Abstract. New species of caddisflies from Vietnam are described and figured, belonging to the families Rhyacophilidae (3 species), Glossosomatidae (1), Philopotamidae (35), Stenopsychidae (2), Economidae (7) and Psychomyiidae (4). New Vietnamese records of other species of these families are presented.

Introduction

A long term scientific cooperation was elaborated and agreement signed by the Hungarian Academy of Sciences and the Scientific Centre of Vietnam on the basis of cultural relations which established cooperation on biodiversity research with regular exchanges of research workers between the two countries. The research project on Vietnamese Trichoptera is a component of this bilateral contract existing between Hungary and Vietnam. By making use of this framework, we worked out a schedule which aimed to explore the animal communities and invertebrate fauna of the various waters and soils of Vietnam (see details in MAHUNKA & OLÁH 1986). Here we describe new caddisfly species and new records from Vietnam. The material was collected mostly by the first author during the years 1986-1988 in four collecting trips (MAHUNKA & OLÁH 1986; MÉSZÁROS & al. 1987; MATIJKAS & al. 1989; MAHUNKA & al. 1989). The material is preserved in alcohol in the private collection of J. Oláh, unless otherwise stated.

RHYACOPHILIDAE

Rhyacophila arefinae new species (p.32)

Medium-sized, castaneous brown species. Forewing length 7 mm, wing membrane uniformly castaneous coloured; forewing pattern reduced to well-developed cornaceous pterostigma and a bright hyaline lunula at around crossvein m-cu and near the arculus where Cu2 meets the margin. This new species belongs to the Rhyacophila castanea group and most similar to Rhyacophila olahi ARMITAGE & AREFINA described from Vietnam, but differs by having (1) segment 10 simple and rounded with a small mesal excision, without visible lateral lobes in dorsal view; (2) gonopods with coxopodits of deep excision ventroapicad and with harpagones of narrow almost pointed ventral lobe; (3) adeagus with large dorsal lobe; (4) apical half of the parameres with a long setal brush of decumbent setae having 5-6 erect and robust spine-like setae dorsosubapical.

Holotype male: Thua Thien Hue Province, Bach Ma National Park 1200m, 22.i1.2006, light trap [J. Ecsedi and J.Olah Jr.] — 1 male. Etymology: the name is dedicated to Tatyana Arefin in recognition of her contribution to the knowledge of the Vietnamese Rhyacophila.

Rhyacophila armitagei new species (p.32)

Medium-sized, castaneous brown species. Forewing length 7 mm, wing membrane uniformly castaneous; forewing pattern reduced to a well-developed cornaceous pterostigma and a bright hyaline lunula at around crossvein m-cu and near the arculus where Cu2 meets the margin. This new species belongs to the Rhyacophila castanea group and most similar to Rhyacophila olahi ARMITAGE & AREFINA described from Vietnam, but differs by having (1) segment 10 simple and rounded with a small mesal excision, without visible lateral lobes in dorsal view; (2) gonopods with coxopodits of deep excision ventroapicad and with harpagones of narrow almost pointed ventral lobe; (3) adeagus with large dorsal lobe; (4) apical half of the parameres with a long setal brush of decumbent setae having 5-6 erect and robust spine-like setae dorsosubapical.

Holotype male: Thua Thien Hue Province, Bach Ma National Park 1200m, 22.i1.2006, light trap [J. Ecsedi and J.Olah Jr.] — 1 male. Etymology: The name was dedicated to Brian Armitage in recognition of his contribution to the knowledge of Vietnamese Rhyacophila.

Rhyacophila hoabinha OLÁH 1987

Type country: Vietnam. Distribution: Vietnam


Rhyacophila inaequalis DENNING & SCHMID 1971

Type country: Thailand. Distribution: Thailand, Laos, Cambodia, Vietnam


Rhyacophila kyimdongpa SCHMID 1970

Type country: India (Assam). Distribution: India, Thailand, Vietnam


Rhyacophila lamdonga new species (p.32)

Small brown species. Forewing length 5 mm, wing membrane uniformly brown coloured; forewing slightly dot-patterned mostly on costal, subcostal cells, with well-developed cornaceous pterostigma and a hyaline lunula at around crossvein m-cu and near the arculus where Cu2 meets the margin. This new species belongs to the Rhyacophila castanea group and is most similar to Rhyacophila olahi ARMITAGE & AREFINA described from Vietnam, but differs by having (1) smaller size; (2) segment 10 long with very small mesal excision, not short with deep mesal excision in dorsal view; (3) anal sclerite horizontal and triangular with a very pronounced root, (4) gonopods with shorter harpagones and deeper apical excision; (5) adeagus without any angled dorsal lobe.


Etiology: The name refers to the province where the holotypes and paratypes were collected.

**Rhyacophila malayana** BAN克斯 1931
Type country: Peninsular Malaysia. Distribution: Malaysia, Vietnam, Thailand, Laos, Cambodia
New record: Quang Tri Province, Da Krong Natura Reserve, 2 km SE of HQ, 16. v. 2007, collected by light-trap, set up at a forested stream (G. Csorba) — 1 male.

Remarks. The species was first reported, male redrawn and female first described from Vietnam by Armitage & Arefina (2003).

**Rhyacophila multispinomera** SUN & YANG 1998
Type country: China (Yunnan), Vietnam
New record: Lao Cai Province, Sa Pa, 1800m, 04. i. 2006, light trap [Z. Ecsedi and J. Oláh jr.] — 1 male.

**Rhyacophila olahi** ARMITAGE & AREFINA 2003
Type country: Vietnam. Distribution: Vietnam
New record: Thu Thien Hue Province, Bach Ma National Park 1500m, 28. ii. 2007, light trap [G. Simmy] — 1 male.

**Rhyacophila scissa** MORTON 1900
Type country: India. Distribution: India, Vietnam, Thailand, Myanmar, Nepal

**GLOSSOSOMATIDAE**

**Glossosoma tuvien** new species (p.32)
Ocelli present. Three pairs of compact setose warts discernible, widely separated on head dorsum: (1) postgenal compact setose warts, (2) occipital compact setose warts and (3) vertexal ocellar compact setose warts; the vertexal lateroantral and vertexal medioantral warts fused together on the anterior part of the dorsum forming a setose triangular elevation; on the face a pair of vertically elongated frontal lateral compact setose warts subdivided. Maxillary palp 5-segmented, the first two segments short, second globose, both covered with strong erect setae slightly arched axially mesad; the last three segments longer and covered with short decumbent vestitural setae. Last segments of maxillary and labial palpi without pointed tips. Proepisternal setose wart absent, however small setose warts are present on cervical sclerites and on precoxale. Unguiculus lobe present on foreleg. Forewing length 6 mm, pterostigma well developed; crossvein r-m, terminal tip of Cu2 at arculus hyaline, larger sclerites and on precoxale. Unguiculus lobe present on nearby m-cu crossvein; anal veins A1, A2 and A3 not hyaline patch present on primary M bifurcation extending to anal margin. This new species is similar to *Kisaura pectinata* Ross described from China (Guangdong), but differs by having (1) segment 9 much shallower than short, not longer than shallow; (2) dorsal paraproctal processes rather plate-like, not ribbon-like in lateral view; (3) dorsal paraproctal processes apressed to the semiclerotized Xth segment with triangularly broadened apex, not suddenly angled mesad and pointed at the apex; (4) phallic apparatus fixed rather high below the membrane beneath the apex of segment 10 as was supported by Ross in *K. pectinata* (1956) as a rather novel feature of caddisfly morphology, but embraced by the ventral paraproctal process being sclerotized only basally and membranous afterwards. This is a rather common functional development of the ventral paraproctal processes in the superfamly *Psychomyioidea*, frequently the entire ventral paraproctal processes are sclerotized, often producing even subphallic sclerites.


Etiymology: The name refers to the remarkable row of mesal comb composed of enforced setae; row “cai lon” in Vietnamese.

**Kisaura euandros** SUN & MALICKY 2002
Type country: China (Hunan). Distribution: China, Vietnam

**Kisaura paraspinosa** new species (p.33)
Medium-sized, brown species with brown wing membrane and darker brown veins. Forewing length 6.1 mm; forewing membrane with contrasting hyaline window-like pattern: (1) three hyaline vertical bars along crossveins s, r-m and m; (2) Y-shaped hyaline window around joining M, M1+2 and...
crossovein m-cu; (3) hyaline bar along the very terminal section of Cu2 merging anal margin near arculus; fork 1 is absent from the forewing. On hindwing, A1, A2 and A3 run free to anal margin. This new species is similar to *Kisaura alveiformis* SUN described from China (Sichuan), but differs by having (1) Fork 1 lost on forewing; (2) apicodorsal margin of tergite 8 excised in dorsal view; (3) harpagones equal or longer than coxopodites, not shorter; (4) harpagones elongated shallow, not abbreviated deep; (5) setal comb on the mesal surface of harpagones very shallow comprising of very short enforced setae.

**Holotype male:** Lao Cai Province, Sa Pa, 1800 m, 04.iii.2006, light [Z. Ecsedi and J. Olah jun] — 1 male.

**Paratypes:** Lao Cai Province, Sa Pa, 1800 m, 04.iii.2006, light [Z. Ecsedi and J. Olah jun] — 1 male.

**Etymology:** The name refers to the type locality of the holotype.

*Wormaldia daona* new species (p.33)
Small-sized, medium-brown species with light brown wing membrane. Forewing length 4 mm. On hindwing R1 and R2 not confluent at or before wing margin, they run well-separated. This new species is most similar to *Wormaldia daona* n.sp. described from Vietnam (Tam Dao) but differs by having (1) R1 and R2 on hindwing variously confluent or running free to wing margin; (2) apicodorsal projection of tergum 8 roofing over the segments 9 + 10 narrow both in lateral and dorsal view; (3) the inside dome housing the dorsum of segments 9 and 10 short and shallow, not long and deep; (4) most striking difference is the narrowing triangular shape of the apicodorsal projection of tergite 8, not broad and apically excised; (5) apical half of the Xth segment posterial of the pair of small pointed processes broad, not narrow.

**Holotype male:** Bac Thai Province, Quang Chu, 24-25.v.1987, light [J. Olah] — 1 male. **Paratypes:** Bac Thai Province, Quang Chu, 24-25.v.1987, light [J. Olah] — 7 males.

**Etymology:** The name refers to the narrow apicodorsal projection of VIIIth tergum as visible both in lateral and dorsal view.

*Wormaldia muoisan* MALICKY 1995
Type country: Vietnam. Distribution: Vietnam


**Wormaldia sonlama** new species (p.33)
Small, pale-brown species with light-brown wing membrane. Forewing length 4 mm. On hindwing R1 and R2 confluent before the wing margin. This new species is most similar to *Wormaldia sonlama* SCHMID described from India and recorded here from Vietnam but differs by having (1) more shallow or low tergite 8; (2) cerci straight spatulate, not upwardly directed on its apical half; (3) Xth segment with a high triangular middle ridge in lateral view, not quadragular; (4) harpagones with irregular mesal profile, not simply tapering.

**Holotype male:** Cucphuong National Park, 18.x.1986, along karst spring brook in forested valley [J. Olah] — 1 male.

**Etymology:** The name refers to the forested karst spring brook, the type locality of the holotype; forest “son lam” in Vietnamese.
Gunungiella bongai new species (p.33)
Medium-sized, pale-brown species with light-brown wing membrane. Forewing length 3.4 mm, both wings are shallow. The venation is greatly reduced; Forks I, II, V on forewing and II, V on hindwing present; on hindwing Sc merges with R1 at the middle of the wing; hyaline window pattern on forewing visible, but not very pronounced along crossveins s, r-m, m and m-cu. This new species is most similar to Gunungiella lencao n.sp. described from Vietnam but differs by having (1) two pairs of long filiform paraproctal processes fused to tergite 9 and to the base of segment 10, not only one pair, (2) Xth segment simple slender in lateral view, not broad, and not armed on middle with a pair of dorsal spine-like sensillae; (3) segment 10 without deep median keel as visible in lateral view; (4) harpagones divided into a larger dorsal and a smaller ventral lobe; (5) endotheca with two barely discernible short spines, not four stout spines, and not with numerous apical microtrichiae.

Holotype male: Lamdong Province, Baoloc, Duchua stream, 22.x.1988, along a side spring brook [J. Oläh] — 1 male.

Etymology: The name refers to the four spine-like paraproctal processes, four "bon"; spine "gal" in Vietnamese.

Gunungiella cao new species (p.34)
Medium-sized, pale-brown species with light-brown wing membrane. Forewing length 3.9 mm, both wings are rather shallow. The venation is greatly reduced; Forks I, II, V on forewing and II, V on hindwing present; on hindwing Sc merges with R1 at the middle of the wing; hyaline window pattern on forewing less visible along crossveins s, r-m, m and m-cu. This new species has an obvious suture separating tergite 9 from sternite 9 and is most similar to G. sosau n.sp. and G. thuba n.sp. described from Vietnam but differs by having (1) almost unmodified tergite 8 without apicoventral excision; (2) shorter and deeper sternite 9; (3) harpagones with constricted and slender basal half; (4) endotheca with two stout spines, not with four or six.


Etymology: The name refers to the slender basal part of the harpagones; slender "cao" in Vietnamese.

Gunungiella dungen new species (p.34)
Small, pale-brown species with light brown wing membrane. Forewing length 3.8 mm, both wings are straight and shallow. The venation is greatly reduced; Forks I, II, V on forewing and II, V on hindwing present; on hindwing Sc does not merge with R1; on both forewing and hindwing the base of Sc strongly thickened up to crossvein c-sc; very thin and atrophied afterwards running to C; desclerotized hyaline window pattern on forewing less-developed, almost lacking. This new species is most similar to Gunungiella fiarafiaza MALICKY & CHANTARAMONGKOL described from Thailand with (1) elongated dorsal processes on segment 9; (2) apical margin of coxopodite excised; (3) harpagones vertically elongated, but differs by having (1) a less modified tergum of segment 8; (2) coxopodite with deeply excised apical margin; (3) dorsopalpal angle of the coxopodite produced into an elongated lobe; (4) ventropalpal angle of the coxopodite pointed, not rounded.


Etymology: The name refers to the elongated straight process on the dorsum of the IXth segment; straight "dung" in Vietnamese.

Gunungiella lencao new species (p.36)
Medium-sized, pale-brown species with light brown wing membrane. Forewing length 3.8 mm, both wings are shallow. The venation is greatly reduced; Forks I, II, V on forewing and II, V on hindwing present; on hindwing Sc merges with R1 at the middle of the wing; hyaline window pattern on forewing visible, and very pronounced along crossveins s, r-m, m and m-cu. This new species is most similar to Gunungiella bongai n.sp. described from Vietnam but differs by having (1) only one pair of long filiform paraproctal processes fused to tergite 9 and to the base of segment 10, not two pairs, (2) segment 10 broad in lateral view, not simple, slender, and armed on middle with a pair of dorsal spine-like sensillae; (3) segment 10 with a deep median keel as visible in lateral view; (4) harpagones subtriangular due to the apicoventral lobe, however this lobe is not cleft from the dorsal lobe; (5) endotheca with four stout spines, and with numerous apical microtrichiae.

Holotype male: Lamdong Province, Bao loc, Duchua stream, 22.x.1988, along a side spring brook [J. Oläh] — 1 male.

Etymology: The name refers to the upward produced dorsoapical lobe of the harpagones; upward "len cao" in Vietnamese.

Gunungiella obendio new species (p.34)
Medium-sized, pale-brown species with light-brown wing membrane. Forewing length 4.2 mm, both wings are shallow. The venation is greatly reduced; Forks I, II, V on forewing and II, V on hindwing present; on hindwing Sc merges with R1 at the middle of the wing; hyaline window pattern on forewing well-developed along crossveins s, r-m, m and m-cu. This new species is most similar to Gunungiella britomartis MALICKY from Java but differs by having (1) sternal region of the fused segment 9 subquadangular, not rounded; (2) segment 10 evenly tapering in dorsal view, not parallel-sided and rounded; (3) harpagones with produced rounded spiny apicoventral lobe, not without; (4) endotheca with six spines, not four.


Etymology: The name refers to the second discovered species of the genus in Vietnam; second "o ben dioi" in Vietnamese.

Gunungiella sosau new species (p.34)
Medium-sized, pale-brown species with light-brown wing membrane. Forewing length 3.4 mm, both wings are shallow. The venation is greatly reduced; Forks I, II, V on forewing and II, V on hindwing present; on hindwing Sc merges with R1 at the middle of the wing; hyaline window pattern on forewing visible, but not very pronounced along crossveins s, r-m, m and m-cu. This new species is most similar to Gunungiella thuba n.sp. described from Vietnam (Ha Son
Dabac, 30-31.i.1986, light [J. Oläh] — 22 males. Ha Son Binh Province, Hoabinh, 8 km towards Laos, Cambodia

**Chimarra akkaorum** MALICKY 1989

Etymology: The name refers to it being the sixth discovered species of the genus in Vietnam; sixth "so sau" in Vietnamese.

**Gunnelgiella thuba** new species (p.34)

Small, pale-brown animal with light-brown wing membrane. Forewing length 3 mm, both wings are rather shallow. The venation is greatly reduced; Forks I, II, V on forewing and II, V on hindwing present; on hindwing Sc merges with R1 at the middle of the wing. This new species is most similar to *Gunnelgiella sosau* n.sp. described from Vietnam (Bac Thai Province) but differs by having (1) shorter segment 10; (2) harpagones with much longer ventrum; (3) the ventrum of harpagones concave in lateral view, not convex; (4) harpagones with produced rounded apicoventral lobe, not with apicoventral lobe; (5) endotheca with four stout and curving spines, not with six. We have examined very carefully all the 19 males of *G. sosau* and found the lateral shape of harpagones to be very stable and conservative. Its shape differs very much both from *G. thuba* and also from *G. guni*. We also found the lateral shape of *Gunnelgiella* species to be very useful and stable character for other new South East Asian species.

**Holotype male:** Ha Son Binh Province, Hoabinh, towards Dabac, 21.x.1986, light [J. Oläh] — 1 male.

Etymology: The name refers to it being the third discovered species of the genus in Vietnam; third "thuba" in Vietnamese.

**Gunnelgiella** new species (p.35)

Small light-brown species. Forewing length 3.8 mm; forewing discoidal, median and thyroidal cells with similar length; but discoidal cell almost three times wider; RS slightly sinuate, far from M, but a small sclerous plate in the middle of the sinus; anterior tip of discoidal cell, that is the primary RS fork hypertrophied, thickened, forming a sclerous plate on the bifurcation; on hindwing 2A diagnostic loop to join the 1A, forming a closed cell. Segment 8 unmodified. The new species is close to *C. monorum* CHANTARAMONGKOL & MALICKY from Thailand, but differs by having (1) no tergal apodeme on segment 9; (2) lateral paraproctal plate with a tapering elongated process in lateral view, not parallel-sided and broad; (3) apices of lateral plates of paraproctal complex hooked lateral in dorsal view; (4) dorsal structure of paraproctal complex short, not long in lateral view; (5) dorsal structure of paraproctal complex with two sensilla styloconica located dorsal; (6) gonopods more robust in lateral view and slightly upwardly curving, not downwards; (7) gonopods regularly arching in ventral view, not flattened middle; (8) ventroposterior process of phallotheca long, stout and heavily sclerotized, not small and not pointed; (6) endotheca with one medium-sized and with one long spine, not one medium-sized spine only.

**Holotype male:** Ha Son Binh Province, Hoabinh Reservoir, River Suoi, 22-23.1.1991, light leg [S. Andrikovics] — 1 male.


Etymology: It is with great pleasure that we name this species after Sándor Andrikovics who collected the type specimen.

**Chimarra atara** MALICKY & CHANTARAMONGKOL 1993

Type country: Thailand. Distribution: Thailand, Vietnam, Peninsular Malaysia

**New records:** Quang Tri Hue Province, Huong Hoa Nature Reserve, near Cup village, 16°56ʹ15N 106°34ʹ52E, 400 m, 7-10.xi.2007, [G. Csorba] — 2 males.

**Chimarra bachmana** new species (p.35)

Medium-sized dark-brown, almost cascantheus species. Wing membrane dark-brown; forewing length 6.1 mm; forewing discoidal median and thyroidal cells having similar length; but discoidal cell one third wider; RS strongly sinuate, almost touching M; anterior tip of discoidal cell, that is the primary RS fork hypertrophied, thickened; haline window pattern present on crossvss s-r, r-m, m-mu, along almost the entire Cu2 and on the arculus; on hindwing 2A diagnostic loop to join 1A, forming a closed cell. Tergite 8 slightly modified developing a median depression channel on the dorsospalial area and covered with microtrichia. Most similar to *Chimarra aneca* MALICKY & CHANTARAMONGKOL described from
Thailand, but differs by having (1) dorsoapical area of tergite 9 with a single median depression of narrow channel, *not* with a more complex depression and setal brush structure; (2) anterior margin of segment 9 concave, *not* convex; (3) tergum of segment 9 very short, *not* long in lateral view; (4) lateral paraproctal plate broad-based triangular, *not* elongated with bilobed apex in lateral view; (4) dorsal digitiform process of paraprostom very short, almost hidden between and behind the lateral paraproctal plates; (5) gonopods similarly triangular in ventral view, but slightly narrowing apicad in lateral view and genculate basoventrad; (6) endodochia with a less sclerotized, but discernible phallotremal sclerite complex.

**Holotype male:** Thua Thien Hue Province, Bach Ma National Park, 700 m, 22.i.2006, light [Z. Ecsedi and J. Oláh jr.] — 1 male.

**Paratypes:** Thua Thien Hue Province, Bach Ma National Park, 700 m, 22.i.2006, light [Z. Ecsedi and J. Oláh jr.] — 3 males.

**Etymology:** The name refers to the bird-beak shaped gonopods as visible both in lateral and ventral view; bird "čím" and beak "čaimo" in Vietnamese. Due to this distinctive shape, the species is easy to distinguish from the closely related species having similarly constructed and shaped lateral paraproctal plates.

**Chimarra bancha new species (p.36)**

Small brown species. Forewing length 4.0 mm; forewing discoidal, median and thyridial cells with similar length; but discoidal cell twice the width of the median and similarly the median thyroidal; RS slightly sinuate, running far from M; anterior tip of discoidal cell, *i.e.* the primary RS fork hypertrophied, thickened, but mostly on the very tip of RS4-5; on hindwing 2A diagnostic looping to join the 1A, forming a closed cell. Tergite VIII unmodified except its apicodorsal surface slightly depressed; sternite VIII short and armed with a short apicodorsal pointed process. Closest to *Chimarra thiaorum* Chantaramongkol & Malicky from Thailand, but differs by having (1) different contour of segment 9 in lateral view; (2) ventral margin of segment 9 concave; (3) discoidal, median and thyridial cells almost equal in length, thyridial cell shorter, discoidal cell twice as wide; RS strongly sinuate, almost touching M; anterior tip of discoidal cell, *i.e.* the primary RS fork hypertrophied, thickened, producing a V-shaped small sclerite; on hindwing 2A diagnostic looping to join 1A, forming a closed cell. Tergite 8 modified on the apicodorsum with two setose tufts. Close to *Chimarra yaorum* Chantaramongkol & Malicky. Son La Province, Moc Chau, 24-26.x.1986, [J. Oláh] — 1 male. Thua Thien Hue Province, Bach Ma National Park, 1450 m, 27.i.2007, light [G. Simay] — 1 male. Quang Tri Province, Da Krong Nature Reserve, 2 km SE of HQ, light trap at forest stream, 16.v.2007 (G. Csorba) — 2 males.

**Chimarra cuniculosa new species (p.37)**

Medium-sized dark-brown, almost castaneous species. Wing membrane dark-brown; forewing length 5.0 mm; forewing discoidal, median cells almost equal in length, thyroidal cell shorter, discoidal cell twice as wide; RS strongly sinuate, almost touching M; anterior tip of discoidal cell, *i.e.* the primary RS fork hypertrophied, thickened, producing a V-shaped small sclerite; on hindwing 2A diagnostic looping to join 1A, forming a closed cell. Tergite 8 modified on the apicodorsum with two setose tufts. Close to *Chimarra yaorum* Chantaramongkol & Malicky. Son La Province, Moc Chau, 24-26.x.1986, [J. Oláh] — 1 male. Thua Thien Hue Province, Bach Ma National Park, 700 m, 22.i.2006, light [Z. Ecsedi and J. Oláh jr.] — 1 male. Thua Thien Hue Province, Bach Ma National Park, 700 m, 22.i.2006, light [Z. Ecsedi and J. Oláh jr.] — 1 male.

**Etymology:** The name refers to the type locality.

**Chimarra cumata Malicky & Chantaramongkol 1993**


**Chimarra spinifera Kimmins 1957**


**Chimarra cucphuonga new species (p.40)**

Medium-sized dark-brown species. Wing membrane dark-brown; forewing length 5.0 mm; forewing discoidal, median cells almost equal in length, thyroidal cell shorter, discoidal cell twice as wide; RS strongly sinuate, almost touching M; anterior tip of discoidal cell, *i.e.* the primary RS fork hypertrophied, thickened, producing a V-shaped small sclerite; on hindwing 2A diagnostic looping to join 1A, forming a closed cell. Tergite 8 modified on the apicodorsum with two setose tufts. Close to *Chimarra yaorum* Chantaramongkol & Malicky. Son La Province, Moc Chau, 24-26.x.1986, [J. Oláh] — 1 male. Thua Thien Hue Province, Bach Ma National Park, 1450 m, 27.i.2007, light [G. Simay] — 1 male. Quang Tri Province, Da Krong Nature Reserve, 2 km SE of HQ, light trap at forest stream, 16.v.2007 (G. Csorba) — 2 males.
Chimarra dakronga new species (p.36)
Small brown species. Forewing length 3.8 mm; forewing discoidal, median cells with similar length, thyroidal cell longer, but discoidal cell twice as wide; RS straight, not sinuate; anterior tip of discoidal cell, that is the primary RS fork hypertrophied, thickened; on hindwing 2A diagnostic looping to join the 1A, forming a closed cell. Tergite and sternite 8 short, sternite armed with short apicoventral pointed process. This new species is most similar to C. moiranga n.sp. described here from Vietnam. The new species differs by having (1) anterior blunt lobe of the tergum of segment 9 more developed; (2) a more pigmented darker line which is short and broad, turning downwards at a right angle, this downward turning segment is narrow, not broad; (3) apex of paraproctal complex with lateral flank meeting at median keel long, not short; (4) two sensilla styloconica which are rather elevated, present on both sides on the lateral plates, not on the apical flanks.

Holotype male: Quang Tri Province, Da Krong Nature Reserve, 2 km SE of HQ, light trap at forest stream, 16.v.2007 (G. Csorba) — 1 male.

Etymology: The name refers to the type locality.

Chimarra motranga new species (p.36)
Small brown species. Forewing length 3.8 mm; forewing discoidal, median and thyroidal cells with similar length, but discoidal cell twice as wide; RS straight, not sinuate; anterior tip of discoidal cell, that is the primary RS fork hypertrophied, thickened; on hindwing 2A diagnostic looping to join the 1A, forming a closed cell. Tergite and sternite 8 short, sternite armed with short apicoventral pointed process. This new species is similar to C. thangleina n.sp. described here from Vietnam. The new species differs by having (1) anterior blunt lobe of the tergum of segment 9 less developed; (2) the more pigmented darker broad line, turning downwards at a right angle, not narrow and straight; (3) apex of paraproctal complex with lateral flank meeting at median keel, not separated by a rounded area; (4) two sensilla styloconica rather elevated and present on both sides laterally on the apical flanks, (5) gonopods slender, both in lateral and ventral view. If we rely upon the shape of the cerci, gonopods and phalic organ the differences between dakronga and motranga are not very striking. However the paraproctal complex differs significantly: (1) the meeting of lateral plates and apical flanks is very clearly different in dorsal view; (2) the position of the sensilla is different.


Etymology: The name refers to the single tooth on the gonopods; one tooth "mot rang" in Vietnamese.

Chimarra damosia new species (p.35)
Medium-sized dark-brown, almost castaneous species. Wing membrane dark-brown; forewing length 5.0 mm; forewing median and thyroidal cells longer than discoidal cell, but discoidal cell one third wider; RS slightly sinuate, far from M; anterior tip of discoidal cell, that is the primary RS fork hypertrophied, thickened; hyaline window pattern present on crossveins s-r, m, along the stem of M and almost along the entire Cu2 and on the rculus; on hindwing 2A diagnostic looping to join 1A, forming a closed cell. Tergite and sternite 8 unmodified except shortened and the dorsal apical area of tergite slightly depressed. This new species with its unusually shaped gonopods has some similarity to Chimarra vibena MALICKY & CHANTARAMONGKOL from Thailand; at least the lateral paraproctal plates and the unusually long lance-shaped spines in the endotheca are similar; moreover the dorsal paraproctal structural element is lacking; but differs by having (1) sclerous tergal lobes of segment 9 meeting mesally on the dorsum, usually this area is membranous or vestigial; (2) no anterodorsal apodeme developed on segment 9; (3) ventral apodeme of segment 9 short and blunt, not long and acute; (4) mesoventral keel on segment 9 minute, not extremely large; (5) apical half of the dorsum of the lateral paraproctal plate almost touching in dorsal view, not far from each other; (6) dorsal corner of the posterior margin of segment 9 produced into a narrow triangular lobe; gonopods unusually produced lateroscapa in ventral view, not bending mesal as usual; (7) phallotheca straight and very thin, not downward curving and stout, (8) endotheca with two very long lance-like spines, filling almost the entire length of the phallotheca.


Etymology: The name refers to the unusually very long lance-like pair of spines; lance "dam qua" in Vietnamese.

Chimarra dexara new species (p.35)
Small brown species. Forewing length 4.0 mm; forewing discoidal, median and thyroidal cells with similar length; but discoidal cell twice as wide; RS slightly sinuate, far from M; anterior tip of discoidal cell, that is the primary RS fork hypertrophied, thickened, but only at the very tip; on hindwing 2A diagnostic looping to join the 1A, forming a closed cell. Tergite 8 strongly modified into a pair of long upwardly directed dorsiopcal lobes with fully spiny posterior margin. Similarly developed and spiny tergite 8 present in Chimarra haimevamot MALICKY from Vietnam. However the new species is rather isolated by having (1) these extremely elongated spiny lobes which may have a stimulatory function during copulatory mechanisms in the sexual selection processes; (2) both the lateral and dorsal paraproctal processes plate-shaped; (3) lateral plate of paraproctal complex supplied with two sensilla styloconica; (4) gonopods three-toothed, at least clearly visible in ventrocaudal view; (5) phallotheca short robust; (6) endotheca with one medium-sized and with one extremely long spine.


Etymology: The name refers to the isolated nature of this species; isolate "de xa ra" in Vietnamese.

Chimarra doisongta new species (p.35)
Medium-sized pale-brown species. Forewing length 4.8 mm; forewing discoidal and thyroidal cells have similar length, median cell shorter; discoidal cell three times wider than the thyroidal and two times wider than the median cell; RS slightly sinuate, producing a small sclerous plate in the middle of the sinus; anterior tip of discoidal cell, that is the primary RS fork hypertrophied, thickened, forming a V-shaped small plate; on hindwing 2A diagnostic looping to join 1A, forming a closed cell. Tergite and sternite 8 unmodified except for a small mesal excision on the apicodorsal of the tergite. Close to Chimarra namcationsa
Chimarra guiva new species (p.38)
Medium-sized brown species. Forewing length 5.0 mm; forewing median cell little longer than discoidal cell and thyriddal cell little shorter; but discoidal cell twice as wide; RS strongly sinuate, almost touching M; anterior tip of discoidal cell, that is the primary RS fork hypertrophied, thickened, but only at the very tip; on hindwing 2A diagnostic looping to join 1A, forming a closed cell. Tergite and sternite 8 unmodified except for ist shortened length. Close to Chimarra juliana n.sp. described here from the same habitat in Vietnam (Tam Dao), but differs by having (1) fused segment 9 without any anteroventral apodeme; (2) posterior margin of segment 9 angulate, not rounded; (3) lateral plate of paraproct complex with an additional side-flank; (4) dorsal structure of the paraproct short, stout and hooked, not long and digitiform; (5) lateral plate, side-flank and dorsal structure supplied with a few sensilla coeloconica, but without any elevated sensilla styloconica; (6) cerci reduced to a setose rounded surface, not vertically elongated in lateral view; (7) gonopods shorter; (8) lateral contour of phallotheca different; (9) phallic organ with four stout spines and two spine clusters.

Holotype male: Thua Thien Hue Province, Bach Ma National Park, 100 m, 22.i.2007, light (G. Simay) — 1 male.
Paratypes: Quang Tri Province, Da Krong Nature Reserve, 2 km SE of HQ, light trap at forest stream, 15.v.2007 (G. Csorba) — 18 males.

Etyymology: The name refers to the ventral lobe of the gonopods being very similar to the apicoventral keel of the IXth segment, double "doi" keel "song tau" in Vietnamese.

Chimarra huonghoa new species (p.37)
Medium-sized light-brown species. Forewing length 5.2 mm; forewing discoidal and median cells having similar length, thyriddal cell shorter; but discoidal cell twice as wide; RS slightly sinuate, far from M; anterior tip of discoidal cell, that is the primary RS fork hypertrophied, thickened; hyaline window pattern present on crossveins r+M, m, m-cu, along almost the entire Cu2 and on the arculus; on hindwing 2A diagnostic looping to join 1A, forming a closed cell. Tergite and sternite 8 unmodified except shortened and the dorsoapical area of tergite depressed and covered with microtrichia of various density. Close to Chimarra visconoa n.sp. described here from Vietnam, but differs by having (1) medial ventroapical keel of segment 9 short, not long and not running up to the articulation of the gonopods; (2) posterior margin of segment 9 with two concavities in lateral view, not convex; (3) lateral paraproctal plate without a pronounced dorsal hump, as a result not duckhead-shaped; (4) dorsal digitiform process of paraproct longer than the paraproctal plate, not shorter; (5) dorsal digitiform process of paraproct seems rooted posteriad on the mesal surface of lateral paraproctal plate, not anteriad; however the digitiform paraproctal process has some connection to the phallotheca and its root position depends on the state of phallic organ i.e. wether it is protruded or retracted; (6) dorsal digitiform process of paraproct directed anterad, now posteriad, however again depending on the state of the phallic organ; (7) gonopods with a small tooth visible also in lateral view; (8) mesal margin of gonopod almost straight, slightly concave, not deeply excised and wavy; (9) mesal cavity of gonopods narrow in ventral view; (10) horizontal tube of phallotheca constricted anterad and broadening apicad, not parallel-sided; (11) endotheca with four pairs of spine clusters, not only two.

Chimarra haimuoinam MALICKY 1995
Type country: Vietnam. Distribution: Vietnam

Chimarra haimuoinam MALICKY 1995
Type country: Vietnam. Distribution: Vietnam


Chimarra haimuoiha MALICKY 1995
Type country: Vietnam. Distribution: Vietnam
Chimarra jaroschi MALICKY 1994
Type country: Vietnam. Distribution: Vietnam

Chimarra joliveti JACQUEMART 1979
Type country: Thailand. Distribution: Thailand, Vietnam, Laos

Chimarra juliana new species (p.37)
Medium-sized brown species. Wing membrane pale-brown; forewing length 7.0 mm; forewing discoidal and median cells with similar length, thoroidal cell little longer; but discoidal cell twice as wide; RS strongly sinuate, almost touching M; anterior tip of discoidal cell, that is the primary RS fork hypertrophied, thickened, but only at the very tip; on hindwing 2A diagnostic looping to join the 1A, forming a closed cell. Tergite 8 unmodified except that its apicodorsal surface is desclerotized; sternite VIII short and armed with a short apicoventral pointed process. Close to *Chimarra juliana* n.sp. described here from Vietnam, but differs by having (1) significantly smaller size; (2) ventraloperipheral median vertical keel more developed and triangular; (3) lateral plate of paraproct complex with downward directed ventraloperipheral apex, not blunt; (4) the lateral paraproctal plate without any sensillum styloconicum; (5) the lateral flank on the lateral plate covered with numerous sensilla coeloconica running almost up to the apex, not to the middle only; (6) cerci reduced further to a very thin ventral area in lateral view; (7) lateral contour of phallotheca different; (8) phallic organ with two spines and with 2-6 spine clusters, the number of spine clusters depends on the eversion state of the endotheca; in intruded or invaginated state the spine clusters may clump together and in extruded or evaginated state spread into 6 smaller clusters. Compared to *C. argiae*, it differs by having (1) segment 9 long, not short; (2) ventraloperipheral median vertical keel of segment 9 more developed and triangular, not flat; (3) lateral plate of paraproct complex with downward directed, obliquely-cut ventraloperipheral apex, not with a ventraloperipheral separate lobe; (4) lateral plate of paraproct complex with tapering apex in dorsal view, not with an additional ventraloperipheral lateral lobe; (5) gonopods with rounded and tapering apex, without any visible tooth in lateral view; (6) gonopods in ventral view narrow, almost parallel-sided, not narrowing abruptly at apex; (7) phallobase short, not long; (8) phallic organ with two spines and with 2-6 spine clusters, the number of spine clusters depends on the eversion state of the endotheca; in intruded or invaginated state the spine clusters may clump together and in extruded or evaginated state may spread into 6 smaller clusters.

Chimarra kilovi new species (p.38)
Medium-sized yellow species. Forewing length 5.2 mm; forewing discoidal, median and thoroidal cells with similar length, but discoidal cell wider; RS strongly sinuate; anterior tip of discoidal cell, that is the primary RS fork hypertrophied, thickened; hyaline vertical window visible along anastomosis of crossveins s and r-m; on hindwing 2A diagnostic looping to join the 1A, forming a closed cell. Tergite 8 strongly modified producing a pair of spine clusters on apicovalvarsum. This new species is close to *Chimarra corangira* n.sp.; similar “trai voi” in Vietnamese.
Chimarra khula new species (p.38)
Small brown species. Forewing length 4.5 mm; forewing discoidal and median cells have similar length, thyroid cell shorter, but discoidal cell twice as wide as the others; RS only slightly sinuate, far from M; anterior tip of discoidal cell, that is the primary RS fork hypertrophied, thickened, forming almost a V-shaped small plate; on hindwing 2A diagnostic looping to join 1A, forming a closed cell. Tergite 8 modified and forming a desclederotic doroasoplaical area with two paches of noncellular and non-innervated tooth-shaped cuticular microtrichia denticles. Close to Chimarra schwendingeri CHANTARAMONGKOL & MALICKY from Thailand, but differs by having (1) patches of microtrichia on the doroasoplaical area differently shaped; (2) lateral flank packed with sensilla coeloconica on the lateral paraproctopal plate located basad, not at the middle; (3) dorsal digitiform process of paraproct shorter and more slender; (4) additional dorsal spiny paraproctopal process with a large basal flank, not a simple spine. Compared to C. suadulla, it differs by having (1) patches of microtrichia on the doroasoplaical area of segment 8 elongated with a triangular point, not rounded; (2) segment 9 without pronounced anteroventral lobe in lateral view; (3) ventropedal medean veetel keetell differently shaped; (4) lateral paraproctopal plate robust in lateral view with midlateral hump, not slider with basal hump; (5) dorsal digitiform process of paraproct longer and more arching downwards; (6) additional dorsal spiny paraproctopal process with subapical small lateral tooth and with a large basal flank; (7) gonopods with small and short subapical mesal excision in ventral view.
Etymology: The name refers to the general horse-head shape of the paraproctopal complex in lateral view; horse “khula” in the language of the local Lolo tribe.

Chimarra bimbilona MALICKY 1979
Type country: South Andaman. Distribution: Andaman Islands, Thailand, Peruak, Hongkon, Vietnam

Chimarra lacaya new species (p.40)
Medium-sized dark-brown species. Wing membrane dark brown; forewing length 5.8 mm; forewing discoidal, median cells with similar length, thyroid cell longer, but discoidal cell twice as wide; RS arching, almost touching M; anterior tip of discoidal cell, that is the primary RS fork hypertrophied, thickened; hyaline window pattern on crossvines r-m, m, m-cu and along Cu2 and arculus; on hindwing 2A diagnostic looping to join 1A, forming a closed cell. Tergite 8 and sternite 8 short. This new species is similar to C. crepidata KIMMINS from India but differs by having (1) almost straight anterior margin on segment 9, not produced ventrally; (2) lateral plate of the paraproctopal complex leaf-shaped with leaf stem both in lateral and dorsal view, without an apicomoseal process; (3) dorsal process of the paraproctopal complex upwardly directed and very long; (4) dorsal process of the paraproctopal complex with a short hook on the apex, not bifid, but with an additional very small spine subapical; (5) no sensilla styloconica visible; (6) there are numerous sensilla coeloconica on the lateral paraproctopal plate, on the very apices.

Holotype male: Quang Tri Province, Da Krong Nature Reserve, 2 km SE of HQ, light trap at forest stream, 16.v.2007 (G. Csorba) — 1 male.
Etymology: The name refers to the leaf-shaped lateral plate of the paraproctopal complex in dorsal view; leaf “la cay” in Vietnamese.

Chimarra loanga new species (p.36)
Small brown species. Forewing length 4.3 mm; forewing discoidal, median and thyroidal cells with similar length, but discoidal cell twice as wide; RS strongly sinuate, almost touching M; on the middle of the sinus RS vein thickened forming almost a small scelerous plate; anterior tip of discoidal cell, that is the primary RS fork hypertrophied, thickened into a V-shaped scelerous plate; on hindwing 2A diagnostic looping to join the 1A, forming a closed cell. Tergite and sternite 8 almost fused, and strongly shortened. Compared to C. geither the new species differs by having (1) dorsal paraproctopal process more abbreviated with clearly bifid apex both in lateral and dorsal views; (2) gonopods much longer and more slender; (3) phallotheca without apicoventral process; (4) endotheke with a medium-sized S-forming spines and a with a single spine cluster composed of six small spines. Compared to C. monorum the new species differs by having (1) dorsal paraproctopal process with clearly bifid apex both in lateral and dorsal view; (2) lateral paraproctopal process slender with hooked apex, not broad with rounded apex; (3) gonopods longer and straight, not curving downwards; (4) phallotheca without spine-like apicoventral process; (4) endotheke with a medium-sized S-forming spines and a with a single spine cluster composed of six small spines.

Etymology: The name refers to the elongated thin gonopods; thin “loang” in Vietnamese.

Chimarra maoga new species (p.38)
Medium-sized brown species. Forewing length 5.6 mm; forewing discoidal, median and thyroidal cells with similar length, but discoidal cell twice as wide; RS strongly sinuate, almost touching M; anterior tip of discoidal cell, that is the primary RS fork hypertrophied, thickened; on hindwing 2A diagnostic looping to join the 1A, forming a closed cell. Tergite 8 strongly modified producing apicodorsum with a pair of comb-like setal structure, separated by a deep median less pigmented and microtrichia-free excision. The new species is close to C. haimuoimot MALICKY from Vietnam and the widespread and slightly variable Chimarra spinifera and the new Chimarra loanga but easy to separate by the apicodorsum of tergite 8. The new species has (1) a pair of comb-like setal structure on apicodorsum of segment 8, without a ventrally elongated serrated process as in the other two. Otherwise they are extremely similar.

Holotype male: Quang Tri Hue Province, Huong Hoa Nature Reserve, near Cup village, 16°56'S 106°34'E, 400 m, 7-
touching M; anterior tip of discoidal cell, that is the primary cell. Tergite and sternite 8 unmodified except shortened hindwing 2A diagnostic looping to join 1A, forming a closed RS fork hypertrophied, thickened, but only at the very tip; on discoidal, median and thyridial cells almost equal in length, but on posterolateral surfaces the discoidal, median and thyridial cell surfaces. Phallic organ located high moving up to the lateral paraproctal lobes longer than gonopods in lateral view, not narrowing apicad; however 8-10 light-spotted sensilla cocloconica, but without any elevated sensilla styloconica; (7) cerci more produced; (8) gonopods broad, not narrowing apicad in ventral view; (9) lateral contour of phallotheca different; (10) phallic organ without spines. Holotype male: Ninh Binh Province, Cucphuong National Park, 400 m, 18.x.1986, [J. Oláh] — 1 male. Paratypes: Ninh Binh Province, Cucphuong National Park, 400 m, 18.x.1986, [J. Oláh] — 3 males.

**Chimarra muoilam MALICKY 1995**

Type country: Vietnam. Distribution: Vietnam

**New Record:** Lamdong Province, Baoloc, Baco stream, 26.x.1988, light [J. Oláh] — 1 male.

**Chimarra muoichin MALICKY 1995**

Type country: Vietnam. Distribution: Vietnam

**New Record:** Thu Thien Hue Province, Bach Ma National Park, 100 m, 22.i.2007, light [G. Simay] — 2 males.

**Chimarra khamuorum CHANTARAMONGKOL & MALICKY 1989**

Type country: Thailand. Distribution: Thailand, Vietnam


**Chimarra alleni CHANTARAMONGKOL & MALICKY 1989**

Type country: Thailand. Distribution: Thailand, Peninsular Malaysia, Vietnam


**Chimarra okilhorum MEY 1998**

Type country: Vietnam. Distribution: Vietnam, Thailand


**Chimarra quyenta new species (p.40)**

Small brown species. Forewing length 4.8 mm; forewing discoidal, median and thyroidal cells almost equal in length, but discoidal cell twice as wide; RS strongly sinuate, almost touching M; anterior tip of discoidal cell, that is the primary RS fork hypertrophied, thickened, but only at the very tip; on hindwing 2A diagnostic looping to join 1A, forming a closed cell. Tergite and sternite 8 unmodified except shortened length and V-shaped desclerotization on the apicodorsum of the tergite. Close to Chimarra devra MALICKY & CHANTARAMONGKOL from Thailand, but differs by having (1) very long and thin anteroventral apodeme on segment 9; (2) apical lobe on the posterior margin of segment 9 more produced; (3) lateral plate of paraproctal complex triangulate and deep in lateral view, not parallel-sided; (4) lateral plate constricted basally in dorsal view; (5) digitiform dorsal structure of the paraproct robust; (6) lateral plate and the tip of dorsal rod-like structure supplied with several sensilla coeloconica, but without any elevated sensilla styloconica; (7) cerci more produced; (8) gonopods broad, not narrowing apicad in ventral view; (9) lateral contour of phallotheca different; (10) phallic organ without spines.


**Eymology:** The name refers to the rod-like dorsal paraproctal processes; rod "quyen the" in Vietnamese.

**Chimarra gether MALICKY 2008**

Type country: Vietnam. Distribution: Vietnam

**New record:** Bac Thai Province, Quang Chu, 24-25.v.1987, light [J. Oláh] — 1 male.

**Chimarra sirdiqua new species (p.38)**

Large brown species. Forewing length 7.2 mm; forewing discoidal, median and thyroidal cells with similar length, but discoidal cell twice as wide; RS strongly sinuate, almost touching M; anterior tip of discoidal cell, that is the primary RS fork hypertrophied, thickened; on hindwing 2A diagnostic looping to join the 1A, forming a closed cell. Tergite 8 strongly modified producing a semicircular serrated apicodorsum similar to C. haimuioinot MALICKY and C. corangira n.s.p. described both from Vietnam. Closer to Chimarra haimuioinot MALICKY, but easy to separate. The new species has (1) serrated structure on apicodorsum of segment 8 elongated and close to the body of tergite 8; (2) lateral paraproctal lobes longer than gonopods in lateral view, not shorter; (3) digitiform dorsal paraproctal processes crossing the lateral paraproctal lobes, not running parallel; (5) digitiform dorsal paraproctal processes with constricted apical third and tapering apices, not with a rounded apex; (6) gonopods with broad mesal cavity.

**Holotype male:** Vietnam 1971 Nr. 45 [Topål and Matskås] — 1 male.

**Eymology:** The name refers to the crossing digitiform dorsal paraproctal processes; crossing "sir di qua" in Vietnamese.

**Chimarra spitzeri MALICKY 1994**

Type country: Vietnam. Distribution: Vietnam


**Remarks.** The membranous segment 10 is almost indiscernible, vestigial. The modified tergite 8 is deeply excised dosorsepicad producing slightly mesal curvature, parallel-sided and robust lateral lobes with serrated apical surfaces. Phallic organ located high moving up to the lateral lobes of segment 8 or even fits into the dosorsepalic excision of tergite 8. Paraproctal complex surrounding the phallic organ laterally and ventrally composed of a pair of lateral rods and of a pair of branching structures located above the rods; two elevated sensilla styloconica present on the rods lateral and subapical; however 8-10 light-spotted sensilla coeloconica are also present and scattered on the rods; the
branching structure of the paraproct is variously developed in nearly every specimen.

Chimarra thanglena new species (p.36)
Small brown species. Forewing length 3.8 mm; forewing discoidal, median and thyroidial cells with similar length, but discoidal cell twice as wide; RS only slightly sinuate, almost straight; anterior tip of discoidal cell, that is the primary RS fork hypertrophied, thickened; on hindwing 2A diagnostic looping to join the 1A, forming a closed cell. Tergite and sternite 8 short. The new species is similar to *C. pipake* MALICKY & CHANTARAMONGKOL from Thailand. The new species differs by having (1) a shallow paraproctal complex in lateral view, *not* deep; (2) the more pigmented darker line is straight horizontal and running long beyond the middle of the paraproct in lateral view, *not* curving; (3) apex of paraproctal complex with lateral flank; (4) two sensilla present on both sides laterally on the apical flanks; (5) gonopods slender, especially in ventral view; (6) phallotheca without a long apicoventral process.

**Holotype male**: Bac Thai Province, Quang Chu, 24-25.v.1987, [J. Oläh] — 1 male.
Eymology: The name refers to the sloping Xth segment and paraproct complex in lateral view; slope “thang len” in Vietnamese.

Chimarra lannaensis CHANTARAMONGKOL & MALICKY 1989
Type country: Thailand. Distribution: Thailand, Laos, Cambodia, Vietnam


Chimarra uppita MALICKY & CHANTARAMONGKOL 1993
Type country: Thailand. Distribution: Thailand, Vietnam, Laos, Cambodia


Chimarra vitcona new species (p.37)
Medium-sized dark-brown, almost castaneous species. Wing membrane dark brown; forewing length 6.2 mm; forewing discoidal and median cells having a similar length, thyroid cell shorter; but discoidal cell twice as wide; RS slightly sinuate, far from M; anterior tip of discoidal cell, that is the primary RS fork hypertrophied, thickened; hyaline window pattern present on crossveins m-m, m-cu, along almost the entire Cu2 and on the arculus; on hindwing 2A diagnostic looping to join 1A, forming a closed cell. Tergite and sternite 8 unmodified except shortened and the dorsalapical area of tergite depressed and covered with microtrichia of various densities. Compared to *C. berenike* MALICKY from Java, it differs by having (1) mesal ventrocaudal keel of segment 9 long and shallow running up to the articulation of the gonopods, *not* produced into an outstanding hump in lateral view; (2) ventral apodeme of segment 9 short, *not* long; (3) lateral paraproctal plate duckhead-shaped with tall dorsal lobe, *not* low without dorsal lobe; (4) cerci tall, almost similar size to the basement of the lateral paraproctal plate, *not* low; (5) gonopods slightly S-forming, *not* straight; (6) mesal cavity of gonopods broad, *not* narrow; (7) endotheca with one long and one short spine clusters and without a pair of medium-sized spines; (8) phallothecal selerite complex differently shaped. However the differences are weak and may be subject to variation.

Eymology: The name refers to the duckhead-shaped lateral paraproctal plate; duckling “vit con” in Vietnamese.

**STENOPSYCHIDAE**

*Stenopsyche angustata* MARTYNOV 1930
Type country: China. Distribution: China, Vietnam

*Stenopsyche babeana* new species (p.39)
Medium-sized, fine reticulate-patterned light-brown species. Forewing length 20 mm, almost evenly reticulated. This new species belongs to the *Stenopsyche marmorata* group of SCHMID (1969) with long and narrow segment 10 and endotheca packed with numerous small spines. Most similar to *Stenopsyche fukienica* SCHMID described from China (Fujian), but differs by having differently formed dorsal paraproctal processes. The variously vestigial paraproct of *Stenopsyche* is usually fused to the basal part of segment 10 lateroventrally and of the cerci mesoventrally. Frequently it is difficult to differentiate processes of paraproctal origin from possible processes of segment 10. *Stenopsyche babeana* n.sp. has (1) single pair of well-sclerotized paraproctal processes, *not* two pairs; (2) this paraproctal process well-developed, *not* short; (3) the apices of the paraproctal processes obliquely-cut sloping ventrally in lateral view, *not* oblate and *not* pointed; (4) apices slightly capitate subapical with mesal directed apical points, *not* rounded or needle-shaped.

**Holotype male**: Bac Kan Province, Ba Be National Park, near park headquarter, 1.v.2007, collected at light [O. Csorba] — 1 male.
Eymology: The name refers to the type locality of the holotype.

*Stenopsyche contienga* new species (p.39)
Medium-sized, reticulate-patterned brown species. Forewing length 18 mm, almost evenly reticulated. This new species belongs to the *Stenopsyche marylnovi* group and is most similar to *Stenopsyche banksi* MOSELY described from China (Fujian), but differs by having (1) a very pronounced obliquely-cut sloping ventrally in lateral view, *not* low without dorsal lobe; (2) more pigmented darker line is straight horizontal and running long beyond the middle of the paraproct in lateral view, *not* curving; (3) apex of paraproctal complex with lateral flank; (4) two sensilla present on both sides laterally on the apical flanks; (5) gonopods slender, especially in ventral view; (6) phallotheca without a long apicoventral process.

Eymology: The name refers to the duckhead-shaped lateral paraproctal plate; duckling “vit con” in Vietnamese.
not simply capitate or clavate; (4) basal half of the gonopods with dorsal broadening.


Etymology: The name refers to the swan-shaped dorsal paraproctal processes on the Xth segment; swan "couendi" in Vietnamese.

**Stenopsyche laminata** Ulmer 1926

Type country: China (Guangdong). Distribution: China, Vietnam, Laos


**Stenopsyche siamensis** Martynov 1931

Type country: Thailand. Distribution: Thailand, Vietnam, Peninsular Malaysia, Cambodia

New records: Quang Tri Province, Huang Hoa District, Huang Hoa Nature Reserve, near Cup Village, centered at 16°56′15″N 106°34′52″E, 400m, 7-10.xi. 2007, collected at light [G. Csorba] — 3 males, 3 females.

**Stenopsyche uncinata** Navás 1930

Type country: Vietnam. Distribution: Vietnam


Remarks. This species was described from a male collected in Vietnam (Chapa = Sapa) and redrawn by Schmid (1949), first from a non-type male collected in Vietnam (Tam Dao) and later (1969) from the type specimen of Chapa found in the collection of the Muséum national d'Histoire naturelle de Paris. Schmid has noted significant differences between the two males in the form of segment 10. We collected five males in North Vietnam (Tam Dao) and one male in Central Vietnam and found even more differences in the specimen collected in Central Vietnam. The enlarged lateral angle on segment 10 is well visible in dorsal view, is densely packed with elevated alveoli, possibly the vestigial paraproct is very much enlarged in all the Tam Dao specimens similarly to the single Tam Dao male examined by Schmid. Segment 10 of the specimen collected in Central Vietnam is almost without this angle, the vestigial paraproct is reduced to a pair of the setose lateral surfaces. This specimen from Central Vietnam may represent a new species, however more material from various localities would indicate the variability of *Stenopsyche uncinata*.

**ECNOMIDAE**

According to our appendicular and functional genital terminology (OLáH & JOHANSSON, 2008) we apply NIELSEN'S results (1957) also in the genital terminology of Ecnomidae. His conclusions were based on a detailed comparative study of the genital segments and their appendages as well as their muscles. Tergite 9 and especially segment 10 are frequently membranous, abbreviated, reduced, fused or entirely lacking in Philopotamoidae and Psychomyioidae superfamilies. According to NIELSEN (1957) segment 10 in Ecnomus is fused partially or entirely to the upper lip (tergite, tergum, dorsum) of segment 9, or present as a reduced vestigial membranous median lobe (SCOTT 1963). Moreover it is also possible that the entire upper lip of segment 9 has arisen by secondary sclerotization of the membranous middle lobe of segment 10 (NIELSEN 1957) and segment 10 is represented by this highly sclerotized upper lip, and only the lower lip (sternite, sternum, ventrum) represents segment 9, or the upper lip is composed of the fused tergum 9 and segment 10. This is suggested by the following: (1) the anus is located immediately below the posterior edge of the upper lip; (2) the cerci are sclerotically continuous with the upper lip; (3) the paraproctal complex is located on the ventral side of the upper lip; (4) origins of the posterior phallic muscles; (5) origin of 9-10 muscles. However until more studies document structural homologies, we use the upper lip as tergite and lower lip as sternite of segment 9 and consider segment 10 as reduced to the vestigial membranous median lobe, sometimes almost indiscernible on the cleared preparations, but visible on the intact genitalia.

Following Nielsen we treat the sclerite complex, withdrawn deep inside the upper lip (tergite) of segment 9 of *Ecnomus*, as the vestigial paraproctal complex and not as the remnants of segment 10 (GIBON 1992; LI & MORSE 1997). This paraproctal complex is represented by pairs of external and internal sclerites fused together and symmetric in dorsoventral view. The internal structure is a pair of broad, but more frequently strip-like anterolateral arms projecting ventrad or anterad and fused to the mesal region of the upper lip and/or to the cercal basement, the internal structure is actually the fused basement of the external paraproctal process. The usually specific and diagnostically important external structure of the paraproctal complex is a pair of posterior ventral projections located basally ventromesad between the cerci, long in some species, short and broad in other species usually with a few setae (LI & MORSE, 1997). In most *Ecnomus* species, the phallic organ is fixed and operated sclerotically in the genital chamber or phallocyptic by four hinge or pivot joints: (1) dorsad by a pair of sclerotized strips from lateral margin of tergum 9 around the fulcrum and joining with phallobase dorsolaterally; (2) ventrad by a pair of tendons of the phallobase joining ventrolaterally to posterior part of the very large and broad basal plate, the anterior extension of the dorsal surface of the gonopods, supporting phallicus from beneath as the sclerotized wall of the phallic chamber. The four joints are not clearly discernible in all species, its visibility depends on the degree of sclerotization, on overlapping with more sclerotized structures; their detection more productive in caudal view. The phallic organ consisting of phallic apodeme, sclerotized phallotheca, endotheca, sclerotized dorsobasal lobe, variously developed parameres; parameres and dorsobasal lobe frequently lacking. The phallic apparatus is drawn separately from the drawing of the genital organ. This separate illustration of the phallic organ is usually achieved without dissection of the holotype. If phallic structures are underpigmented or membranous and the wall of IXth sternite and gonopods overpigmented as well as fragments of the gut content remaining during the clearing procedure, it is not easy to distinguish exactly among the structural elements of the phallic organ even if we have properly cleared genitalia.
**Ecnomus argonautus** LAUDEE & MALICKY 1999  
Type country: Thailand. Distribution: Thailand, Vietnam  

**Ecnomus bintin new species (p.41)**  
Medium-sized light-brown species. Foretibial spurs complete, three: spur formula 3:4:4. Second segment of maxillary palp slightly longer than first and only slightly shorter than third; third segment positioned apically on second. Wing membrane pale-brown; forewing length 3.7 mm; forewing forks complete, F1 present; corneous nygmae present and visible in F2 and in thyridial cell; forewing vein R1 strongly hypertrophied, thickened along its basal two thirds; fork of R1 indistinct due to the granulated pterostigmal area; median cell twice as long as discoidal or thyridial cells. Closest to *Ecnomus totio* MALICKY & CHANTARAMONGKOL from Thailand, but differs by having (1) gonopods with a long ventral subapical process in lateral view, not dorsally hooked apicad; (2) gonopods with three triangular mesal lobe in ventral view, not a single, broad plate; (3) phallic organ with a large middle hump dorsad.

**Holotype male:** Ha Son Binh Province, Hoabinh, 8 km to Dabac, 31.i.1986, light [J. Oläh] — 1 male. **Paratypes:** Bac Thai Province, Quang Chu, 24-25.v.1987, [J. Oläh] — 2 males.

Etymology: The name refers to the rather composed structure of the gonopods; composed “bin tinh” in Vietnamese.

**Ecnomus bual MALICKY & CHANTARAMONGKOL 1993**  
Type country: Thailand. **Distribution:** Thailand, Vietnam  

**Ecnomus catlong new species (p.41)**  
Medium-sized light-brown species. Foretibial spurs complete, three: spur formula 3:4:4. Second segment of maxillary palp slightly longer than first and only slightly shorter than third; third segment positioned apically on second. Wing membrane pale-brown; forewing length 4.4 mm; forewing forks complete, F1 present; corneous nygmae present and well-visible in F2 and in thyridial cell; forewing vein R1 strongly hypertrophied, thickened along its entire length; fork of R1 indistinct due to the granulated pterostigmal area; median cell more than twice as long as discoidal or thyridial cells. Closest to *Ecnomus akelesis* MALICKY & CHANTARAMONGKOL from Thailand but differs by having (1) tergite 9 low in lateral view, not high; (2) sternum 9 very high along its posterior half, producing a large dorsal lobe on its posterior half; (3) external paraproctal process long pointed filiform, starting from an extended base and positioned transversally laterad as visible in dorsal view; (4) segment 10 short membranous; (5) cerci constricted on middle third, not parallel-sided; (6) gonopods with shallow dorsal middle excision in lateral view, not deep; (7) gonopods without a middle ventral hump in lateral view; (8) gonopods only slightly narrowing apically, not subtriangular in ventral view.


Etymology: The name refers to the straight knife-shaped cerci in lateral view; knife “con dao” in Vietnamese.

**Ecnomus daibinh new species (p.41)**  
Medium-sized light-brown species. Second segment of maxillary palp slightly longer than first and only slightly shorter than third; third segment positioned apically on second. Wing membrane pale-brown; forewing length 3.8 mm; forewing forks complete, F1 present; corneous nygmae present and well-visible in F2 and in thyridial cell; forewing vein R1 strongly hypertrophied, thickened along its entire length; fork of R1 distinct and well-visible on the granulated pterostigmal area; median cell twice as long as discoidal cell; thyroid cell slightly longer and lower than median cell. Closest to *Ecnomus lapithos* MALICKY & PROMMT from Thailand, but differs by having (1) sternite 9 short, not long; (2) cerci slightly arching mesad, almost straight, not directed mesad apically; (3) external paraproctal process long slender in lateral and broad with bilobed apex in dorsal view, not robust in lateral and not monolobed in dorsal view; (4) gonopods very broad based and constricted in the middle in lateral view, not long subtriangular; (2) gonopods more complex with mesal cavity in ventral view, not simply triangular; (3) phallic organ with a pair of robust parameres.

**Holotype male:** Lamdong Province, Baoloc, Dai Binh River, 22.x.1988, light [J. Oläh] — 1 male.

Etymology: The name refers to the type locality.
Ecnomus ellipticus Li & Morse 1997
Type country: China (Anhui). Distribution: China, Vietnam

Ecnomus hendersoni Mosely 1932
Type country: Malaysian (Peninsular). Distribution: Peninsular Malaysia, Sumatra, Vietnam

Ecnomus joachin Malicky & Chantaramongkol 1993
Type country: Thailand. Distribution: Thailand, Vietnam

Ecnomus magnum Malicky & Chantaramongkol 1993
Type country: Thailand. Distribution: Thailand, Vietnam

Ecnomus puro Malicky & Chantaramongkol 1993
Type country: Thailand. Distribution: Thailand, Vietnam, Cambodia

Ecnomus siriang new species (p.40)
Medium-sized brown species. Second segment of maxillary palp slightly longer than first and only slightly shorter than third; third segment positioned apically on second. Wing membrane pale-brown; forewing length 3.8 mm; forewing forks complete, F1 present; corneous nymgmae present and well-visible in F2 and in thyridial cell; forewing vein R1 strongly hypertrophied, thickened along its entire length; false fork of R1 discernible on the granulated pterostigmal area; median cell twice as long as discoideal or thyroidal cells. 

Male genitalia. Tergum 9 convex anteriorly and narrowing ventrally in lateral view, sclerotized strips originating from their apiocoventral margin associated with the phallobase; sternum 9 long quadrangular in lateral view without longitudinal median suture in ventral view, its drososapical margins produced each into a mesally directed lobe-like flank partially covering the phallic organ dorsad. Vestigial segment 10 is discernible as a small membranous mesal lobe. Cerci elongated parallel-sided slightly downward arching in lateral view and narrowing on their apical half in dorsal view, without any basoventral projection;ortal stout setae small to medium-sized and limited to the mesoapical region. External paraproctal processes short, high, broad and bilobed in dorsal view; mesal lobes rounded with two mesally directed small setae, lateral lobes small and pointed, however both look somehow pointed in lateral view. Gonopods short and high, constricted midway ending in triangular apex in lateral view, with large mesal cavity visible in ventral view, basal plate indiscernible. Phallic apparatus consists of a well-defined ring-shaped short phallic apodeme, short drosobosal lobe, a pair of large petiolated hammer-shaped parameres and the unusually formed aedeagus with triad apex, the triad apex of aedeagus is composed of the median basal lobe and the two lateral spine-like lobes.

Close to Ecnomus projectus Li & Morse described from China (Sichuan) and E. connatus Li & Morse described from China (Anhui) but differs from both by having (1) rather high quadrangular IXth sternite with a mesal curving drosopalil lobe partially roofing the phallic organ; (2) parallel-sided cerci in lateral view; (3) the pair of large petiolated hammer-shaped parameres and the unusually formed aedeagus, not broad-based and narrowing apicad; (2) cercal baseament with long basoventral filiform process, not with short process; (3) cereal apex without a subapical constriction; (4) gonopod with upward curving apex in lateral view.


Etymology: The name refers to the straight cerci; straightness "sirthang" in Vietnamese.

Ecnomus typognum new species (p.41)
Medium-sized light-brown species. Second segment of maxillary palp slightly longer than first and only slightly shorter than third; third segment positioned apically on second. Wing membrane pale-brown; forewing length 4.4 mm; forewing forks complete, F1 present; corneous nymgmae present and well-visible in F2 and in thyridial cell; forewing vein R1 strongly hypertrophied, thickened along its entire length; fork of R1 indistinct due to the granulated pterostigmal area; median cell twice as long as discoideal or thyroidal cells. 


Etymology: The name refers to the trifid apex of the phallic apparatus; triad "top gom" in Vietnamese.
Ecnomus uttu MALICKY & CHANTARAMONGKOL 1993
Type country: Thailand. Distribution: Thailand, Vietnam

Ecnomus purogiong new species (p.40)
Medium-sized light-brown species. Second segment of maxillary palp slightly longer than first and only slightly shorter than third; third segment positioned apically on second. Wing membrane pale brown; forewing length 4.4 mm; forewing forks complete, F1 present; corneous nygmae present and well- visible in F2 and in thyridial cell; forewing vein R1 strongly hypertrophied, thickened along its basal two thirds; fork of R1 indistinct due to the granulated pterostigmal area; median cell twice as long as discoidal or thyridial cells. Close to Ecnomus puro MALICKY & CHANTARAMONGKOL described from Thailand, but differs by having (1) cerci deep and almost parallel-sided in lateral view, not constricted middle; (2) external lobe of paraproctal complex rounded in lateral view, not pointed; (3) apex of gonopods rounded in lateral view, not tapering; (4) mesal lobe of gonopods directed posterd in ventral view, not anterad; (5) parameres T-shaped plate in lateral view, not digitiform.
Eymology: The name refers to its similarity with E. puro; similar "giong" in Vietnamese.

PSYCHOMYIIDAE

Lype atnia MALICKY & CHANTARAMONGKOL 1993
Lype vietnamella May 1996: 58. Judging from the figures, vietnamella has no real difference to atnia. New Synonym
Type country: Thailand. Distribution: Thailand, Sumatra, Vietnam

Ecnomus iittu MALICKY & CHANTARAMONGKOL 1993
Type country: Thailand. Distribution: Thailand, Vietnam

Psychomyia samanaka MALICKY & CHANTARAMONGKOL 1993
Type country: Thailand. Distribution: Thailand, Vietnam

Psychomyia sonlana new species (p.42)
Small pale-brown species. Dorsal thoracic sclerites pale-brown, setal warts both on head and thorax lighter, grooves are darker. Maxillary palp formula is I-IV-V-V. There is no compact setal wart present on the cervix or on the cervical sclerite. Proepisternal setal wart absent. Spur formula is 244. Forewing length 3.2 mm, thyridial cell on forewing and fork of Rl indistinct due to the granulated ven tral band of the prothoracic eusternum, by the very thin ventral procercus. The pair of lateral cervical sclerites are gammon-shaped; the slender anterior arm broadening from midway almost gradually and broadest subapicd then slightly curving ventrad towards the articulation with the proepisternum. They are composed of the narrow slender anterior arm articulating anteriorly to the back of the head with the occipital condyle above the posterior tentorial pits and fused to the posterior cervical sclerites; the posterior cervical sclerite, forming the gammon-shaped plate, reaching the prothoracic episternum, but articulating also to the weakly sclerotized anteromedian band of the prothoracic eusternum by the very thin ventral intercervical sclerites. Proepisternal setal wart absent. Forewing length 3.2 mm, thyridial cell on forewing and fork 3 on hindwing small.

Psychomyia sonlana new species (p.42)
Small pale-brown species. Dorsal thoracic sclerites pale-brown, setal warts both on head and thorax lighter, grooves are darker. Maxillary palp formula is I-IV-V-V-V. There is no compact setal wart present on the cervix or on the cervical sclerite. Proepisternal setal wart absent. Spur formula is 244. Forewing length 3.2 mm, thyridial cell on forewing and fork 3 on hindwing small.

Male genitalia. Abdominal segment 9 represented by robust, subquadranular short sternite in lateral view, delineated posteriad by a vertical less pigmented broad groove separating it from the coxopodite. The dorsal complex of the fused tergite 9, cerci and paraproct subtriangular with a low and tapering ventroapical lobe in lateral view, its dorsal margin undulating with a long concavity; the fused paraproct modified into a pair of transverse plates and hidden mesally but visible as a dark internal ridge in lateral view; the apices...
of the dorsal complex aviform with mesad directed rostrum and high head in dorsal view, there are subapical 4-5 stout mesad directed setae below the rostrum followed anteriad by the transversal paraproctal plates on the mesal surface of the complex. Coxopodites of the gonopods discernible as a continuation of sternite 9 separated by the less pigmented vertical groove and partially fused mediad; harpagonemes composed of the setose ventrolateral lobe and the heavily sclerotized spine-shaped doubled dorsomesal branch with bifid apex; the shape of ventrobasal lobe short and high; dorsomesal branch of harpagonemes arching low and composed of the spine-like and bifid ventral arm and a less sclerotized, almost hyaline dorsal arm with numerous setae, especially apical. Phallic apparatus is dominated by the large, less sclerotized subtriangular phallic apodeme fixed to the fulcrum, where sternite 9 and the dorsal complex of tergite 9, cerci and paraproct hinged together, by a short strap; the filiform and S-shaped aedeagus is very thin with very high S-curves and with a small hump on the ventral margin of the second curve. This new species, having its tergite 9 completely fused to the cerci without a discernible suture belongs to the Psychological species group of MALICKY (1993) which constitutes a species cluster in the Psychological flavida species group of SCHMID (1997). Its very unique complex aedeagus with bifid apex distinguishes this species from all the known members of the P. capillata species cluster; it is similar to P. neboissi, but differs by having (1) lateral profile of the fused tergite 9, cerci and paraproct complex more simple, not produced elongated lobes; (2) the heavily sclerotized spine-shaped dorsomesal branch has bifid apex differently shaped; (3) phallic organ supplied basoposterior with a longer single lobe directed posterial and just above it a pair of shorter lobe, lacking in P. neboissi; (4) phallic organ with bifid apex producing subapical broadening and very thin thread-like endings on both terminal branches, in P. neboissi the ventral branch less developed.

**Holotype male:** Ha Son Binh Province, Hoabinh, 2 km towards Dabac, 30.i.1986, light [J. Olãh] — 1 male.

**Etymology:** The name refers to the type locality.

**Psychomyia vietnamica** new species (p.42)
Small pale-brown species. Dorsal thoracic sclerites pale-brown, setal warts both on head and thorax lighter, grooves are darker. Maxillary palp formula is I-IV-III-II-V. There is no compact setal wart present on the cervix or on the cervical sclerite. The pair of lateral cervical sclerites are gammon-shaped; the slender anterior arm broadening from midway almost gradually and broadest subapical where slightly curving ventrad towards the articulation with the proepisternum. They are composed of the narrow slender anterior arm articulating anteriorly to the back of the head with the occipital condyle above the posterior tentorial pits and fused to the posterior cervical sclerites; the posterior cervical sclerite forming the gammon-shaped plate reaching the prothoracic episternum, but articulating also with the weakly sclerotized anteromedian band of the prothoracic eusternum by the very thin ventral intercervical sclerites. Proepisternal setal wart absent. Forewing length 3.6 mm, thyridial cell on forewing and fork 3 on hindwing small. Male genitalia. IXth abdominal segment represented by robust, subquadangular sternite in lateral view, delineated posteriad by a vertical less pigmented broad groove separating it from the coxopodite. The dorsal complex of the fused IXth tergite, cerci and paraproct subtriangular with a high and rounded ventroapical lobe in lateral view, its dorsal margin with a short concavity; the fused paraproct modified into a pair of transverse plates and hidden mesadly but visible as a dark internal ridge in lateral view; the spicules of the dorsal complex aviform with mesad directed rostrum in dorsal view, there are a subapical short finger-shaped process below the mesad directed rostrum followed anteriad by the transverse paraproctal plates on the mesal surface of the complex. Coxopodites of the gonopods discernible as a continuation of the IXth sternite separated by the less pigmented vertical groove and partially fused mediadly; harpagonemes composed of the setose ventrolateral lobe and the heavily sclerotized spine-shaped dorsomesal branch with bifid apex; the shape of ventrobasal lobe elongated, but directed somehow laterad, therefore looking shortened in lateral drawings; dorsomesal branch of harpagonemes arching at a right angle. Phallic apparatus is dominated by the large, less sclerotized subtriangular phallic apodeme fixed to the fulcrum, where the IXth sternite and the dorsal complex of the IXth tergite, cerci and paraproct hinged together, by a short strap; the filiform and S-shaped aedeagus is very complex, supplied basoposterior with a longer single lobe directed posterial and just above it a pair of shorter lobes; the apex of the aedeagus clearly bifid with subapical broadening and very thin thread-like endings. This new species, having its tergite 9 completely fused to the cerci without a discernible suture, belongs to the Psychomyia capillata species group of MALICKY (1993) that constitutes a species cluster in the Psychomyia flavida species group of SCHMID (1997). This new species group of MALICKY (1993) that constitutes a species cluster in the Psychomyia flavida species group of SCHMID (1997). Its very unique complex aedeagus with bifid apex distinguishes this species from all the known members of the P. capillata species cluster; it is similar to P. neboissi, but differs by having (1) lateral profile of the fused tergite 9, cerci and paraproct complex more simple, not produced elongated lobes; (2) the heavily sclerotized spine-shaped dorsomesal branch has bifid apex differently shaped; (3) phallic organ supplied basoposterior with a longer single lobe directed posterial and just above it a pair of shorter lobe, lacking in P. neboissi; (4) phallic organ with bifid apex producing subapical broadening and very thin thread-like endings on both terminal branches, in P. neboissi the ventral branch less developed.

**Holotype male:** Ha Son Binh Province, Hoabinh, 2 km towards Dabac, 30.i.1986, light [J. Olãh] — 1 male.


**Etymology:** The name refers to the type locality. This was the first Psychomyia species collected by the first author in Vietnam.

**Tinodes prisatchayukta** SCHMID 1972
The specimen shows a few minor differences with the figure by Schmid, but this may be because of the different drawing styles.

**Type country:** India (Manipur).

**New record:** Lamdong Province, Lamdong, Baoloc, Bacam, 26.x.1988, light leg [J.Olãh] — 1 male.

**Tinodes dunkerena** new species (p.42)
Small yellow species, forewing length 4 mm. Sclerites and setae warts both on head and thorax pale, grooves are dark. Maxillary palp formula is I-IV-III-II-V. Cephalic warts are darker. Maxillary palp formula is I-IV-III-II-V. Cephalic warts are darker. Maxillary palp formula is I-IV-III-II-V. Cephalic warts are darker. Maxillary palp formula is I-IV-III-II-V. Cephalic warts are darker.
groove. It is probable that the ventral medioantennal compact setose wart listed here is the frontal interantennal median compact setose wart. There is no compact setal wart present on the cervix or on the cervical sclerite. The pair of lateral cervical sclerites are gammon-shaped; the slender anterior arm broadening from midway almost gradually and broadest subapicad where it is slightly curving ventrad towards the articulation with the proepisternum. They are composed of the narrow slender anterior arm articulating anteriorly to the back of the head with the occipital condyle above the posterior tentorial pits and fused to the posterior cervical sclerites; the posterior cervical sclerite forming the gammon-shaped plate reaching the prothoracic episternum, but articulating also to the weakly sclerotized anteromedian band of the prothoracic eusternum by the very thin ventral intercervical sclerites. Proepisternal swollen setal wart absent.

Male genitalia. Abdominal segment 9 represented by the sternite, subtriangular in lateral view and produced laterad directed anterodorsal flaps on each side and posterovertral marginal flange; this flange, like a template, receives the coxopodite of the gonopods; this flange like development has an unusual ventral membranous conjunctiva connecting the flange to the ventral posterior margin of segment 8. The cerci are unusual in that they are furcated into a dorsal long and downward bent spine, and a ventral large section in the shape of a spread fan. Paraproct is represented by a pair of ventral paraproctal process present and less sclerotized, almost hyaline, just discernible, with few distal hairs. In the place of a normally triangular or rounded tergite 9, there is a very large bulbous and semi-membranous structure which is probably tergite 9 because it is in immediate contact with tergite 8, but it is possible that segment 10 is also involved. An additional pair of small, but heavily sclerotized ventraventral lobes of the fulcrum below the basal part of phallic apparatus, themedian bridge of Li & Morse (1997) or sclerite of genital chamber of Botosaneanu (1992) are present; these lobes almost meet medially giving a ventral support to the phallic apparatus. The gonopods, which usually are the largest genital structural element in Tinodes, are reduced in size. It is not clear whether the apical parts are the fused harpagoes with downcurving apex, or whether these are reduced. Basal plate extending anterad and tapering in ventral view. Phallic apparatus forms a simple downcurving filiform process with bulbous basement. This new species is close to Tinodes furcata Li & Morse described from China (Jiangxi, Hubei, Sichuan), having expanded and compressed cerci, a character that is unusual in the genus. Normally Tinodes species have digitiform, elongated rod-shaped cerci. Tinodes retorta Ulmer from Taiwan possibly has also distally expanded cerci, but the drawing by Ulmer is poor. Tinodes dungdung n.sp. can be easily distinguished by having the vertically expanded and flattened cerci clearly spatulate, not just expanded subapicad like in T. furcata and not with the downcurving apical expansion of T. retorta.

**Holotype male:** Vinh Phuc Province, Tamdao, 1300 m, 14.x.1986, light leg [J. Oláh] — 1 male.


Etymology: The name refers to the unusual spatulate cerci; spatula "dung de ra" in Vietnamese.

**Tinodes cryptophallicata Li & Morse**

Type country: China (Jiangxi). New record:

**Holotype male:** Vinh Phuc Province, Tamdao, 1300 m, 14.x.1986, light leg [J. Oláh] — 1 male.

**References**


Frans Fischer. I think that he also used this method. In the Proceedings of the 12th Int. Symp. in Mexico, only the gas. After about 30-40 minutes, most specimens are put in a pan with boiling water (aux bain marie) on the lactic acid method for clearing Trichoptera recently in my possession, I read with much attention the method from Dirk Geijskes, who was in close contact with these are put in a pan with boiling water (aux bain marie) on the lactic acid method for clearing Trichoptera. - The Canadian Entomologist 101(2): 187-223. - Au bain marie, 49-50. After about 30-40 minutes, most specimens are put in a pan with boiling water (aux bain marie) on the lactic acid method for clearing Trichoptera. - The Canadian Entomologist 101(2): 187-223. After about 30-40 minutes, most specimens are put in a pan with boiling water (aux bain marie) on the lactic acid method for clearing Trichoptera. - The Canadian Entomologist 101(2): 187-223. - Faberries 22(1-2):1-56.

**Lactic acid method**

In the Proceedings of the 12th Int.Symp. in Mexico, only recently in my possession, I read with much attention the paper on the lactic acid method for clearing Trichoptera genitalia. I have used lactic acid all my life and learned the method from Dirk Geijskes, who was in close contact with Frans Fischer. I think that he also used this method.

We use lactic acid of a much weaker percentage than Blahnik, Holzenthal and Prather (2007). I do not remember the exact formula, but I use 10-20 percent of lactic acid in test tubes with abdomens or complete animals, and these are put in a pan with boiling water (aux bain marie) on the gas. After about 30-40 minutes, most specimens are cleaned and ready to be examined in alcohol. Putting them away for several days in such a (cold) lactic acid solution without boiling generally also works well. Geijskes put the material after boiling as described, first in xylol and after that in creosote (to make the chitinous parts brown in colour).

I have done that too, but recently not any more. Both xylol and creosote promote cancer and are only used for making beautiful preparations. My method is not so sophisticated, but effective enough for examination of hydroptilids and the genitalia of viz. Leptoceridae.

Bert Higler
Gunungiella lencao

Chimarra mitranga

Chimarra thanglena

Chimarra bancha

Chimarra dakronga

Chimarra loanga
Psychomyia vietnama

Psychomyia bacthaia

Psychomyia sonlana

Tinodes dungdera
ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: Braueria

Jahr/Year: 2010

Band/Volume: 37

Autor(en)/Author(s): Olah Janos, Malicky Hans

Artikel/Article: New species and new species records of Trichoptera from Vietnam 13-42