

**STUDIES ON THE CRAMBIDAE (LEPIDOPTERA). PART XXVI.
PRELIMINARY STUDY ON THE GENUS EUCHROMIUS GN.**

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In the present paper it is discussed the status of the genus *Euchromius* Guenée 1845 and several of its members, besides some species are described as new.

The genus *Euchromius* Gn. is one of the most disordered in the family Crambidae as the types of many of its species have not as yet been examined. Consequently, very many synonyms have been made. The status of the name *Euchromius* Gn. has usually been erroneously interpreted and regarded as a nomen nudum or a homonym. However, some authors, e. g. Meyrick (1890, 1895), Fernald (1896) or Kloet & Hincks (1945) adopted *Euchromius* Gn. as a valid name.

The first species of the genus under consideration was erected in 1796 by Hübner under the name *Tinea bella* Hbn. In 1811 Haworth described another species *Palparia ocellea* Haw., congeneric with *Tinea bella* Hbn. The genus *Palparia* Haw. 1811 is very heterogeneous comprising very many species of several genera, namely, *Crambus* F., *Agriphila* Hbn., *Pediasia* Hbn., *Catoptria* Hbn., *Chrysocrambus* Blesz., *Platytes* Gn. and *Ancylolomia* Hbn. The genus *Palparia* Haw. has not been adopted for any of the mentioned genera and, it is regared as a synonym of *Crambus* F. Such an opinion might be considered as not right, since only genus *Crambus* F. was described before *Palparia* Haw. and the remaining genera were erected after 1811.

In 1826 Hübner in his „Verzeichniss bekannter Schmettlinge“ [sic!] established a new genus *Eromene* placing under it one species *E. bella* (Hbn.). However, this generic name is obviously a primary homonym as the same author in the same work erected another *Eromene* in the family Noctuidae (in 1821, page 256). This error was straightened in 1897 by Kirby who proposed a new name *Ommatopteryx* Kirby for *Eromene* Hbn. 1826 non *Eromene* Hbn. 1821. The name *Ommatopteryx* Kirby has been adopted by many authors and is now generally in use.

In 1834 Stephens erected a new genus *Araxes* with four species under it, one of them being *Palparia ocellea* Haw. and two remaining ones belonging to the family Phycitidae. Stephens' name has not been adopted for any of its members; its status is to be discussed. *Araxes* Steph. should not be confused with another *Araxes* described in 1863 by Walker. The latter one is a primary homonym.

In 1845 Guenée erected his *Euchromius* with two species under it, namely, *E. bella* (Hbn.) and *E. ocella* (Haw.). The name *Euchromius* Gn. has been considered by many workers as a homonym, as Hübner in 1819 established a genus under the name *Euchromia* (there is also another *Euchromia* established by Stephens in 1829). Such an opinion is erroneous as the generic names differing from one another by endings "—a" and "—us" are not to be regarded as homonyms.

Summarizing the above data it is proposed to regard the name *Euchromius* Guenée as a valid one, with the *typus generis* *Tinea bella* Hübner, 1769 as designated by Hampson in 1896. Some authors give wrongly *E. ocella* (Haw.) as the *typus generis* of the mentioned genus.

51 species have been published under the generic name *Euchromius* Gn., *Eromene* Hbn. or *Ommatopteryx* Kirby. Many of them, however, were transferred to other genera (*Elethya* Rag., *Miyakea* Marumo, *Diptychophora* Zel., *Soroscotia* Rosk.) and *Eromene transcisella* Walk. is a synonym of a Tortricid. Some species are not congeneric with *Euchromius* Gn. as will be pointed out at some future time. Many species should be sunk to the synonyms. It seems that not more than 20 species are real members of *Euchromius* Gn. They are spread throughout the Mediterranean Region, few species occur in Central Europe, Central and Southern Africa and southern regions of the U. S. A.

Because of the shape of the wings, their pattern and several characters in the genitalia the genus under consideration appears to be closely related to the American genus *Argyria* Hbn. The fore wing of the members of both *Euchromius* Gn. and *Argyria* Hbn. shows similar apical markings consisting of a triangle-shaped spot and streaks, as well as a rather straight medial fascia. The shape of the wings in the two genera is similar to one another too. The venation in the wings of the members of *Euchromius* Gn. is strikingly similar to that in the species of *Argyria* Hbn. In the male genitalia of the representatives of the two genera appears frequently a hairy projection near the base of the valva. Such a character is rather rarely met with in Crambidae. The vinculum is rather similarly armed being narrow in the two genera. However, the question of the relationship between the two mentioned genera needs a thorough study. Firstly, there are described several species of *Argyria* Hbn. from Africa. These species seem to be not congeneric with *Argyria* Hbn.; that genus is a rather heterogeneous one. Secondly, the generic position of very many species of *Argyria* Hbn. is in a strong confusion, as Hampson quite erroneously has united this genus with *Platytes* Gn. So far, I have found real members of *Argyria* Hbn., only from North and South America (in the part XXV of my Studies on Crambidae I placed under *Argyria* Hbn. Zeller's species *simplex* Z. from Japan, however, such an opinion might be regarded as incorrect, as the male of that species is as yet unknown).

On the other hand some species of the genera allied to *Euchromius* Gn. show the relationship to *Chilo* Hbn. However, this question will be discussed at some future time.

Now, I will discuss eight species of the genus *Euchromius* Gn. including descriptions of four new species from Europe and Africa. I divide these species into three groups, the first group of *E. hampsoni* (Rothsh.) includes two species, the second group comprises five species with *E. wockeella* (Z.) as a type species and *E. klimeschi* sp. n. forms for itself a distinct group.

Group: ***Euchromius hampsoni*** (Rothsh.)

Two species, namely, *E. hampsoni* (Rothsh.) and *E. viettei* sp. n. belong here. They are externally rather similar to one another being, however, perfectly distinct on their genitalia. Frons produced forward,

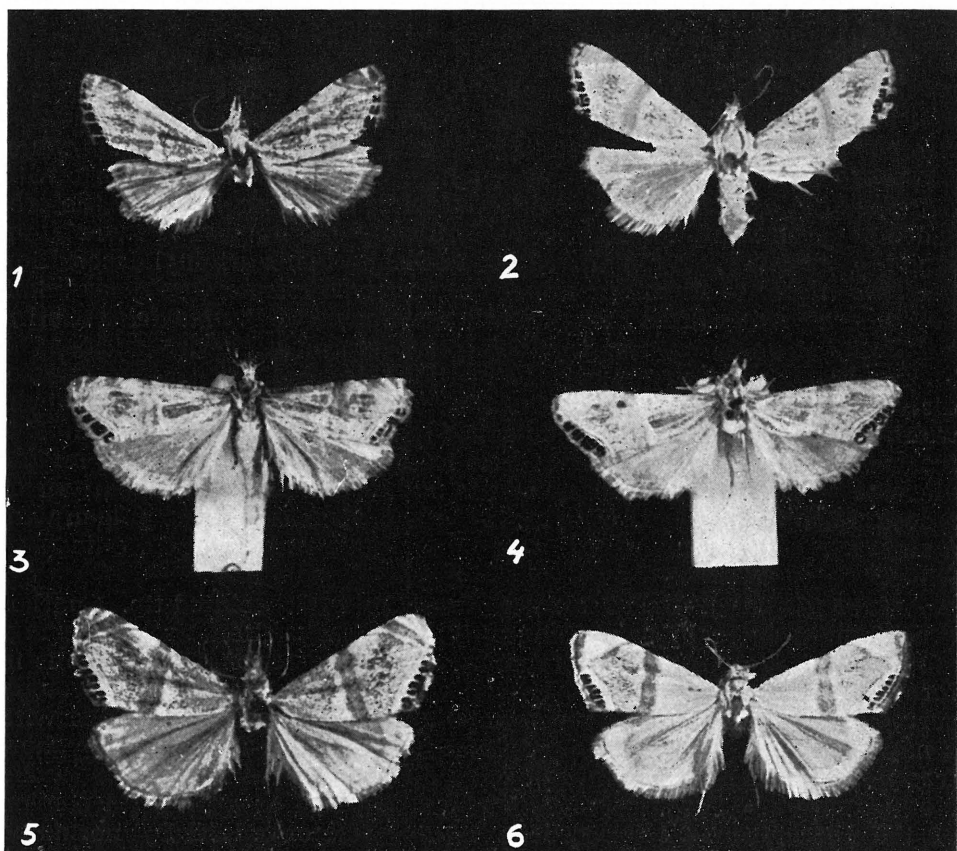


Fig. 1. *Euchromius hampsoni* (Rthsh.). Male. Type. Asben, S. Sahara. Fig. 2. *Euchromius hampsoni* (Rthsh). Female. Typoid. Asben, S. Sahara. Fig. 3. *Euchromius viettei* sp. n. Male. Typoid. Jidda, Arabia. Fig. 4. *Euchromius viettei* sp. n. Male. Holotype. Jidda, Arabia. Fig. 5. *Euchromius superbells* (Zell.). Male. Type. Italy. Fig. 6. *Euchromius wockeellus* (Zell.) Male. Type. Italy.

rounded. Nine black terminal dots in the fore wing present. In the male genitalia terminal part of the valva bilobed, one of the lobes being provided with stout bristles. No large cornuti in the aedeagus present. *E. hampsoni* (Rothsh.) is known from Southern Sahara and *E. viettei* sp. n. is described from Arabia.

***Euchromius hampsoni* (Rothsh.)**

(Fig. 1, 2; fig. 13; fig. 21)

Ommatopteryx hampsoni Rothschild, 1921, *Nov. Zool. Tring*, 28: 220.

This species was described from two specimens, one male and one female. The two are before me. The male is designated as the type, it is labelled: "Azzal N. of Agades, 13 July, 20 (A. Buchanan)", "Type" (Slide Nr. 5676—B. M.). The female bears the label: "Aouderas, Asben, 23 July, 20 (A. Buchanan)". I have found this female in the collection of the British Museum (Nat. Hist.) in London determined as belonging to "*Eromene*" *asbenicola* (Rothsh.). However, the study of that specimen has proved this opinion obviously erroneous, as it is not conspecific with the type of *E. asbenicola* (Rothsh.). The latter is characterized by the presence of seven marginal dots in the fore wing, the number of them being nine in the former. On the other hand Rothschild in his original description of *E. asbenicola* (Rothsh.) mentions only a single female (the type) taken in Aouderas, Asben. This is apparently a synonym of *E. vinculella* (Zell.).

Frons strongly convex, rounded, pale yellowish, vertex concolorous. Thorax brownish. Antenna serrate in the male, setaceous in the female, dirty yellowish. The length of the fore wing about 6,5 mm, its maximal width about 2,3 mm. Ground colour in the fore wing whitish densely suffused with brown scales. Medial fascia from just a little beyond the middle of costa to two-fifths of dorsum, it is rather straight. Apical pattern of a basic *Euchromius*-type. Cilia glossy brown, the basal stripe golden with a strong metallic shine. Hind wing glossy, uniformly whitish, cilia pure white.

Male genitalia. Uncus slender tapering to a pointed tip. Gnathos considerably longer than the uncus, its terminal portion strongly elongated, with a large, triangular, tapering dorsal projection. Pars basalis in form of a rather short, strongly sclerotized spine, it is very strongly curved lateral inward, tapering to a pointed tip. Sacculus provided with a narrow strengthening heavily sclerotized fold with an extremely short free tip. The terminal part of the valva bilobed. The ventral lobe rounded clothed with stout bristles, it might be considered as a terminal portion of the sacculus. The dorsal lobe lightly sclerotized, hairy normally. Juxta a large plate, its corners not produced. Vinculum very broad in dorso-ventral view. Aedeagus very narrow basally, further on suddenly strongly broadened, tapering to an acute point terminally. Cornuti a group of very minute spikes. Vesica minutely granulated terminally.

Female genitalia. Lamella subgenitalis plus ostium bursae form a large, heavily sclerotized, ovate organ as is shown in the fig. 21. This

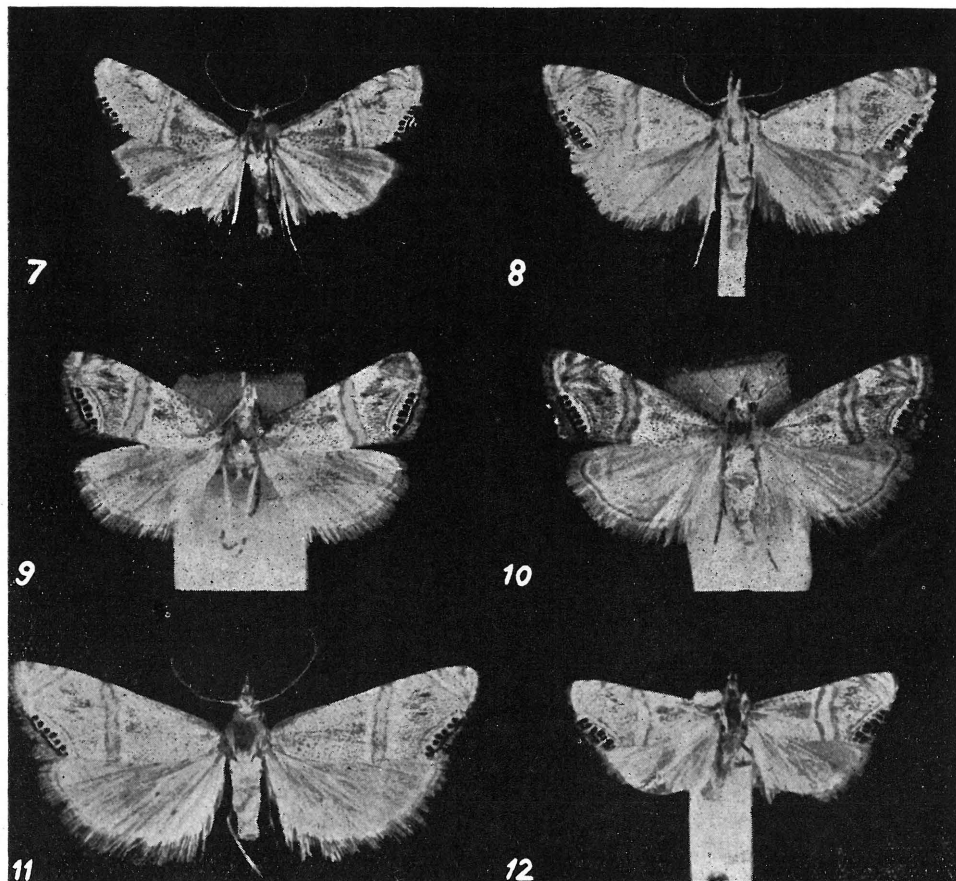


Fig. 7. *Euchromius gozmányi* sp. n. Male. Holotype. Chiclana, Spain. Fig. 8. *Euchromius rayatellus* (Amsel). Male. Polichomri, N. Afghanistan. Fig. 9. *Euchromius mouchai* sp. n. Male. Holotype. Sarepta, S.-E. Russia. Fig. 10. *Euchromius mouchai* sp. n. Male. Typoid. Sarepta, S.-E. Russia. Fig. 11. *Euchromius karedjellus* (Amsel). Male. Typoid. Keredj, Iran. Fig. 12. *Euchromius klimeschi* sp. n. Male. Holotype. Weenen, Natal.

organ shows some waved folds and a distinct anterior projection. Ductus bursae lightly sclerotized, as long as the bursa copulatrix. The latter with a distinct, single, star-like, ovate signum. Both the ductus bursae and bursa copulatrix densely minutely granulated.

***Euchromius viettei* sp. n. ♂**

(Fig. 3, 4; fig. 14)

This species is described from two specimens. I designate as the holotype the specimen labelled: "Arabia, Hejaz, Jidda, 22. XI. 1926, H. St. J. B. Philby". The typoid bears a similar label, however, it was taken on

9. XII. 1926. The two are in the collection of the British Museum (Nat. Hist.) in London.

The new species comes very near *E. hampsoni* (Rothsh.). The frons strongly convex, rounded, pale brownish. Vertex and thorax brownish. The length of the fore wing 7 mm. (holotype), that in the typoid 6,5 mm., its maximal width 2,9 mm. (holotype), that in the typoid 2,6 mm. Ground colour whitish suffused densely with brown scales. Medial fascia straight fairly distinctly from beyond the middle of costa to two-fifths of dorsum. Apical pattern of a basic *Euchromius*-type. Nine black marginal dots. Cilia glossy brownish, basal stripe steely golden with a strong metallic shine. Hind wing dirty whitish darkened along the peripheries. Cilia white with a rather dark basal stripe.

Male genitalia. Uncus and gnathos strikingly similar to those in the preceding species. Pars basalis sharply angled laterally inwardly, the angled portion of it tapering to a pointed tip. The heavily sclerotized narrow fold terminating the sacculus is in this species visibly less pronounced than in *E. hampsoni* (Rothsh.). The terminal portion of the valva bilobed similarly as in the former species. The shorter ventral lobe clothed with stout bristles.

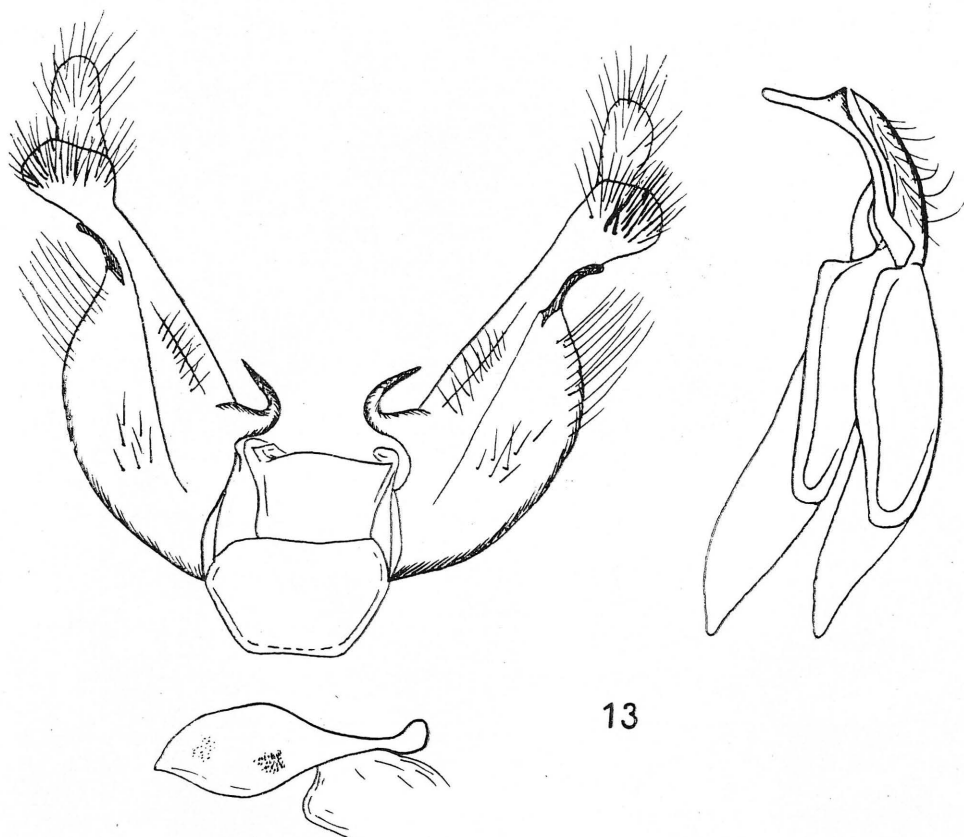
The new species is named in honour of Dr. P. E. L. Viette of the Museum National d'Histoire Naturelle in Paris.

Group: *Euchromius superbellus* (Zell.)

This group includes five species, viz., *E. superbellus* (Zell.), *E. rayatellus* (Amsel), *E. gozmányi* sp. n., *E. mouchai* sp. n. and *E. keredjellus* (Amsel). In spite of a striking external similarity all these species are perfectly distinct from each other by their genitalia. Female genitalia of these show rather lesser specific differences than the male ones, however, they are rather distinguishable too.

Externally the species of the group under consideration are characterized by the presence of seven black terminal dots in the fore wing; the first and the second of them (situated at dorsum) show a tendency to an amalgamation with one another. The middle fascia in the fore wing straight or gently wavy, never angled below the costa. Frons produced forward, conical, with a corneous point. In the male genitalia pars basalis is a rather short, strongly curved spine; sacculus presents distinct specific characters; the hair of cucullus normal, stout bristles never occur; the terminal part of gnathos distinctly thickened, more or less elongated, never curved; in the aedeagus one or more cornuti present. In the female genitalia ductus bursae moderately long, ductus seminalis distinctly marked; no distinct signa present, only a group of very minute granules or the bursa copulatrix on whole its surface covered with such granules.

The species of the *E. superbellus* (Zell.) group are spread throughout the Mediterranean Region to Near East. Only *E. mouchai* sp. n. is described from South-Eastern Russia.



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Fig. 13. *Euchromius hampsoni* (Rthsh.). Male genitalia: Type. Slide Nr. 5676-B. M.

Because of a strong confusion in identifying the species discussed, all the records in the literature are in need of a thorough verification. As a good illustration of the fact it may be given that in the borrowed materials I have found specimens of *E. superbellus* (Zell.) determined as *E. ramburiellus* (Dup.), *E. ramburiellus* (Dup.) determined as *E. wockeellus* (Zell.) or, *E. raytellus* (Amsel) determined as *E. wockeellus* (Zell.).

***Euchromius superbellus* (Zell.)**

(Fig. 5, 6; fig. 15; fig. 22)

Eromene superbella Zeller, 1849, syn. n. *Stett. ent. Ztg.* **10**: 314.

Eromene wockeella Zeller, 1863, *Chilonidarum et Crambidarum Genera et Species*, p. 53.

Ommatopteryx (Eromene) cypriusella Amsel, 1958, *Zeit. Wien. Ent. Ges.* **48**: 51, fig. 1. Syn. n.

Euchromius wockeellus (Zell.) and *E. superbellus* (Zell.) were described from Italy and *E. cypriusellus* [Amsel] from Cyprus. The types of the two former species and one male typoid of the latter before

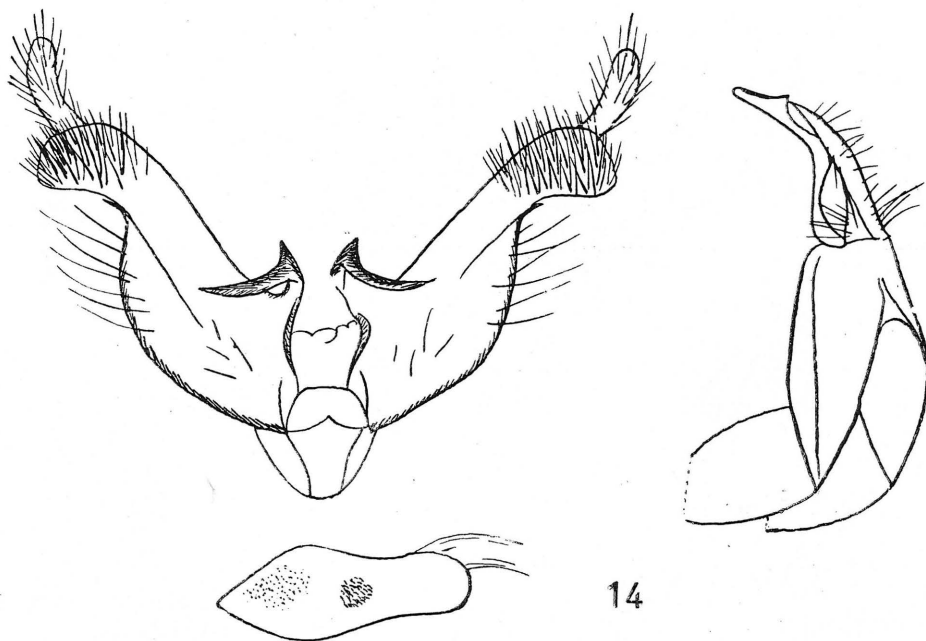


Fig. 14. *Euchromius viettei* sp. n. Male genitalia: Type. Slide Nr. 1162-Bi.

me. The type of *E. wockeellus* (Zell.) in the collection of the British Museum (Nat. Hist.) is a male labelled: "*Eromene wockeella* Man. lit. 9/72", "Type", "440", "Zell. Coll. 1884" (Slide B. M. Nr. 5654). The type of *E. superbellus* (Zell.) is a male too; it is also in the collection of the British Museum (Nat. Hist.); it bears the following labels: "*Superbella* Mn.", "Type", "81", "Zell. Coll. 1884". (Slide B. M. Nr. 2835). The typoid of *E. cypriusella* (Amsel) belongs to the collection of Dr. H. G. Amsel of Karlsruhe; it is labelled: "Cypern Kyrenia 6. 4. 1947, Wiltshire", "Paratypus leg. H. Amsel", "GU. 3150". The study of the genitalia of the three mentioned types has shown that they are obviously the members of one species. Consequently, I have sunk *E. wockeellus* (Zell.) and *E. cypriusellus* (Amsel) to the synonyms of *E. superbellus* (Zell.). Besides those three type-specimens 22 males and females from following localities have been identified as belonging to the species under consideration: "Toscana", "Livorno", "Fano (Marche) Torrette", "Corsica", "Spalato", "Sucurác", "Gravosa", "Zengg", "Carmen-Sylva (Romania)".

E. superbellus (Zell.) appears to be indistinguishable externally from *E. gozmányi* sp. n. and *E. raytellus* (Amsel). From *E. mouchai* sp. n. and *E. keredjellus* (Amsel) the species discussed is rather distinct by the shape of the fore wing and the situation of the middle fascia in it. Fore wing in those two species is considerably elongated, being proportionately shorter and wider in *E. superbellus* (Zell.). Medial fascia in both *E. mouchai* sp. n. and *E. keredjellus* (Amsel) runs from beyond the middle

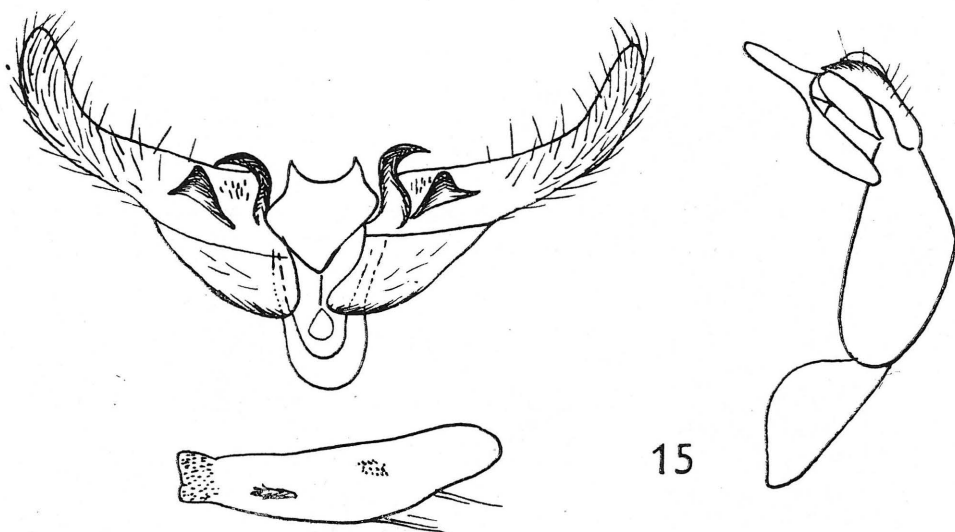


Fig. 15. *Euchromius superbellus* (Zell.) Male genitalia: Lectotypoid. Slide Nr. 1001-Bf.

of costa and in *E. superbellus* (Zell.) it runs from about the middle of costa.

Male genitalia. Uncus stout, distinctly shorter than the gnathos; the terminal part of the latter straight, rather elongated with two distinct triangular, acute, small dorsal lamellas. Pars basalis heavily sclerotized, in the form of a strongly curved, tapering to a pointed tip, short spine. A hairy basal projection of the valva present. Sacculus not differentiated without free tip. A distinct triangular, rounded or pointed terminally, heavily sclerotized process situated laterally in the basal part of valva. Cucullus visibly arched, hairs of medium length, no bristles present.

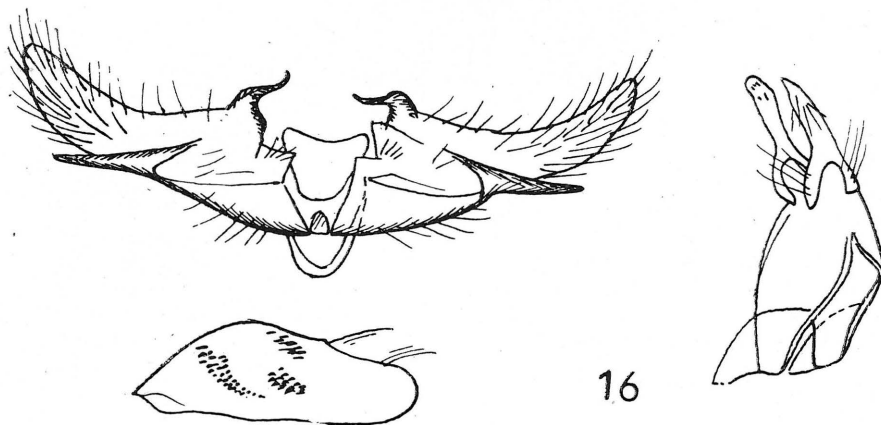


Fig. 16. *Euchromius rayatellus* (Amsel). Male genitalia: Slide Nr. 1129-Bf.

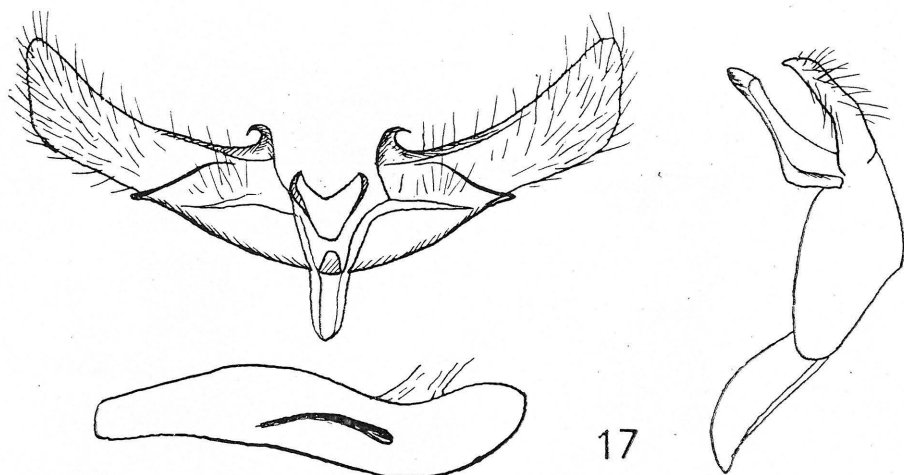


Fig. 17. *Euchromius gozmányi* sp. n. Male genitalia: Holotype. Slide Nr. 1075-B1.

Juxta-plate distinctly notched terminally with two produced acute corners. Saccus small. Aedeagus rather straight of medium length more or less evenly wide throughout, usually gently narrowed basally. A single elongated dentate cornutus and a group of minute spikes present. Vesica extremely minutely granulated terminally.

Female genitalia. Labia coalescent with one another, hairs delicate; a distinct strongly sclerotized small circle on the ventral portion of lamella subgenitalis; gonapophyses anteriores proportionately long; ostium bursae not differentiated, lightly sclerotized, provided with a strengthening heavily sclerotized, narrow plate; ductus bursae smooth, not ribbed, lightly sclerotized, minutely granulated at the bursa copulatrix. Ductus seminalis very narrow, arising from about middle of ductus bursae. A group of minute granules on the bursa copulatrix, it may be considered as a signum.

***Euchromius rayatellus* (Amsel)**

(Fig. 8; fig. 16; fig. 23)

Eromene rayatella Amsel, 1949, *Bull. Soc. Fouad*, 1^{er} Ent., Caire, **33**: 278, pl. I, fig. 4 (male genit.).

This species was described from a single male specimen. This specimen before me, it is labelled: "30. VII. 54, 5000 ft., Rayat, Kurdistan, E. P. Wiltshire, Iraq". Besides, I have examined 18 other specimens of this species from North Afghanistan (Polichomri and Backh), Anatolia (Karatas), Jericho and one female from Italy (Fano, Marche, Torette). The latter is the first specimen of *E. rayatellus* (Amsel) reported from Europe. I have found it among a series of *E. wockeellus* (Zell.) from the same locality.

As mentioned above, both *E. wockeellus* (Zell.) and *E. rayatellus* (Amsel) are rather indistinguishable from one another. The two are

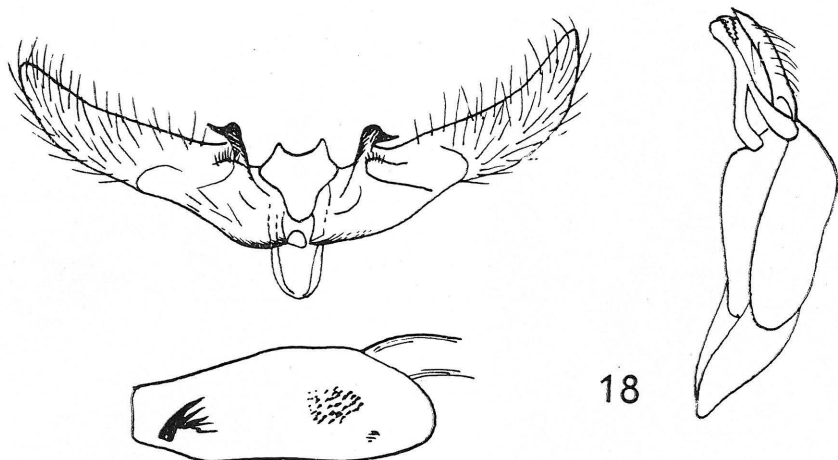


Fig. 18. *Euchromius mouchai* sp. n. Male genitalia: Typoid. Slide Nr. 1005-B1.

considerably variable in their coloration and the pattern of the wings. The antenna in *E. rayatellus* (Amsel) is uniformly grey coloured, being faintly ringed with dark from about middle its length in the second species. However, this character seems to be somewhat variable too.

Male genitalia. Uncus rather narrow, tapering, slightly longer than the gnathos; the terminal part of the latter short, provided with two distinct small thorns pointed anteriorly; at the very apex gnathos is lightly sclerotized. Pars basalis a small heavily sclerotized process tipped with a thin, tapering, angled laterally spine. Sacculus with a strongly sclerotized, long, tapering, terminally rounded process. Cucullus distinctly arched, its hair normal, no bristles are present. Juxta-plate triangular,

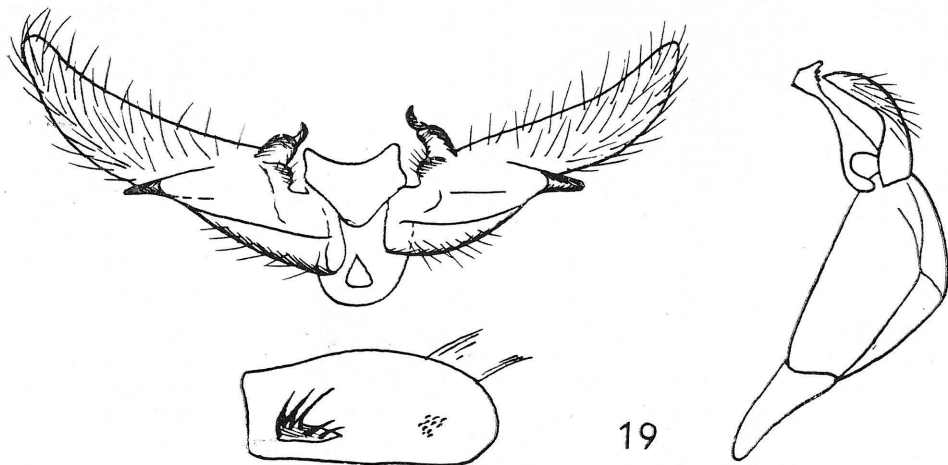


Fig. 19. *Euchromius keredjellus* (Amsel). Male genitalia: Slide Nr. 1065-B1.

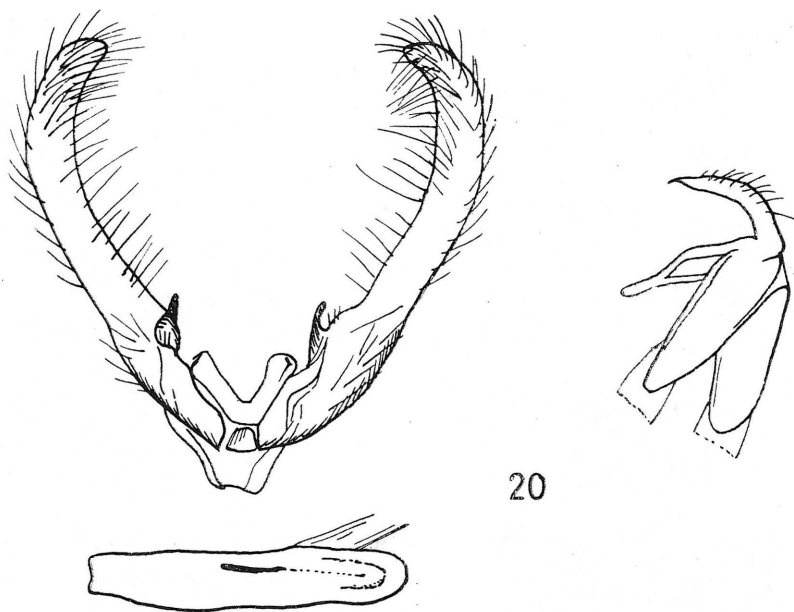


Fig. 20. *Euchromius klimeschi* sp. n. Male genitalia: Holotype. Slide Nr. 1208-B1.

slightly concave terminally, lateral edges thickened. Saccus small. Aedoeagus rather short, straight, broadened beyond the middle of its length, suddenly narrowed apically. Three distinct cornuti: one of them consisting of numerous spines, the second one shorter, provided with several very short thorns, the third cornutus granular, is the longest.

Female genitalia. Labia coalescent with one another, hairs of medium length; a strongly sclerotized, minutely granulated circle on the ventral part of lamella subgenitalis, much larger than that in the preceding species. Ostium bursae lightly sclerotized, distinctly wider than the ductus bursae, provided with a large, heavily sclerotized plate; the latter is distinctly incised posteriorly. Ductus bursae slightly sclerotized, ribbed near the bursa copulatrix. Ductus seminalis narrow, arising from about middle of length of ductus bursae. Bursa copulatrix partially very minutely granulated.

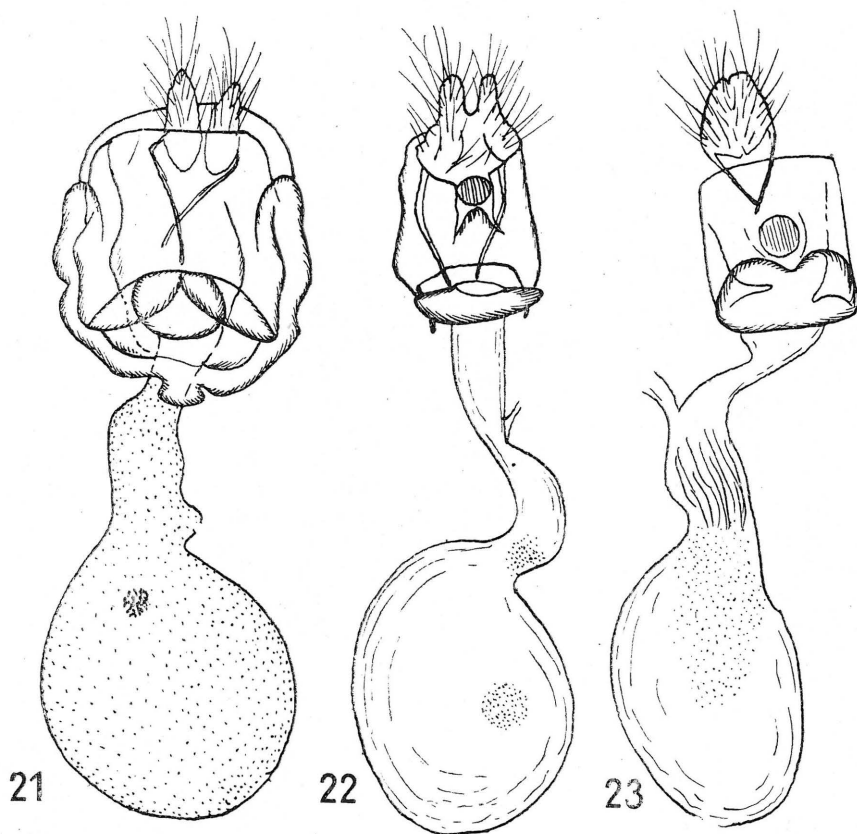
***Euchromius gozmányi* sp. n. ♂**

(Fig. 7; fig. 17)

The new species comes very near the two preceding ones, being strikingly similar externally to them, it is, however, perfectly distinct by its male genitalia. The female is not as yet known. *E. gozmányi* sp. n. is described from four male specimens labelled: "Hispania, Korb, Chiclana, 1912, IV. V." and "Tunisia, Ain Draham". Holotype and two typoids from Chiclana are in the collection of the Hungarian National Museum in Buda-

pest, one tyroid from Tunisia and one from Chiclana in the author's collection.

Frons produced forward, conical, grey. Vertex grey. Thorax, and patagia concolorous with vertex and frons. Antenna serrate, uniformly grey, slightly glossy. Labial palpus about twice as long as the eye diameter, grey. The length of the fore wing 6—7,3 mm., its maximal width 2,7—2,8 mm. The ground colour of the fore wing white, suffused with brown scales. Medial fascia straight or nearly straight; running from just a little beyond the middle of costa to two-fifths of dorsum. Apical pattern of basic *Euchromius*-type. Seven black dots at the termen. In the specimen from Tunisia there are traces of eighth and ninth dot. Fringes glossy whitish, greyish at their ends, its basal stripe of scales shining strongly metallicly steely to golden, glossy. Hind wing slightly glossy, greyish; terminal pale fascia vestigial; fringes white with a darker basal stripe.



Female genitalia: Fig. 21. *Euchromius hampsoni* (Rthsh.). Tyroid. Slide Nr. 1181-B1. Fig. 22. *Euchromius superbellus* (Zell.). Slide Nr. 1188-B1. Roumania. Fig. 23. *Euchromius rayatellus* (Amsel). Slide Nr. 1163-B1. Afghanistan.

Genitalia. Uncus similar to that in the preceding species. Gnathos at the very top slightly sclerotized, with two small, lamella-shaped, acute, dorsal projections. Pars basalis short, heavily sclerotized, in the shape of a strongly curved, tapering to a pointed tip spine. Sacculus with a distinct short, strongly sclerotized tip. Cucullus slightly arched; hairs of medium size, no bristles present. Juxta-plate deeply notched terminally, its lateral edges thickened. Saccus small. Aedeagus bent, long, narrow, rather evenly wide throughout; a single long, bent, tapering cornutus present. The variability of the genitalia is observed. In the specimen from Tunisia the free tip of sacculus is distinctly longer than in the specimens from Spain, in addition aedeagus in that specimen is visibly shorter and cornutus wider.

The new species is named in honour of Dr. Laszlo Gozmány of the Hungarian National Museum in Budapest.

***Euchromius mouchai* sp. n.**

(Fig. 9, 10; fig. 18; fig. 24)

This species comes very near externally, as well as in genitalia *E. keredjellus* (Amsel) being, however, distinct from it by its male and female genitalia. It is described from seven males and one female specimen from South-Eastern Russia. As the holotype I designate a male labelled: "1865, Rossia m., Sarepta, Chr." (Slide Nr. 1142/B1.); the allotype bears a label: "Rossia m." (Slide Nr. 1187/B.); the holotype and three typoids are in the collection of the Institute of Zoology of the Polish Academy of Sciences, the allotype and two typoids belong to the author's collection and one typoid is in the collection of the British Museum (Nat. Hist.) in London. All these specimens were identified as belonging to *E. ramburiellus* (Dup.) and *E. superbellus* (Zell.).

Frons produced forward, conical, white. Vertex whitish. Patagia white with two broad longitudinal, brown stripes. Thorax white, brownish at sides. Antenna serrate in the male, setaceous in the female; it is white from above, from about middle its length ringed with brown. Labial palpus twice and a half as long the eye diameter, it is brown at sides and white from above and below. Maxillary palpus brown, white terminally. The length of the fore wing 6,7 mm. to 8 mm., its maximal width 2,6 mm. to 3,1 mm. Ground colour of the fore wing white densely suffused with brown scales. Medial fascia rather distinct from beyond the length of costa, it is gently arched or straight, running to two-fifths of dorsum. Apical pattern of a basic *Euchromius*-type. Seven black terminal dots. Fringes strongly glossy grey, the basal stripe steely golden with a metallic strong shine. Hind wing, fairly, transparent, rather glossy, whitish; in some instances an indistinct, dark, subterminal fascia present. Termen distinctly bordered with dark. Fringes white, glossy.

Male genitalia. Uncus rather similar to that in *E. rayatellus* (Amsel) and *E. gozmányi* sp. n. Gnathos lightly sclerotized at the very tip; its terminal part provided with two elongated, dentate lamellas. Pars basalis short, broad and rounded basally, further on suddenly tapering to a

pointed curved tip. A vestigial hairy projection near pars basalis. Sacculus rounded terminally, without free tip, provided with a narrow long fold. Cucullus slightly arched, hair similar to that in the two former species. Juxta-plate fairly concave terminally. Saccus small. Aedeagus short and wide. Two groups of cornuti present. The first of them consisting of several distinct spines on a rather common base, the other is formed by numerous fairly large granules.

Female genitalia. Labia coalescent with one another, hairs rather long. No strongly sclerotized circle in the lamella subgenitalis present. Ostium bursae lightly sclerotized, dumpy; it is provided with a large plate; the latter rather heavily sclerotized, distinctly incised. Ductus bursae wide, strongly narrowed and delicately ribbed before ostium bursae. Ductus seminalis faintly ribbed, commences very broadly, further on suddenly narrowed. A group of numerous distinct granules forms a round large signum.

This species is named in honour of Dr. Josef Moucha of the National Museum in Prague.

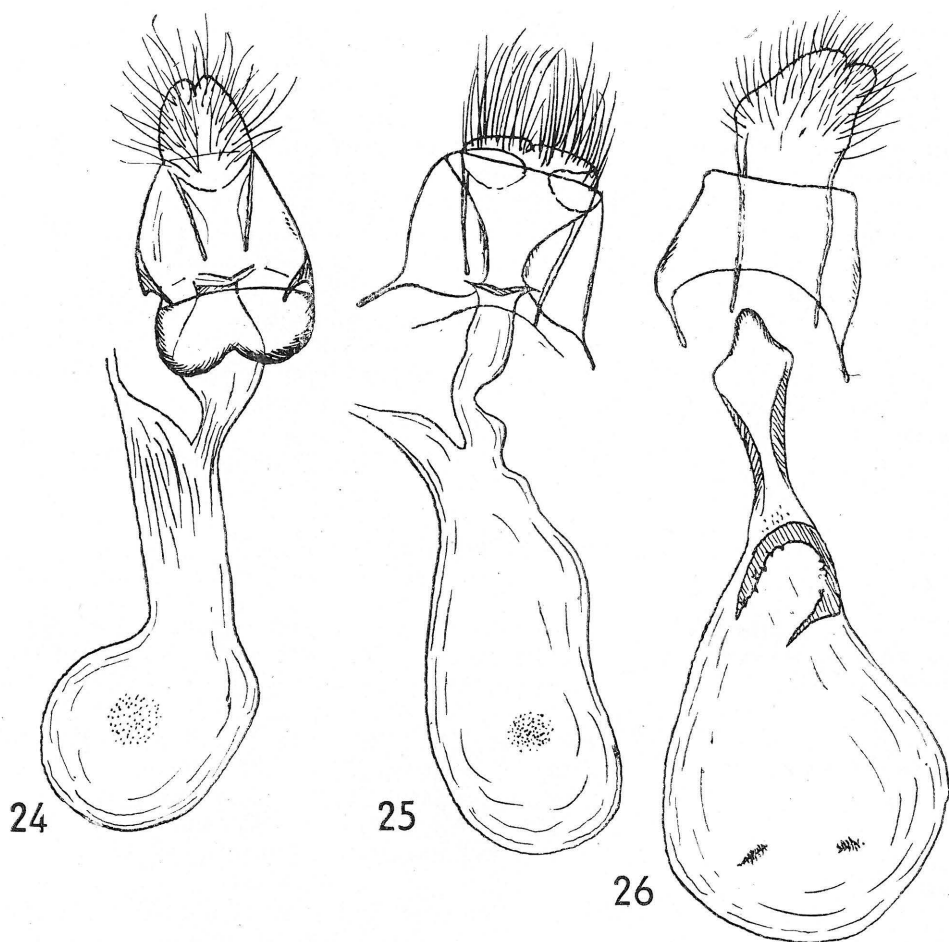
***Euchromius keredjellus* (Amsel)**

(Fig. 11; fig. 19; fig. 25)

From the preceding species distinguishable externally by usually greater size, somewhat more elongated wings and more yellowish hue of the fore wing. The two species are perfectly distinct from one another by their male and female genitalia.

Two male typoids before me. They are labelled: "Iran, Elburs-Gebirge, Keredj, 21. 5. (and) 4. 6. 1936, leg. Brandt" (Slides GU-318 and 1149/Bt.). Besides, 12 male and female specimens labelled "Afghanistan, Herat, 970 m., 5. 5. 1956, H. G. Amsel leg" have been identified as belonging to the species under consideration (coll. Dr. H. G. Amsel, Karslsruhe).

Male genitalia. Uncus and gnathos of a similar armature as in the preceding species; gnathos provided with two dentate lamellas situated dorsally before the apex. Pars basalis short, proportionately broad basally, at about three-fifths its length suddenly narrowed in a curved, acute spine. A hairy projection near pars basalis rather distinct. The main difference between this species and *E. mouchai* sp. n. being in the sacculus that is provided with a distinct free tip of medium length, while in the latter species sacculus is not differentiated. Because of that character the genitalia of *E. keredjellus* (Amsel) resemble somewhat those in *E. rayatellus* (Amsel). However, in the latter the free tip of sacculus is distinctly longer than in the former. Juxta-plate somewhat broader than in the preceding species (its shape in the preparation usually depends on the pressure of the cover-glass). Saccus small. Vinculum rounded. Aedeagus visibly shorter and wider than in *E. mouchai* sp. n. Cornuti rather similar as in that species, the spines of the terminal cornutus being in *E. keredjellus* (Amsel) rather longer and the granules of the second cornutus somewhat less numerous than in *E. mouchai* sp. n.



Female genitalia: Fig. 24. *Euchromius mouchai* sp. n. Allotype. Slide Nr. 1187-B1. Fig. 25. *Euchromius keredjellus* (Amsel). Slide Nr. 1066-B1. Afghanistan. Fig. 26. *Euchromius klimeschi* sp. n. Allotype.

Female genitalia. Labia broadly flat terminally of a character not as yet met with in any other species of *Euchromius* Guen. The hairs of labia very long. Ostium bursae lightly sclerotized, its edges thickened. The plate strengthening ostium bursae very indistinct. Ductus bursae rather short, lightly sclerotized, without ribbing. Ductus seminalis commences rather broadly near bursa copulatrix. The latter elongated; a round signum consisting of small numerous granules.

***Euchromius klimeschi* sp. n.**

(Fig. 12; fig. 20; fig. 26)

This species is described from three specimens, one male and two females. The male is designated as the holotype, it bears a label: "Natal, Weenen, 1. iii. 1927, H. P. Thomasset". The allotype is similarly labelled as the holotype, but it was taken in November 1927. The female typoid is labelled: "Weenen, 3/95, Natal". These type-specimens are in the collection of the British Museum (Nat. Hist.) in London and in author's coll.

Antenna uniformly greyish, serrate in the male, setaceous in the female. Labial palpus pale brownish, yellowish at places, it is about $2\frac{1}{2}$ as long as the eye diameter. Maxillary palpus brown, whitish terminally. Frons slightly produced, rounded. pale yellow-brownish; vertex concolorous with the frons. Collar brown mixed with pale scales. Tegulae pale yellow-brownish with a longitudinal brown stripe. Thorax brown. The length of the fore wing from 6,5 mm. to 7 mm., its maximal width from 2,2 mm. to 2,8 mm. Ground colour in the fore wing creamy suffused with brown scales. Medial fascia from the middle or, just a little beyond the middle of costa to two-fifths of dorsum; it is straight or gently arched, yellow, bordered with silvery narrow stripes on either side. Apical pattern of a basic *Euchromius*-type. Seven black terminal dots present. Cilia glossy greyish, the basal stripe steely, with a strong metallic gloss. Hind wing slightly glossy, brown; cilia whitish with a dark basal stripe.

Male genitalia. Uncus slender tapering terminally to a pointed tip. Gnathos narrow, not broadened, rounded terminally. Pars basalis very small in the form of a short, narrow, rather rounded terminally process. Sacculus not differentiated. Valva very long, narrow, distinctly arched; hair normal. Juxta-plate deeply notched with a short strengthening fold on either side. Saccus of a medium size. Vinculum flatly cut. Aedeagus straight, rather narrow; a single long cornutus present.

Female genitalia. Labia rather large, distinctly coalescent with one another. Lamella subgenitalis visibly separate from ostium bursae; gonapophyses anteriores rather long. Ostium bursae rather heavily sclerotized, in the form of a tapering terminally rounded projection. Ductus bursae short, with a distinct strengthening fold on either side. Three signa present on bursa copulatrix. The first signum is large, strongly arched, dentate, it is situated near ductus bursae, the remaining two signa are of normal shape, they are small, elongated, consisting of groups of minute spikes. Bursa copulatrix proportionately large.

This species forms a distinct group because of the armature of its male and female genitalia. Externally it is similar to *E. viettei* sp. n. being, however, very distinct from it by the presence of seven marginal dots in the fore wing the number of them being nine in *E. viettei* sp. n.

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