

What is *Eurygaster austriaca seabrai* China, 1938 (Hemiptera: Heteroptera: Scutelleridae)? (*)

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Abstract

The subspecific splitting of *Eurygaster austriaca* Schrk. is based on an overrating of the very variable shape of the head and a seeming difference in the structure of the penis. *Eurygaster austriaca* (Schrank, 1776) = *Eurygaster austriaca seabrai* China, 1938 **syn. nov.**

Key words: Heteroptera, Scutelleridae, *Eurygaster austriaca*, subspecies, new synonymy.

Resumen

¿Qué es *Eurygaster austriaca seabrai* China, 1938 (Hemiptera: Heteroptera: Scutelleridae)?

La división subspecífica de *Eurygaster austriaca* Schrk. se basa en una sobreestimación de la gran variabilidad de la forma de la cabeza y en una aparente diferencia en la estructura del pene. *Eurygaster austriaca* (Schrank, 1776) = *Eurygaster austriaca seabrai* China, 1938 **syn. nov.**

Palabras clave: Heteroptera, Scutelleridae, *Eurygaster austriaca*, subespecie, nueva sinonimia.

Laburpena

Zer da *Eurygaster austriaca seabrai* China, 1938 (Hemiptera: Heteroptera: Scutelleridae)?

Eurygaster austriaca Schrk. espeziearen subespezie-zatiketa haren buruaren aldakortasun handia gehiegi balioestea eta penisaren egituraren itxurazko desberdintasuna dauzka oinarritzat. *Eurygaster austriaca* (Schrank, 1776) = *Eurygaster austriaca seabrai* China, 1938 **syn. nov.**

Gako-hitzak: Heteroptera, Scutelleridae, *Eurygaster austriaca*, subespeziea, sinonimia berria.

Introduction

On the basis of material from Toledo (Spain), China (1938) described a form of *Eurygaster austriaca* (Schrank, 1776) which he named in honour of Dr. A.F. de Seabra from the University of Coimbra: subsp. *seabrai*. As well as in Spain, this form is now known in southern France, too (Moulet, 1985; Coffin and Moulet, 1991; J. Ribes *et al.*, 1997; E. Ribes and J. Ribes, 2001). *Eurygaster austriaca* has a wide range of distribution within the Palaearctic Region (Göllner-Scheiding, 2006). The presence of a subspecies within populations of the nominate form would be exceptional.

This fact had already been the cause of doubts as to the status of the *seabrai* form (Coffin and Moulet, 1991; Ribes *et al.*, 1997). The status of *Eurygaster austriaca seabrai* is verified here on the basis of a wide range of material (see Appendix).

Result

According to China (1938), *E. austriaca seabrai* differs from the nominate form fundamentally in two features.

(*) I am pleased to dedicate this paper to Jordi Ribes, honoring his 80th birthday.

1. The different shape of the head

The genae are «distinctly produced and deflexed».

The checking of the material revealed great variability. The genae are always taller than the tylus and, as a rule, they include it. Besides this, the length of the suture where the genae touch varies. In the case of a very short suture, the tip of the tylus stays free (Fig. 1a). In the case of long genae, they overlap more (Figs. 1d-e) or less (Figs. 1b-c). Generally, specimens from the south have longer genae than specimens from the north. Towards the tip, the genae always are bent down continuously, that means the longer the genae, the more the bend is noticeable (Figs. 2a-d).

2. Differences in the construction of the penis

The penis of *E. austriaca* shows three pairs of con-

junctival appendages, one pair of them forked at the base, which gives the impression of eight conjunctival appendages. If the penis is in a rested state, the conjunctival appendages lie close together, arranged more or less in parallel (Figs. 3a-f). This situation fits with the figure f (Fig. 3h[f]) in China (1938); he assigns it to his subsp. *seabrai*.

If the penis is to be observed, it must be removed from the genital capsule (pygophore); the penis is then held tightly with a pair of tweezers and is extracted carefully from the genital capsule. If the penis is held somewhat more forcefully with the tweezers, the pressure on the base of the penis is increased, fluid is pressed into the terminal (skinny) parts of the penis and it starts to unfold, *i.e.* the conjunctival appendages are spread. This situation matches figure e (Fig. 3h[e]) of China (1938); he assigns it to the nominate form (*E. austriaca austriaca* Schrk.).

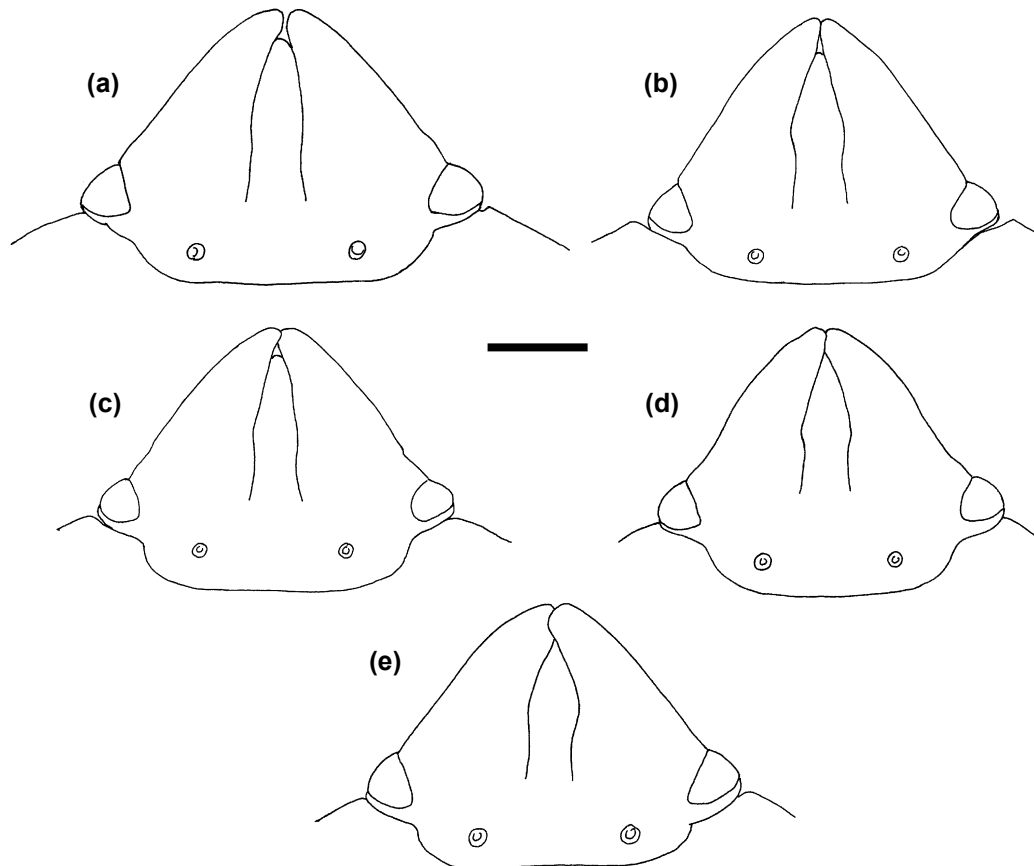


FIGURE 1. *Eurygaster austriaca*: Head from above: (a) Germany: Schlossböckelheim; (b) Greece: Eptalofos; (c) Greece: Kalipefki; (d) Spain: Mallorca; (e) Austria: Illmitz (Scale bar = 1 mm).

Conclusion

A subspecific subdivision of the species *Eurygaster austriaca* Schrk. does not exist: *Eurygaster austriaca* (Schrnk, 1776) = *Eurygaster austriaca seabrai* China, 1938 **syn. nov.**

Acknowledgements

I thank the collectors mentioned in the Appendix for making the *Eurygaster austriaca* material available.

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Received / Recibido / Hartua: 15/11/2010

Accepted / Aceptado / Onartua: 24/02/2011

Published / Publicado / Argitaratua: 15/12/2011

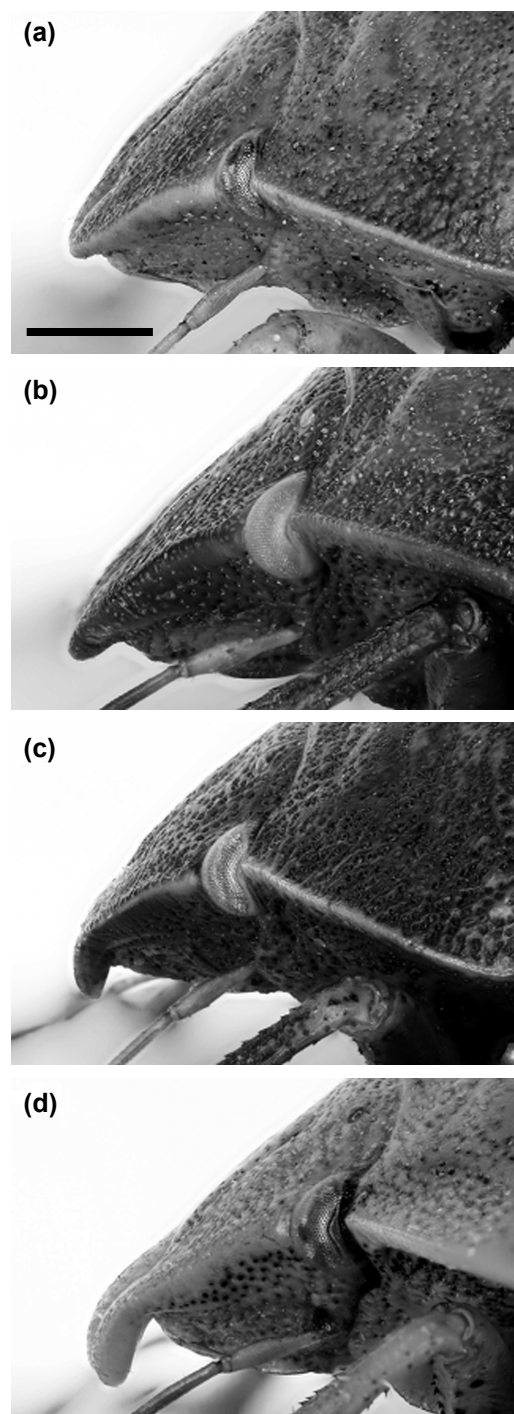


FIGURE 2. *Eurygaster austriaca*: Genae of the head in lateral view: (a) Germany: Achkarren; (b) Greece: Karia; (c) Morocco: Azrou; (d) Spain: Villanueva (Scale bar = 1 mm).

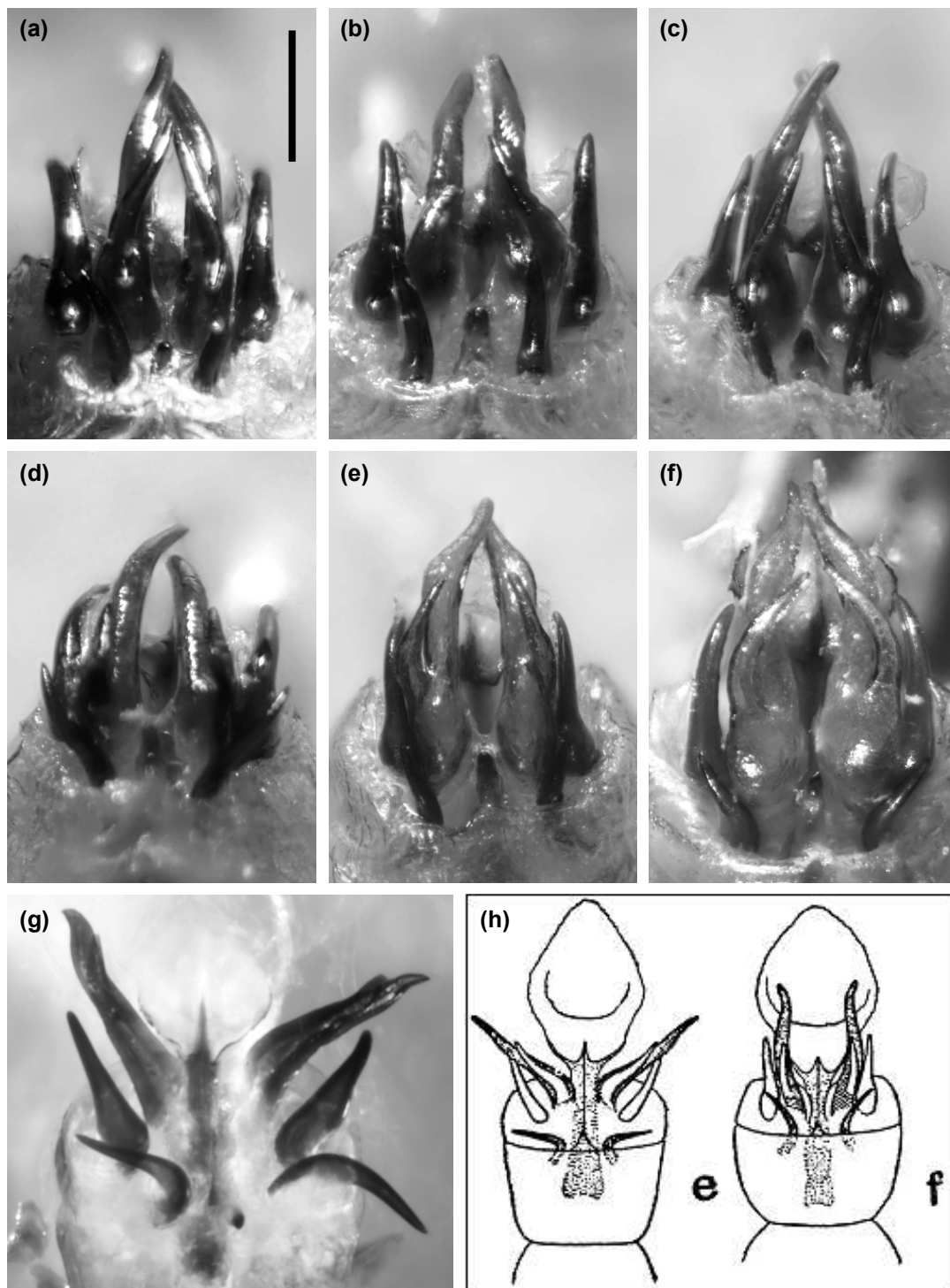


FIGURE 3. *Eurygaster austriaca*: Conjunctival appendages: (a) Spain: Cazorla; (b) Italy: Sardinia; (c) Italy: Sicily; (d) Germany: Schlossböckelheim; (e) Greece: Kastaneri; (f) Greece: Parnassus; (g) Spain: Mallorca; (h) Figures from China (1938), modified (Scale bar = 0.25 mm).

Appendix

Material examined (in coll. Rieger); arranged from W to E:

- **Morocco:** Azrou, Djebel Hebri (05°08' W 33°21' N) 2000 m (NHN), 3.4.1991, 1 ♀, Heinz leg.
- **Spain:** Sierra de Cazorla, Puerto de las Palomas (02°56' W 37°57' N) 1290 m (NHN), 23.09.1984, 1 ♂ 1 ♀, R. Grimm leg. – Sierra de Cazorla, E Cazorla (02°28' W 37°54' N) 1500 m (NHN), 23.9.1984, 1 ♂, R. Grimm leg. – 18 km SW Hellín (01°52' W 38°26' N) 550 m (NHN), 1 ♀, R. Grimm leg. – Villanueva de Gállego; Río Gállego (00°48' W 41°46' N) 250 m (NHN), 1 ♀, R. Grimm leg.
- **Spain (Mallorca):** Ses Salinas (03°05' E 39°21' N) 40 m (NHN), 5.3.1983, 1 ♂, Baehr leg.
- **France:** Remoulins, Forêt de Malmont (04°39' E 44°00' N) 20 m (NHN), 3.6.1990, 1 ♀, Rieger leg. – Mt. Ventoux, Le Chalet Reynard (05°19' E 44°09' N) 1430 m (NHN), 7.6.1990, 1 ♂, Rieger leg.
- **Germany:** Größheim, Möhrenkopf (07°33' E 47°52' N) 210 m (NHN), 5.8.1997, 1 ♀, Rieger leg. – Achkarren, Schlossberg (07°37' E 48°04' N) 470 m (NHN), 6.4.1980, 1 ♂ 1 ♀, Rieger leg. – Vogtsburg, Haselschacher Buck (07°41' E 48°05' N) 390 m (NHN), 1.10.1967, 1 ♂ 1 ♀, Rieger leg. – Schlossböckelheim, Gangelsberg (07°44' E 49°48' N) 320 m (NHN), 19.8.2002, 4 ♂♂, Rieger leg. – Hänge W Schlössböckelheim (07°44' E 49°47' N) 200 m (NHN), 10.9.1994, 1 ♀, Rieger leg. – Germersheim, Rheindamm (08°23' E 49°12' N) 100 m (NHN), 31.5.1997, 1 ♀, Rieger leg. – Schwetzingen, Hirschacker (08°33' E 49°24' N) 100 m (NHN), 22.7.2001, 1 ♂, Rieger leg. – Sandhausen, Pferdstriebdüne (08°39' E 49°20' N) 110 m (NHN), 11.9.1977, 1 ♂, Rieger leg. – Ochsenwang, Auchttert (09°13' E 48°34' N) 790 m (NHN), 8.9.1976, 1 ♂, Rieger leg. – Werbach, Apfelberg (09°36' E 49°40' N) 310 m (NHN), 25.8.2001, 2 ♂♂, Rieger leg. – Tauberbischofsheim, Stammberg (09°37' E 49°37' N) 250 m (NHN), 28.7.2002, 1 ♂, 29.6.2003, 1 ♂, Rieger leg.
- **Croatia:** Jehnici (13°42' E 45°13' N) 140 m (NHN), 6.6.1999, 1 ♀, Rieger leg. – env. Kloštar (13°42' E 45°18' N) 100 m (NHN), 11.6.2003, 1 ♀, Rieger leg.
- **Italy (Sardinia):** NE Sadali (09°16' E 39°49' N) 850 m (NHN), 20.4.1992, 1 ♂, Schawaller leg.
- **Italy (Sicily):** Piano Zucchi (14°00' E 37°54' N) 1100 m (NHN), 24.9.1989, 2 ♂♂ 1 ♀, R. Grimm leg. – Portella Colla SW Piano Bataglia (14°00' E 37°54' N) 1500 m (NHN), 24.9.1982, 1 ♂, R. Grimm leg. – Piano Bataglia (14°00' E 37°54' N) 1600 m (NHN), 24.9.1982, 2 ♀♀, R. Grimm leg.
- **Austria:** Jois, Zeilerberg (16°45' E 47°58' N) 190 m (NHN), 22.5.1983, 1 ♂, Rieger leg. – Illmitz (16°48' E 47°46' N) 112 m (NHN), 31.3.1972, 1 ♂, Rieger leg. – Podersdorf (16°50' E 47°51' N) 120 m (NHN), 9.9.1970, 1 ♀, Burmeister leg.
- **Greece:** Oros Verno SE Klissoura (21°29' E 40°59' N) 1250 m (NHN), 19.7.1982, 1 ♀, Rieger leg. – Oros Paiko bei Kastaneri (22°22' E 40°59' N) 900 m (NHN), 22.7.1982, 1 ♂, Rieger leg. – env. Karia (22°22' E 40.59 N) 1000 m (NHN), 16.7.1982, 2 ♀♀, Rieger leg. – Parnass S Eptalofos (22°33' E 38°33' N) 1100 m (NHN), 17.7.1982, 5 ♂♂ 15 ♀♀, Rieger leg. – Oros Paronias env. Kosmas (22°43' E 37°06' N) 1200 m (NHN), 5.7.1982, 1 ♀, Rieger leg. – Monemvasia, cultivated land 5 km S (23°01' E 36°38' N) 25 m (NHN), 13.5.1989, 1 ♂, Rieger leg. – Iliki (23°17' E 38°26' N) 105 m (NHN), 4.4.1977, 1 ♀, Kinzelbach leg. – Oros Kitheiron nr. Vilia (23°19' E 38°10' N) 800 m (NHN), 22.3.1990, 1 ♀, Heinz leg. – Pass S Erithrai (23°19' E 38°11' N) 700 m (NHN), 29.3.1990, 2 ♂♂, Heinz leg. – Pissonas (23°42' E 38°32' N) 250 m (NHN), 25.3.1992, 1 ♀, Heinz leg.
- **Turkey:** Tunceli (39°32' E 39°06' N) 950 m (NHN), 25.6.1987, 2 ♀♀, Heinz leg.