

4. 10. 1958

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RECORDS OF LEAFHOPPERS FROM CZECHOSLOVAKIA AND SOUTH
EUROPEAN COUNTRIES

(Homoptera: Auchenorrhyncha)

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This paper is suggested to be a continuation of my previous papers which form a considerable number of short communications dealing mainly with Czechoslovakian homopterological faunistics and systematics.

The zoogeographic distribution of a great part of the leafhoppers is incompletely known and that is a serious carrying out further studies on this subject. Especially when reading the first faunistical reports we see that our knowledge of the occurrence of leafhoppers remains uncomplete or sometimes even erroneous. It is not an easy problem to publish new faunistics from different territories, as the material originating from a few localities or collected during a short period of field-work cannot give any good zoogeographical and zoocenological knowledge and therefore it must be regarded as worthless. On the other side it is useless to pay attention to species with a wide range of distribution, which commonly occupy a large area. There is no necessity of publishing long lists where common insects have been caught. It is certainly much more interesting and useful to recognise the characteristics of a locality, biotope, fytocenosis, the quality and the age of vegetation, the exposition, the time, the generations and other bionomic, ecologic or zoocenologic features, which are preferred by a certain species. The future entomology must elaborate and use new quantitative and more accurate methods of collecting, because we must learn the life of species in their biotopes, the knowledge of every species by itself not being sufficient.

The basis of faunistical communications is often believed to be formed by species sporadically distributed and little known. We consider these species generally as "rare" species, but this is only partially correct. We may find sooner or later a reason explicating why we mishappened to acquire a large number of specimens for our collection. This may be caused merely by actual ignorance of the bionomy or ecology of a species which is the reason for its "rareness". The quantitatively examined material is differentiated generally into 3 zoocenological categories of species-abundance: dominant (occurring in masses), influential (numerous but less abundant species in every sample) and recedent (only one or very few specimens are found

in the sample). From a zoogeographical point of view the same species can have a different abundance: in the centre of its occurrence it is dominant and in the periferic territories it uses to be recendent. Every evaluation used is only of relative value.

My deapest thanks belong especially to those entomologists, who supported my study by leaving me precious material of leafhoppers for determination and specimens for collection, Messrs Dr Beier (Wien), Ing. Janković (Beograd), P. Novak (Split), Dr Josifov (Sofia), Dr Mancini (Genova), Prof. Dr Servadei (Padova), Dr Mavromoustakis (Limassol).

Czechoslovakia

Criomorpus nigrolineatus (Scott 1875)—Previously known from Moravia and Slovakia, new for Bohemia: Krušné hory, Oldříš, one macropterous female, 1. VI. 1957 (Kodys).

Errhomenellus brachypterus (Fieber 1866)—Monticole and judging from previous records sporadic species. Dr Martínek happened to find number of specimens on some biotopes in insect ton-traps with formalin dilution, situated in the nearest vicinity of Picea-wood. This terricole species is living on the surface but only rarely climbs on plants, therefore it cannot be swept easily as other planticolous species. From our country there were previously known only 2 localities, one from Bohemia (Podkrkonoší) the other from Moravia (Melichar i. l.) I am completing the distribution of this species on other localities and indicate the first Slovakian locality.

Bohemia: Kost, 1. XI. 1949, 1 larva (Šamšíňák); Jánské Lázně, 16. V. 27, 1 larva (Palásek); Moravia: Jeseníky, number of specimens, 4. VII.—28. VIII. 1956, 20. IX. 1956 (Martínek); Slovakia: Ban. Štiavnica, 1 larva, 28. VI. 56 (Patočka). The specimens of this species is previously known to me from: Russia subcarp., Italia, Yugoslavia and Austria.

Agallia brachyptera (Boheman 1847)—A very common brachypterous species is known to me in 2 macropterous specimens, one male specimen originated from Afghanistan (Dlabola i. l.) and one female specimen I found in the material received from Slovakia: High Tatra, Kežmarské žleby (Hoffer). This locality is situated about 1500 m. above the sea level.

Idiocerus laminatus Flor 1861—New for Czechoslovakia, Slovakia: Sitno, 1 sp., 1. VIII. 1955 (Dlabola).

Circulifer haematoceps (Mulsant Rey 1855)—New for Bohemia: Radotín, 9. IX. 1954, Oblík, 6—9. IX. 1956 (Dlabola).

Laburris handlirschi (Matsumura 1908)—New for Bohemia: Oblík, 6. IX. number of specimens (Dlabola).

Zygina distinguenda (Kirschbaum 1868)—Previously known from: France, Switzerland, Italy, Germany and Hungary, new for Czechoslovakia, Moravia: Pavlovské kopce, 5. VIII. 1957, one male specimen (Hoffer).

Kybos mucronatus (Ribaut 1933)—Previously known from France, Switzerland, Sweden, Russia, new for Czechoslovakia, Moravia: Žďárec, Hor. Benešov, VI-25. IX. (Vondráček).!

Eupteryx ornata (Lethierry 1874)—New for Moravia: Hostýn, 2 females (Starý).

Eupteryx alticola Ribaut 1936—New for Moravia and Bohemia; from Slovakia previously known, Bohemia: Oblík, Raná, IX. 52, in a number of specimens (Dlabola), Moravia: without more detailed locality, coll. Graeffe, Museum Wien.

Linnavuoriana decempunctata (Fallen 1806)—New for Czechoslovakia, Bohemia: Prachatic, one male, 21. VIII. 1957 (Hoffer), Slovakia, High Tatra, Kežmarské žleby, 700 m above the sea level, some specimens (Hoffer).

Edwardsiana sociabilis (Ossiannilsson 1936)—New for Czechoslovakia, Bohemia: Jilemnice, 6. IX. 1954, 3 specimens (Dlabola).

Edwardsiana kemneri (Ossiannilsson 1942)—New for Czechoslovakia, Bohemia: Radotín, 9. IX. 1955, one specimen (Dlabola).

Edwardsiana spinigera (Edwards 1924)—New for Bohemia: Mladá Vožice, 12. VIII. 1954, 2 specimens (Dlabola).

Edwardsiana prunicola (Edwards 1914)—New for Slovakia: Čeňkov, 17. VI. 1954, 2 male specimens (Dlabola).

Edwardsiana plebeja (Edwards 1914)—New for Czechoslovakia, Bohemia: Troja u Prahy, 10. IX. 1946 (Dlabola), Slovakia: Čeňkov, 3. VIII. 1954 (Dlabola).

Austria

In the large material received for determination through the kindness of Dr Beier (Wien) I ascertained some species worth to be mentioned, which are not known from this country.

Zygina silvicola (Ossiannilsson 1937)—Gutenstein (Handlirsch).

Eupteryx alticola Ribaut 1936—Mödling (Handlirsch).

Eurhadina kirschbaumi Wagner 1936—Dornbach (Handlirsch).

Ribautiana horvathiana (Dlabola 1954)—N. Österreich; Donauauen (Handlirsch).

Ribautiana scalaris (Ribaut 1931)—Dornbach (Handlirsch).

Edwardsiana avellanae (Edwards 1888)—Wienerwald, Mödling, Gutenstein, Bisamberg (Handlirsch).

Edwardsiana spinigera (Edwards 1924)—Dornbach, Donauauen (Handlirsch).

Edwardsiana candidula (Kirschbaum 1868)—Donauauen (Handlirsch).

Edwardsiana hippocastani (Edwards 1888)—Dornbach (Handlirsch).

Edwardsiana lethierryi (Edwards 1881)—Mödling, Dornbach (Handlirsch).

Edwardsiana plebeja (Edwards 1914)—Mödling, Donauauen (Handlirsch).

Yugoslavia

The examined Yugoslavian material has been kindly sent to me by Ing. Janković. Among these specimens swept on Kopaonik planina I found especially the following species, new for Yugoslavia:

Psammotettix confinis (Dahlbom 1850), *Ebarrius cognatus* (Fieber 1869), *Dicranotropis divergens* (Kirschbaum 1868), *Dryodurgades dlabolai* Wagner i. litt. *Zygina rorida* (Mulsant Rey 1855).

Further material I received from Dalmatia through the courtesy of Mr. Novak (Split). Some interesting or mostly new species for the named territory follow:

Trigonocranus emmeae Fieber 1876.—Previously known from France and Hungary. Figs 27—32.—Biokovo, 1. V. 52, 15. VI. 55, 1200 m. above the sea level, 6 specimens (Novak).

Araeopus meridionalis Haupt 1924—Zakučac, 1 specimen, 26. VI. 56 (Novak).

Kelisia brucki Fieber 1878—Dujmovača, 8. VI. 56, many female specimens (Novak).

Megophthalmus scabripennis Edwards 1915—Lukavci, Govedjari, Velaluka, 1. V.—7. VI. in a number of specimens (Novak).

Agallia minuta Melichar 1896—Jabuka, 9. VII. 55, 2 specimens (Novak).

Anaceratagallia laevis (Ribaut 1935)—Split, Castelvecchio, Svilaja, Zakučac, 8. V.—30. VII. some specimens (Novak).

Dryodurgades dlabolai Wagner in litt.—Split, Mosor, 6. VII.—4. VIII., 3 specimens (Novak).

Macrosteles ramosus Ribaut 1952—Split, 10. XI. 53, in a number of specimens (Novak).

Euscelis stictopleurus (Flor 1861)—Split, Biševo, Jabuka, 1. VI.—30. VII., many specimens (Novak).

Opsius lethierryi Wagner 1941—Govedjari, Split, Stobreč, Trogir, 1. VI.—20. VII. on *Tamarix* in some specimens (Novak).

Platymetopius obsoletus (Signoret 1880)—Lukavci, 4. X. 51, 2 specimens (Novak).

Adarrus exornatus Ribaut 1952—Omiš, 10. VI. 52, 1 male spec. (Novak).

Placotettix taeniatifrons (Kirschbaum 1868)—Govedjari, 5. VIII. 56, 1 specimen (Novak).

Synophropsis lauri (Horváth 1897)—Castelvecchio, 19. VIII. 55, one specimen (Novak).

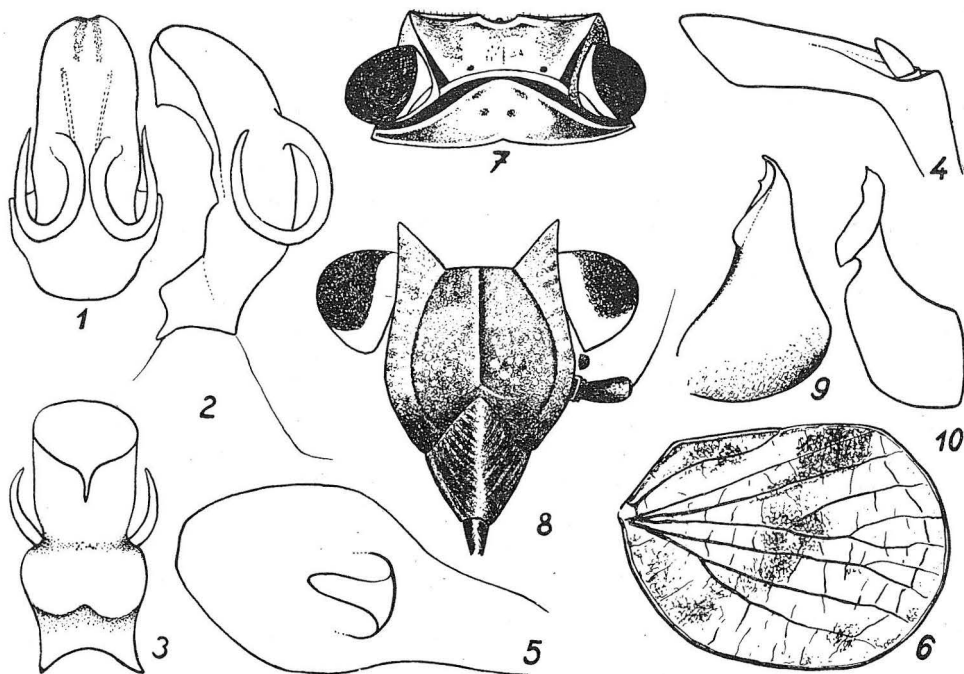
Tetartostylus pellucidus (Melichar 1896)—Zakučac, 6. VII. 56, one specimen (Novak).

Erythria seclusa Horváth 1903—Svilaja, 9. VI. 55, some female specimens (Novak).

Zyginella pulchra Löw 1885—Split, on *Pistacia terebinthus*, 3. XII. 53, some specimens (Novak).

Eupteryx zelleri (Kirschbaum)—Komiža, 3. VI. 53, 2 specimens (Novak).

Zyginidia pallidifrons (Edwards 1924)—Brusnik, 5. VI. 53, one male, 7 female specimens (Novak).



Hysteropterum tauricum Kusnezov, 1: aedeagus, dorsal view; 2: aedeagus, lateral view; 3: aedeagus, ventral view; 4: tube analis in profile; 5: tube analis, dorsal view; 6: tegmen; 7: head and pronotum; 8: frons and clypeus; 9: style, lateral view; 10: style, posterior view.

Bulgaria

Hysteropterum tauricum Kusnezov 1926—Previously known from South Russia. Some additional figs 1—10 are added. Bulg.: Pirin, 10. VIII. 55 (Josifov), Karadžali 6. IX. 55 (Josifov).

Anaceratagallia perarmata n. sp.

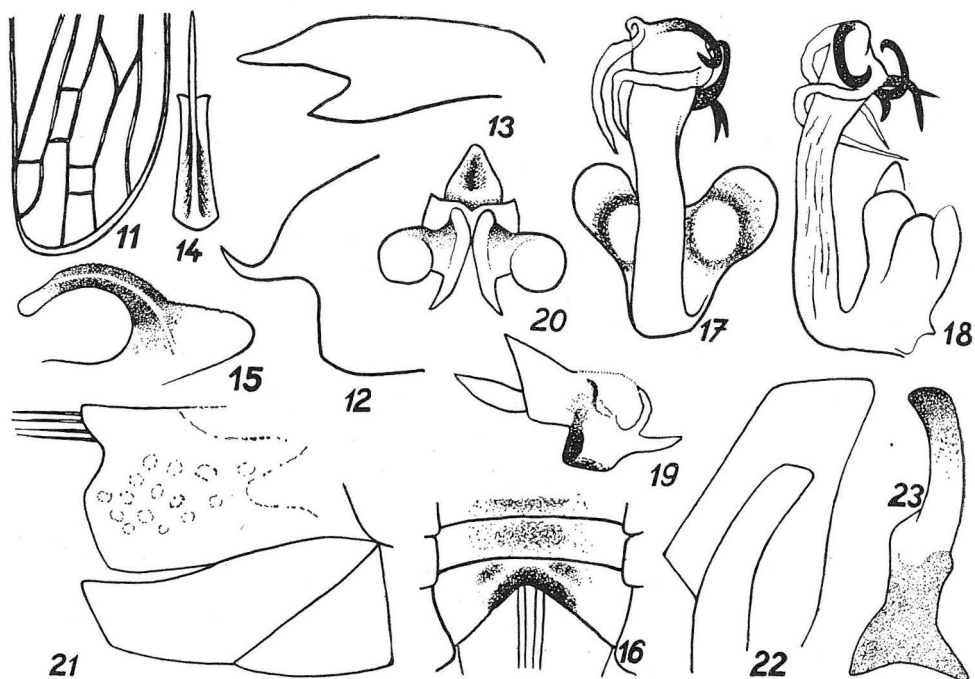
Much resembling *A. laevis* and *ribauti*, different especially in the nervation of the forewings and particularly by having another form of inner genitalia. Figs 11—15.

Total length of the male 3,5 mm. Pale greyish colour is strongly marked on the fore body and the nervation of the fore wings is browned partially. Apical nervation contents 4 cells and only 2 subapical cells, outer apical cell is joined to outer subapical cell without any cross nerve.

Male genitalia: The pygophore-appendix is broadly laminated, apically two-pointed. Aedeagus as in *A. ribauti*, slender but more regularly curved, almost circular, basally prolonged backwards in triangular sole. Dorsal acute margin of aedeagus softly denticulated.

Female specimen unknown.

Holotypus: ♂, Bulgaria: Alibotuš, 10. VIII. 55 (Josifov) Holotypus in coll. Dlabola.



Anaceratagallia perarmata n. sp., 11: apex of tegmen; 12: pygophore; 13: pygophore-appendix; 14: aedeagus, dorsal view; 15: aedeagus, lateral view. — *Cicadatra appendiculata* Linna vuori, 16: ♀ VII sternite, 17: aedeagus, dorsal view; 18: aedeagus, in profile; 19: tube analis, in profile; 20: tube analis, ventral view. — *Adarrus servadeinus* n. sp., 21: pygophore, genital valve and genital plate; 22: genital plate with style; 23: style.

Italy

Among the material received by C. Mancini (Genova) and Prof. Dr. A. Servadei (Padova) I found one little known species and one undescribed species which may be described as follows:

Adarrus servadeinus n. sp.

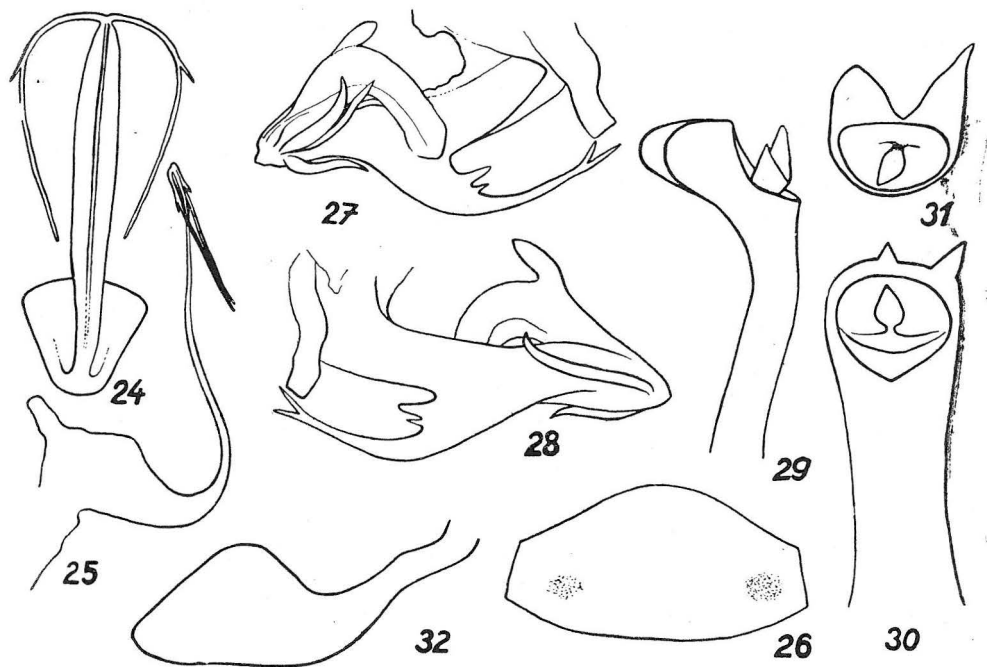
Robust and well coloured species. The basic colour of this species is pale or yellowish grey, with brown maculation. Total length of the male 3.3 mm., of the female 3.7 mm. Pronotum banded longitudinally, scutum with indistinct pattern. Fore wings light yellowish with 2 broad pale tapes across, paler base and apex. Venation strongly developed, on pale places of corium email-white, shining. Tegmina partly fenestrated with brown. Face with median, apically to the tip of the head emarginated tape, laterally having an Eusceloid pattern. Body and feet yellow and grey with brown spots.

Male genitalia: stylus as in *A. fugax*, aedeagus as in *A. reductus* but differing especially in having the lateral spines split, this other pair of spines is much shorter but well developed. Figs: 21—24.

Female VII. sternite is broadened in the middle, simple, with indistinct lateral spots. Fig. 26.

Holotype, ♂ and allotype, ♀, Italy: Aosta, III. 55 (Servadei); holotype in coll. Servadei, allotype in coll. Diabola.

Anoplotettix putoni Ribaut 1952—Described after one male specimen from the Mediterranean subregion without knowledge of the locality. I found 2 male specimens among other material from Isle Giglio (in coll. Museum Genova and coll. Diabola).



Adarrus servadeinus n. sp., 24: aedeagus, dorsal view; 25: aedeagus, in profile, 26: ♀ VII. sternite. — *Trigonocranus emmae* Fieber, 27: aedeagus, in profile; 28: aedeagus, in profile; 29: anal tube, in profile, 30: anal tube, dorsal view; 31: anal tube, posterior view, 32: style.

Cyprus

The leafhopper-fauna of Cyprus is excellently treated by Lindberg and Ribaut 1948. The well known Cyprian entomologist G. A. Mavroustakis found on his excursions especially in the environs of Limassol, Acrotiri Bay, Yermasoyia River numerous leafhopper-specimens, some of them not being known from this territory. In this material kindly sent to my disposition I recognize, that the dominant elements of the Cyprian leafhopper-communities are the following species: *Aconurella proluxa* Lethierry and *Exitianus taeniaticeps* Kirschbaum. I can list from the received material some other very common species: *Calligypona propinqua* Fieber, *Philaenus spumarius* Linné, *Oliarus lindbergi* Diabola, *Parabolocratus glaucescens* Fieber, *Psammotettix striatus* Linné.

Other species were less abundant in the examined material, some of them being new species for the Cyprian fauna.

Calligypona obtusangula Linnavuori 1957—Described from Italy, new for Cyprus: Acrotiri Bay, 1. X. 56 2 ♂ sp., (Mavromoustakis).

Pseudareopus lethierryi, Ribaut 1948—Cyprus: Yermasoyia River, 10—24. IX. 56, 5 specimens (Mavromoustakis).

Dictyophora acuminata (Lindberg 1948)—New combination, from Fulgora. Cyprus: Ayios Athanasios, at *Pistacia*, 7 specimens, 7. IX.—3. X. 56 (Mavromoustakis).

Dictyophora asiatica (Melichar 1912)—Cyprus: Cherkes, Zakaki, 22.—28. VII. 54, 5 specimens (Mavromoustakis).

Mycterodus denticulatus Lindberg 1948—Cyprus. Prodomos, 14. IX. 54, 3 specimens (Mavromoustakis).

Cicadatra appendiculata Linnavuori 1954—Described from Cyprus after only one male specimen. The aedeagus of one Cyprian specimen is given on figs 17, 18. Female specimen: coloration the same as in male specimen. The seventh sternite female angularly emarginated, brown colored as in fig. 16. Other sternites browned in the middle. Body with silver pilosity. Fig. 19, 20. Cyprus: Moni River, Limassol, 31. V.—24. VII. 55, 1 male, 4 female (allotype) specimens (Mavromoustakis).

Aconura pallifrons Horváth 1897—Cyprus: Acrotiri Bay, Limassol, 1. X.—17. XI. 56, some specimens (Mavromoustakis).

Cicadulina zae China 1928—Cyprus: Limassol, on *Cynodon dactylon*, 14. IX.—18. XI. 56, many specimens (Mavromoustakis).

Idiocerus vitreus (Fabricius 1803)—New for Cyprus: Mt. Trodos, 5500 ft, 8. VIII. 55, 2 specimens (Mavromoustakis).

Idiocerus ocellaris (Mulsant Rey 1855)—Cyprus: Ayos Athanasios, 3. X. 56, 7 specimens (Mavromoustakis).

Batracomorpha flavovirens Lindberg 1948—Only one male specimen was known from Cyprus. Female VII. sternite prolonged and tecting whole basis of the ovipositor. Hind margin without incisure or concavity, only hardly visible sinuated in the middle, laterally right-angled. This VII. sternite is 2 times longer than the precedent and about 2 times broader than long. Coloration of the female is the same as in the male: pale yellowish green. The hind part of the hind tibiae and tarsi are green, body—especially the dorsal part of abdomen is yellowish. Total length 5,3 mm.—Cyprus: Limassol, 23. IX. 56, one male and one female (allotype) specimen (Mavromoustakis).

Henschia oculata Lindberg 1948—Described brachypterous specimen from Cyprus. One macroptere female found in Famagusta, 25. VI. 56 (Mavromoustakis).

Thamnotettix zelleri (Kirschbaum 1868)—New for Cyprus: Kelaki, Yermasoyia river, 11.—22. IV. 56, 9 specimens (Mavromoustakis).

Docotettix cornutus Ribaut 1948—Cyprus: Moni river, Yermasoyia river, Limassol, Aios Athanasios, 25. IV.—3. X. 56, 7 specimens (Mavromoustakis).

Euscelis obsoletus (Kirschbaum 1858)—New for Cyprus: Mt. Throdos, 5500 ft, Acrotiri Bay, marshes, 2 specimens, 8. VIII.—26. X. 56 (Mavromoustakis).

Stymphalus rubrolineatus Stål 1864 = *Purpuranus rubrostriatus* (Horváth 1907) = *rubrovittatus* (Matsumura 1914), new synonymy. The zoogeographical distribution of this splendidly coloured species belonging to the tribe *Scaphytopini* sensu Oman 1949 is very curious. It has been previously known from Italy and Cyprus on one side, from Japan on the other side. In Bulgaria (Strandža planina) it was found by Hoberlandt 1956 and to my greatest surprise I obtained it among other material from South Africa, where it was collected by my friend Capener 1957. The area of its occurrence is extremely great, and we hardly know any other leafhopper-species of the same distribution. Stål's description possesses the priority, it is therefore necessary to change the name used in the Palearctic region. (The second representative of the tribe *Scaphytopini* in the Palearctic region is *Scaphytoceps* n. gen. from Afghanistan, Dlabola in litt.).—Cyprus: Acrotiri Bay, Yermasoyia river, 10. IX.—26. X. 56, 5 specimens (Mavromoustakis).

Circulifer inscriptus (Haupt 1925)—Cyprus: Famagusta, 25. VI. 56, 6 specimens (Mavromoustakis).

Streptanus josifovi (Dlabola 1957)—Described from Bulgaria. Cyprus: Cherkos, 1. III. 55, 3 specimens (Mavromoustakis).

Erythroneura (Flammigeroidia) flammigera (Geoffroy 1785)—New for Cyprus: Limassol, Yermasoyia river, 9. I. 57, 11. IX. 56, 3 specimens (Mavromoustakis).

Zygina simplex (Ferrari 1882)—New for Cyprus: Limassol, 16. XI.—8. VII., 6 specimens (Mavromoustakis).

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