

Revision of the Eurybrachidae (VIII) The Oriental genera *Klapperibrachys* CONSTANT and *Macrobrachys* LALLEMAND (Hemiptera: Fulgoromorpha: Eurybrachidae)

by Jérôme CONSTANT

Abstract

The Oriental genus of Eurybrachidae (Hemiptera, Fulgoromorpha) *Macrobrachys* LALLEMAND, 1950 is described and reviewed and the genus *Klapperibrachys* CONSTANT n. g. is described for one species, *Thessitus cremeri* JACOBI, 1944. The new combination *Klapperibrachys cremeri* (JACOBI, 1944) n. comb. is subsequently proposed. *Guentheria formosa* LALLEMAND, 1963 is proposed as synonym of *Klapperibrachys cremeri* (JACOBI, 1944). The name *Guentheria* LALLEMAND, 1963 is not available for the species *cremeri* as it is preoccupied by *Guentheria* BLEEKER, 1862, a genus of fishes of the family Labridae. The male genitalia are illustrated and photos of habitus, distribution map and biological data are provided with the description of the species. Lectotypes and paralectotypes are designated for *Macrobrachys tonkinensis* LALLEMAND, 1950, *Thessitus cremeri* and *Guentheria formosa*. Both genera are placed in the Eurybrachinae, Loxocephalini.

Résumé

Le genre oriental d'Eurybrachidae (Hemiptera, Fulgoromorpha) *Macrobrachys* LALLEMAND, 1950 est décrit et revu et le genre *Klapperibrachys* CONSTANT n. g. est décrit pour une espèce, *Thessitus cremeri* JACOBI, 1944. La nouvelle combinaison *Klapperibrachys cremeri* (JACOBI, 1944) n. comb. est donc proposée. *Guentheria formosa* LALLEMAND, 1963 est proposé comme synonyme de *Klapperibrachys cremeri* (JACOBI, 1944). Le nom *Guentheria* LALLEMAND, 1963 n'est pas disponible pour l'espèce *cremeri* car préoccupé par *Guentheria* BLEEKER, 1862, un genre de poissons de la famille des Labridae. Les genitalia mâles sont illustrés et des photos d'habitus, une carte de répartition ainsi que des renseignements sur la biologie accompagnent la description de l'espèce. Des lectotypes et paralectotypes sont désignés pour *Macrobrachys tonkinensis* LALLEMAND, 1950, *Thessitus cremeri* et *Guentheria formosa*. Les deux genres sont placés dans les Eurybrachinae, Loxocephalini.

Keywords: Oriental region, Eurybrachidae, revision, *Macrobrachys*, *Klapperibrachys*, *Guentheria*.

Introduction

This paper is the eighth one of a series intended to revise the family Eurybrachidae.

This study starts with the one-by-one revision and redefinition of the genera and will result in a proposal of a more natural classification in the family. This will also allow tentative understanding of the phylogeny and zoogeography of the family.

Historical review

Thessitus cremeri

In 1944, JACOBI described *Thessitus cremeri* for a series of specimens collected in South-Eastern China. The reason why the species was placed in *Thessitus* WALKER, 1862 remains unclear as *cremeri* does not show the very typical bark-and-lichen-like aspect of the species of the genus that had been well represented in several papers (e.g. HOPE, 1843; WALKER, 1862; DISTANT, 1906 & 1916). Furthermore, *cremeri* is also very different in the shape of the frons that is less dilated laterally and in the venation with claval veins A1 and A2 fused.

Later in 1963, LALLEMAND created, for the same species, the genus *Guentheria* for one specimen from Southern China, and described the species as *Guentheria formosa* LALLEMAND, 1963. He described it in the second part of his revision of the family Fulgoridae dealing with the species from Asia and Australia and erroneously placed the genus in the subfamily Phenacinae of the Fulgoridae, giving as diagnostic features for the genus many characters of the family Eurybrachidae: (1) only one carina between frons and vertex, (2) frons broader than long, (3) frons angularly broadened at each side, (4) vertex broader than long. He apparently did not examine the hind tarsomeres and female genitalia and had been influenced by the large size and bright colour to place the genus in the Fulgoridae rather than in the Eurybrachidae. It seems interesting to mention that all species of Phenacinae are restricted to the New World.

In 1995, LIANG moved *Guentheria* from the Fulgoridae to the Eurybrachidae.

Finally, in their catalogue of the Asian and Australian Fulgoridae, NAGAI & PORION (1996) have erroneously left *Guentheria* in the Fulgoridae, illustrating *G. formosa* on the front cover of their work.

Macrobrachys

In 1950, LALLEMAND created the genus *Macrobrachys* for one new species from Vietnam, *M. tonkinensis* LALLEMAND, 1950. He erroneously stated that the clavus of the tegmen is closed, that the hind wings are broader than the tegmina and that the venation of the hind wings is

similar to that of the genus *Thessitus* WALKER, 1862. It seems obvious that LALLEMAND has never examined the hind wings of *Macrobrachys*: the only specimen that he has seen was pinned “at rest”.

He also erroneously placed the genus in the tribe Platybrachyini [main features of the Platybrachyini: (1) clavus closed, (2) infra-ocular spine absent].

In his catalogue of the family Eurybrachidae, METCALF (1956) erroneously placed the genus in the subfamily Eurybrachinae, tribe Eurybrachini [main features of the Eurybrachini: (1) clavus open, (2) claval veins not fused], probably on the basis of LALLEMAND's erroneous statement that the hind wings are broader than the tegmina with the venation similar to the one of *Thessitus* WALKER, 1862 (*Thessitus* is placed in the Eurybrachini).

Materials and methods

The types of the described species have been studied and as much material as possible has been examined. The genitalia of all the males have been checked.

The dissection of the genitalia is done after boiling the abdomen in glacial acetic acid for a few minutes. The pygofer is then separated from the abdomen and boiled for about one hour in a 10% solution of potassium hydroxide (KOH) with some drops of aqueous solution of chlorazol black. It is then placed in glycerin.

For routine identification, the genitalia have been examined on the specimen as the specific structures on the phallic complex are directly visible between the gonostyli in ventral view.

The description of the female genitalia follows BOURGOIN (1993) with some additions from the study of SOULIER-PERKINS (1997) and SOULIER-PERKINS & BOURGOIN (1998) on the family Lophopidae.

Lectotypes and paralectotypes have been designated. They bear a red manuscript label with the following data: [Lectotype/Paralectotype ♂/♀ *Genus species* Author, date, J. Constant des.]. For the transcription of the labels of the types, each single label is limited by square brackets.

The species are redescribed and the male genitalia as well as other characters useful for identification are figured. A distribution map produced by the software CFF (BARBIER & RASMONT, 2000) and photos of habitus are also provided. The few indications about the biology of the species are given.

The following acronyms are used for the measurements (measurements are taken as in CONSTANT, 2004): BF, breadth of the frons – BT, breadth of the thorax – BTg, breadth of the tegmen – BV, breadth of the vertex – LF, length of the frons – LM, length of the mesonotum – LP, length of the pronotum – LT, total length – LTg, length of the tegmen – LV, length of the vertex.

Acronyms used for the collections (name of the curator in parentheses).

BPBM: Bernice P. Bishop Museum, Honolulu, Hawaii, U.S.A. (A. Ramsdale)

IRSNB: Institut royal des Sciences naturelles de Belgique, Bruxelles, Belgium (P. Grootaert)

IZAS: Academia Sinica, Institute of Zoology, Beijing, China (A.-P. Liang)

MNHN: Museum National d'Histoire Naturelle, Paris, France (T. Bourgoin)

SMTD: Staatliches Museum für Tierkunde, Dresden, Germany (R. Emmrich)

ZFMK: Zoologisches Forschungsinstitut und Museum “Alexander Koenig”, Bonn, Germany (K.H. Lampe)

ZMHB: Museum für Naturkunde der Humboldt Universität, Berlin, Germany (J. Deckert)

Taxonomic part

Description of the taxa

Genus *Klapperibrachys* CONSTANT, 2006 n.g.

Type-species: *Thessitus cremeri* JACOBI, 1944, by original designation and monotypy.

Guentheria LALLEMAND, 1963: 6 (nec BLEEKER, 1862) **nov. syn.**

Type-species: *Guentheria formosa* LALLEMAND, 1963, by original designation and monotypy.

Guentheria LALLEMAND, 1963: LIANG, 1995: 162.

Guentheria LALLEMAND, 1963: NAGAI & PORION, 1996: 13.

The name *Klapperibrachys* is here proposed because *Guentheria* is not available as it is preoccupied by *Guentheria* BLEEKER, 1862, a genus of fishes of the family Labridae (Perciformes: Labroidei), which is a junior synonym of *Halichoeres* RÜPPEL, 1835 (PARENTI & RANDALL, 2000).

ETYMOLOGY: *Klapperibrachys* is formed from the contraction of the name of the collector of the first specimens of the genus, J. KLAPPERICH, and *brachys* (Greek word meaning “short”) which is a common ending of the generic names among the family Eurybrachidae. Gender arbitrarily feminine, following the use in the family.

- *Guentheria* was dedicated by LALLEMAND to Dr. Kurt K. GÜNTHER (ZMHB).

DIAGNOSIS: Differs from all other Oriental genera by the following combination of characters: large size; vertex less than 2 times broader than long; subocular spines present; clavus narrowly open with veins A₁ and A₂ fused; tegmina elongate and bright colour of tegmina and hind wings. Oriental region.

DESCRIPTION: *General coloration*: body yellow and black; tegmina and wings bright red spotted with black.

Head: narrower than thorax; vertex about 1.8 times broader than long, flat with margins carinate, fore margin strongly curved, hind margin curved; frons 1.3 times broader than long, slightly convex, slightly wrinkled on disc; clypeus elongate, reaching median coxae; labium about as long as clypeus, reaching hind coxae; last segment of labium longer than broad, narrower than penultimate segment; infra-ocular spine present, small; ocelli absent; antennae short, not surpassing lateral projection of frons, visible from above; scape very short, pedicel subglobular.

Thorax: about 1.4 times broader than length of pro- and mesonotum together; pronotum with fore margin carinate, one carina on each side of disc, parallel to fore margin, and 2 impressed points on middle of disc; mesonotum smooth or with 3 obsolete, longitudinal carinae.

Tegmina: flat, about 2.5 - 3 times longer than broad; maximal breadth near apex; costal and sutural margins slightly sinuate; apex round; clavus narrowly open.

Vein C visible on basal half of tegmen, very close to costal margin; veins Sc & R separated close to base; first fork of vein M beyond Sc+R separation; A₁ & A₂ fused at about half of clavus.

Hind wings: well developed, broad; broader than tegmina; apex round; nearly reaching apex of tegmina at rest; anal area well developed.

Legs: fore and median legs elongate, with femur and tibia dorso-ventrally flattened, slender; tibia III with 7 lateral and 8 apical spines; first hind tarsomere elongate; ventral face without pad of microsetae, bearing a group of 14 spines near apex.

Genitalia ♂: pygofer higher than long in lateral view; anal tube with lateral lobe directed ventrad; gonostyli laterally flattened, with process on middle of dorsal margin.

Sexual dimorphism: males smaller than females.

Size: 22-27 mm

Distribution: Oriental region, reported from South Eastern China and Viet-Nam.

BIOLOGY: The single species seems to be associated with montanous habitat.

***Klapperibrachys cremeri* (JACOBI, 1944) n. comb.**

Figs. 1 A-E, 2, plate 1 E-H.

Thessitus cremeri JACOBI, 1944: 10.

Thessitus cremeri JACOBI, 1944: METCALF, 1956: 32

Thessitus cremeri JACOBI, 1944: MANNHEIMS, 1965: 354.

Guentheria formosa LALLEMAND, 1963: 6. **nov. syn.**

Guentheria formosa LALLEMAND, 1963: LIANG, 1995: 163

Guentheria formosa LALLEMAND, 1963: NAGAI & PORION, 1996: 13, 38, 40, pl. 1 fig. 2, pl. 2 fig. 35.

ETYMOLOGY: *cremeri*: the species was dedicated by JACOBI to Dr. CREMER, the curator of the insect collections of the ZFMK at that time.

- *formosa* (adj., Latin) = beautiful. Name assumed to refer to the general aspect of the species.

TYPES EXAMINED (all bear a white manuscript identification label: [*Klapperibrachys cremeri* (Jacobi, 1944) ♂/♀, Jérôme Constant det. 2006]):

- LECTOTYPE ♀ of *Thessitus cremeri* JACOBI, 1944 **present designation:** labeled [Kuatun (2300m) 27.40n. Br.117.40ö. L. J. Klapperich, 24.9.1938 (Fukien)] [27] [Typus] [*Thessitus cremeri* Jacobi Holotypus, Straßberger det.] [Holotypus] [Museum Koenig, HOM 2000/651] - (ZFMK).

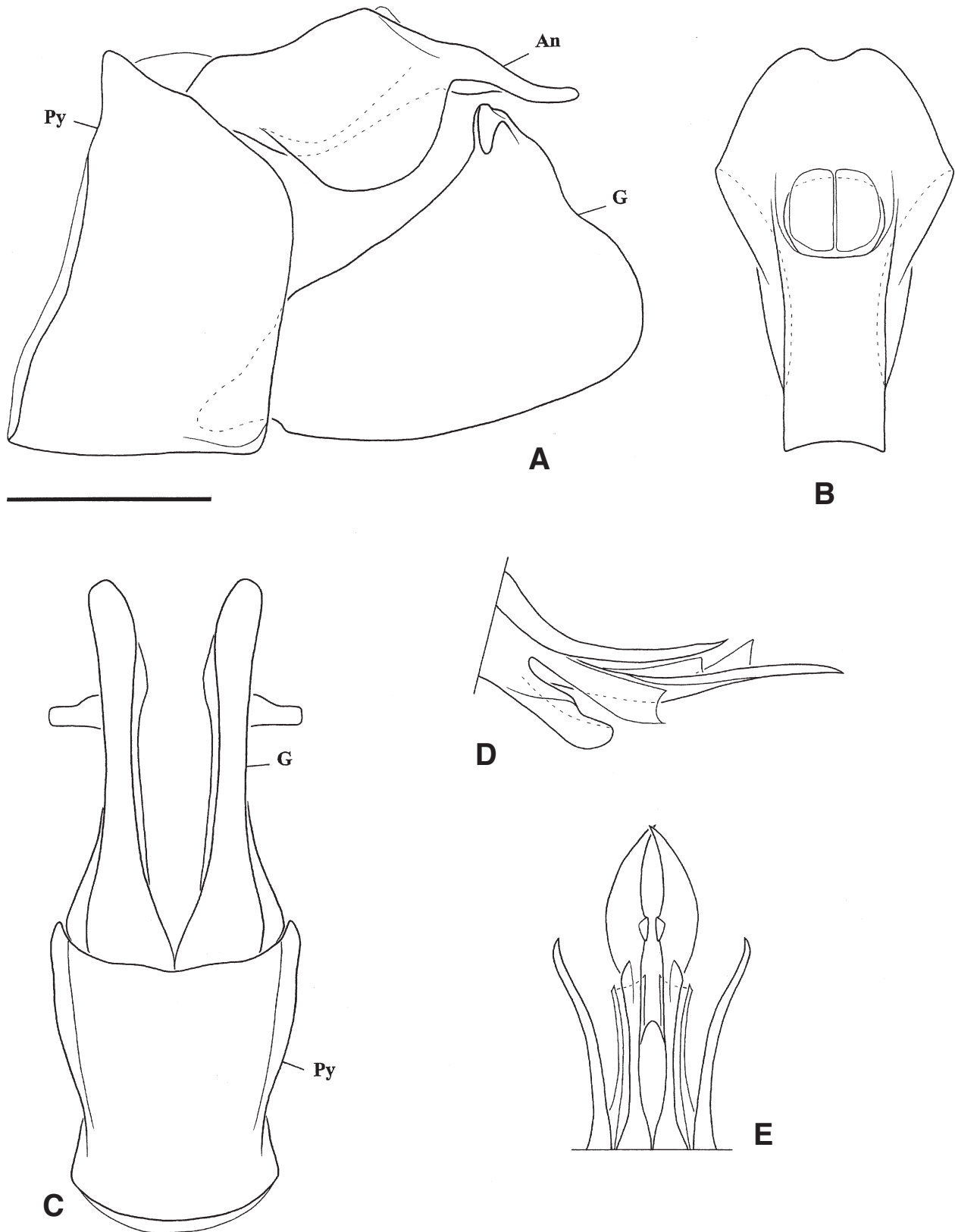
- PARALECTOTYPES (5 ♂♂, 7 ♀♀) of *Thessitus cremeri* JACOBI, 1944 **present designation:** 1 ♂ (dissected, genitalia in glycerine) [Kuatun (2300m) 27.40n. Br.117.40ö. L. J. Klapperich, 16.9.1938 (Fukien)] [Museum Koenig, HOM 2000/654] - (ZFMK); 1 ♂: [Kuatun (2300m) 27.40n. Br.117.40ö. L. J. Klapperich, 18.9.1938 (Fukien)] [Museum Koenig, HOM 2000/652] - (ZFMK); 1 ♀: [Kuatun (2300m) 27.40n. Br.117.40ö. L. J. Klapperich, 27.9.1938 (Fukien)] [Museum Koenig, HOM 2000/655] - (ZFMK); 1 ♀: [Kuatun (2300m) 27.40n. Br.117.40ö. L. J. Klapperich, 15.9.1938 (Fukien)] [Museum Koenig, HOM 2000/653] - (ZFMK); 1 ♀: [Kuatun (2300m) 27.40n. Br.117.40ö. L. J. Klapperich, 25.9.1938 (Fukien)] [Museum Koenig, HOM 2000/656] - (ZFMK); 1 ♀ (dissected, genitalia in glycerine): [Kuatun (2300m) 27.40n. Br.117.40ö. L. J. Klapperich, 20.9.1938 (Fukien)] - (SMTD); 2 ♂♂, 1 ♀: [Kuatun (2300m) 27.40n. Br.117.40ö. L. J. Klapperich, 18.9.1938 (Fukien)] - (SMTD); 1 ♀: [Kuatun (2300m) 27.40n. Br.117.40ö. L. J. Klapperich, 25.9.1938 (Fukien)] - (SMTD); 1 ♀: [Kuatun (2300m) 27.40n. Br.117.40ö. L. J. Klapperich, 30.6.1938 (Fukien)] - (SMTD); 1 ♂: [China Prov. Fukien J. Klapperich 1938] [Typus] - (SMTD).

Note: all 11 first listed paralectotypes bear labels [*Thessitus cremeri* Jacobi/Jac. Paratypus, Straßberger det.] and [Paratypoid]; all paralectotypes from SMTD bear a label [Staatl. Museum für Tierkunde Dresden]. Those labels by Straßberger have no value under taxonomical rules. They have been placed under the specimens by Mr and Mrs Straßberger during a work intended to allow a better understanding of what happened to the Homoptera material collected by J. Klapperich in China and on which was based the work of JACOBI (1944) (MANNHEIMS, 1965).

- LECTOTYPE ♀ of *Guentheria formosa* LALLEMAND, 1963 **present designation:** [Type] [China, Canton, Mell S.V.] [Zoolog. Museum Berlin] the following written in Chinese on label [June 9] [V. Lallemand det., 1963, *Güntheria formosa* Lall.] *sic!* [Zoolog. Museum Berlin (ZMB) Germany] - (ZMHB).

Note: the date of collection, written in Chinese, is recorded according to the traditional Chinese lunar calendar. As the year of collection is not known, it is not possible to find the corresponding date according to the Gregorian calendar (Ai-Ping LIANG, *pers. com.*).

OTHER MATERIAL EXAMINED (2 ♀) - CHINA: 1 ♀: Fukien, Shaowu: Tachulan, 1000 m, 09.IX.1943, T. Maa (BPBM); 1 ♀: idem, 02.IX.1943 (IRSNB).



Figs. 1 A-E—*Klapperibrachys cremeri*: genitalia ♂. **A.** pygofer, anal tube and gonostyli, left lateral view (An – anal tube; G – gonostyli; Py – pygofer). **B.** anal tube, dorsal view. **C.** pygofer and gonostyli, ventral view. **D.** phallic complex, left lateral view. **E.** phallic complex, dorsal view. Scale 1mm.

ADDITIONAL DATA: from LIANG, 1995: 163 (under *Guentheria formosa*): CHINA (Fujian province): 1 ♀: Jiangle, Mt. Longxishan, 18.X.1991, C.M. Huang (IZAS); 1 ♀: idem, 840 m, 22.VI.1991, L.L. Yang (IZAS); 1 ♀: idem, 850 m, 24.VI.1991, W.C. Ma (IZAS); from NAGAI & PORION, 1996: 35 (under *Guentheria formosa*): VIET-NAM: 1 ♀: Mt Tamdao, 30.VII.1992.

DIAGNOSIS: Immediately recognized among all Eurybrachidae by its large size and bright red colour of tegmina and hind wings.

DESCRIPTION: LT: ♂ (n = 5): 22.3 mm (22.0 to 22.7); ♀ (n = 10): 25.8 mm (24.6 to 27.0).

Head: entirely brownish yellow; ratio BV/LV = 1.7 - 1.8; BF/LF = 1.3.

Thorax: same colour as head with anterior half of pronotum and 4 points along hind margin of mesonotum black; often mesonotum infuscate behind middle of hind margin of pronotum; tegulae with dorsal half yellowish and ventral half blackish; ratio LP+LM/BP = 0.72 - 0.74.

Tegmina: red with about 40 (32 - 46) black spots on apical 1/3; numerous spots weakly paler than ground colour on basal 2/3; ratio LTg/BTg = 2.63 - 2.73.

Hind wings: bright red with 13 - 18 black spots on apical 1/2; spots larger than ones of tegmina.

Legs: femora yellowish with apex black ventrally; femora I and II often infuscate dorsally at 2/3; tibiae I and II black with yellowish ring in middle; tibia III infuscate with base of spines yellowish; tarsi infuscate; first hind tarsomere yellowish.

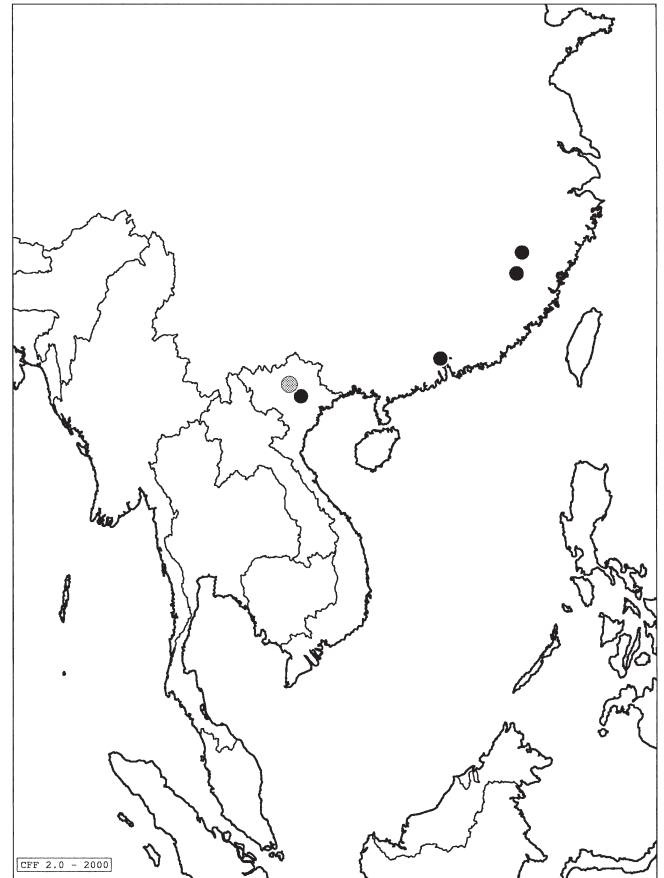
Abdomen: brownish yellow.

Genitalia ♂: yellow with gonostyli little infuscate ventrally; see figs 1 A - E.

Genitalia ♀: anal tube elongate, laterally compressed, v-shaped in cross section after anus; strongly laminate ventrally; apex notched with sides rounded; length surpassing gonoplacs; gonoplacs longer than broad, with strong carina parallel to hind margin on external side; gonapophysis IX large, directed postero-ventrad; apical margin broadly rounded and furnished with numerous minute teeth; gonocoxae VIII looking like inflated pouch with inner margin concave; gonapophysis VIII clearly visible between gonocoxae VIII, subrectangular with outer margin concave; anterior vagina very small, positioned ventrally with spermatheca attached apically; posterior vagina small with transverse dorsal hump in middle; apex projecting dorsally; bursa copulatrix small, ovoid, larger than posterior vagina, with very weak ornamentation on walls.

Sexual dimorphism: females about 17 % larger than males.

BIOLOGY: The species is known from montanous regions of South-Eastern China and Northern Viet-Nam at altitudes between 850 and 2300 m, and has been collected in June, July, September and October. Most of the specimens have been collected in September but more field observations should be conducted before concluding to any seasonality in the phenology of the species. No host-plant is known to date.



● *Klapperibrachys cremeri* (Jacobi, 1944)
● *Macrobrachys tonkinensis* Lallemand, 1950

Fig. 2 — Distribution of *Klapperibrachys cremeri* and *Macrobrachys tonkinensis*.

Genus *Macrobrachys* LALLEMAND, 1950

Type-species: *Macrobrachys tonkinensis* LALLEMAND, 1950, by monotypy.

Macrobrachys LALLEMAND, 1950: 150

Macrobrachys LALLEMAND, 1950: METCALF, 1956: 29.

ETYMOLOGY: Name formed from *makros* (Greek) = large and *brachys* (Greek) = short, which is a common ending of the names of the genera among the family Eurybrachidae. The name is assumed to refer to the large size of the specimens in the genus. Gender not given by LALLEMAND (1950); it is proposed to consider it arbitrarily feminine, following the use in the family.

DIAGNOSIS: Differs from all other Oriental genera by the following combination of characters: large size; largely rounded tegmina; clavus nearly closed with claval veins fused; hind wings narrower than tegmina and infra-ocular spines present. Oriental region.

DESCRIPTION: *General coloration*: yellowish and red. *Head*: narrower than thorax; vertex about 3 times broader than long, with transverse furrow; fore and hind mar-

gins carinate and curved; frons 1.7 times broader than long, slightly convex, slightly wrinkled on disc; clypeus reaching median coxae, carinate at apex; labium nearly reaching hind coxae; last segment about as broad as long, somewhat dilated, as broad and much shorter than penultimate; infra-ocular spine present, small, barely visible from above; antennae short, not reaching level of lateral projection of frons, visible from above; scape short, pedicel subglobular.

Thorax: about 1.5 times broader than length of pro- and mesonotum together; fore margin of pronotum carinate; pronotum smooth, with obsolete transverse impression and fore and hind margins sinuate; mesonotum smooth.

Tegmina: slightly convex, about twice longer than broad; costal margin largely rounded; maximal breadth at about half of length; suturo-apical angle right; clavus narrowly open; sutural margin nearly straight.

Vein C visible at base; veins Sc & R with short common stem; first fork of vein M beyond Sc+R separation; veins A_1 & A_2 fused before apex of clavus; vein A_1+A_2 fused with PCu near apex of clavus; cross veins numerous, quite thick, making tegmen coriaceous.

Hind wings: well developed, narrower than tegmina; anal area developed but not large; apex round, angular at sutural angle; sutural margin bisinuate, with conspicuous emargination before apex; reaching apex of tegmina at rest.

Legs: I and II elongate, slender, dorso-ventrally flattened; tibia I slightly dilated; tibia III with 4-6 lateral and 9 apical spines; first hind tarsomere elongate, ventral face without pad of microsetae, bearing group of 11-14 spines near apex.

Genitalia ♂: unknown.

Sexual dimorphism: unknown.

Size: around 30 mm for the females; males possibly smaller.

Distribution: Oriental region, known from Northern Vietnam.

BIOLOGY: Unknown.

Macrobrachys tonkinensis LALLEMAND, 1950

Fig. 2, plate 1 A-D.

Macrobrachys tonkinensis LALLEMAND, 1950: 150.

Macrobrachys tonkinensis LALLEMAND, 1950: METCALF, 1956: 29.

ETYMOLOGY: *tonkinensis*: the name refers to the Tonkin, the geographic origin of the species.

TYPES EXAMINED: LECTOTYPE ♀ of *Macrobrachys tonkinensis* LALLEMAND, 1950 **present designation**: [Museum Paris, Tonkin Central, A. Krempf, 1911] [*Macrobrachys tonkinensis* Lallemand, V. Lallemand det.:] [Lectotype ♀ *Macrobrachys tonkinensis* Lallemand, 1950, J. Constant des.] *right hind tarsus and left median tibia missing, remounted with right wings expanded* (MNHN).

OTHER MATERIAL EXAMINED: 1 ♀: no data (MNHN).

DIAGNOSIS: Only species of the genus.

DESCRIPTION: LT: ♀ (n = 2): 29.3 mm (29.0 to 29.6).

Head: brownish yellow, frons little paler; vertex bearing white waxy spots on posterior 1/2; ratio BV/LV = 3.05; BF/LF = 1.70.

Thorax: pro & mesonotum, metathorax and tegulae, brownish yellow; pro- & mesosternum red; ratio LP+LM/BT = 0.65.

Tegmina: brownish yellow with basal 3/8 reddish; underside with basal 3/8 bright red; veins concolorous or paler: yellow in reddish zone and greenish in yellow zone; white, waxy spot on disc at 2/3; costal margin somewhat infusate near base; ratio LTg/BTg = 2.16.

Hind wings: white, slightly rosy on basal 1/3.

Legs: reddish yellow to greenish yellow with spines of legs III infusate apically.

Abdomen: red.

Genitalia ♀: anal tube elongate and narrow, v-shaped in cross section and angularly directed postero-ventrad beyond anus; anus at first 1/3; gonoplares unilobous, surpassed posteriorly by anal tube; gonapophysis IX large, rounded, higher than long in lateral view; gonocoxae VIII looking like inflated pouch; gonapophysis VIII reduced; gonoplares, gonapophysis IX and gonocoxae VIII covered with long hairs; sternite VII with hind margin modified, largely v-shaped with median rounded process directed caudad; all genitalia covered with white wax filaments in fresh specimens.

BIOLOGY: The only available information about this species is that it has been collected in "Central Tonkin".

Discussion

The large size and bright colour of *Klapperibrachys cremeri* have led to the peculiar taxonomic history of the genus *Guentheria* but the shape of the frons with lateral projections, of female genitalia with large, lobous gonoplares and the second hind tarsomere without apical spines leave no doubt that it must be placed in the family Eurybrachidae.

The genus *Macrobrachys*, despite its large size, remains very scarce in collections: even after considerable investigation in collections worldwide, only 2 specimens have been found for this genus. As for many Eurybrachidae, all about its biology is still to be discovered. Males are still unknown too and it is possible that, as in several other related genera, they will be smaller and darker than females.

Following the classification by SCHMIDT (1908) and METCALF (1956), both genera are here provisionally placed in the Eurybrachinae, Loxocephalini [main distinctive features of the Loxocephalini SCHMIDT (1908): (1) clavus open, (2) claval veins fused, (3) infra-ocular spine present].

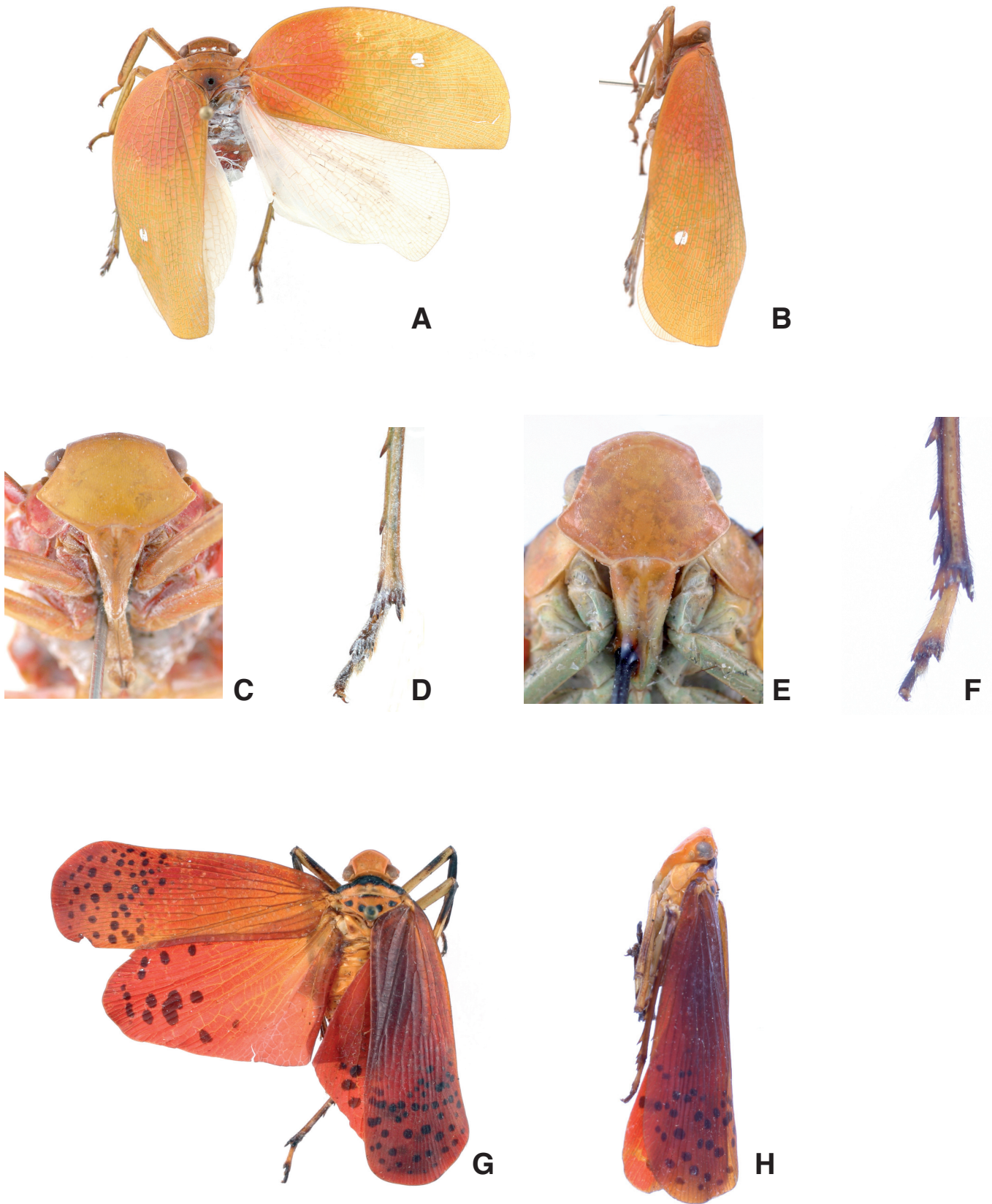


Plate 1 A-H — **A-D.** *Macrobrachys tonkinensis* ♀. **A.** habitus, dorsal view. **B.** habitus, left side view. **C.** frons, normal view. **D.** hind tarsus, ventral view — **E-H.** *Klapperibrachys cremeri* ♀. **E.** frons, normal view. **F.** hind tarsus, ventral view. **G.** habitus, dorsal view. **H.** habitus, left side view.

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References

- BARBIER, Y. & RASMONT, P., 2000. *Carto Fauna-Flora 2.0. Guide d'utilisation*. Université de Mons Hainaut, Mons, Belgique, 59 pp.
- BOURGOIN, T., 1993. Female genitalia in Hemiptera Fulgoromorpha, morphological and phylogenetic data. *Annales de la Société Entomologique de France*, **29**: 225-244.
- CONSTANT, J., 2004. Révision des Eurybrachidae (I). Le genre *Amychodes* Karsch, 1895 (Homoptera: Fulgoromorpha: Eurybrachidae). *Bulletin de l'Institut royal des Sciences naturelles de Belgique*, **74**: 11-28.
- DISTANT, W.L., 1906. Rhynchota. Heteroptera-Homoptera. *The Fauna of British India, including Ceylon and Burma. Published under the authority of the Secretary of State for India in Council. Edited by Lt. Col. C. T. Bingham*. **3**: i-xiv, 1-503; figs 1-266.
- DISTANT, W.L., 1916. Rhynchota, Homoptera: Appendix. *The Fauna of British India, including Ceylon and Burma. Published under the authority of the Secretary of State for India in Council. Edited by A. E. Shipley, assisted by Guy A.K. Marshall*. **6**: i-vii, 1-248; figs 1-177.
- HOPE, F.W., 1843. On some rare and beautiful insects from Silhet, chiefly in the collection of Frederick John Parry, Esq. F. L. S. *Transactions of the Linnean Society of London, Zoology*. **19**: 131-136; pls 11-12.
- JACOBI, A., 1944. Die Zikadenfauna der Provinz Fukien in Südchina und ihre tiergeographischen Beziehungen. *Mitteilungen von dem Münchner Entomologische Gesellschaft*, **34**: 5-66.
- LALLEMAND, V., 1950. Description de Quelques nouveaux Eurybrachides (Homoptera). *Revue Française d'Entomologie*. **17** (2): 149-152.
- LALLEMAND, V., 1963. Révision des Fulgoridae (Homoptera). Deuxième partie. faunes asiatique et Australienne. *Mémoires de l'Institut royal des Sciences naturelles de Belgique* (2e série) **75**: 1-99, pl. 1-11.
- MANNHEIMS, B., 1965. Die Cicaden-Typen im Zoologischen Forschungsinstitut und Museum A. Koenig (Insecta, Homoptera). *Bonner Zoologische Beiträge*. **16**: 352-356.
- METCALF, Z.P., 1956. *General Catalogue of the Homoptera. Fascicle IV Fulgoroidea. Part 18 Eurybrachidae and Gengidae*. Raleigh (U.S.A.) North Carolina State College, 81p.
- NAGAI, S. & PORION, T., 1996. *Fulgoridae 2: Catalogue illustré des faunes asiatique et australienne*. Sciences Nat, Compiègne: 80pp., 236 figs.
- PARENTI, P. & RANDALL, J.E., 2000. An annotated checklist of the species of the Labroid fish families Labridae and Scaridae. *Ichthyological Bulletin of the J.L.B. Smith Institute of Ichthyology*, **68**: 1-97.
- SCHMIDT, E., 1908. Beitrag zur Kenntnis der Eurybrachinen (Hemiptera – Homoptera). *Zoologischer Anzeiger*, **33**: 241-247.
- SOULIER-PERKINS, A. & BOURGOIN T., 1998. Copulatory mechanisms and sexual selection in the Lophopidae (Hemiptera: Fulgoromorpha). *Annales de la Société Entomologique de France (N.S.)*, **34**(2): 149-162.
- SOULIER-PERKINS, A., 1997. Systématique phylogénétique et test d'hypothèses biogéographiques chez les Lophopidae (Homoptera, Fulgoromorpha). Thèse, MNHN, Paris : 128 pp.
- WALKER, F., 1862. Characters of undescribed species of Homoptera in the collection of F. P. Pasco, F. L. S. *Journal of Entomology*, **1**: 301-319; pl. 15.

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