

## New data on the Tingidae from Gabon (Hemiptera: Heteroptera)\*)

Eric GUILBERT

UMR 5202 CNRS, Muséum national d'Histoire naturelle, Département de Systématique et Evolution – CP50,  
45 rue Buffon, F-75 005 Paris, France; e-mail: guibert@mnhn.fr

**Abstract.** Two species of the Tingidae, *Belenus thomasi* Drake, 1957, and *Phatnoma maynei* Schouteden, 1916, are recorded from Gabon for the first time, and one new species, *Cysteochila stysi* sp. nov., is described. The number of species of the Tingidae recently known from Gabon rises to 10.

**Key words.** Heteroptera, Tingidae, *Cysteochila*, taxonomy, new species, Gabon

### Introduction

Only two authors have previously mentioned any lace bugs (Tingidae) from Gabon. GÖLLNER-SCHIEDING (2003) reported six species currently known from Gabon: *Cantacader afzelii* Stål, 1873, *Afrochila elongata* Duarte-Rodrigues, 1980, *Ammianus mayri* (Haglund, 1895), *Compseuta ornatella* (Stål, 1855), *Compseuta picta* Schouteden, 1923, and *Cysteochila collarti* Schouteden, 1953. LIS (2003) mentioned the presence of *C. afzelii* as well and added *Cantacader tenuipes* Stål, 1865, on the list of Gabon lace bugs.

This paper provides new faunistic records from Gabon, including two species new to Gabon, *Belenus thomasi* Drake, 1957, and *Phatnoma maynei* Schouteden, 1916, and one species new to science, *Cysteochila stysi* sp. nov. Gabon is one of the African countries where the forest is quite well preserved. The forest covers 80 % of the country and 10 % of it is covered by thirteen protected areas. Most of the material was collected during a recent survey in the Ipassa Reserve. The reserve, established in 2002, is located along the Ivindo river between Makokou and Ovan in north-east Gabon (around 0°30'N and 12°48'E). It is a large area (3,000 km<sup>2</sup>) of dense evergreen forest, protected in some form since 1971.

The types are deposited at the Muséum national d'Histoire naturelle (MNHN), Paris.

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\*) This paper is dedicated to Prof. Pavel Štys on the occasion of his 75<sup>th</sup> anniversary in recognition of his remarkable contribution to the investigations of true bugs.

## Results

### Cantacaderinae

#### *Cantacader afzelii* Stål, 1873

**Material examined.** 1 ♂, **GABON:** Ipassa Res., 23.ix.2006, light trap, Guilbert lgt. (MNHN).

**Comments.** This species is common in West Africa and was recorded in many countries (DRAKE & RUHOFF 1965, GÖLLNER-SCHIEDING 2003, LIS 2003). In Gabon, it is already known from Makokou (LIS 2003) but not from the Ipassa Reserve.

#### *Phatnoma maynei* Schouteden, 1916

**Material examined.** 1 ♂ 2 ♀♀ 1 L(instar 5), **GABON:** Ipassa Res., 19.ix.2006, beating vegetation, Guilbert lgt. (MNHN).

**Comments.** This species is already known from Congo, Nigeria, and the Democratic Republic of the Congo (former Zaire) (DRAKE & RUHOFF 1965). This is the first record from Gabon.

### Tinginae

#### *Ammianus mayri* (Haglund, 1895)

**Material examined.** 9 ♂♂ 8 ♀♀ 1 L(instar 3), **GABON:** Ipassa Res., 19.ix.2006, beating vegetation, Guilbert lgt. (MNHN); 2 ♂♂ 3 ♀♀, Makoku, xi.-xii.1973, Balachowsky-Meunier lgt. (MNHN).

**Comments.** This species is very similar to *A. laminatus* (Horváth, 1911). There are no clear habitus differences between both species, possibly except body size and differences in the shape of the paranota. According to HORVÁTH (1911), *A. mayri* is smaller and the paranota are a little shorter. In addition, both species are distributed in the same area. Further studies are needed to clarify the systematics of the genus *Ammianus* Distant, 1903.

*Ammianus mayri* is known from Cameroon, Ivory Coast, Benin, Guinea, and Uganda (DRAKE & RUHOFF 1965, GÖLLNER-SCHIEDING 2003). It was already collected in Gabon in Mont de Cristal near Komo and in the Mondah forest near Libreville but never formally mentioned from the country. These are the first records from the Ipassa Reserve and Makoku.

#### *Belenus thomasi* Drake, 1957

**Material examined.** 1 specimen (carded, sex not examined), Cap esterias, 30 km NW Libreville, Gabon, 15.-30.ix.1969, A. Villiers lgt.

**Comments.** The species is known from Kenya and Ivory Coast. This is the first record from Gabon.

#### *Cystocheila stysi* sp. nov.

(Figs. 1-2)

**Material examined.** HOLOTYPE: 1 ♂, **GABON:** Ipassa Res., 18.ix.2006, beating tree (30 m high), E. Guilbert lgt. (MNHN). PARATYPES: 6 ♂♂ 9 ♀♀, **GABON:** Ipassa Res., 23.ix.2006, light trap, E. Guilbert lgt. (MNHN); 1 ♂, Ipassa Res., 23.ix.2006, beating, Guilbert lgt. (MNHN); 2 specimens (carded, sex not examined), Komo, contreforts des Monts de Cristal [= foothill of Cristal Mt.], 400 m a.s.l., 1.-15.x.1969, A. Villiers lgt. (MNHN).

**Description.** Body long and oval, colouration brown with a darker transversal band across the middle of hemelytra and centre of sutural area; head dark brown; apex of head and sternum almost blackish. Body length 3.30 mm; width 1.20 mm.

Head short, pilose on top, armed with five spines; frontal pair and median spine thick at base, straight and raised; frontal spines touching along their entire length; occipital pair of spines thick at base but less so than other spines, curved, convergent, not raised, their apices touching base of median spine; base of frontal pair and median spine starting almost on the same level just behind eyes. Bucculae broad, long, with three rows of areolae, closed in front. Labium reaching middle of mesosternum. Lengths of antennal segments: I, 0.18 mm; II, 0.13 mm; III, 0.75 mm; IV, 0.28 mm.

Pronotum long (1.70 mm), a little more than half as long as body, gibbose, deeply punctate, areolate on hind process, tricarinate, carinae subparallel, raised but narrow and not areolate; median carina prolonged in front by a small tectiform hood not reaching anterior margin of pronotum. Collar with three rows of areolae. Paranota large and wide, as wide as eight areolae at widest part, areolae deep, reflexed and covering part of pronotum, reaching lateral carinae but not covering them. Posterior process sharply prolonged behind; sulcus narrow, widened on metasternum, pro- and mesosternal laminae narrow and almost straight, metasternal laminae slightly wider, curved and open behind.

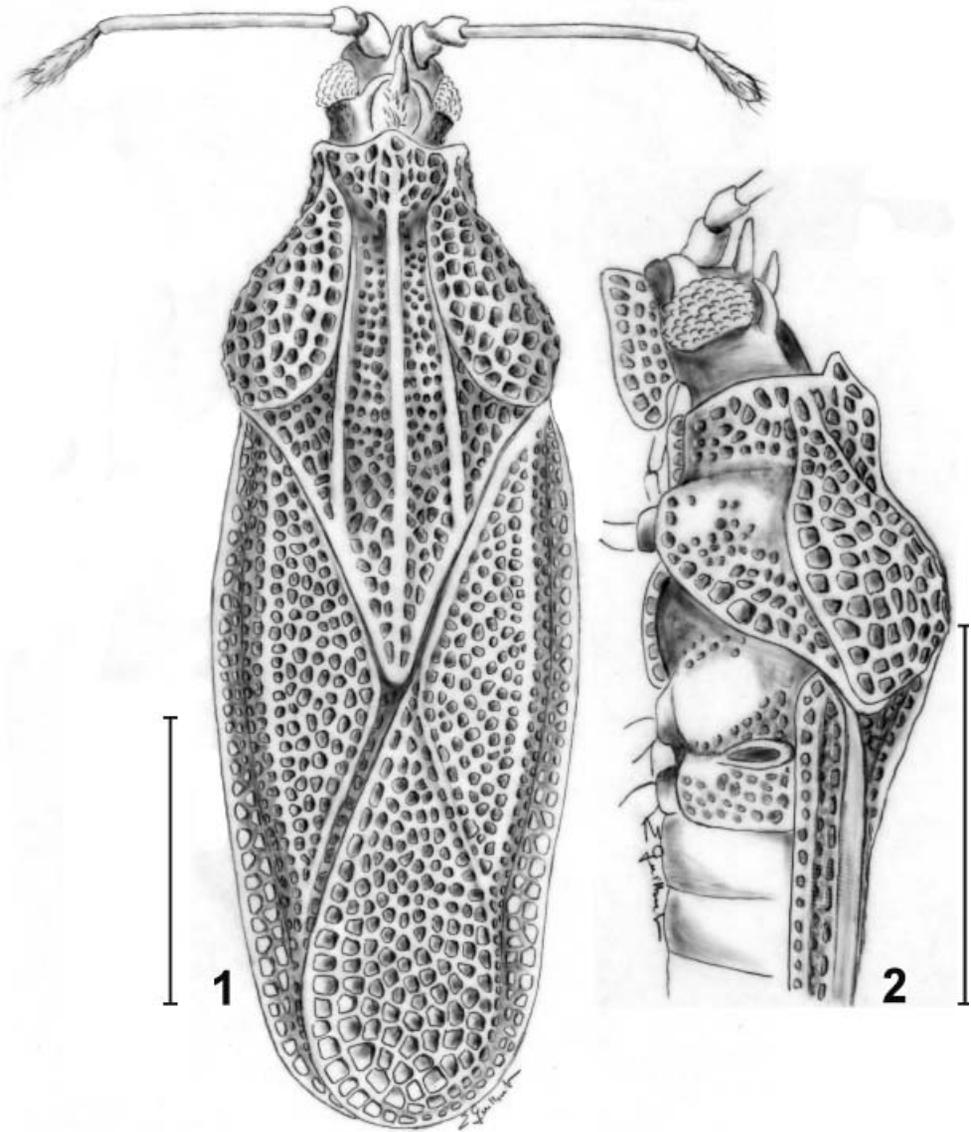
Hemelytra long and narrow, as wide as pronotum. Costal area narrow, with two regular rows of round and small areolae; subcostal area slightly wider than costal area, biseriate, areolae of the same size as on costal area; length of discoidal area two third the length of hemelytra, as wide as six areolae at widest part, areolae larger than on subcostal and costal area; sutural area longer than half the length of hemelytra, as wide as eight areolae at widest part, areolae as large as on discoidal area.

**Differential diagnosis.** The genus *Cysteochila* is diverse and widespread. It includes 80 species in Africa and Madagascar (GUILBERT, unpubl. data) and exhibits a great variety of combination of characters, which makes the systematics of the genus difficult and confused. *Cysteochila collarti* was until now the only species of the genus known in Gabon.

*Cysteochila stysi* sp. nov. is mostly similar to *C. collarti* but differs by the paranota wider and in contact with the lateral carinae (the paranota do not reach the carinae in *C. collarti*). Other species can be distinguished from the new one as follows. *Cysteochila kalongensis* Duarte Rodrigues, 1982, is close to *C. stysi* sp. nov. as well but differs from it by the paranota not reaching the lateral carinae and by the two rows of areolae on the costal area not being regular. *Cysteochila manselli* Duarte Rodrigues, 1981, has also two rows of areolae on the costal area but its paranota are much wider and cover the lateral carinae. *Cysteochila tonkouiana* Duarte Rodrigues, 1981, has also biseriate costal area, but the paranota are in contact with the lateral carinae only near the calli. *Cysteochila impressa* Horváth, 1910, has paranota of the same shape but larger and with fewer areolae than in *C. stysi* sp. nov., and the costal area uniseriate posteriorly on a longer length, while *C. stysi* sp. nov. has only the very posterior part uniseriate. In addition, the areolae on the costal area of *C. impressa* are larger than in *C. stysi* sp. nov. Finally, *C. biseriata* Schouteden, 1916, has a biseriate costal area but paranota of a different shape and *C. mokuensis* Schouteden, 1953, has paranota surpassing the lateral carinae.

**Etymology.** This species is dedicated to Pavel Štys (Charles University, Praha), an eminent heteropterist.

**Distribution.** Gabon.



Figs. 1-2. *Cysteochilda stysi* sp. nov., habitus. 1 – dorsal view; 2 – lateral view. Scale bars: 1 mm.

## Discussion

The Tingidae of Gabon are poorly known. So far only two studies have mentioned some species from this country and only 10 species are known from Gabon at present. All species recorded here were found in a forest; considering the extensive and varied forest cover of the country, the fauna should be much richer and the apparent lack of more species might be due to the lack of studies. For example, 10 species were known in Namibia in 2003 (GÖLLNER-SCHIEDING 2003) compared to 85 species three years later after several collecting trips (DECKERT & GÖLLNER-SCHIEDING 2006). Other relatively well-studied countries also exhibit a richer fauna of the Tingidae, for example Cameroon (24 species), Congo (former French and Belgian ancient colonies, 168 species), Ivory Coast (32 species), and South Africa (187 species) (GUILBERT, unpubl. data). There is no doubt that many species remain to be discovered in most African countries, particularly in the Gulf of Guinea as well as in Gabon.

## Acknowledgements

I thank S. Mbadinga (Centre National de la Recherche Scientifique et Technologique) and L. Ngok Banak (Institut de Recherche en Ecologie Tropicale), who allowed access and collecting in the Ipassa reserve. The survey in the reserve was done within the framework of 'CAFOTROP' surveys and was funded by ENERGIA SARL and the program pluri-formation 'Evolution et structure des écosystèmes' (Ministère de l'Éducation Nationale, de la Recherche et de la Technologie/MNHN). I also thank U. Göllner-Scheidung (Berlin, Germany) and B. Lis (Opole, Poland) for their useful comments on the manuscript.

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