

ON THE GENUS *POECILOSCYTUS* FIEB. (Hem. Het., Miridae.)

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1. *P. microphthalmus* n. spec.

In August 1948 Mr. G. SEIDENSTÜCKER captured at Ebermergen near Nördlingen (Bavaria) several specimens of a species of *Poeciloscytus*. As it was impossible to match them with any Central-European species of the genus he submitted them to me for my opinion. On examination the species proved to be hitherto undescribed. At the same time, Dr J. LECLERCQ, Liège, sent me a lot of Belgian Hemipteres to have them determined. Among them I found some other specimens of the new species. The specimens found by Mr. SEIDENSTÜCKER lived on *Galium verum* L. in the Jura at the border of a forest. From the Alps I obtained a few specimens of our new species, which my brother W. WAGNER captured at Hall near Admont, Styria. In consequence of this discovering I asked the hemipterists known to me for their material of *Poeciloscytus* and could find among it still more specimens of the new species.

Description: Shape elongate elliptical, smaller than *P. unifasciatus* F. and scarcely bigger than *P. brevicornis* REUT. Upperside shining black, densely covered with short golden hairs, which easily vanish. Head small, bent downwards, nearly as high as broad (Fig. 1A), seen from the front 1,11 (♀) to 1,2 times (♂) as broad as high. With all other species it is at least 1,25 to 1,3 times as broad as high. Vertex very broad, 1,6 times (♂) to 2,0 times (♀) as broad as the eye. The latter being much smaller than in *P. unifasciatus* F. and *palustris* REUT. The vertex bears beside the eye a small yellowish spot. Antennae slender, black, the first joint yellowish, shorter than in *P. unifasciatus* and *palustris* and 0,43 (♀) to 0,48 (♂) times as long as the head together with the eyes is broad (Fig. 1). Second joint yellowish in its basal half, sometimes nearly entirely yellowish, 1,12 times (♂) or 0,9 times (♀) as long as the pronotum is broad at its base. 3rd joint black, its base sometimes narrowly yellowish, always shorter than the head is broad. 4th joint entirely black, nearly as long as the 3rd and 0,9—0,95times (♂) to 0,8times (♀) as long as

the head together with the eyes is broad. Pronotum shining black, finely punctured, basal margin very narrow yellowish. Scutellum black with a yellow spot at its apex. Hemielytra black; a spot at the base of corium, a small one at the end of exocorium and sometimes a very small one at the inner angle are yellowish. Cuneus red with a great black spot at the outer edge that often covers the greater part of the cuneus, apex as a rule yellowish. Membrane dark brownish-grey, the veins yellowish. Underside black with soft grey hairs. Rostrum yellowish-brown, reaching the middle coxae.

Genital-segment of male conical, restricted before its apex, its sides sinuated. The right paramere (Fig. 2 A) is small, slender, leaf-shaped and has a conical hypophysis which surpasses the paramere by

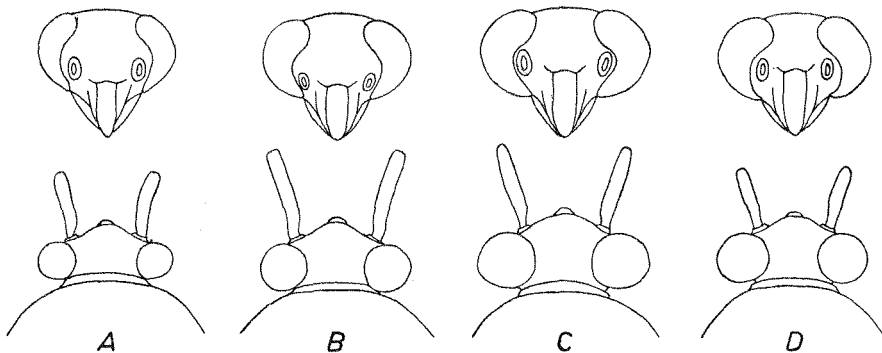


Fig. 1. Head of the male (18 times).

Above: seen from the front; beneath: seen from above

A = *P. microphthalmus* nov. spec.

B = *P. palustris* REUT.

C = *P. unifasciatus* F.

D = *P. asperulae* FIEB.

half its length. The left paramere (Fig. 2 B) is falciform, but not so strongly curved as with the other species (Fig. 2 E + H), the hypophysis is scarcely broader than the paramere itself, particular with the new species is that the protuberance at the outer side of its base is nearly rectangular. The penis is head-shaped and rounded at base and apex; it is much smaller than with the other species (Fig. 2 F + J). The theca bears at its right side a blackish coloured processus which is placed near the apex and scarcely surpasses the latter. The secondary gonopore is small and nearly round. The base is well developed, its processuses being big and prominent.

Length: ♂ = 5,1–6,0 mm, ♀ = 4,4–5,2 mm.

*P. microphthalmus* nov. spec. differs from all other species of the genus by its small head, its extremely broad vertex and small eye and the head being nearly as high as broad seen from the front. It is closely allied to *P. palustris* REUT. and has the same coloration of the upperside, but it is of smaller size and has the 4th joint of antennae somewhat

shorter (♀) or scarcely longer (♂) than the 3rd, while it is much longer than it with *P. palustris*. The second joint is also shorter with the new species. *P. unifasciatus* F. on the other hand is greater with lighter colours and has the 4th joint of antennae much shorter than the 3rd. *P. brevicornis* REUT. is somewhat shorter and broader, the 2nd joint of antennae is much shorter than the pronotum is broad at its base and the coloration of the upperside is lighter.

I examined 30 ♂♂ and 68 ♀♀ from Bavaria (Nördlingen, Regensburg Coburg, Steppberg, Munich, Lentstetten, Schlurfeld, Aschaffenburg, Spessart), Baden (Ketsch), Hesse (Taunus, Mainz, Hanau), Styria (Admont, Hall, Weizklamm), Hungary (Simontornya), Italy (Lazio) and Belgium (Ethe, Torgny).

All localities where the new species is found hitherto are more or less mountainous. The food plant is *Galium verum* L. The imagines have been found between the 25.5. and the 4.9., most of them in August.

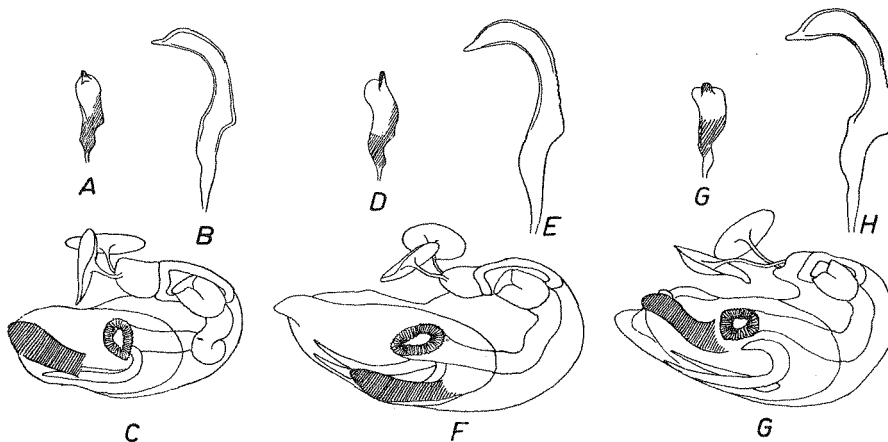


Fig. 2. Genitalia of the male (48 times).

A = *P. microphthalmus* nov. spec., right paramere. B = id., left paramere. C = id., penis. D = *P. palustris* REUT., right paramere. E = id., left paramere. F = id., penis. G = *P. unifasciatus* F., right paramere. H = id., left paramere. J = id., penis.

*Type* and *Allotype* in my collection, *Paratypes* too and in the collections of G. SEIDENSTÜCKER, Gunzenhausen, Dr K. SINGER, Aschaffenburg, Dr J. LECLERQ, Liège, M. HUSHER, Munich, Dr H. FRANZ, Admont, Dr H. ECKERSTEIN, Coburg and the Senckenberg-Museum, Frankfurt/Main.

## 2. *P. palustris* REUT.

There have been many authors who doubted that this species might be regarded as a good one, but an exact examination, especially of its genitalia resulted that it is a good species indeed.

*Description*: Shape elongate-elliptical, of the same size as *P. unifasciatus* F. or a little smaller, less brilliant than *P. microphthalmus* n. sp., densely covered with short golden hairs, which easily fall off. Head big, slightly bent downwards, distinctly broader than high, seen from the front 1,3 (♂) or 1,2 times (♀) as broad as high (Fig. 1 B). Vertex narrow,

1,3 (♂) to 1,7 (♀) times as broad as the great eye (Fig. 1 B). The vertex has beside the eye on each side an yellowish spot. Antennae slender, black; the first joint 0,45 (♀) to 0,55 times (♂) as long as the head together with the eyes is broad, as a rule yellowish-brown, sometimes blackish brown; 2nd joint very long, 1,3 times (♂) or 0,97 times (♀) as long as the pronotum is broad at its base, yellowish-brown, with black apex, sometimes nearly entirely black. The last two joints are black and very slender, the 4th being always distinctly longer than the 3rd (1,20—1,27 times as long as it) and always as long as the head together with the eyes is broad. Pronotum black, its posterior margin narrowly yellow or entirely black; its surface is strongly punctured, thereby it gets a more dull aspect. Scutellum black, brilliant in its posterior part, its apex being yellow. Hemelytra black, densely punctured, base of corium and sometimes the end of exocorium yellow. Cuneus purple, basal margin and apex yellow, a black spot of varying extent at the lateral margin, sometimes nearly entirely black. Membrane dark greyish-brown, the veins yellowish. Underside black, densely covered with grey hairs, orificia odorificia yellowish-white. Rostrum short, reaching the middle-coxae. Thighs black or brownish-black, sometimes brown in their basal part, the apex and a ring before it often dark brown or yellowish-brown. Tibiae brown or yellowish-brown, black at base and apex. Tarsi brown, apex of 3rd joint black.

Genital-segment of male conical, its sides straight. Right paramere very thin, its body curved in the middle and narrowed towards the base, its apex rounded and bent to the right, hypophysis long and acute, surpassing the apex by half its length (Fig. 2 D). Left paramere falciform, narrow in the middle, hypophysis beak-shaped, much broader than the paramere itself. The protuberance near the base is but small and rounded (Fig. 2 E). Penis very long, narrowed towards the apex, the processus on the right side of the theca is situated on the ventral side near its middle and deviates from the apex by more than its length (Fig. 2 F).

Length: ♂ = 5,5—6,0 mm, ♀ = 4,8—5,3 mm.

*P. palustris* REUT. differs from all other species by the very long 4th joint of antennae, which is 1,2—1,27 times as long as the 3rd and always as long as the head together with the eyes is broad. It is distinctly longer than *P. brevicornis* REUT. and *microphthalmus* n. sp. and much darker coloured than *P. unifasciatus* F. and *brevicornis* REUT. The 2nd joint of antennae is distinctly longer than with the other species and the genitalia of male are of other shape (Fig. 2).

**f. *centralis* f. nov.** According to the description of REUTER (Festschrift für Palmén Nr. 2, Helsingfors 1905, p. 18) *P. palustris* has its pronotum entirely black, the corium black with the only exception of a small yellow spot at its base, the cuneus black with exception of the curved basal margin and the antennae entirely black. But there exist many specimens which have the basal margin of pronotum narrowly yellow, a yellow spot at the end of exocorium and sometimes a still smaller yellow spot at the inner angle of corium, which begins at the yellow callus and is indistinctly limited at the outer side, the antennae are partially yellowish-brown. This form may be named *f. centralis* f. nov. It has

quite the same coloration as *P. unifasciatus* F. f. *lateralis* HHN., it is easily to be distinguished however from this form by the length of the 4th antennal joint. In Germany the f. *typica*, as described by REUTER, is very rare and has been found hitherto only in the Northern part, while the f. *centralis* f. nov. is much more abundant.

I examined 14 ♂♂ and 16 ♀♀ from Hamburg (Duvenstedter Brook, Darchau), Oldenburg (Pestrup), Mecklenburg (Müritz-See), the Taunus (Walldorf, Offenbach), Bavaria (Gunzenhausen), Bohemia (Cheb) and Ireland (Youghal).

*P. palustris* REUT. lives in swamps and marshes. The food-plants are *Galium aparine* L., *G. palustris* L. and *G. boreale* L., but it has been found on *G. verum* L. too.

### 3. *P. unifasciatus* F.

This is the greatest species and differs from the preceeding ones by its lighter colour, narrower vertex (Fig. 1 C) and broader eye (the vertex being 1,2 (♂) or 1,6 (♀) times as broad as the great eye), the very short 4th joint of antennae, which is 0,95 (♂) or 0,86 (♀) times as long as the 3rd and 0,7—0,85 times as long as the head including eyes is broad. The punctuation of the pronotum is much finer and the yellow stripe at its posterior margin broader. The yellow spot upon the scutellum is larger, the corium is yellow and has in its apical half two black spots, which are connexed with each other, the lateral margin is entirely yellow. The right paramere (Fig. 2 G) is shorter and broader and less curved, the hypophysis shorter and thicker and scarcely surpassing the apex of the paramere. The left paramere (Fig. 2 H) is greater, more curved, narrower in its middle, the hypophysis broader and narrowed before its apex, the basal processus on back side is very distinct and nearly rectangular. The penis (Fig. 2 J) is shorter and thicker, the processus of the theca is placed near its apex, but does not reach the latter; it is more curved and approached to the dorsal side.

Length: ♂ = 5,3—6,8 mm, ♀ = 5,0—6,0 mm.

To this species belong the ff. *lateralis* HHN. and *transita* STICH. and the following new form:

**f. *disjuncta* f. nov.**: This form differs from the type and from the other forms merely by its coloration: the black spot in the basal half of corium is divided into two separate spots by an yellow stripe along the cubital vein, the inner one being nearly twice as great as the outer one. Besides that the thighs as well as the scutellum and the corium often show reddish tints. This form occurs especially in the male sex and hitherto has been found only in the Southern part of Germany.

I examined 7 ♂♂ and 1 ♀ from Bavaria (Coburg) and Hessia (Taunus, Mainz).

*P. unifasciatus* F. lives on sandy grounds and dry hill-sides. The food-plants are *Galium mollugo* L. and *verum* L.

**4. *P. brevicornis* REUT.**

Shape broader and more elliptical, 2,4 times (♀) to 3,0 times (♂) as long as broad in the middle, shorter than the preceding species. Coloration like that of *P. unifasciatus* F., densely covered with short golden hairs. Head very broad, seen from the front 1,4 times (♂) or 1,28 times (♀) as broad as high. Vertex very narrow, 1,3 times (♂) or 1,64 times (♀) as broad as the great eye. Antennae yellowish, shorter and thicker, the first joint 0,4 times as long as the head including eyes is broad, the second joint often blackish at apex, 0,91 times (♂) to 0,84 (♀) times as long as the pronotum is broad at base, 3rd and 4th joint blackish, the 4th scarcely as long as the 3rd and 0,6—0,8 times as long as the head is broad. Basal margin of pronotum and apical part of scutellum yellow. Corium yellow, with black markings similar to those of *P. unifasciatus* F., Clavus black, without reddish tints, basal margin and apex yellow. Thighs brown with yellowish spots, tibiae yellow, with pale spines, apex black. Tarsi black.

Genital segment of male conical. Right paramere small, spoon-shaped, its hypophysis does not reach the apex of the paramere. Left paramere falciform, nearly straight in its middle-part, hypophysis short and broad; constricted before its apex. Penis short and broad, the process of the theca very long and narrow, surpassing the apex.

Length: ♂ = 4,3—5,0 mm, ♀ = 4,0—4,5 mm.

*P. brevicornis* REUT. lives on sunny places and dry hill-sides. The foodplant is *Galium verum* L.

It occurs in the South-East of Europe and hitherto is found in Germany only in the Southern and Eastern part.

**5. *P. asperulae* FIEB.**

Closely allied to *P. unifasciatus* F., but of smaller size and with purple colours on scutellum, legs and antennae. The vertex still narrower than with any other species, as broad as the great eye (♂) or 1,5 times as broad as it (♀). Antennae reddish-yellow, often partially purple, 2nd joint 1,1 times (♂) or 0,85 times (♀) as long as the pronotum is broad; 4th joint always shorter than the 3rd (0,85—0,90 times as long as it) and 0,65 times — 0,70 times as long as the head is broad. Pronotum black, basal margin yellow, often the other margins too. Scutellum with a large yellow, purple bordered spot at apex, sometimes entirely yellow. Cuneus purple, the margins yellow, the lateral margin narrowly black. Membrane dark yellowish-brown, its veins yellow. Legs yellowish-brown, anterior tibiae with pale spines. Genital segment conical. Right paramere narrower, curved to the left, broader at apex, hypophysis strongly surpassing the paramere. Left paramere falciform, like that of *P. unifasciatus* F. Penis short, the process of the theca being very short, placed in its middle and much deviated from the apex.

Length: ♂ = 5,2—6,0 mm, ♀ = 4,1—4,5 mm.

*P. asperulae* FIEB. lives in sunny places. The food-plant is *Asperula cynanchica* L. It occurs only in the southern part Europe and has been found hitherto in Germany only in Thuringia, Württemberg and the environs of Mainz and Frankfurt.

## 6. Table of proportions of critical value.

		Vertex : eye	2nd joint of anten- nae: breadth of pronotum	Antennal joints 4 : 3	4th joint of anten- nae: breadth of head	head breadth: high	Length (average)
<i>P. brevicornis</i> REUT.	♂	1,3 : 1	0,91 : 1	0,9 : 1	0,65 : 1	1,40 : 1	485
	♀	1,64 : 1	0,84 : 1	1 : 1	0,75 : 1	1,28 : 1	418
<i>P. palustris</i> REUT.	♂	1,3 : 1	1,3 : 1	1,2-1,26 : 1	1 : 1	1,30 : 1	580
	♀	1,7 : 1	0,97 : 1	1,2-1,27 : 1	1 : 1	1,23 : 1	509
<i>P. unifasciatus</i> F.	♂	1,2 : 1	1,13 : 1	0,95 : 1	0,80 : 1	1,28 : 1	658
	♀	1,6 : 1	0,93 : 1	0,86 : 1	0,75 : 1	1,30 : 1	529
<i>P. microphthalmus</i> n. sp.	♂	1,6 : 1	1,11 : 1	1,1 : 1	0,95 : 1	1,18 : 1	552
	♀	2,0 : 1	0,9 : 1	1 : 1	0,8 : 1	1,11 : 1	487
<i>P. asperulae</i> FIEB.	♂	1 : 1	1,10 : 1	0,85 : 1	0,65 : 1	1,3 : 1	555
	♀	1,5 : 1	0,85 : 1	0,90 : 1	0,70 : 1	1,25 : 1	444
<i>P. vulneratus</i> PZ.	♂	1,11 : 1	1,27 : 1	0,80 : 1	0,54 : 1	1,4 : 1	492
	♀	1,55 : 1	1 : 1	0,82 : 1	0,58 : 1	1,27 : 1	434
<i>P. cognatus</i> FIEB.	♂	1,4 : 1	1,3 : 1	0,75 : 1	0,65 : 1	1,25 : 1	410
	♀	1,6 : 1	1,05 : 1	0,80 : 1	0,70 : 1	1,22 : 1	460

7. Table of European species of *Poeciloscytus* FIEB.

- 1a. Lateral margin of hemielytra narrowly black 2  
 1b. Lateral margin of hemielytra yellow, at least in its basal part 3  
 2a. Anterior angles of pronotum with a small intensely black spot. . . . .  
 . . . . . *P. cognatus* FIEB.  
 2b. Anterior angles of pronotum yellow. . . . . *P. vulneratus* Pz.  
 3a. 2nd joint of antennae distinctly shorter than the pronotum is broad  
 at its base ( $\sigma = 0,91$ ,  $\varphi = 0,84$  times as broad). Cuneus without  
 any red coloration. . . . . *P. brevicornis* REUT.  
 3b. 2nd joint of antennae with the  $\sigma$  longer than the pronotum is broad,  
 with the  $\varphi$  at least 0,9 times as broad as it. Cuneus partially red 4  
 4a. Vertex 1,6 times ( $\sigma$ ) or 2,2 times ( $\varphi$ ) as broad as the small eye. Head  
 scarcely broader than high, when seen from the front . . . . .  
 . . . . . *P. microphthalmus* nov. sp.  
 4b. Vertex 1,0—1,3 times ( $\sigma$ ) or 1,5—1,7 times ( $\varphi$ ) as broad as the  
 greater eye. Head 1,2—1,3 times as broad as high. 5  
 5a. Vertex as broad as the eye ( $\sigma$ ) or 1,5 times ( $\varphi$ ) as broad as it. Scu-  
 tellum, legs and antennae partially purple. *P. asperulae* FIEB.

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- 5b. Vertex 1,2—1,3 times (♂) or 1,6—1,7 times (♀) as broad as the eye. Scutellum, legs and antennae without purple coloration 6
- 6a. 4th joint of antennae 1,2—1,27 times as long as the 3rd. Corium black, yellow at base and apex ..... *P. palustris* REUT.
- 6b. 4th joint of antennae shorter than the 3rd. Lateral margin of corium as a rule entirely yellow (except the *f. lateralis* HHN.) .....  
..... *P. unifasciatus* F.