Tergites 2-3 with dense rugulos-puncture, matte, tergite 2 with fine median striation. Tergites 4-5 with superficial puncture. Ovipositor sheath long, seen from dorsal as long as the sixth and seventh tergites together.

Coloration: black. Ivory stripe on flagellomeres 7/8-13/14. Cream-yellow are palps, mandible except teeth, labrum, clypeus and face, gena and complete orbit, anterior and upper margins of pronotum, subtegular ridge, longitudinal stripe on lower mesopleurum, sides of scutellum, postscutellum, small spots on posterior propodeum at dentiparal edge, coxae I-II, trochanters I-III, anterodorsal spot on coxa III, tibia III except infusate apical third, and tarsus III. Coxa III black. Legs otherwise yellowish-red. Femur III black, reddish in the basal 0.1. Postpetiolus with yellow posterodorsal spot, tergites 2-3 with a wide yellowish-red apical band, following tergites with narrow yellowish apical margins. Pterostigma brownish.

♂ unknown.

D i s t r i b u t i o n : Laos and Vietnam.

***Heresiarches tyloides* nov.sp. (figs 5, 12)**

Holotypus (♂): "S Vietnam: Dak Lak, Chu Yang Sin N.P. Krong K'Mar, Malaise traps 740-900 m, 2-10.VI.2007, leg. C. v. Achterberg and R. de Vries, RMNH '07" (Leiden).

D e s c r i p t i o n o f ♂: Body length 9.0 mm. Flagellum with 32 flagellomeres, first flagellomere 3.3x as long as wide. Wide-oval tyloids on flagellomeres 9-18. Temple short, strongly narrowed behind eye. Distance of lateral ocellus to compound eye about 1.1x its diameter. Frons smooth, above with superficial puncture. Face and clypeus with puncture, intervals smooth. Malar space about 0.5x as long as width of mandibular base. Genal carina meets the hypostomal one close to mandibular base. Hypostomal carina not elevated.

Mesosoma with short whitish hairs. Notaulus weakly impressed. Mesoscutum with dense puncture and fine granulation, but more or less shining. Mesopleurum with coarser puncture speculum smooth. Metapleurum with scattered puncture. Coxal carina distinct. Scutellum moderately convex, wider than long, with complete lateral carina and scattered puncture. Areae basalis and superomedia confluent and smooth. Area petiolaris with lateral carina, punctured. Femur III about 4.0x as long as high.

Areolet pentagonal, frontal distance of intercubiti 2x its diameter, nervulus postfurcal.

Postpetiole moderately widened. Median field with fine striation. Gastrocoelus large, triangular. Thyridium oblique, 0.3x as wide as the thyridial interval. Second tergite 0.9x

as long as wide. Tergites 2-3 with fine rugulo-puncture, matte, tergite 2 with median striation in the basal half.

Coloration: Black. Cream-yellow are stripe on flagellomeres 6-17, mandible, palps, clypeus except a small dark triangular median spot at apex, face, gena, orbits except a narrow interruption on malar space, scapus beneath, anterior and upper margins of pronotum, subtegular ridge, longitudinal stripe on lower mesopleurum, sides of scutellum, postscutellum, apical half of area dentipara, dorsolateral spots on postpetiolus and tergites 2-3, narrow apical bands on tergites 2-6 and tergite 7 almost completely, parameres, coxae I-II, all trochanters, anterodorsal spot on coxa III. Coxa III otherwise black. Legs yellowish-red. Femur III reddish-brown, diffusely infusate in the apical half, tibia III infusate in the apical 0.4, tarsi II-III blackish. Pterostigma dark brownish.

♀ unknown.

Remark: This taxon is characterized by the wide-oval tyloids, large ivory stripe on flagellum and the coloration of the metasoma.

Distribution: Vietnam.

***Ileanta fulvipes* CAMERON 1903, new ♂ (fig. 41)**

Material: India South: Tamil Nadu, 11 km SE Kotagiri, Kunchapani 1100 m, 11°24'N 76°56'E, 1♂ V.2003, leg. Pacholatko (Linz).

Description of ♂: Body length 16 mm. Tips of flagellum broken off, first flagellomere 2.5x as long as wide, linear tyloids on flagellomeres 9-20. Clypeus, face, and orbit completely yellowish. Tergites 1-4 with apical bands which are narrowed and becoming subbasal on tergites 2-4, tergite 5 with small posterolateral yellow spots, tergite 7 mainly yellow. Otherwise as the ♀ (see HEINRICH 1969).

Distribution: Known from India and Myanmar.

***Ileanta latitarsis* CAMERON 1899**

Material: Laos Central: Kammouan province, Ban Khoun Ngeun 250 m, 18°07'N 104°29'E, 1♀ xi.2000, leg. Jendek (Linz).

Distribution: Known from India, new for Laos.

***Isandria spiniventris* HEINRICH 1970**

Material: N Vietnam: Ninh Binh, Cuc Phuong N.P. near entrance, c. 225 m, 1♂ 15.IV.-1.V.2000, Mal. trap II, leg. Quy (Leiden); S Vietnam: Dak Lak, Chu Yang Sin N.P. near dam, c. 500 m, 1♂ 3-9.VI.2007, Mal. traps, leg. Van Achterberg & de Vries (Leiden).

Distribution: Known from India, Myanmar, Malaysia, Nepal, and the Philippines, new for Vietnam.

***Lachmetha spinitarsis* CAMERON 1903**

Material: Indonesia: Java, Tjiboday, 1♂ 25.VI.1961, leg. Hamann (Linz); Taiwan NW: E Taichung, Hueisuen Experimental Forest, ca. 24°07'N 121°03'E, 600 m, 1♂ 23-27.VI.2000, leg. Schacht (ZSM); Taiwan: Kaohsiung Co., Jungyang Mts Tengir Endemic Spec. Res. Institute, 1700 m, ca. 23°07'N 120°47'E, 1♂ 14-19.XI.2002, leg. Schacht et al. (ZSM).

Distribution: Widespread in the Oriental region, known from Java and Taiwan (Heinrich, 1969).

***Naenaria erythropus* HEINRICH 1968, new ♂**

Material: Laos N: Luang Phrabang pr, Ban Song Cha env., 1200 m, 5♂♂ V.1999, leg. Kuban (Linz, Coll. RIEDEL).

Description of ♂: Body length 20-21 mm. Flagellum with 43 flagellomeres, first flagellomere 2.3x as long as wide, long-oval tyloids on flagellomeres 10-21. Lower mandibular tooth small and turned inwards, seen from frontal mandible almost sickle-shaped. Scutellum with lateral carina in the basal 0.6. Areae basalis and superomedia confluent, more or less smoothed. Femur III 4.5x as long as high. Second tergite 1.2x as long as wide, tergites 2-3 with median striation. Areolet almost quadrangular, frontal distance of intercubiti 0-1x their diameter. Nervulus slightly postfurcal.

Colour: as in the ♀, but face completely and scapus beneath ivory. Ivory stripe on flagellomeres 9-18. Postpetiolus with ivory apical band, tergites 2-6 with ivory posterolateral marks. wings slightly infuscate, pterostigma brownish.

Distribution: Known from Myanmar, new for Laos.

***Naenaria grandiceps* CAMERON 1903**

Material: Vietnam: Hanoi, 1♀ x-xi.1984, leg. Soldan (Linz).

Distribution: Widespread in the Oriental region, new for Vietnam.

***Naenaria javanica* HEINRICH 1934**

Material: Laos: Phongsaly province, 21°41'N 102°6'E, Phongsaly environment, ca. 1500 m, 2♂♂ 6-17.V.2004, leg. Kuban (Linz).

Distribution: Known from Indonesia and Myanmar, new for Laos.

***Neocratojoppa flavescipes* HEINRICH 1969, new ♂ (figs 7, 26)**

Material: S Vietnam: Dong Nai, Cat Tien N.P., Dong trail, Mal. traps, c. 100 m, 1♂ 13-19.V.2007, van Achterberg & De Vries (Leiden); S Vietnam: Dong Nai, Cat Tien N.P., Dong trail, Mal. traps, c. 100 m, 1♂ 9-30.IV.2007, leg. Quy & Mank (Leiden); S Vietnam: Dak Lak, Chu Yang Sin N. P. near river, c. 740 m, 1♂ 1-10.VI.2007, Mal. traps, leg. van Achterberg & de Vries (Leiden).

Description of ♂: Body length 12 mm. Flagellum setiform, with 35-36 flagellomeres. Tyloids on flagellomeres 10-15/16, small, long oval, situated on the apical third and at most 0.4x as long as their segment. First flagellomere 3.5x as long as wide. Femur III 3.5x as long as high. Areolet pentagonal, frontal distance of intercubiti 1-2x its diameter. Structure otherwise as in ♀.

Coloration: black. Ivory are stripe on flagellomeres 11-15, palps, mandible except teeth, clypeus, face except central black spot, frontal orbits (widened above), gena and outer orbit up to vertex, scapus below, collare and upper margin of pronotum, spot on tegula, subtegular ridge, longitudinal band on lower mesopleurum, two median stripes on mesoscutum, prescutellar carina, sides of scutellum, postscutellum, spot on propodeum in

front of spiracles, apical half of area dentipara, apical bands of all tergites (on tergites 2-5 narrowed or interrupted medially, but widened medially on tergites 6-7), sternites 2-5 except lateral brown spots, coxae and trochanters I-II, frontal stripes on legs I-II, ventral and dorsal marks on coxa III. Legs reddish, legs I-II with dorsal brownish stripes, femur III infuscate in the apical third, tibia III reddish or yellowish, infuscate at base and apex, tarsus III cream-yellow, apical tarsomere III more or less brown. Pterotigma blackish.

D i s t r i b u t i o n : Known from Malaysia and Myanmar, new for Vietnam.

***Poecilojoppoides sanfordi* ssp. *birmanicus* HEINRICH 1969**

M a t e r i a l : Nepal, Pharping near Kathmandu, 1♀ 5.IV.1980, leg. Homann (Überseemuseum Bremen).

D i s t r i b u t i o n : The subspecies is known from India and Myanmar, new for Nepal.

***Trogichneumon maculatus* nov.sp. (fig. 42)**

H o l o t y p u s (♂): "China: Yunnan, Tengchong 50 km NNW: Honqiao N25.388° E98.211°, 1700 m, 01.VI.2009, leg. Blank, Liston, Taeger" (SDEI).

D e s c r i p t i o n of ♀: Body length 16 mm. Flagellum setiform, with 42 flagellomeres, flagellomeres slightly thickened centrally, tyloids lacking. Temples slightly and roundly narrowed behind eye. Distance of lateral ocellus to compound eye about 1.1x its diameter. Frons with some fine transverse striae. Face, clypeus and gena with dense puncture, clypeus with slightly concave apical margin. Malar space 0.4x as long as the basal mandibular width. Genal carina meeting the hypostomal one far from mandibular base. Hypostomal carina not elevated.

Mesosoma with pale brownish hairs. Notaulus impressed in the anterior third of mesoscutum. Lateral fields of mesoscutum with superficial puncture, smooth. Mesopleurum and metapleurum with strong dense puncture. Mesopleurum with some radial striae in front of speculum. Scutellum strongly pyramidal, without lateral carina. Propodeum as in Trogini, with strong carinae and coarse rugulo-punctured structure. Area basalis not differentiated. Area superomedia strongly elevated, transversely sickle-shaped and smooth. Area posteroexterna and petiolaris with transverse rugae. Femur III slender, about 5.2x as long as high, with dense puncture.

Areolet pentagonal, frontal distance of intercubiti 2x its diameter, 2m_{cu} reaching areolet in its middle. Nervulus postfurcal.

Postpetiole moderately widened. Lateral field of postpetiole striate, about 1x as wide as the median field, median field strongly striate. Gastrocoelus large, with longitudinal striae. Thyridium oblique, about as wide as the thyridial interval. The interval as wide as the median field of postpetiolus. Second tergite 0.75x as long as wide. Tergites 2-5 with coarse rugulo-puncture, matte, tergites 2-4 with median longitudinal striation.

Coloration: Black. Ivory are flagellar ring (stripe ventrally from flagellomere 5-12, and dorsally from flagellomere 8-17), mandible, palps, labrum, clypeus, face, gena (except black malar stripe), outer orbits, frontal orbit up to lateral ocellus, scapus below, anterior and upper margins of pronotum, tegula, subtegular ridge, lower 2/3 of mesopleurum mainly, two longitudinal stripes on mesoscutum, carinal triangle, metapleurum centrally,

coxae and trochanters I-II, ventral and dorsal spots on coxa III and trochanter III. Legs I-II ivory on frontal side and brownish caudally. Hind leg reddish-yellow, tarsus III more cream-yellow. Postpetiolus with small posterolateral yellowish spots, metasoma otherwise black. Wings brownish-hyaline, pterostigma black.

♀ unknown.

Remark: The specimen has the characteristic structures of scutellum, propodeum, and metasoma as described for the genus *Trogichneumon* (HEINRICH 1968b: 82-84). However, the ♂ of the typical *Trogichneumon annaelisae* HEINRICH differs by its black flagellum and the coloration of mesoscutum and legs.

Distribution: China.

Key of the known species of *Heresiarches* WESMAEL

(adopted from HEINRICH 1970: 73-75, modified, without *Stenodontus spilocephalus* CAMERON from India)

- 1 Mesosoma partly or more or less reddish.....2
- Mesosoma black.....4
- 2 Mesosoma including the mesoscutum reddish. Metasoma red, tergites 1-3 with yellowish posterolateral marks. Area superomedia longer than wide, body length 13 mm. Male unknown. Java *H. lieftincki* HEINRICH 1934 ♀
- Mesosoma partly reddish, mesoscutum blackish, with yellowish stripes.....3
- 3 Mesoscutum blackish, with two yellow longitudinal stripes. Mesosoma ventrally and propodeum red, upper part of pleuras and area posteromedia black. Flagellum tricoloured. Body length 12 mm. India *H. rufus* (CAMERON 1902) ♀
- Mesoscutum blackish, with two median and two lateral yellowish stripes. Mesosoma, metasoma and coxa tricoloured: Black, reddish and yellow. Flagellum black. Probably the ♂ of *H. rufus* (CAMERON). Laos..... *H. rufomaculatus* nov.sp. ♂
- 4 Metasoma partly or completely red.....5
- Metasoma black, with more or less extended pale bands or marks13
- 5 Mesoscutum with two median longitudinal stripes and prescutellar carina yellow or ivory. First flagellomere slender in ♀, about 6x as long as wide6
- Mesoscutum without yellow longitudinal stripes7
- 6 Femur III yellowish-red, with black apex. Mesoscutum with ivory median stripes. Metasoma except first tergitered, slender, second tergite longer than wide, its lateral parts like the third tergite with fine and superficial puncture. In ♀ flagellum with 37 flagellomeres, widest flagellomere about 2x as wide as long. Tibia III infusate apically. Body length 11 mm. India, Myanmar..... *H. himalayanus* GUPTA 1955
- Femur III black. Mesoscutum with two yellowish median stripes and usually two lateral spots beneath tegula. Metasoma dark reddish-brown, tergites 1-5 darkened basally. Tergite 2 somewhat wider than long, like the third one with strong puncture. Flagellum with 37 flagellomeres, widest flagellomeres not wider than long. Body length 10 mm. Male unknown. Myanmar *H. annaelisae* HEINRICH 1970 ♀
- 7 Propodeum completely black, sides of scutellum with narrow ivory stripes. Legs including coxa III and femur III yellowish-red, tibia III with infusate apex. Metasoma mainly red, tergites 1-2 with yellow posterolateral marks, apical marks of tergites 6-7 yellow, central tergites darkened basally. Flagellum with 34 flagellomers. Body length 10 mm. Myanmar *H. malaisei* HEINRICH 1970 ♂
- Propodeum with large dorsolateral ivory spots. Scutellum with wide lateral ivory stripes or almost completely ivory8

- 8 Coxa III mainly red. Body length 15 mm. Scutellum completely yellow or with a black central longitudinal stripe. In ♀ flagellum with 39 flagellomeres, widest flagellomeres wider than long. Metasoma almost completely red, Yellowish are indistinct posterolateral spots on tergites 1-2 and apical spots on tergites 6-7. Tarsus III reddish. In ♂ metasoma black apically, flagellum black, tarsus III dark brown. Sulawesi
.....*H. bonthainensis* HEINRICH 1934
- Coxa III mainly blackish. Smaller species9
- 9 Metasoma with the three or four apical tergites completely or partly black10
- Tergites 2-7 mainly red or reddish-brown12
- 10 Tibia III completely pale yellow. In ♂ tergites 1-3 yellowish-red with yellowish apical margins. Tergite 4 black, with frontal and apical margins partly reddish. In the (questionable) ♀ only postpetiolus and apical half of tergite 2 reddish. Body length 11 mm. Java
.....*H. daedalus* (TOSQUINET 1903)
- Tibia III infusate apically11
- 11 In ♂ flagellum with 39 flagellomeres, without an ivory ring. Tergites 2-4 red, without apical yellowish spots, tarsus III infusate. ♀ with 40 flagellomeres, the first one almost 6x as long as wide, widest flagellomeres not wider than long. Tarsus III yellowish-red. Petiolus and tergites 4-7 black. Body length 12-13 mm. India, Myanmar
.....*H. pseudobirmanicus* HEINRICH 1970
- In ♂ flagellum with 33 flagellomeres, without ivory ring. Mesosternum and metapleurum without pale coloration. yellowish spots on tergites 1-4. Tarsus III blackish. &unknown. Body length 10 mm. Vietnam*H. flavomaculatus* nov.sp. ♂
- 12 Larger species, body length 15 mm. Flagellum blackish, with yellowish stripe. Coxa III completely black. Petiolus blackish, postpetiolus and all tergites reddish, without pale markings. Femur III red, Tarsus III yellowish. Taiwan...*H. heinrichi* UCHIDA 1932 ♂
- Smaller species, body length 10 mm. Flagellum completely black. Coxa III ivory dorsally. Mesoscutum and Propodeum very short, metasoma wide. Tergites 2-7 pale reddish. Femur III and tibia III reddish, sometimes infusate apically. Tarsus III reddish or blackish. Flagellum with 35 flagellomeres. Myanmar
.....*H. rotundus* HEINRICH 1970 ♂
- 13 Metasoma black, only tergites 6-7 with ivory coloration. Male unknown. Korea
.....*H. coreanus* UCHIDA 1926 ♀
- Metasoma black, with more or less extended pale bands or marks14
- 14 Coxal carina lacking, tergites 2-5 with bluntly extended posterolateral corners and with posterolateral ivory spots. Flagellum with 35 flagellomeres, first one about 4x as long as wide, widest flagellomeres as wide as long. Mesoscutum black, prescutellar carina yellowish. Body length 10 mm. ♂ unknown. Nepal*H. atanyjoppoides* nov.sp. ♀
- Coxal carina present, tergites with rounded posterolateral corners15
- 15 All tergites with yellow or whitish spots or bands16
- At least tergite 5 completely blackish, without pale coloration.....21
- 16 Coxa III mainly or partly reddish, at least ventrally. Tarsus III reddish, brownish or black.....17
- Coxa III mainly black. Femur III red, apically infusate, or completely black. Tarsus III black.....19
- 17 Coxa III bicoloured: red, with yellowish spot dorsal. Femur III red, tarsus III brownish. In ♀ flagellum strongly lanceolate, with 34 flagellomeres, widest flagellomeres almost 2 times as wide as long. Ivory stripe on flagellomeres 4-15. In ♂ flagellum black. Body length 10 mm. Sulawesi.....
.....*H. proximus* HEINRICH 1934
- Coxa III tricoloured: red, with yellowish and black spots dorsally. In ♀ flagellum less strongly lanceolate, widest flagellomeres 1.5x as wide as long18
- 18 Femur III red, tarsus III reddish-brown. Flagellum very slightly lanceolate, with 38 flagellomeres, first flagellomere 3.5x as long as wide, widest flagellomeres 1.2x as wide as long. Ivory stripe on flagellomeres 7-13. Body length 10.5 mm. ♂ unknown. India
.....*H. indicus* nov.sp. ♀

- Femur III red, infusate apically. Tarsus III black. In ♀ flagellum slightly lanceolate, with 32 flagellomere, first flagellomere 3.2x as long as wide, widest ones 1.5x as wide as long. In ♂ flagellum with 30 flagellomeres. Body length 9-9.5 mm. Taiwan
..... *H. formosanus* nov.sp.
- 19 Flagellum of ♂ with ivory stripe or ring. Tyloids wide-oval, on flagellomeres 9-18. Body length 9 mm. ♀ unknown. Vietnam
..... *H. tyloides* nov.sp. ♂
- Flagellum of ♂ black. Tyloids long-oval or linear.....20
- 20 Femur III red, black apically. Tarsus III blackish. Body length 8-10 mm. In ♀ first flagellomere 6x as long as wide, flagellum with 32-35 flagellomers. Myanmar.....
..... *H. secundus* HEINRICH 1970
- Femur III and tarsus III completely black. Body length 10 mm.....
..... *H. megaleudoxius* HEINRICH 1970 ♂ (questionable)
- 21 Coxa III mainly red. Tarsus III cream-yellow.....22
- Coxa III mainly black.....23
- 22 Coxa III reddish. Tergites 3-5 without pale coloration. Flagellum with 36 flagellomeres, first one about 6x as long as wide, widest flagellomeres not wider than long. Ovipositor sheath very long, as long as tergites 6 and 7 together. Body length 10 mm. ♂ unknown. Myanmar.....
..... *H. cingulatus* HEINRICH 1970 ♀
- Coxa III red, with dorsal ivory spot. In ♀ flagellum with 44 flagellomeres, first one 3.4x as long as wide, widest flagellomeres about 1.6x as wide as long. Area supermedia with complete carination. Ovipositor sheath as long as tergite 7. Body length 9 mm. Vietnam.....
..... *H. rufocoxatus* nov.sp.
- 23 Femur III black.....24
- Femur III red, at least in the basal half.....25
- 24 Smaller, body length 8-10 mm. Tarsus III infusate. Tergites 1-3 with small ivory dorsolateral marks, tergites 6 and 7 with ivory apical bands. Europe
..... *H. eudoxius* (WESMAEL 1845)
- Larger, body length 14-15 mm. Tarsus III cream-yellow. Postpetiolus with yellow dorsolateral spot, tergites 2-3 with wide yellowish or reddish-yellow apical bands, following tergites with narrow yellowish apical margins. ♂ unknown. Laos, Vietnam
..... *H. tarsator* nov.sp. ♀
- 25 Tarsus III yellow-red in ♀ and cream-yellow in ♂. Flagellum with 32-34 flagellomeres. Tergites 1 and 2 with yellowish dorsolateral marks or apical bands. Tergite 6 usually with an apical ivory band, tergite 7 mainly ivory. Ovipositor sheath in & short, shorter than tergite 7. Body length 9-10 mm. Java, Laos.....
..... *H. felix* HEINRICH 1934
- Tarsus III blackish. Metasoma with more extensive yellowish or ivory coloration.....26
- 26 Larger species, body length 13 mm. Flagellum with about 40 flagellomeres, first one about 6x as long as wide, widest flagellomeres slightly wider than long. Malar space ivory. Tergites 1-4 with triangular yellowish dorsolateral marks, tergite 6 with yellowish apical margin, tergite 7 with a small yellowish spot. Myanmar
..... *H. megaleudoxius* HEINRICH 1970 ♀
- Smaller species, body length 6-7 mm. Coloration ivory, not yellowish. Tergite 7 mainly ivory. Malar space with blackish stripe.....27
- 27 In ♀ flagellum with 29 flagellomeres, very slender, the first one about 7x as long as wide, widest flagellomere slightly wider than long. Tergite 1-2 with wide apical ivory bands, apical band of third tergite interrupted in the middle, tergite 5 with narrow apical band, tergite 6-7 mainly ivory. ♂ unknown. Myanmar.....
..... *H. albicinctus* HEINRICH 1970 ♀
- In ♂ flagellum with 27 flagellomeres. Tergites 1-2 with dorsolateral ivory spots, apical bands of tergite 6 and tergite 7 mainly ivory. Tergites 3-5 black. ♀ unknown. Taiwan
..... *H. minor* nov.sp.

Zusammenfassung

In der vorliegenden Arbeit werden Funde von insgesamt 83 Arten und Unterarten der Tribus Heresiarchini (Hymenoptera: Ichneumonidae, Ichneumoninae) aus der orientalischen Faunenregion besprochen. Außerdem wird ein vorläufiger Bestimmungsschlüssel aller bisher bekannten Arten der Gattung *Heresiarches* WESMAEL publiziert. 26 neue Taxa, 23 Arten und 3 Unterarten, aus der Orientalis werden ausführlich beschrieben.

Neue Arten sind *Aglaojoppa nepalensis* nov.sp., *Cobunus rufigaster* nov.sp., *Cobunus laoticus* nov.sp., *Coelichneumon flavotibialis* nov.sp., *Coelichneumon laoticus* nov.sp., *Coelichneumon parachinicus* nov.sp., *Coelichneumon pseudoneotypus* nov.sp., *Coelichneumon pterostigmator* nov.sp., *Coelichneumon sabahensis* nov.sp., *Coelichneumon sichuanensis* nov.sp., *Coelichneumon tonkinensis* nov.sp., *Cratojoppa nigrifemur* nov.sp., *Cratojoppa scutellata* nov.sp., *Heresiarches flavomaculatus* nov.sp., *Heresiarches formosanus* nov.sp., *Heresiarches indicus* nov.sp., *Heresiarches minor* nov.sp., *Heresiarches rufocoxatus* nov.sp., *Heresiarches rufomaculatus* nov.sp., *Heresiarches tarsator* nov.sp., *Heresiarches tyloides* nov.sp., and *Trogichneumon maculatus* nov.sp.

Neue Unterarten sind *Atanyjoppa rufomaculata* nov.ssp. *malayana*, *Coelichneumon flavoguttatus* nov.ssp. *himalayensis*, and *Coelichneumon taihorinus* nov.ssp. *nigrifemur*.

Außerdem werden acht bisher unbekannte ♂♂ orientalischer Heresiarchini-Arten beschrieben: *Atanyjoppa lineata* HEINRICH, *Atanyjoppa rufipes* HEINRICH, *Coelichneumon hormaleoscelus* ssp. *silvaemontis* HEINRICH, *Heresiarches felix* HEINRICH, *Heresiarches himalayanus* (GUPTA), *Ileanta fulvipes* (CAMERON), *Naenaria erythropus* HEINRICH, and *Neocratojoppa flavescipes* HEINRICH.

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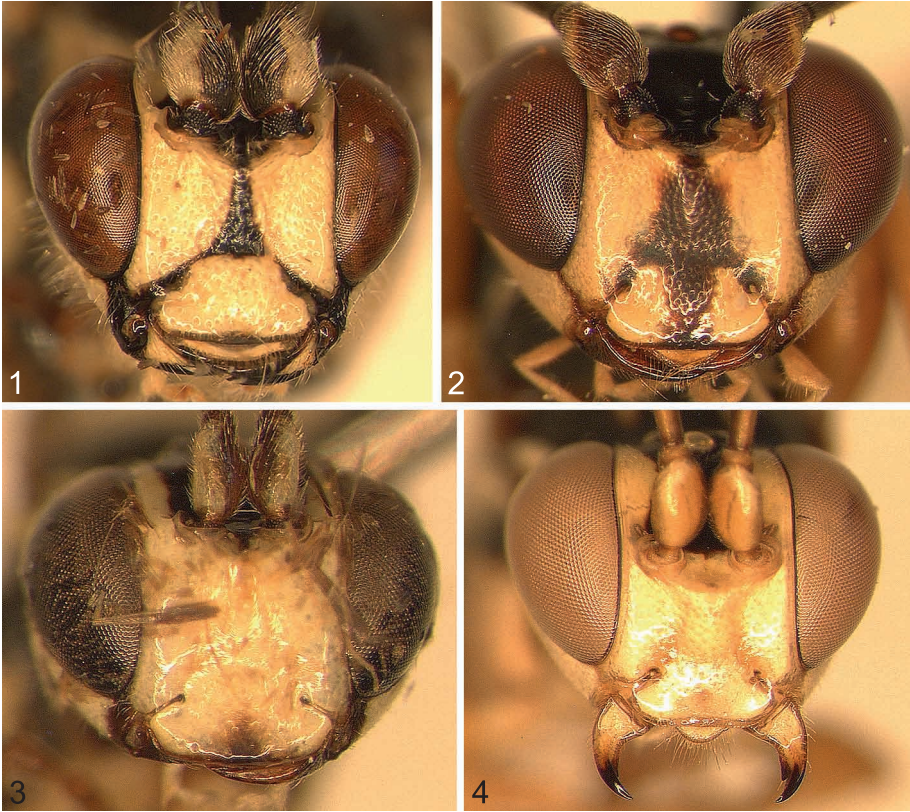


Fig. 1-4: Head of (1) *Aglaojoppa nepalensis* nov.sp. ♀; (2) *Heresiarches indicus* nov.sp. ♀; (3) *Heresiarches minor* nov.sp. ♂; (4) *Heresiarches rufocoxatus* nov.sp. ♂.



Fig. 5-8: Face of (5) *Heresiarches tyloidus* nov.sp. ♂; (6) *Heresiarches atanyjoppoides* nov.sp. ♀; (7) *Neocratojoppa flavescipes* HEINRICH ♂; (8) *Trogichneumon maculatus* nov.sp. ♂.

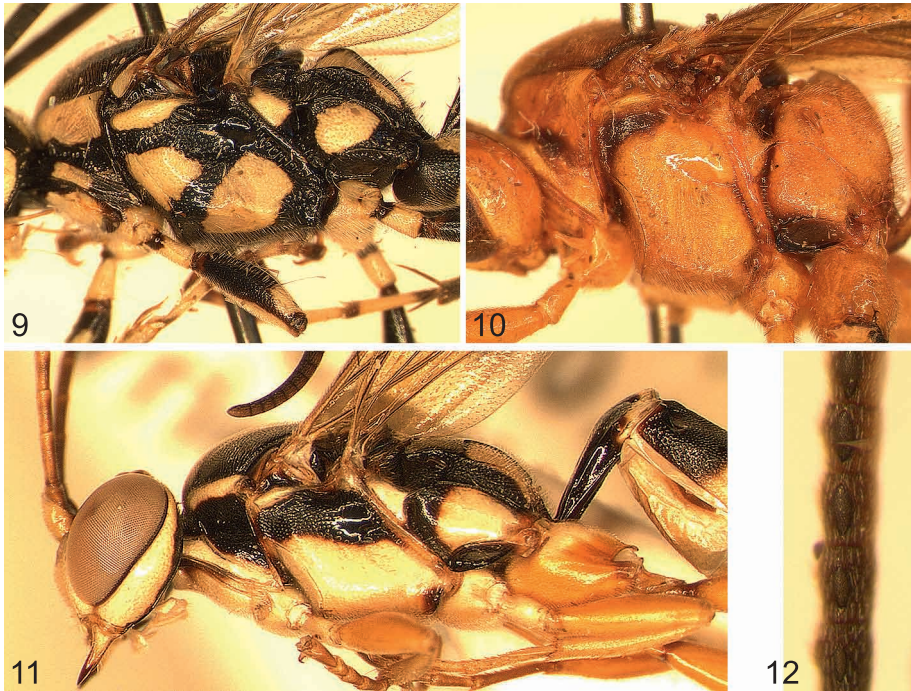


Fig. 9-12: Mesosoma from lateral: (9) *Aglaojoppa nepalensis* nov.sp. ♂; (10) *Cobunus rufigaster* nov.sp. ♀; (11) *Heresiarches rufocoxatus* nov.sp. ♂. (12) Tyloids on flagellomeres 12-16 of *Heresiarches tyloidus* nov.sp. ♂.



Fig. 13-16: Propodeum of (13) *Coelichneumon flavotibialis* nov.sp. ♀; (14) *Coelichneumon laoticus* nov.sp. ♀; (15) *Coelichneumon ocellus* (TOSQUINET) ♀; (16) *Coelichneumon pieli* UCHIDA ♀.

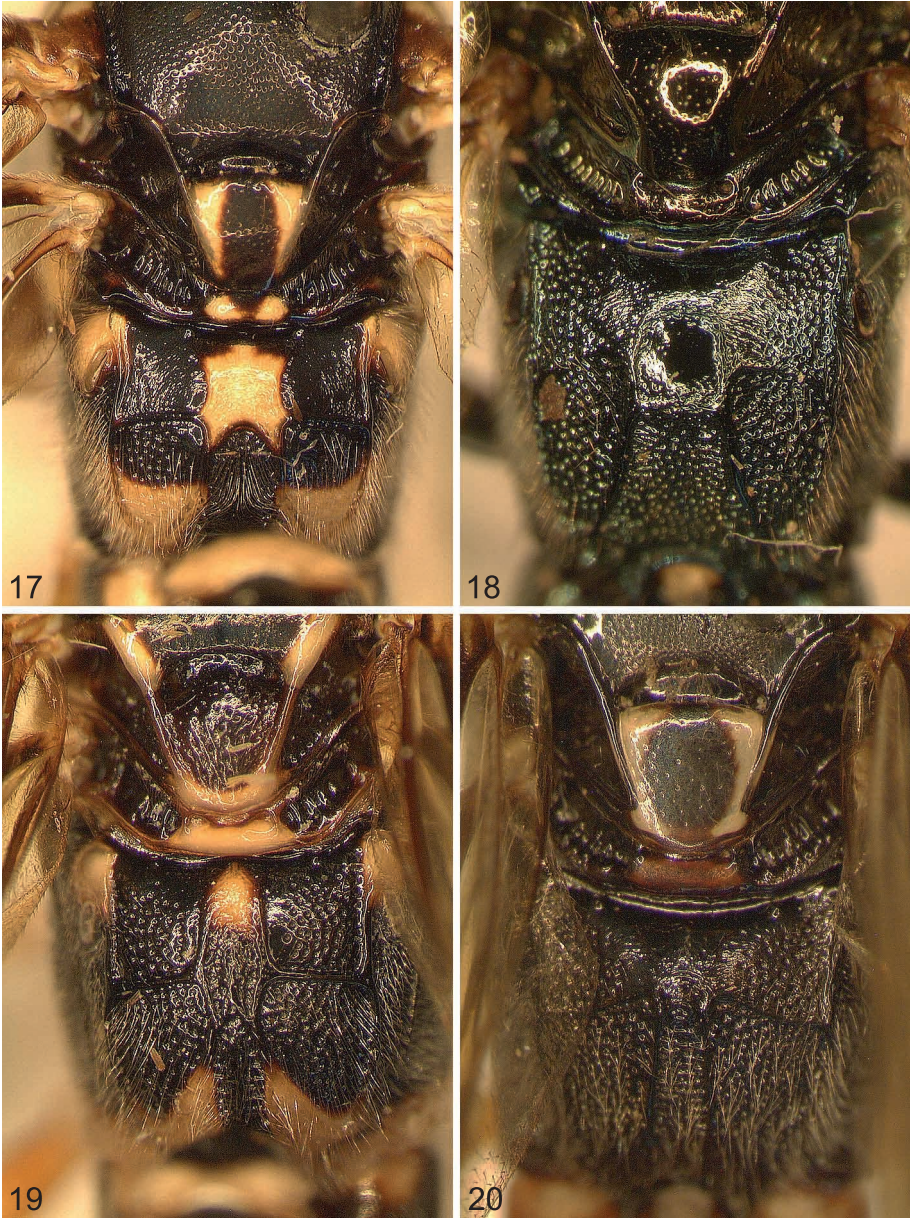


Fig. 17-20: Propodeum of (17) *Coelichneumon sabahensis* nov.sp. ♂; (18) *Coelichneumon sichuanensis* nov.sp. ♀; (19) *Cratojoppa scutellata* nov.sp. ♀; (20) *Euheresiarches amoemus* HEINRICH ♀.



Fig. 21-24: Propodeum of (21) *Heresiarches felix* HEINRICH ♂; (22) *Heresiarches formosanus* nov.sp. ♀; (23) *Heresiarches indicus* nov.sp. ♀; (24) *Heresiarches rufomaculatus* nov.sp. ♂.



Fig. 25-27: Propodeum of (25) *Heresiarches tarsator* nov.sp. ♀; (26) *Neocratojoppa flavescipes* HEINRICH ♂; (27) *Heresiarches atanyjoppoides* nov.sp. ♀. **Fig. 28:** Femur III of *Aglaojoppa nepalensis* nov.sp. ♂



Fig. 29-32: Metasoma from lateral of (29) *Heresiarches flavomaculatus* nov.sp. ♂; (30) *Heresiarches formosanus* nov.sp.♂; (31) *Heresiarches minor* nov.sp. ♂; (32) *Heresiarches atanyjoppoides* nov.sp. ♀.



Fig. 33-36: Postpetiolus and tergite 2 of (33) *Coelichneumon flavotibialis* nov.sp. ♀; (34) *Coelichneumon maculiscutis* (CAMERON) ♂; (35) *Coelichneumon hormaleoscelis* ssp. *silvaemontis* HEINRICH ♂; (36) *Euhersiarches amoenus* HEINRICH ♂.

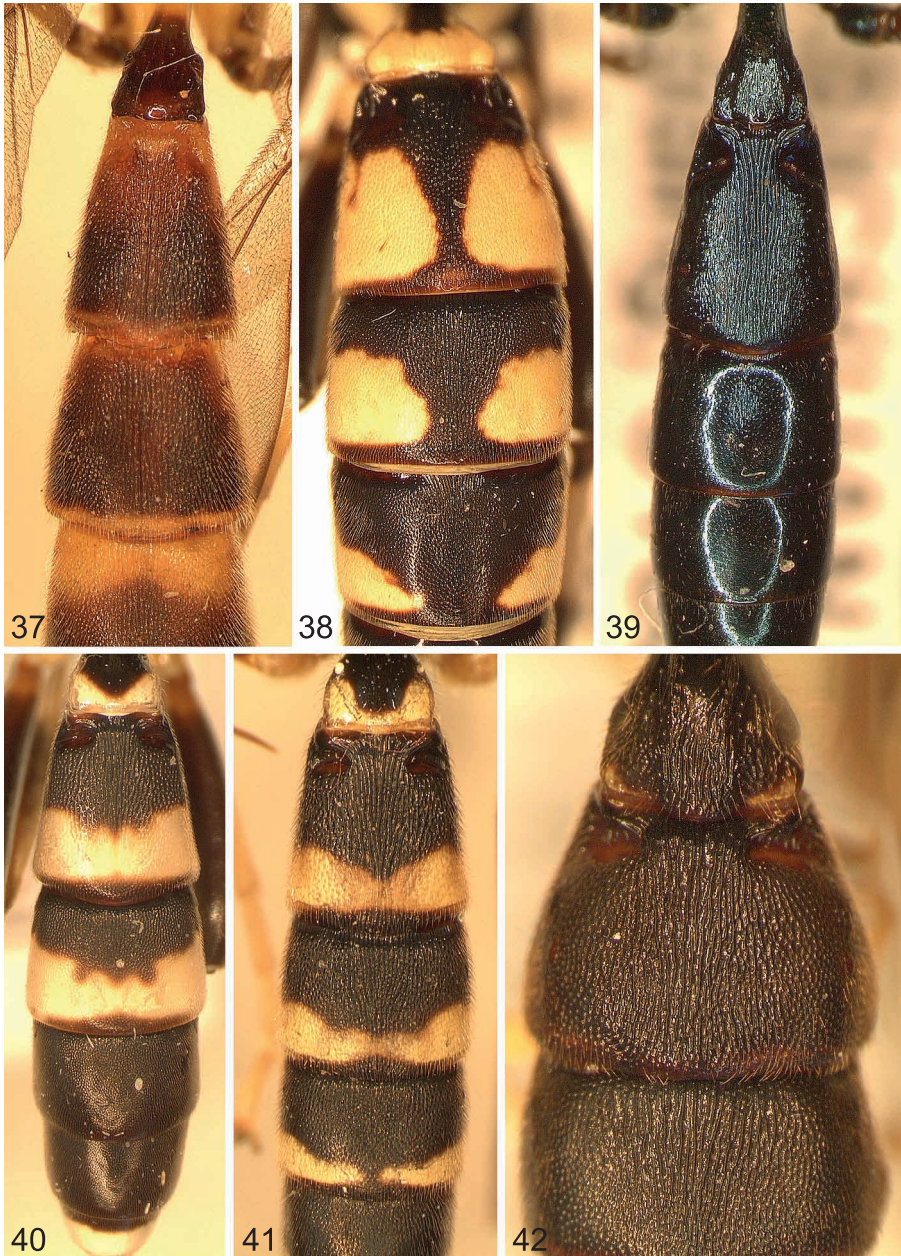


Fig. 37-42: Metasoma from dorsal of (37) *Atanyjoppa sumatrana* HEINRICH ♂; (38) *Coelichneumon sabahensis* nov.sp. ♂; (39) *Coelichneumon sichuanensis* nov.sp. ♀; (40) *Cratojoppa scutellata* nov.sp. ♀; (41) *Ileanta fulvipes* CAMERON ♂; (42) *Trogichneumon maculatus* nov.sp. ♂.

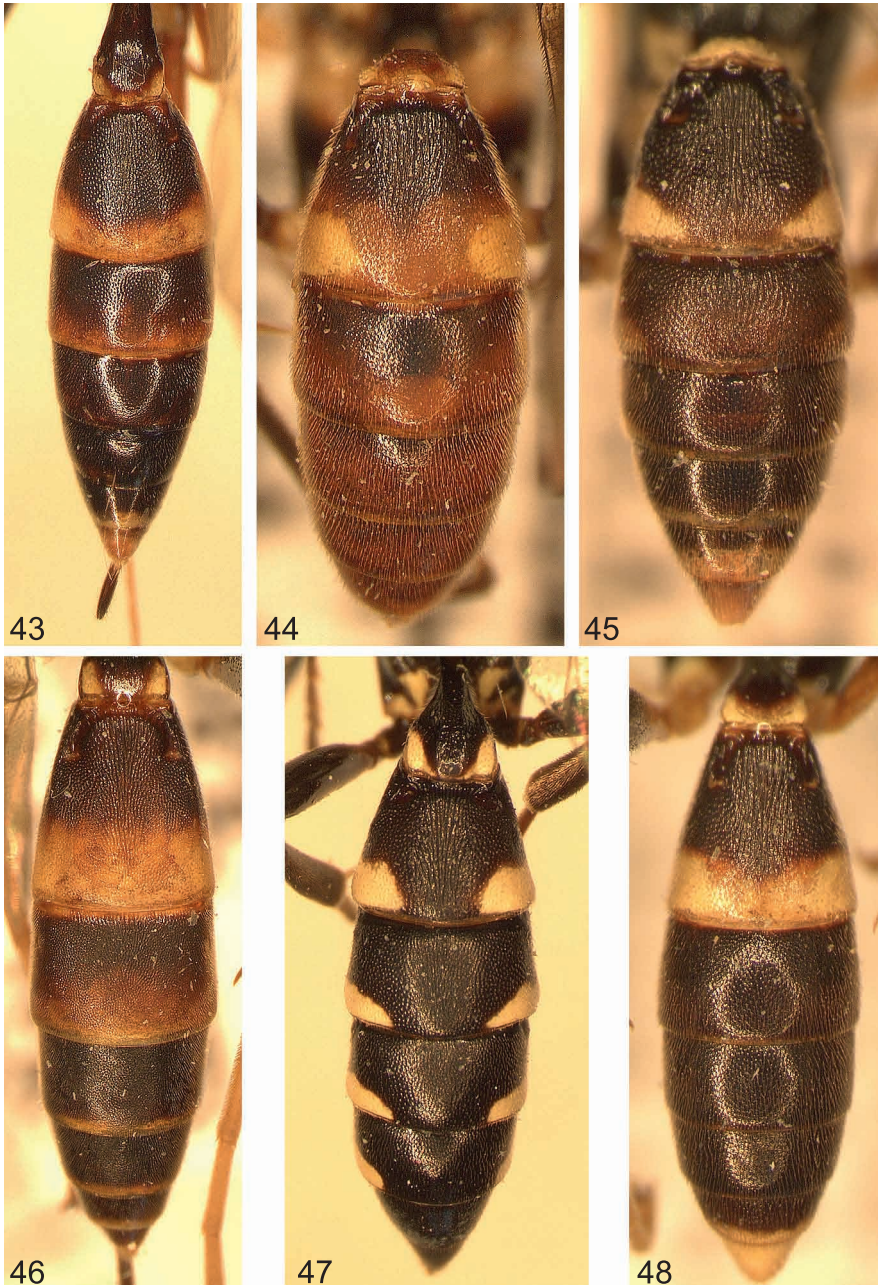


Fig. 43-48: Metasoma from dorsal of (43) *Heresiarches formosanus* nov.sp. ♀; (44) *Heresiarches rufomaculatus* nov.sp. ♂; (45) *Heresiarches secundus* HEINRICH ♂; (46) *Heresiarches tarsator* nov.sp. ♀; (47) *Heresiarches atanyjoppoides* nov.sp. ♀; (48) *Heresiarches felix* HEINRICH ♂.

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