

Contribution to the Planthopper fauna of Greece (Homoptera, Auchenorrhyncha, Fulgoromorpha, Delphacidae)¹

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SUMMARY

Until 1978 Auchenorrhyncha were very little known in Greece as far as number of species, geographic distribution, biology and ecology are concerned. This prompted the authors to perform extensive investigations on this group of insects and in 1982 they started publishing the results of the, then almost unknown, family of Delphacidae. These results together with the data included in this paper are more than was expected, since in Greece more species were found than in any other western european country where such investigations started since last century. Therefore a review on the Delphacidae fauna is presented here, together with new data on the geographic distribution, ecology and systematics of 100 species collected until October 1983. Eight of these 100 species have been or soon will be described as new species, while 20 other species are reported here for the first time from Greece. For these 28 species as well as for some other species ecological data are given, while precise identification characters are presented for 14 species which were insufficiently known, or appeared to differ from the description in the literature.

For each of the 112 species that were found so far in Greece, its food plant species and its new geographical distribution are indicated. In addition are presented for each species distribution maps for the area of Greece.

According to the data mentioned above a concise zoogeographical analysis is made, resulting in the following conclusions: 1. Greece so far is rather rich in endemics (2 genera, 12 species). 2. The number of european-eurosiberian species dominates the mediterranean. 3. Many species reach the limits of their distribution areas in Greece.

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1. Received on June 2, 1983. Supplementary data in the catalogue of species dated more recently were received February 6, 1984.
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The economic importance of this insect group is not yet known for Greece. However, from the literature it is known that some of these species are vectors of plant pathogens.

INTRODUCTION

Planthoppers distributed in the West-Palaeartic region are in general more or less small insects (1,3 - 8,8 mm in length). Their habitats are usually moist and occasionally dry biotopes where grasses, reeds, and rushes grow. Some species are reported as transmitting viruses or causing damage to the cereals (e.g. 29, 30) while many other might be considered to be "bioindicators" for the quality of certain biotopes. Some species might indicate the plant composition of a given area, since many of them are feeding and reproducing exclusively on a particular plant species. In other words the presence of one plant species indicates the presence of one or more planthopper species and *vice versa*. The eggs of the planthoppers are deposited in the plant tissues and larvae usually develop in the same or occasionally in another plant species (20). The biology of some species is adequately investigated in western Europe and Japan but hardly anything is known about the biology of eastern mediterranean species.

Until a few years ago very little was known about this group of insects in Greece, so that, even some common species like *Toya propinqua* (Fieber, 1866) and *Laodelphax striatellus* (Fallen, 1826) were unknown from this country (17, 21). Zoogeographically therefore, Greece comprised a gap concerning this group in particular, since in other adjacent countries this fauna was better investigated (25). Thus, until the list of Palaeartic Auchenorrhyncha was published (32) only 5 species were reported from Greece. The number of known species did not change until the first preliminary catalogue on the Auchenorrhyncha of Greece was published (21). Then, the number increased to 13 (in fact 11, because one of these species was considered to be a synonym (11, 23) and another is taxonomically unclear). However, the results of two simultaneous and independent programs, one on Auchenorrhyncha of the East Mediterranean and the other on Hemiptera from Greece, increased the number of planthopper species to 84 (1-9, 11, 22-26, 35, 36). Then, 10 out of the 11 reported species, 2 new genera, 6 new species and 67 species new to the Greek fauna were collected. During 1982 the two programs were combined and focused specially on the northeastern part of Greece. The results of this co-operation compared to the previous numbers, are: 8 new species that were or will be described (10, 12-15, 27) and 20 new records for the Greek hemipterofauna. Consequently, in a short time the planthopper fauna of Greece became the largest in number of species of all Balkan (25) and even West European countries (32) comprising so far 49 genera (2 endemic) with 112 species (12 endemic). It is expected, however, that this number of species can not increase much further. Therefore, this paper can be considered as a review on this family of Auchenorrhyncha and it is appropriated to include all available data concerning each species collected until now in Greece. The way these data are formulated is as follows: 1. Locality data of all species collected in Greece since 1981. 2. Morphological, ecological and zoogeographical notes for the species new to the hemipterofauna of Greece and some additional systematic and ecological notes for insufficient-

ly known species. 3. List of all species including their food-plant and their distribution, as far as known. 4. Maps of Greece showing the known distribution of each species.

MATERIAL AND METHODS

The sweeping method was used for collecting planthoppers, but many species could be found only by sucking them from the low parts of the vegetation. Sometimes larvae were reared until they became adults.

In recording each species the wing form of macropterous (m) or brachypterous (b) and the sex (σ , φ) have been considered as previously (9, 11, 23). One asterisk indicates species new to the fauna of Greece, two asterisks indicate endemic species, while open circles indicate species collected in previous years by the authors or some colleagues.

Material of the collected species is deposited in the collections of each of the authors. Representative material of each species has been deposited in the collection of Benaki Phytopathological Institute.

Localities studied

The way of presenting the collection sites of each species is the same as reported by Asche and Remane (11) and Asche and Hoch (9). Thus all the new localities of each province (in greek Nomos) are in succession to the reported ones. The altitudes and distances reported for the collection sites may deviate ca 50 m and ca 500 m respectively.

The localities from which planthoppers were collected are the following:

NORTHWESTERN GREECE

Kerkyra (=Ker)

- 1: Pantokrator, southwestern slopes, *S infra* Spartylas, 250 m
- 8: coastal biotope around Agios Stefanos
- 15: Pantokrator, NW *supra* Spartylas, 400-500 m
- 16: Pantokrator, N Petalia, 450 m
- 17: around Roda, coastal dunes
- 18: Anaharavi near Roda, coastal swamp and dunes
- 19: N Agios Athanassios
- 20: E Anaharavi near Roda, coastal dunes
- 21: around Agios Spyridon

Ioannina (=Ioa)

- 8: around Voutzara, 500 m
- 14: Miliotades, 600 m
- 15: around Vrysochori, 1000-1600 m

- 16: E Kipi
 17: Aaos - NE Konitsa
 18: SE Milea
- Florina (=Flo)
 2: E Pisoderion, culmination point, 1650 m
 7: Kalo-Nero massif (=Varnous Mt), southern slopes, around Agia Triada, N Antartikon, 1100 m
 9: Kalo-Nero massif, southern slopes, *supra* Agia Triada, 1100-1750 m
 11: Kalo-Nero massif, northwestern slopes, *supra* Agios Germanos, 1000-1750 m
 13: Mikri-Prespa region, around Mikrolimni, 854 m
 16: Mikri-Prespa region, 6 km E Mikrolimni
 24: Ladopotamos valley, W Prasino, 950 m
 25: Ladopotamos valley, N Kotas
 29: S *infra* Pisoderion, 1200 m
 30: Ladopotamos valley, Around Trigonon
- Kastoria (=Kas)
 1: around Gavros (Ladopotamos valley)
 4: NW Aposkepos, 800 m
- Kozani (=Koz)
 3: 15 km SE Siatista
 4: Vourinos Mt. 1100-1300 m
- Grevena (=Gre)
 3: S. Neapolis, southern bank of Pramoritza river
 4: around Anixis: 2 km S Agii Theodori
 5: NE Neapolis
 6: S Grevena
- Trikala (=Tri)
 6: around Panagia Pindos
 7: around Agiofilo
 8: around Orthovouni
- Larisa (=Lar)
 3: Olympus Mt., southern slopes, around Karya, 700-950 m
 4: Olympus Mt., southwestern slopes, NE *supra* Sparmos, 1800-2000 m, around refuge «B»
 8: Olympus Mt., between Karya and Sparmos, 1000 m, southwestern slopes
 9: Olympus Mt., southwestern slopes, around Kryovryssi, 800 m
- Pieria (=Pie)
 8: Olympus Mt., eastern slopes, *supra* Litochoron, 350 m
 11: Olympus Mt., eastern slopes, around Prionia, 1000-1250 m

- 18: Olympus Mt., northeastern slopes, S Agios Dimitrios, 500-1100 m
- 3: S Paralia near Katerini, coastal biotopes

Pella (=Pel)

- 2: N Vegoritiss lake
- 3: W Gianitsa, near Karyotissa

NORTHEASTERN-GREECE

Evros

- 1: 2 km S Provatonas
- 2: around Metaxades
- 3: 5 km NW Mikron Derion
- 4: Evros-Delta

Samothraki

- 1: SW Kamariotissa, coastal swamp
- 2: SW *supra* Therma
- 3: around Paleopolis, Katsampas river
- 4: NW Kamariotissa

Xanthi (=Xan)

- 3: W Porto Lagos, grass- and *Artemisia* sp. steppe vegetation
- 4: W Porto Lagos, around "saltworks", halophyte vegetation, salt marshes
- 5: E Porto Lagos, salt marshes
- 6: SE Paranestion or 10 km W Stavroupolis

Drama (=Dra)

- 4: Rodopi Mt., around Elatia, 1600-1700 m
- 5: Rodopi Mt., around fountain "Kryavryssi" near Elatia
- 6: Rodopi Mt., 13 km SE Elatia
- 7: Rodopi Mt., NE Skaloti, 1400 m
- 8: Rodopi Mt., around Vathyrhemma, 1450 m
- 9: Rodopi Mt., around Megali Panagia, 1400-1600 m
- 10: northeastern margin of Falakron Mt. Livadakion, 800 m
- 11: Falakron Mt., 2000-2200 m
- 12: Falakron Mt., 1400-1600 m
- 13: Rodopi Mt., around Nestochori, 500 m
- 14: Rodopi Mt., NE Elatia in direction Vathyrhemma, 1300 m
- 15: Rodopi Mt., 25 km SE Elatia, 1100 m
- 16: Rodopi Mt., 27 km SE Elatia, 1000 m
- 17: Rodopi Mt., NE "Virgin Wood", *supra* Zagrantenia, 1800-1900 m
- 18: Rodopi Mt., *infra* Zagrantenia, 1300 m
- 19: S Livaderon 600 m
- 20: N Drama 450 m

21: NW Silli (Prasinada) 800 m

Rodopi (=Rod)

2: NE Fanarion

3: Mischos, 8 km NW Komotini

Kavala (=Kav)

1: eastern part of Strymon delta, around Kerdilia

2: Nestos bank near Paradisos

Thessaloniki (=Thes)

7: Cedron hills *supra* Thessaloniki

8: Plagiarion

9: 10 km SW Asprovalta

10: Delta of Axios river

MIDDLE GREECE

Attiki (=Att)

2: coastal swamp and salt-marshes around Schinias

3: Parnis Mt., 1200 m

Fokis (=Fok)

1: around Monastirakion (Doris), coastal swamp

2: around Skaloula (Doris) 600 m

3: around Eratini (Doris)

Karditsa (=Kar)

1: around Artesiano

PELOPONNESOS

Korinthia (=Kor)

3: Killini Mt., S *supra* Trikala, 1550-1600 m

4: Killini Mt., S *supra* Trikala, 1650 m

5: Killini Mt., S *supra* Trikala, 1300-1400 m

6: Killini Mt., S *supra* Trikala, 1200 m

Achaia (=Ach)

2: *supra* Diakofto

3: around Kalavryta

Ilia

3: W Pyrgos, Lake Mourya near Agios Ioannis

6: swamp near Loutra Kaiafas

12: W Stavrodromion, 400 m

13: W Stavrodromion, Ladon valley, 400 m

- 14: SE Pyrgos, coastal dunes near Paralia Zacharo
- 15: SE Pyrgos, costal dunes near Epitalion

Messinia (=Mes)

- 2: Pamisos estuary, 2 km E Messini
- 7: SW Asprochoma, swamp east of the Pamisos estuary
- 11: N Gialova near Pylos, coastal swamp
- 12: E Messini: around Mikromani

Arkadia (=Ark)

- 4: 1 km W Vitina, 800 m
- 5: 5 km W Vitina, 900-1000 m
- 6: SW Karkalou, 850 m
- 11: Parnon Mt., N. Kosmas, 1100 m
- 12: 5 km N Paralia Tirou, coastal swamp
- 13: S Paralia Astros, salt marsches
- 14: Parnon Mt., *supra* Kastanitsa, 1100 m

EAST-AEGEAN ISLANDS

Ikaria

- 1: W Gialiscari, coastal swamp
- 2: around Mandria, 350 m
- 3: W *supra* Mandria, around the water reservoir
- 4: coastal swamp E Armenistis
- 5: E Nas
- 6: E Armenistis, river valley, 0-500 m
- 7: E Raches, 600 m

CYCLADES ISLANDS

Naxos

- 1: SE Moutsouna along the coast
- 2: E Chora along the coastal dunes

Paros

- 1: swamp near Paros

Thera

- 1: around Kamarion

DODECANESOS ISLANDS

Rhodos

- 1: around Kremasti, coastal biotopes

1. LIST OF SPECIES

1. *Asiraca clavicornis* (Fabricius, 1794)
 NORTHWESTERN GREECE: Koz 4: 27-28.5.1982 (1♂b, 1♀b); Pie 9, 11: 20-21.5.1981 (1♂b, 1♀m).
 NORTHEASTERN GREECE: Dra 21: 23.8.1983 (1♀m).
 MIDDLE GREECE: Att 3: 1.5.1983 (1♂m, 1♀m).
 E-AEGEAN ISLANDS: Icaria 4: 6-17.7.1982 (4♂♂b, 3♀♀b, 2♀♀m)
2. *Kelisia brucki* Fieber, 1978
 NORTHWESTERN GREECE: Ker 17: 20.5.1982 (9♂♂b, 2♀♀b, 1♂m, 1♀m); Pie 3: 28.5.1982 (1♂b);
 Ioa 14: 30.9.1981 (2♂♂b, 1♀b).
 NORTHEASTERN GREECE: Kav 1: 1.6.1982 (1♂m); Thes 7: 31.5.1982 (1♂b, 1♀b, 8♂♂m, 4♀♀m, 1
 Lv. 5); Thes 9: 17.10.1982 (1♂m); Xan 2: 8.6.1982 (1♀m); Xan 3: 8.6.1982 (5♂♂b, 2♀♀b, 2♂♂m);
 Xan 5: 8.6.1982 (1♂m); Xan 6: 8.6.1982 (8♂♂b, 3♀♀b, 1Lv. 5).
 MIDDLE GREECE: Fok 2: 30.10.1982 (39♂♂b, 5♀♀b); Fok 3: 5.1.1982 (6♀♀); Att 3: 1.5.1983 (1♂b,
 1♀b).
 PELOPONNESOS: Iliia 3: 16.6.1982 (10♂♂b, 6♀♀b); Mes 7: 18.6.1982 (4♀♀b); Mes 11: 22.6.1982
 (1♂b); Kor 5: 21.7.1982 (31♂♂b, 18♀♀b, 1♂m).
 E-AEGEAN ISLANDS: Icaria 1: 15.7.1981 (1♂b, 1♀m), 5.7.1982 (1♀m); Icaria 4: 6.7.1982 (1♀b, 2♀♀m);
 Icaria 6: 10-16.7.1982 (5♂♂b, 8♀♀b, 5♂♂m, 3♀♀m).
- °**3. *Kelisia cretica* Asche, 1982 (2)
4. *Kelisia perrieri* Ribaut, 1934
 NORTHWESTERN GREECE: Ker 17: 20.5.1982 (1♂b, 4♀♀b, 1♀m).
5. *Kelisia yarkonensis* Linnavuori, 1962
 NORTHEASTERN GREECE: Xan 5: 8.6.1982 (5♂♂b, 2♀♀b).
 MIDDLE GREECE: Fok 2: 30.10.1982 (2♂♂b, 1♀b).
 E-AEGEAN ISLANDS: Icaria 6: 10-16.7.1982 (8♂♂b, 10♀♀b).
6. *Kelisia confusa* Linnavuori, 1957
 NORTHWESTERN GREECE: Flo 13: 26.5.1982 (3♀♀b), 1.8.1982 (4♂♂b, 7♀♀b); Pie 5: 23.7.1982
 (14♂♂b, 35♀♀b, 1♂m, 1♀m).
 PELOPONNESOS: Mes 11: 20-22.6.1982 (19♂♂b, 15♀♀b, 1♂m, 3Lv. 5).
- °7. *Kelisia gargano* Remane & Asche, 1982 (9, 11, 36).
8. *Kelisia guttulifera* (Kirschbaum, 1868)
 NORTHWESTERN GREECE: Ioa 14: 30.9.1981 (1♂b).
 MIDDLE GREECE: Fok 1: 17.8.1981 (1♀b), 22.7.1982 (1♀b, 1♀m); Fok 2: 30.10.1982 (6♂♂b, 5♀♀b,
 1♂m).
 PELOPONNESOS: Mes 7: 18-23.7.1982 (3♀♀b, 1♂m, 2♀♀m).
 E-AEGEAN ISLANDS: Icaria 2: 4-15.7.1982 (numerous ♂♂, ♀♀m + b); Icaria 6: 16.7.1982 (1♂m,
 2♀♀m).
- °9. *Kelisia haupti* Wagner, 1939 (9, 11)

10. *Kelisia henschii* Horvath, 1897

PELOPONNESOS: Ark 4: 15.6.1982 (3♂♂b, 1♀b).

E-AEGEAN ISLANDS: Icaria 1: 15.7.1981 (13♂♂b, 17♀♀b, 2♀♀m); Icaria 4: 6.7.1982 (2♀♀b); Icaria 6: 11-16.7.1982 (numerous ♂♂, ♀♀b).

11. *Kelisia melanops* Fieber, 1878

NORTHWESTERN GREECE: Ker 17: 20.5.1982 (5♂♂b, 1Lv. 5); Ker 20: 21.5.1982 (1♀b); Ioa 14: 25.5.1981 (1♂b).

NORTHEASTERN GREECE: Dra 9: 12.6.1982 (2♂♂b: ex larva, 6Lv. 3-5).

PELOPONNESOS: Mes 7: 18.6.1982 (1♂b).

12. *Kelisia praecox* Haupt, 1935

NORTHWESTERN GREECE: Flo 24: 23-25.5.1982 (7♂♂b, 82♀♀b, 6♀♀m).

NORTHEASTERN GREECE: Dra 9: 12.6.1982 (23♀♀b, 2♀♀m), 27.7.1982 (1♀b), 18.10.1982 (27♂♂b, 38♀♀b).

13. *Kelisia guttula* (Germar, 1818)

NORTHWESTERN GREECE: Ker 21: 4.8.1982 (2♂♂m, 1♀m); Tri 8: 30.9.1981 (1♀m).

NORTHEASTERN GREECE: Xan 6: 10.6.1982 (1♂m); Samothraki 4: 5.6.1982 (2♀♀b, 1♂m).

PELOPONNESOS: Mes 7: 21.7.1982 (2♂♂m).

14. *Kelisia vittipennis* (J. Sahlberg, 1868)

NORTHWESTERN GREECE: Flo 2: 1.8.1982 (1♂m, 1♀m and out of larva: 24♂♂b, 8♀♀b, 3♂♂m, 2♀♀m).

15. *Kelisia ribauti* Wagner, 1939 "mediterranean form"

NORTHWESTERN GREECE: Ker 17: 20.5.1982 (1♂m, 1♀m); Ker 18: 20.5.1982 (2♀♀m); Ker 20: 21.5.1982 (1♂m); Tri 6: 25.5.1981 (1♂m).

NORTHEASTERN GREECE: Dra 4: 25.7.1982 (2♂♂m), 15.10.1982 (1♂m); Dra 6: 11.6.1982 (1♂m, 1♀m); Evros 1: 2.6.1982 (6♂♂m, 3♀♀m); Evros 4: 6-7.6.1982 (1♂m, 2♀♀m); Samothraki 3: 4.6.1982 (3♂♂m, 3♀♀m); Samothraki 4: 5.6.1982 (1♂m, 1♀m); Thes 7: 31.5.1982 (6♂♂m, 3♀♀m); Xan 5: 8.6.1982 (1♂m, 1♀m).

MIDDLE GREECE: Fok 2: 30.10.1982 (1♂m, 2♀♀m); Fok 1: 22.7.1982 (2♀♀m).

PELOPONNESOS: Mes 7: 18.6.1982 (1♂m); Ark 13: 7.12.1982 (numerous ♂♂, ♀♀).

E-AEGEAN ISLANDS: Icaria 6: 11.7.1982 (3♂♂b, 1♂m, 4♀♀m).

16. *Kelisia monoceros* Ribaut, 1934

NORTHEASTERN GREECE: Dra 6: 11.6.1982 (2♂♂m).

17. *Anakelisia fasciata* (Kirschbaum, 1868) (9)18. *Anakelisia perspicillata* (Boheman, 1845)

NORTHWESTERN GREECE: Koz 4: 18.8.1983 (2♂♂b, 2♀♀b, 1♀m).

NORTHEASTERN GREECE: Dra 12: 20.7.1983 (1♂b, 1♀b); Dra 19: 20.8.1983 (3♂♂b, 1♀b).

19. *Stenocranus minutus* (Fabricius, 1787)

NORTHWESTERN GREECE: Flo 9: 24.5.1982 (2♂♂m, 2♀♀m); Flo 29: 25.5.1982 (1♂m); Lar 4: 30.5.1982 (1♂m, 3♀♀m); Ioa 15: 28.5.1981 (3♀♀m); Koz 4: 27-28.5.1982 (2♀♀m); Koz 4: 18.8.1983 (1♂m, 6♀♀m, 4Lv. 4-5).

NORTHEASTERN GREECE: **Dra 9:** 12.6.1982 (1♂m, 1♀m); **Dra 4:** 15.10.1982 (1♂m).

****20. *Stenocranus gialovus* Asche & Hoch, 1983**

PELOPONNESOS: **Mes 11:** 17-22.6.1982 (21♂♂m, 39♀♀m).

21. *Stenocranus fuscovittatus* (Stal, 1858)

PELOPONNESOS: **Ilia 6:** 16.6.1982 (8♂♂m, 4Lv, 5)

22. *Tropidocephala andropogonis* Horvath, 1895

NORTHWESTERN GREECE: **Gre 4:** 23.5.1982 (1♂b); **Gre 5:** 23.5.1982 (2♂♂b); **Tri 7:** 23.5.1982 (13♂♂b, 3♀♀b); **Thes 7:** 31.5.1982 (4♀♀b).

NORTHEASTERN GREECE: **Evros 3:** 2.6.1982 (1♂b).

23. *Tropidocephala tuberipennis* (Mulsant & Rey, 1855)

PELOPONNESOS: **Ark 12:** 27.6.1982 (1♂m, 8♀♀m); **Ark 13:** 13.7.82 (3♂♂m), 9.9.1982 (2♂♂m, 4♀♀m); **Ach 2:** 12.9.1981 (2♂♂m).

E-AEGEAN ISLANDS: **Ikaría 1:** 15.7.1981 (15♂♂m, 4♀♀m), 3-5.7.1982 (2♂♂m, 4♀♀m); **Ikaría 4:** 6-7.7.1982 (9♂♂m, 9♀♀m).

24. *Jassidaeus lugubris* (Signoret, 1865)

NORTHWESTERN GREECE: **Flo 9:** 24.5.1982 (17♂♂b, 21♀♀b); **Koz 4:** 27-28.5.1982 (1♂b, 1♀b).

NORTHEASTERN GREECE: **Dra 4:** 11.6.1982 (5♂♂b, 14♀♀b); **Dra 8:** 12.6.1982 (1♂b, 2♀♀b).

25. *Conomelus odryssi* Dlabola, 1965

NORTHWESTERN GREECE: **Flo 2:** 1.8.1982 (22♂♂b, 23♀♀b, 1♀m); **Flo 7:** 2.8.1982 (7♂♂b, 4♀♀b); **Flo 9:** 30.7.1982 (16♂♂b, 28♀♀b); **Flo 11:** 31.7.1982 (37♂♂b, 4♀♀b, 2♀♀m); **Flo 24:** 1.8.1982 (36♂♂b, 22♀♀b, 1♀m, 3Lv, 5); **Kas 1:** 1.8.1982 (3♂♂b, 5♀♀b); **Pie 5:** 24.7.1982 (2♂♂b, 4♀♀b).

NORTHEASTERN GREECE: **Dra 4:** 24.7.1982 (1♀m, ex larva: 24♂♂b, 13♀♀b), 16.10.1982 (4♂♂b, 1♀b);

Dra 7: 26.7.1982 (5♂♂b, 3♀♀b, ex larva: 28♂♂b, 3♀♀b); **Dra 8:** 27.7.1982 (14♂♂b, 2♀♀b); **Dra 9:**

27.7.1982 (27♂♂b, 12♀♀b), 16.10.1982 (9♂♂b, 1♀b); **Dra 13:** 24.7.1982 (2♂♂b, 1♀b, 1♀m); **Dra 14:**

26.7.1982 (ex larva: 28♂♂b, 17♀♀b); **Dra 15:** 28.7.1982 (10♂♂b, 1♀b, ex larva: 61♂♂b, 9♀♀b); **Dra 16:**

28.7.1982 (42♂♂b, 17♀♀b, ex larva: 59♂♂b, 16♀♀b, 1♂m); **Dra 18:** 28.7.1982 (8♂♂b, 5♀♀b);

Samothraki 4: 5.6.1982 (16♂♂b, 1♀b, ex larva: 18♂♂b, 5♀♀b); **Xan 6:** 10.6.1982 (4♂♂b, 4♀♀b).

MIDDLE GREECE: **Fok 1:** 16.3.1981 (1♀), 22.7.1982 (4♀♀b).

PELOPONNESOS: **Mes 7:** 18-23.6.1982 (1♂b, 2♀♀b); **Kor 5:** 21.7.1982 (3♂♂b).

26. *Conomelus sagittifer* Remane & Asche, 1979

MIDDLE GREECE: **Fok 2:** 30.10.1982 (9♂♂b, 2♀♀b).

PELOPONNESOS: **Kor 5:** 21.7.1982 (6♂♂b); **Kor 6:** 21.7.1982 (2♂♂b).

***27. *Megamelus notula* (Germar, 1830)**

NORTHWESTERN GREECE: **Pie 5:** 23.7.1982 (2♂♂m).

NORTHEASTERN GREECE: **Dra 4:** 25.7.1982 (ex larva: 50♂♂b, 36♀♀b, 6♂♂mm, 3♀♀m), **Dra 4:**

15.10.1982 (9♂♂b, 3♀♀b, 1♀m); **Dra 5:** 21.8.1983 (2♂♂b, 1♀b).

***28. *Eurysa brunnea* Melichar, 1896**

NORTHWESTERN GREECE: **Flo 9:** 30.9.1982 (3♂♂b, 3♀♀b).

****29. *Eurysa duffelsi* Drosopoulos & Asche, 1984 (27)**

°30. *Eurysa douglasi* (Scott, 1870) (9)

°31. *Eurysa flavobrunnea* (Dlabola, 1956) (9, 23)

**32. *Eurysa fornasta* Asche, Drosopoulos & Hoch, 1983

NORTHWESTERN GREECE: **Koz 3:** 28.5.1982 (13♂♂b, 4♀♀b); **Koz 4:** 27.5.1982 (22♂♂b, 13♀♀b, 4♀♀m); **Lar 9:** 30.5.1982 (3♂♂b, 14♀♀b, 1♀m); **Pie 18:** 29.5.1982 (1♂b, 1♀b).

PELOPONNESOS: **Ark 5:** 15.6.1982 (1♂b, 23♀♀b); **Ark 6:** 15.6.1982 (5♂♂b, 8♀♀b).

MIDDLE GREECE: **Att 3:** 1.5.1983 (44♂♂b, 3♂♂m, 25♀♀b, 13♀♀m).

33. *Eurysa lineata* (Perris, 1857)

NORTHWESTERN GREECE: **Ioia 15:** 28.5.1981 (1♂b, 1♀b); **Ioia 17:** 29.5.1981 (1♀b); **Flo 13:** 26.5.1982 (13♂♂b, 1♂ parasitized by Strepsiptera, 3♀♀b, 1♂m); **Flo 16:** 25-26.5.1982 (1♂b, 3♀♀b); **Flo 30:** 25.5.1982 (1♂b, 1♀b); **Gre 4:** 23.5.1982 (4♂♂b, 3♀♀b); **Gre 5:** 23.5.1982 (3♂♂b, 1♀b); **Kas 4:** 23.5.1982 (1♂b); **Ker 15:** 20.5.1982 (3♂♂b, 3♀♀b); **Ker 16:** 20.5.1982 (2♂♂b, 1♀b); **Ker 17:** 20.5.1982 (1♂b, 1♀b); **Ker 19:** 21.5.1982 (1♀b, 1♀m); **Lar 9:** 30.5.1982 (2♂♂b, 2♀♀b); **Pie 8:** 28.5.1982 (4♂♂b, 2♀♀b); **Pie 11:** 28.5.1982 (1♀b); **Koz 4:** 27-28.5.1982 (18♂♂b, 6♀♀b, 3♂♂m, 3♀♀m).

NORTHEASTERN GREECE: **Thes. 7:** 23.5.1981 (3♂♂b, 4♀♀m); **Thes 8:** 23.5.1981 (1♂b); **Thes 7:** 31.5.1982 (4♂♂b, 12♀♀b); **Dra 8:** 12.6.1982 (1♀b); **Dra 9:** 12.6.1982 (5♂♂b, 3♀♀b); **Evros 2:** 2.6.1982 (2♂♂b, 4♀♀b); **Evros 3:** 2.6.1982 (4♀♀b, 2♀♀m).

PELOPONNESOS: **Ark 4:** 15.6.1982 (2♀♀b, 1♀m); **Ark 5:** 15.6.1982 (3♀♀b); **Ark 7:** 15.6.1982 (1♂b, 41♂b).

34. *Eurysa rubripes* (Matsumura, 1910)

NORTHEASTERN GREECE: **Samothraki 3:** 4.6.1982 (1♂b).

**35. *Metropis aris* Asche, Drosopoulos & Hoch 1983

NORTHWESTERN GREECE: **Lar. 8:** 30.5.1982 (9♂♂b, 4♀♀b); **Pie 18:** 29.5.1982 (23♂♂b, 24♀♀b); **Koz 3:** 23.5.1982 (4♂♂, 1♀); **Koz 4:** 27.5.1982 (36♂♂b, 33♀♀b).

*36. *Metropis inermis* Wagner, 1939

NORTHEASTERN GREECE: **Dra 4:** 11.6.1982 (7♂♂b, 4♀♀b), 25.7.1982 (3♂♂b, 2♀♀b); **Dra 7:** 12.6.1982 (1♂b, 2♀♀b); **Dra 8:** 12.6.1982 (47♂♂b, 38♀♀b, 1♂m 1♀m), 27.7.1982 (1♂b, 4♀♀b); **Dra 9:** 12.6.1982 (11♂♂b, 13♀♀b), 27.7.1982 (1♀b).

*37. *Metropis mayri* Fieber, 1866

NORTHWESTERN GREECE: **Flo 9:** 24.5.1982 (19♂♂b, 3♀♀b); **Lar 4:** 30.5.1982 (8♂♂b, 10♀♀b).

NORTHEASTERN GREECE: **Dra 11:** 13.6.1982 (44♂♂b, 37♀♀b); **Dra 12:** 13.6.1982 (10♂♂b, 7♀♀b).

°38. *Stiroma affinis* Fieber, 1866 (11)

39. *Stiroma bicarinata* (Herrich-Schäffer, 1835)

NORTHWESTERN GREECE: **Flo 2:** 1.8.1982 (3♂♂b, 1♀m); **Flo 9:** 24.5.1982 (ex larva: 7♂♂b, 6♀♀b), 30.7.1982 (3♂♂b, 7♀♀b); 2♀♀ parasitized by Strepsiptera); **Flo 11:** 31.7.1982 (6♂♂b, 4♀♀b, 1♀m).

NORTHEASTERN GREECE: **Dra 4:** 11.6.1982 (ex larva: 1♂b), 25-27.7.1982 (98♂♂b, 10♂♂ parasitized by Strepsiptera, 50♀♀b, 2♂♂m, 8♀♀ parasitized by Strepsiptera, 6♀♀m), 16.10.1982 (1♀b); **Dra 5:** 25.7.1982 (1♂b, 1♀b); **Dra 8:** 27.7.1982 (5♂♂b, 1♀b); **Dra 9:** 12.6.1982 (ex larva: 1♂b, 1♀b), 27.7.1982 (2♂♂b); **Dra 14:** 26.7.1982 (1♂b).

40. *Ditropis pteridis* (Spinola, 1839)

NORTHWESTERN GREECE: **Gre 3:** 23.5.1982 (1♂b); **Ker 15:** 20.5.1982 (1♂b); **Ker 19:** 21.5.1982 (2♂♂b, 1♀b); **Lar 3:** 30.5.1982 (10♂♂b, 1♀b, 15 Lv. 4-5); **Pie 9-11:** 20.5.1981 (3♂♂b, 5♀♀b).

NORTHEASTERN GREECE: **Dra 9:** 12.6.1982 (10♂♂b, 55♀♀b); **Samothraki 2:** 4.6.1982 (6♂♂b, 16♀♀b, 2♀♀ parasitized by Dryinidae).

PELOPONNESOS: **Ark 5:** 15.6.1982 (1♂b, 5♀♀b); **Ark 14:** 20.5.1982 (1♂b); **Kor 4:** 21.7.1982 (1♂b, 14♀♀b); **Kor 6:** 21.7.1982 (2♂♂b, 2♀♀b).

E-AEGEAN ISLANDS: **Icaria 5:** 15.7.1981 (14♂♂b, 1♀b), 9.7.1982 (9♂♂b, 4♀♀b).

****41. *Remanodelphax cedroni* Drosopoulos, 1982**

NORTHWESTERN GREECE: **Thes 7:** 21.12.1981 (8♂♂b, 11♀♀b), 14.10.1982 (1♀b).

***42. *Eurybregma bielawskii* Nast, 1977**

NORTHWESTERN GREECE: **Flo 9:** 24.5.1982 (18♂♂b, 25♀♀b), possibly also to this species: 30.7.1982 (10♂♂b, 17♀♀b, all parasitized by Strepsiptera); **Koz 4:** 27-28.5.1982 (34♂♂b, 21♀♀b, 1♂m, 3♀♀m) (11♂♂, ♀♀ parasitized by Strepsiptera); **Koz 3:** 29.5.1982 (1♀b).

43. *Eurybregma nigrolineata* Scott, 1875

NORTHWESTERN GREECE: **Flo 9:** 24.5.1982 (2♂♂b, 1♀b).

44. *Jubsoda stigmatica* Melichar, 1897

NORTHWESTERN GREECE: **Ker 1:** 20.5.1982 (16♂♂b, 11♀♀b, 1♂m, 2♀♀m, 1 Lv. 5).

MIDDLE GREECE: **Fok 3:** 5.1.1981 (1♂b).

E-AEGEAN ISLANDS: **Icaria 1:** 15.7.1981 (5♂♂b, 6♀♀b), 3.7.1982 (7♂♂b, 2♀♀b); **Icaria 3:** 5.7.1982 (1♂m, 1♀m); **Icaria 4:** 6.7.1982 (4♂♂b, 4♀♀b).

45. *Euconomelus lepidus* (Boheman, 1847)

NORTHWESTERN GREECE: **Ker 18:** 20.5.1982 (1♀m); **Pel 2:** 14.8.1979 (1♂b, 6♀♀b); **Pie 11:** 14.8.1980 (1♂b, 2♀♀b).

PELOPONNESOS: **Mes 7:** 21.6.1982 (1♂b, 1♀m).

KRETA: **Paleochora-Chania:** 23-24.5.1982 (1♀m) (Leg. J.P. Duffels - Amsterdam).

46. *Delphax armeniacus* Anufriev, 1970

NORTHWESTERN GREECE: **Pie 5:** 23-24.7.1982 (20♀♀b, 21♂♂m).

NORTHEASTERN GREECE: **Evros 4:** 6.6.1982 (ex larva 4-5: 2♀♀b, 7♂♂m, 4♀♀m); **Xan 5:** 8-9.6.1982 (1♂b, 36♀♀b, 40♂♂m, 10♀♀m); **Samothraki 1:** 3.6.1982 (4♀♀b, 3♂♂m).

***47. *Delphax crassicornis* (Panzer, 1796)**

NORTHEASTERN GREECE: **Samothraki 4:** 5.6.1982 (6♂♂m, 56 Lv. 3-5).

E-AEGEAN ISLANDS: **Icaria 4:** 6-17.7.1982 (1♀♀b, 10♂♂m, 3♀♀m).

48. *Delphax inermis* Ribaut, 1934

NORTHWESTERN GREECE: **Ker 21:** 4.8.1982 (5♂♂b, 2♀♀b).

MIDDLE GREECE: **Att 2:** 1.7.1982 (2♂♂b, 1♀b).

PELOPONNESOS: **Ark 12:** 26-27.6.1982 (18♂♂b, 16♀♀b, 1 Lv. 5); **Ark 13:** 13.7.1982 (2♂♂b, 1♀b), 19.5.1982 (5♂♂b, 1♀m, 4L. 3-5); **Mes 2:** 18.6.1982 (9♂♂b, 2♀♀b); **Mes 7:** 18.6.1982 (37♂♂b, 20♀♀b);

Mes 11: 20-22.6.1982 (2♂♂b, 2♀♀b, 1♂m); **Mes 12:** 18.6.1982 (7♂♂b, 2♀♀b).

CYCLADES ISLANDS: Naxos 2: 3.5.1982 (3L 4-5, probably belonging to this species).

****49. *Delphax meridionalis* (Haupt, 1924)**

NORTHWESTERN GREECE: Ker 21: 4.8.1982 (4♀♀b, 3♂♂m).

PELOPONNESOS: Mes 11: 17-22.6.1982 (3♂♂b, 3♀♀b, 21♂♂m, 13♀♀m).

50. *Delphax ribautianus* Asche & Drosopoulos, 1982

NORTHWESTERN GREECE: Flo 7: 2.8.1982 (12♀♀b, 11♂♂m, 1♀m); Flo 13: 1.8.1982 (1♀m).

51. *Chloriona clavata* Diabola, 1960

PELOPONNESOS: Mes 7: 18.6.1982 (2♂♂m, 1♀m); Mes 11: 22.6.1982 (1♀b, 4♂♂m).

52. *Chloriona flaveola* Lindberg, 1948

NORTHEASTERN GREECE: Evros 4: 6.6.1982 (3♀♀b, 1♀m); Samothraki 3: 4.6.1982 (1♀b).

MIDDLE GREECE: Att 2: 14.9.1981 (1♀m).

E-AEGEAN ISLANDS: Ikaria 1: 4.7.1982 (6♀♀b, 9♂♂m, 2♀♀m); Ikaria 4: 7.7.1982 (1♀b, 2♂♂m, 2♀♀m).

CYCLADES ISLANDS: Paros 1: 18.6.1981 (1♂m).

***53. *Chloriona glaucescens* Fieber, 1866**

PELOPONNESOS: Ark 12: 26.6.1982 (20♀♀b, 18♂♂m, 6♀♀m).

54. *Chloriona ponticana* Asche, 1982

PELOPONNESOS: Ark 12: 26.6.1982 (35♀♀b, 47♂♂m, 10♀♀m).

E-AEGEAN ISLANDS: Ikaria 4: 6.7.1982 (6♀♀b, 36♂♂m, 9♀♀m).

CYCLADES ISLANDS: Naxos 2: 3.5.1982 (1♂m).

55. *Chloriona unicolor* (Herrich-Schäffer, 1835)

NORTHWESTERN GREECE: Flo 23: 30.7.1982 (2♂♂m).

NORTHEASTERN GREECE: Evros 4: 6.6.1982 (2♀♀b); Samothraki 3: 4.6.1982 (1♀b).

MIDDLE GREECE: Att 2: 1.7.1982 (1♀m).

PELOPONNESOS: Ark 13: 13.7.1982 (2♀♀b, 4♂♂m, 7♀♀m).

E-AEGEAN ISLANDS: Ikaria 6: 11.7.1982 (2♀♀b, 4♂♂m); Ikaria 1: 15.7.1982 (2♂♂m, 2♀♀m).

CYCLADES ISLANDS: Thera 1: 5.5.1982 (1♂m, 1♀m); Naxos 1: 10.10.1981 (1♂m, 4♀♀b); Naxos 2: 3.5.1982 (1♀b); Paros 1: 18.6.1981 (4♂♂m, 2♀♀b, 2♀♀m).

°56. *Chloriona vasconica* Ribaut, 1934 (11)

°57. *Euides speciosa* (Boheman, 1847) (11)

***58. *Leptodelphax cyclops* Haupt, 1927**

DODECANESOS ISLANDS: Rhodes 1: 19-21.9.1983 (12♂♂m, 7♀♀m).

59. *Laodelphax striatellus* (Fallen, 1826)

NORTHWESTERN GREECE: Flo 11: 31.7.1982 (3♂♂m, 1♀m); Flo 23: 30.7.1982 (1♀m); Flo 24: 1.8.1982 (1♂m, 1♀m); Kas 1: 1.8.1982 (1♂m, 2♀♀m, 1♀ parasitized by Dryinidae); Pie 3: 25.8.1981 (1♂m, 1♀m); Pie 5: 24.7.1982 (2♂♂m).

NORTHEASTERN GREECE: Dra 4: 11.6.1982 (3♂♂m), 25.7.1982 (7♂♂m, 3♀♀m), 16.10.1982 (1♂m); Dra 5: 11.6.1982 (1♂m), 25-26.7.1982 (10♂♂m, 4♀♀m); Dra 6: 11.6.1982 (2♀♀m), 25.7.1982 (6♂♂m).

4♀m, 1♀ parasitized by Dryinidae); **Dra 8**: 12.6.1982 (1♂b); **Dra 9**: 12.6.1982 (2♂♂m, 3♀♀m); **Dra 11**: 13.6.1982 (1♂m, 4♀♀m); **Dra 12**: 13.6.1982 (5♂♂m, 2♀♀m); **Dra 17**: 28.7.1982 (3♂♂m, 6♀♀m); **Evros 4**: 6-7.6.1982 (7♂♂m, 3♀♀m); **Xan 4**: 29.7.1982 (1♂m, 1♀m); **Xan 6**: 10.6.1982 (2♂♂m, 1♀m).
 MIDDLE GREECE: **Fok 1**: 17.8.1981 (2♂♂m); **Fok 2**: 30.10.1982 (2♂♂m); **Att 2**: 1.7.1982 (1♂m).
 PELOPONNESOS: **Ark 12**: 27.6.1982 (1♂m); **Ark 13**: 28.6.1982 (1♂m), 13.7.1982 (1♂m), 9.9.1982 (1♀m); **Ilia 13**: 15.6.1982 (1♂m, 7♀♀m); **Ilia 14**: 16.6.1982 (2♂♂m); **Mes 7**: 18-23.6.1982 (11♂♂m, 5♀♀m); **Mes 11**: 20.6.1982 (1♂m); **Mes 12**: 18.6.1982 (1♀m); **Ach 3**: 12.9.1982 (1♂m).
 E-AEGEAN ISLANDS: **Icaria 1**: 4.7.1982 (1♀m); **Icaria 3**: 5.7.1982 (1♀m); **Icaria 4**: 6.7.1982 (1♂m); **Icaria 6**: 13.7.1982 (1♂m).
 CYCLADES ISLANDS: **Paros 1**: 18-19.6.1981 (1♂m, 1♀m).

60. *Sogatella vibix* (Haupt, 1927)

NORTHWESTERN GREECE: **Ioa 14**: 30.9.1982 (1♂m, 1♂m).
 NORTHEASTERN GREECE: **Thes. 7**: 14.10.1982 (1♀m).
 E-AEGEAN ISLANDS: **Icaria 6**: 11.7.1982 (2♂♂m, 1♀m).
 CYCLADES ISLANDS: **Naxos 1**: 2.5.1982 (5♂♂m, 3♀♀m).

*61. *Paraliburnia adela* (Flor, 1861)

NORTHWESTERN GREECE: **Flo 16**: 25.5.1982 (1♂m).

62. *Hyledelphax elegantulus* (Boheman, 1847)

NORTHWESTERN GREECE: **Flo 9**: 24.5.1982 (1♂b); **Koz 4**: 27-28.5.1982 (3♂♂b, 1♀m).
 NORTHEASTERN GREECE: **Dra 4**: 11.6.1982 (7♂♂b, 3♀♀b); **Dra 9**: 12.6.1982 (27♂♂b, 16♀♀b); **Dra 12**: 13.7.1982 (2♂♂b); **Dra 18**: 28.7.1982 (1♀b).

63. *Megamelodes quadrimaculatus* (Signoret, 1865)

MIDDLE GREECE: **Fok 2**: 30.10.1982 (10♂♂b, 2♀♀b).
 PELOPONNESOS: **Mes 7**: 21.6.1982 (1♀m); **Mes 11**: 22.6.1982 (6♂♂b, 3♀♀b).

°64. *Calligypona reyi* (Fieber, 1866) (9, 11)

65. *Delphacodes capnodes* (Scott, 1870)

NORTHWESTERN GREECE: **Flo 7**: 2.8.1982 (1♂b, 1♀m); **Pie 5**: 23.7.1982 (6♂♂b, 16♀♀b, 2Lv).
 NORTHEASTERN GREECE: **Xan 5**: 9.6.1982 (2♂♂b, 1♂m, 1♀m).
 PELOPONNESOS: **Ark 12**: 27.6.1982 (1♂b, 1♀b); **Ilia 6**: 16.6.1982 (3♂♂b, 3♀♀b, 1♀m); **Mes 7**: 23.6.1982 (3♂♂b, 1♀b, 1♂m, 1♀m); **Mes 11**: 20-22.6.1982 (5♂♂b, 5♀♀b).
 E-AEGEAN ISLANDS: **Icaria 1**: 3.7.1982 (1♂b).

66. *Delphacodes nastasi* Asche & Remane, 1983

NORTHWESTERN GREECE: **Ker 18**: 20.5.1982 (1♂m, 1♀m).
 NORTHEASTERN GREECE: **Thes 7**: 21.12.1981 (2♂♂m, 11♀♀m), 14.10.1982 (1♂m); **Evros 4**: 6.6.1982 (1♀b, 22♂♂m, 6♀♀m); **Rod 2**: 9.6.1982 (1♂m); **Xan 4**: 9.6.1982 (3♂♂m).
 MIDDLE GREECE: **Att 2**: 1.7.1982 (1♂m).
 PELOPONNESOS: **Kor 6**: 21.7.1982 (1♂m, 1♀m); **Mes 7**: 21.6.1982 (1♀m).

*67. *Delphacodes schinias* Asche & Remane, 1983

MIDDLE GREECE: **Att 2**: 1.7.1982 (1♂b).

68. *Delphacodes venosus* (Germar, 1830)

NORTHWESTERN GREECE: Ker 21: 4.8.1982 (1♂b); Koz 4: 18.8.1983 (1♂b).
PELOPONNESOS: Kor 5: 21.7.1982 (1♀m).

*69. *Delphacodes* sp. (Triploid, parthenogenetic)

NORTHWESTERN GREECE: Flo 24: 29.8.1983, 1.9.1983, 17.10.1983 (numerous females and female larvae).

*70. *Muellerianella brevipennis* (Boheman, 1847)

NORTHWESTERN GREECE: Flo 2: 1.8.1982 (5♂♂b, 5♀♀b, 3♂♂m, 2♀♀m).
NORTHEASTERN GREECE: Dra 4: 25.7.1982 (8♂♂b, 5♀♀b from larva 11♂♂b, 9♀♀b), 16.10.1982 (1♀b);
Dra 8: 27.7.1982 (7♂♂b, 1♀b); Dra 9: 27.7.1982 (27♂♂b, 7♀♀b), 2♂♂m, 3Lv. 5), 16.10.1982 (2♂♂b);
Dra 16: 28.7.1982 (3♂♂b, 7♀♀b, 2♀♀m).

71. *Muellerianella extrusa* (Scott, 1871)

NORTHWESTERN GREECE: Koz 4: 18.8.1983 (29♂♂b, 3♂♂m, 32♀♀b, 1♀m, 8 Lv. 4-5).

72. *Muellerianella fairmairei* (Perris, 1857)

NORTHWESTERN GREECE: Flo 7: 2.8.1982 (1♂b); Flo 11: 31.7.1982 (3♂♂b, 8♀♀b, 1♀m); Flo 24:
1.8.1982 (3♂♂b, 3♀♀b).
NORTHEASTERN GREECE: Dra 4: 25.7.1982 (1♂b); Dra 17: 28.7.1982 (6♂♂b, 7♀♀b); Rod 3:
16.7.1982 (12♂♂b, 20♀♀b; collected by K. Den Bieman, Wageningen-Holland).

73. *Chlorionidea flava* Löw, 1885

NORTHEASTERN GREECE: Dra 12: 13.6.1982 (14♂♂b, 6♀♀b, 2 Lv. 5), 20.7.1983 (4♂♂b, 4♀♀b).

74. *Muirodelphax aubei* (Perris, 1857)

a) mountain - populations

NORTHWESTERN GREECE: Flo 10: 31.7.1982 (1♂b); Flo 25: 1.8.1982 (7♂♂b, 2♀♀b); Flo 30:
25.5.1982 (1♀b); Kas 4: 23.5.1982 (1♀b); Koz 4: 18.8.1983 (1♂m).
NORTHEASTERN GREECE: Dra 21: 23.8.1983 (2♂♂b, 1♀b).
PELOPONNESOS: Kor 3: 21.7.1982 (1♀m); Kor 4: 21.7.1982 (2♂♂b, 4♀♀b, 2♀♀m).

b) coastal-populations

NORTHWESTERN GREECE: Ker 18: 20.5.1982 (7♂♂b, 10♀♀b, 1 Lv. 5); Ker 20: 21.5.1982 (16♂♂b,
23♀♀b, 1♀m, 4 Lv. 5).
NORTHEASTERN GREECE: Samothraki 1: 3.6.1982 (3♂♂b, 1♀b, 3 Lv. 5); Xan 5: 9.6.1982 (17♂♂b,
12♀♀b).
MIDDLE GREECE: Att 2: 1.7.1982 (1♂b, 3♀♀b, 1♀m).
PELOPONNESOS: Iliia 14: 16.6.1982 (4♂♂b, 4♀♀b, 2 Lv. 5); Iliia 15: 16.6.1982 (6♂♂b, 11♀♀b).
CYCLADES ISLANDS: Naxos 2: 3.5.1982 (4♂♂b, 7♀♀b).

°75. *Acanthodelphax denticauda* (Boheman, 1847) (11)*76. *Acanthodelphax spinosus* (Fieber, 1866)

NORTHEASTERN GREECE: Dra 4: 11-12.6.1982 (121♂♂b, 55♀♀b, 1♀m), 25.7.1982 (5♂♂b, 2♀♀b); Dra
5: 11.6.1982 (1♂b); Dra 6: 11.6.1982 (1♂b, 2♀♀b); Dra 8: 12.6.1982 (10♂♂b, 4♀♀b); Dra 9:
12.6.1982 (2♂♂b), 27.7.1982 (3♂♂b); Dra 11: 13.6.1982 (63♂♂b, 22♀♀b); Dra 12: 13.6.1982 (2♂♂b).

*77. *Halmyra aeluropidis* (Emelyanov, 1964)

NORTHEASTERN GREECE: **Xan 4**: 8-9.6.1982 (122♀♀b), 29.7.1982 (276♂♂b, 188♀♀b, 150 Lv. 3-5);
Xan 5: 9.6.1982 (26♀♀b).

***78. *Dicranotropis beckeri* Fieber, 1866**

NORTHWESTERN GREECE: **Flo 9**: 24.5.1982 (1♂b, 2♀♀b); **Flo 13**: 26.5.1982 (1♂m, 3♀♀b); **Flo 25**: 25.5.1982 (1♂m); **Flo 30**: 25.5.1982 (1♀m); **Kas 4**: 23.5.1982 (20♂♂b, 21♀♀b, 6♂♂m, 6♀♀m);
Koz 3: 29.5.1982 (25♂♂b, 11♀♀b, 3♂♂m, 3♀♀m); **Koz 4**: 27-28.5.1982 (9♂♂b, 4♀♀b).

79. *Dicranotropis divergens* Kirschbaum, 1868

NORTHEASTERN GREECE: **Dra 17**: 22.8.1983 (17♂♂b, 1♂ parasitized by Dryinidae).

80. *Dicranotropis hamata* (Boheman, 1847)

NORTHWESTERN GREECE: **Flo 9**: 24.5.1982 (1♂b); **Flo 16**: 26.5.1982 (1♂b, 4♀♀b); **Flo 24**:
 1.8.1982 (1♂b); **Flo 25**: 25.5.1982 (1♂b, 1♀b, 1♀m); **Koz 4**: 27-28.5.1982 (1♂b); **Tri 6**: 22.7.1983
 (2♂♂b, 1♀b).

NORTHEASTERN GREECE: **Dra 9**: 12.6.1982 (2♂♂b).

81. *Florodelphax leptosoma* (Flor, 1861)

NORTHWESTERN GREECE: **Flo 7**: 2.8.1982 (2♂♂b, 1♀b); **Kas 1**: 1.8.1982 (6♂♂b, 4♀♀b); **Ker 8**:
 21.5.1982 (2♂♂b); **Ker 17**: 20.5.1982 (8♂♂b, 4♀♀b, 1♀m); **Ker 21**: 4.8.1982 (2♂♂b, 2♀♀b).

NORTHEASTERN GREECE: **Xan 6**: 10.6.1982 (2♀♀b).

MIDDLE GREECE: **Fok 2**: 30.10.1982 (3♂♂b).

PELOPONNESOS: **Mes 11**: 20-22.6.1982 (12♂♂b, 20♀♀b).

E-AEGEAN ISLANDS: **Icaria 7**: 15.7.1982 (48♂♂b, 40♀♀b, 2♀♀m).

****82. *Florodelphax mourikisi* Drosopoulos, 1983**

NORTHWESTERN GREECE: **Pie 5**: 24.7.1982 (1♂b).

NORTHEASTERN GREECE: **Xan 4**: 9.6.1982 (12♂♂b, 1♀b), 29.7.1982 (1♂b, 1♀b); **Xan 5**: 9.6.1982
 (8♂♂b).

MIDDLE GREECE: **Att 2**: 1.7.1982 (2♂♂b, 1♀b).

PELOPONNESOS: **Ark 12**: 27.6.1982 (46♂♂b, 62♀♀b, 4♀♀m, 1 Lv. 5); **Ilia 6**: 16.6.1982 (4♂♂b, 1♀b,
 1♀m).

E-AEGEAN ISLANDS: **Icaria 1**: 3-15.7.1982 (30♂♂b, 15♀♀b).

CYCLADES: **Naxos 1**: 2.5.1982 (1♂b, 1♀b).

83. *Horvathianella palliceus* (Horvath, 1897)

NORTHWESTERN GREECE: **Gre 4**: 23.5.1982 (2♂♂b); **Gre 6**: 3.8.1982 (1♂b, 3♀♀b, 2♂♂m, 2♀♀m);
Tri 7: 23.5.1982 (2♂♂b); **Lar 9**: 30.5.1982 (5♀♀b); **Koz 4**: 18.8.1983 (2♀♀m).

NORTHEASTERN GREECE: **Dra 10**: 12.6.1982 (1♂); **Dra 19**: 20.8.1983 (17♂♂b, 1♂m, 14♀♀b, 8♀♀m,
 2♀♀b parasitized by Dryinidae); **Dra 21**: 23.8.1983 (3♂♂b, 2♀♀b).

****84. *Xanthodelphax hellas* Asche 1982**

NORTHWESTERN GREECE: **Flo 23**: 30.7.1982 (1♂b); **Kas 1**: 1.8.1982 (1♂b, 1♀b); **Lar 3**: 30.5.1982
 (2♂♂b, 1♀b); **Tri 6**: 25.5.1981 (1♂, 1♀); **Gre 4**: 17.8.1983 (1♂b, 1♀b).

NORTHEASTERN GREECE: **Samothraki 4**: 5.6.1982 (1♀b, most probably X. hellas.).

MIDDLE GREECE: **Fok 1**: 17.8.1981 (3♂♂b, 4♀♀m); **Kar 1**: 1.10.1981 (1♀b).

PELOPONNESOS: Ark 4: 15.6.1982 (1♀m); Ilia 13: 15.6.1982 (7♂♂b, 20♀♀b, 4♀♀m); Mes 7: 21-23.6.1982 (4♂♂b, 7♀♀b, 1♂m, 3♀♀m); Mes 11: 20-22.6.1982 (2♀♀b, 1♀m).

***85. *Xanthodelphax flaveolus* (Flor, 1861)**

NORTHWESTERN GREECE: Flo 9: 24.5.1982 (out of larvae: 2♂♂b, 4♀♀b).

NORTHEASTERN GREECE: Dra 4: 25-27.7.1982 (94♂♂b, 4♂♂ parasitized by Strepsiptera 44♀♀b, 6♀♀ parasitized by Strepsiptera); Dra 5: 25.7.1982 (1♂b, 2♀♀b); Dra 8: 12.6.1982 (39♂♂b, 8♀♀b, 14 Lv. 4-5), 27.7.1982 (48♂♂b, 3♂♂ parasitized by Strepsiptera 37♀♀b, 3♀♀ parasitized by Strepsiptera); Dra 9: 12.6.1982 (3♂♂b, 3♀♀b).

***86. *Criomorphus albomarginatus* Curtis, 1833**

NORTHEASTERN GREECE: Dra 4: 12.6.1982 (8♂♂b, 15♀♀b), 26.7.1982 (2♂♂b, 1♀b parasitized by Strepsiptera); Dra 9: 12.6.1982 (17♂♂b, 13♀♀b).

87. *Falcotoya minuscula* (Horvath, 1897)

NORTHWESTERN GREECE: Gre 4: 17.8.1983 (4♂♂m, 1♀b); Pie 1: 17.8.1983 (5♂♂b, 1♀m).

NORTHEASTERN GREECE: Thes 10: 19.8.1983 (1♂b, 3♂♂m, 2♀♀m); Xan 4: 29.7.1982 (1♂m); Dra 19: 23.8.1983 (1♂m); Dra 20: 23.8.1983 (1♂m).

MIDDLE GREECE: Att 2: 1.7.1982 (2♂♂b, 1♂m, 1♀m).

88. *Toya hispijimana* Asche, 1980

PELOPONNESOS: Mes 7: 18-21.6.1982 (2♂♂m).

***89. *Toya ibiturca* Asche, 1980**

NORTHEASTERN GREECE: Xan 4: 29.7.1982 (2♂♂m).

90. *Toya obtusangula* (Linnavuori, 1957)

NORTHWESTERN GREECE: Ker 8: 21.5.1982 (3♂♂m, 1♀m).

MIDDLE GREECE: Fok 1: 17.8.1981 (1♂m), 22.7.1982 (1♂b, 1♀b).

PELOPONNESOS: Mes 7: 18-23.6.1982 (2♂♂m, 1♀m).

91. *Toya propinqua* (Fieber, 1866)

NORTHWESTERN GREECE: Gre 3: 23.5.1982 (1♂m); Ker 17: 20.5.1982 (2♂♂b, 2♂♂m, 1♀m); Ker 18: 20.5.1982 (1♂m, 1♀m); Ker 21: 4.8.1982 (1♂m).

NORTHEASTERN GREECE: Evros 4: 7.6.1982 (4♂♂m, 1♀m); Xan 5: 8.6.1982 (1♂m); Dra 5: 25.7.1982 (1♂m); Dra 17: 28.7.1982 (1♀m); Thes 7: 14.10.1982 (1♀m); Thes 8: 14.10.1982 (2♀♀b, 6♂♂m, 2♀♀m); Thes 9: 17.10.1982 (13♂♂m, 4♀♀m).

MIDDLE GREECE: Fok 1: 17.8.1981 (1♂m), 22.7.1982 (1♂m, 1♀m); Fok 2: 30.10.1982 (4♂♂b, 1♀m); Kar 1: 1.10.1981 (1♂m).

PELOPONNESOS: Ark 11: 26.6.1982 (2♀♀b, 7♂♂m, 1♀m); Ark 12: 27.6.1982 (1♂m, 1♀m); Ark 13: 9.9.1982 (1♂m, 1♀m); Mes 7: 18-23.7.1982 (numerous ♂♂, ♀♀b + m); Ach 2: 12.9.1982 (1♂m, 1♀m).

E-AEGEAN ISLANDS: Ikaría 1: 3-15.7.1982 (7♂♂b, 4♂♂m, 2♀♀m); Ikaría 4: 6-7.7.1982 (4♀♀b, 6♂♂m, 3♀♀m); Ikaría 5: 9.7.1982 (1♂b, 2♀♀b, 2♂♂m, 1♀m); Ikaría 6: 10-13.7.1982 (numerous ♂♂, ♀♀m + b).

CYCLADES ISLANDS: Naxos 1-2: 2-3.5.1982 (1♀b, 6♂♂m, 3♀♀m); Paros 1: 19.6.1982 (4♂♂m, 2♀♀m, 1♂ parasitized by Dryinidae).

****92. *Litochodelphax aliakmon* Asche 1982**

NORTHWESTERN GREECE: **Pel 3**: 16.10.1983 (8♂♂b, 21♀♀b); **Pie 1**: 17.8.1983 (1♀b).

^o93. *Maculidelfhax maculipennis* (Linnavuori, 1962) (6, 9)

*94. *Javesella discolor* (Boheman, 1847)

NORTHEASTERN GREECE: **Dra 4**: 11.6.1982 (18♂♂b, 22♀♀b, 16♂♂m, 18♀♀m), 25.7.1982 (8♂♂b, 24♀♀b, 5♀♀ parasitized by Strepsiptera, 5♀♀m); **Dra 5**: 11.6.1982 (9♂♂b, 28♀♀b), 25.7.1982 (1♂b, 1♀b); **Dra 6**: 11.6.1982 (4♂♂, 1♀b); **Dra 8**: 12.6.1982 (1♂m, parasitized by Strepsiptera, 1♀m); **Dra 17**: 28.7.1982 (1♂b).

95. *Javesella dubia* (Kirschbaum, 1868)

NORTHWESTERN GREECE: **Flo 2**: 25.5.1982 (1♂m, 1♀m); **Flo 9**: 24.5.1982 (3♂♂b, 3♀♀b, 4♂♂m, 1♀m), 30.7.1982 (1♂b, 3♀♀b); **Flo 13**: 1.8.1982 (1♂b, 1♀b); **Flo 23**: 30.7.1982 (1♂b, 2♀♀b, 2♂♂m, 1♀m); **Ioa 8**: 22.5.1982 (1♂b, 2♀♀b);

Kas 1: 1.8.1982 (2♂♂b, 4♀♀b, 2♂♂m, 1♀m); **Lar 3**: 30.5.1982 (9♂♂b, 8♀♀b, 1♂m, 3♀♀m); **Koz 4**: 27-28.5.1982 (7♂♂b, 5♀♀b, 2♀♀m); **Ioa 15**: 28.5.1981 (1♀m); **Tri 6**: 25.5.1981 (3♂♂b).

NORTHEASTERN GREECE: **Dra 12**: 13.6.1982 (2♂♂m, 2♀♀m); **Evros 4**: 6-7.6.1982 (1♂b, 2♀♀b, 2♂♂m, 1♀m); **Samothraki 4**: 5.6.1982 (1♀b, 2♂♂m).

PELOPONNESOS: **Kor 6**: 21.7.1982 (1♂b, 1♀b); **Mes 7**: 21-23.6.1982 (3♂♂b, 3♂♂m, 3♀♀m, 1♀ parasitized by Strepsiptera, 8♀♀b); **Ark 13**: 19.5.1982 (1♂m).

*96. *Javesella forcipata* (Boheman, 1847)

NORTHWESTERN GREECE: **Flo 2**: 1.8.1982 (3♂♂b, 6♀♀b, 1♂ parasitized by Strepsiptera); **Flo 9**: 24.5.1982 (4♂♂b, 1♀b), 30.7.1982 (1♂b).

NORTHEASTERN GREECE: **Dra 4**: 11.6.1982 (1♀m ex larva: 32♂♂b, 22♀♀b, 1♀m), 25-27.7.1982 (128♂♂b, 14♀♀m, 7♂♂ parasitized by Dryinidae, 94♀♀b, 11♀♀ parasitized by Strepsiptera, 29♀♀m, 4♀♀ parasitized by Strepsiptera); **Dra 5**: 25.7.1982 (8♂♂b, 1♀b, 4♂♂m, 2♀♀m); **Dra 6**: 25.7.1982 (2♂♂b, 3♀♀b, 1♀ parasitized by Strepsiptera); **Dra 8**: 27.7.1982 (9♂♂b, 3♀♀b); **Dra 9**: 12.6.1982 (2♂♂b); **Dra 14**: 26.7.1982 (3♂♂b, 1♀b); **Dra 17**: 28.7.1982 (3♂♂b).

97. *Javesella obscurella* (Boheman, 1847)

NORTHWESTERN GREECE: **Flo 2**: 25.5.1982 (2♂♂b); **Flo 10**: 31.7.1982 (1♀b, 1♂m).

PELOPONNESOS: **Mes 11**: 20.6.1982 (1♂b).

98. *Javesella pellucida* (Fabricius, 1794)

NORTHWESTERN GREECE: **Kas 4**: 23.5.1982 (1♂m); **Flo 10**: 31.7.1982 (1♂b, 4♀♀m).

NORTHEASTERN GREECE: **Dra 4**: 11.6.1982 (2♂♂m).

99. *Ribautodelphax albostratus* (Fieber, 1866)

NORTHWESTERN GREECE: **Flo 25**: 25.5.1982 (20♂♂b, 7♀♀b); **Lar 3**: 30.5.1982 (2♂♂b, 2♀♀b); **Lar 4**: 30.5.1982 (1♂b, 1♀b); **Lar 8**: 30.5.1982 (1♂b, 1♀b); **Koz 4**: 27-28.5.1982 (16♂♂b, 8♀♀b, 1♀m).

NORTHEASTERN GREECE: **Dra 11**: 13.6.1982 (4♂♂b, 2♀♀b).

PELOPONNESOS: **Ark 5**: 15.6.1982 (1♂b, 1♀b).

100. *Ribautodelphax angulosus* (Ribaut, 1953)

NORTHEASTERN GREECE: **Dra 9**: 19.7.1983 (4♂♂b, 10♀♀b, 1 Lv. 5).

101. *Ribautodelphax collinus* (Boheman, 1847)

NORTHWESTERN GREECE: Flo 11: 31.7.1982 (1♂b, 1♀b); Ioa 15: 26.5.1982 (2♂♂b); Tri 6: 25.5.1982 (1♂b).

NORTHEASTERN GREECE: Dra 8: 12.6.1982 (1♂b); Dra 9: 27.7.1982 (1♀b).

****102. *Ribautodelphax spec. cf. collinus* (Boheman, 1847)**

NORTHWESTERN GREECE: Flo 9: 30.7-2.8.1982 (13♂♂b, 1♂ parasitized by Strepsiptera 12♀♀b).

****103. *Ribautodelphax falakron* Asche, Drosopoulos & Hoch (15)**

NORTHWESTERN GREECE: Flo 9: 24.5.1982 (43♂♂b, 28♀♀b, 1♀m).

NORTHEASTERN GREECE: Dra 4: 11.6.1982 (14♂♂b, 7♀♀b); Dra 6: 11.6.1982 (1♂b, 1♀b); Dra 7: 12.6.1982 (1♂b, 2♀♀b); Dra 11: 13.6.1982 (numerous ♂♂, ♀♀b, 3♀♀m); Dra 12: 13.6.1982 (23♂♂b, 38♀♀b).

***104. *Ribautodelphax fanari* n. sp. Asche, Drosopoulos & Hoch (15)**

NORTHEASTERN GREECE: Xan 4: 8-9.6.1982 (5♂♂b, 4♀♀b, 5♂♂m); Xan 5: 8.6.1982 (6♂♂b, 6♀♀b, 2♂♂m); Kav 1: 1.6.1982 (1♀m).

105. *Ribautodelphax imitans* (Ribaut, 1953)

NORTHWESTERN GREECE: Koz 4: 27.5.1982 (2♂♂b, 7♀♀, 3♀♀ parasitized by Strepsiptera).

PELOPONNESOS: Ark 4: 15.6.1982 (2♂♂b); Iliia 13: 15.6.1982 (1♂b, 3♀♀b).

106. *Ribautodelphax pungens* (Ribaut, 1953)

NORTHWESTERN GREECE: Pie 11: 28.5.1982 (1♂b); Lar 3: 30.5.1982 (2♂♂b, 1♀b); Tri 6: 25.5.1981 (2♂♂b, 2♀♀b); Koz 4: 27.5.1982 (1♂b, 4♀♀).

107. *Flastena fumipennis* (Fieber, 1866)

NORTHWESTERN GREECE: Ker 8: 21.5.1982 (1♂b, 1♀b).

MIDDLE GREECE: Fok 1: 29.9.1981 (1♂b).

PELOPONNESOS: Ark 6: 15.6.1982 (1♂b).

E-AEGEAN ISLANDS: Ikaria 1: 15.7.1982 (15♂♂b, 21♀♀b), 4.7.1982 (1♀m); Ikaria 2: 4.7.1982 (1♀m); Ikaria 3: 5.7.1982 (15♂♂b, 9♀♀b, 1♂m); Ikaria 5: 9.7.1982 (3♂♂b, 27♀♀b, 30♂♂m, 1♀m); Ikaria 6: 11-16.7.1982 (43♂♂b, 34♀♀b, 8♂♂m, 5♀♀m).

108. *Delphacodoides anaxarchi* (Muir, 1926)

E-AEGEAN ISLANDS: Ikaria 1: 3-15.7.1982 (43♂♂b, 21♀♀b, 24 Lv. 4-5).

109. *Pseudaraeopus lethierryi* (Mulsant & Rey, 1879)

NORTHWESTERN GREECE: Ker 1: 20.5.1982 (1♂m).

PELOPONNESOS: Ark 12: 26.6.1982 (1♀m).

CYCLADES ISLANDS: Naxos 1: 15.3.1982 (3♂♂m, 1 Lv.); Thi 1: 5.5.1982 (2♂♂m).

110. *Euidopsis truncata* Ribaut, 1948

PELOPONNESOS: Ark 12: 27.6.1982 (35♂♂b, 35♀♀b, 15♂♂m, 24♀♀m); Ark 13: 13.7.1982 (2♀♀m), 9.9.1982 (6♂♂m, 9♀♀m).

E-AEGEAN ISLANDS: Ikaria 1: 3-7.7.1982 (1♂b, 1♂m); Ikaria 4: 6-17.7.1982 (1♂b, 2♀♀b, 2♂♂m, 3♀♀m).

111. *Perkinsiella rivularis* Linnavuori, 1964

DODECANESOS ISLANDS: Rhodes 1: 19-21.9.1983 (7♂♂, 5♀♀)

112. *Matutinus putoni* (A. Costa, 1888)

PELOPONNESOS: Mes 2: 18.6.1982 (2♂♂m); Ark 13: 9.9.1982 (3♂♂m, 1♀m).

E-AEGEAN ISLANDS: Ikaria 4: 19-21.9.1983 (numerous ♂♂, ♀♀).

2. ECOLOGICAL, SYSTEMATIC AND ZOOGEOGRAPHIC OBSERVATIONS

a. New records for the fauna of Greece

Megamelus notula (List, No 27)

This species is well known from many localities of the west palaeartic region. In Greece, it was collected in wet biotopes on *Carex riparia* at Varikon, but high population densities occurred in another *Carex* species in Rodopi mountains. Adults were common after the end of July until October. Probably it hibernates at the adult stage.

Eurysa brunnea (List, No 28)

The morphology of this species is not well known, therefore morphological characters are given in fig. 1. All specimens were collected by sucking them from the low parts of *Secale montanum* growing under trees or shrubs at Kalo-Nero near Florina and at altitudes of about 1600 m. According to Nast (32) this species is reported for the first time from the Balkan peninsula. It has been previously recorded from Austria, Czechoslovakia, German D.R., German F.R., Hungary and Tunisia. The latter finding in Tunisia, based on Schmiedeknecht material, is doubtful to us.

Metropis inermis (List, No 36)

The morphology of this species is insufficiently known. Therefore identification characters are given in fig. 2. This species was collected by sweeping and sucking in rich meadows of *Festuca* sp. It was remarkable that we never found any *Metropis* species occurring at the same locality with another of the two congeneric species from Greece. *M. inermis* was very common in Rodopi mountains 1000-16000 m and its adult phenology there probably comprises one generation extending from the end of May until the end of July. This species is reported previously (32) from Austria, Czechoslovakia, Italy, Poland, Rumania, U.S.S.R.

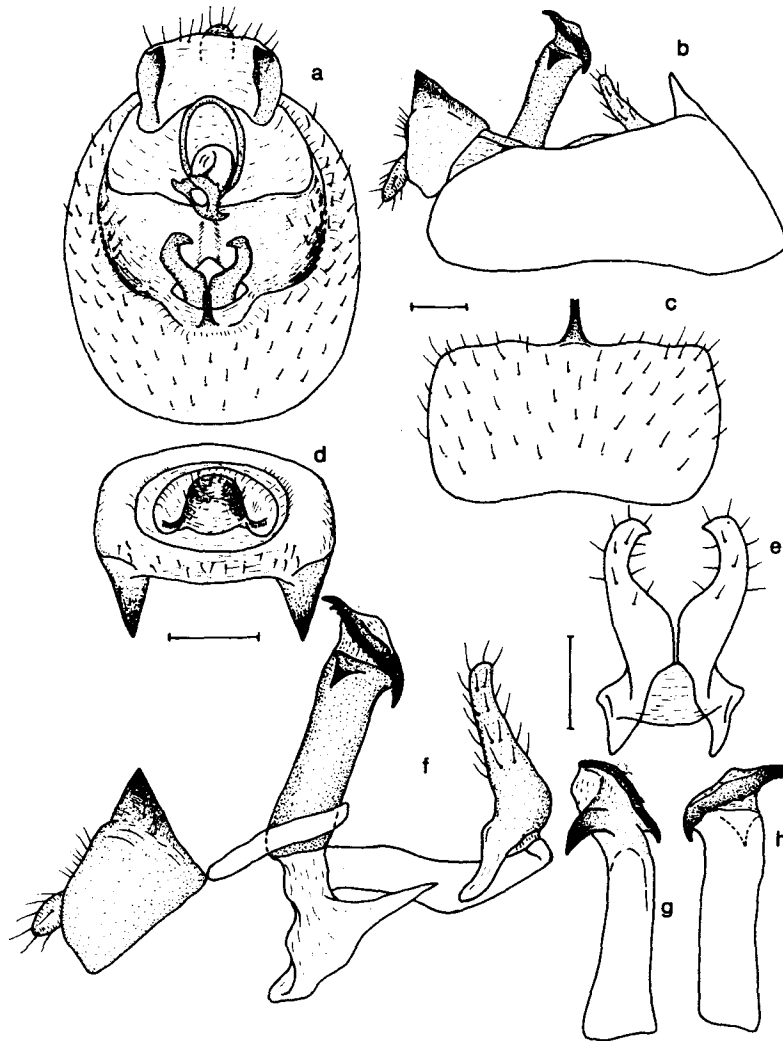


Fig. 1. *Eurysa brunnea* (Melichar, 1896): Locality N.W.-Greece, Nomos Florina, Kalo-Nero (Vernon) mountains, *supra* Agia Triada, 30.VII.82.

a. male genitalia ventrocaudal, b. male genitalia left lateral, c. genital segment ventral, d. anal tube caudal, e. parameres ventrocaudal, f. male genitalia (without pygofer) left lateral, g. aedeagus ventral, h. aedeagus right lateral.

Metropis mayri (List, No 37)

Identification characters are given in fig. 3. This species occurred on the grass

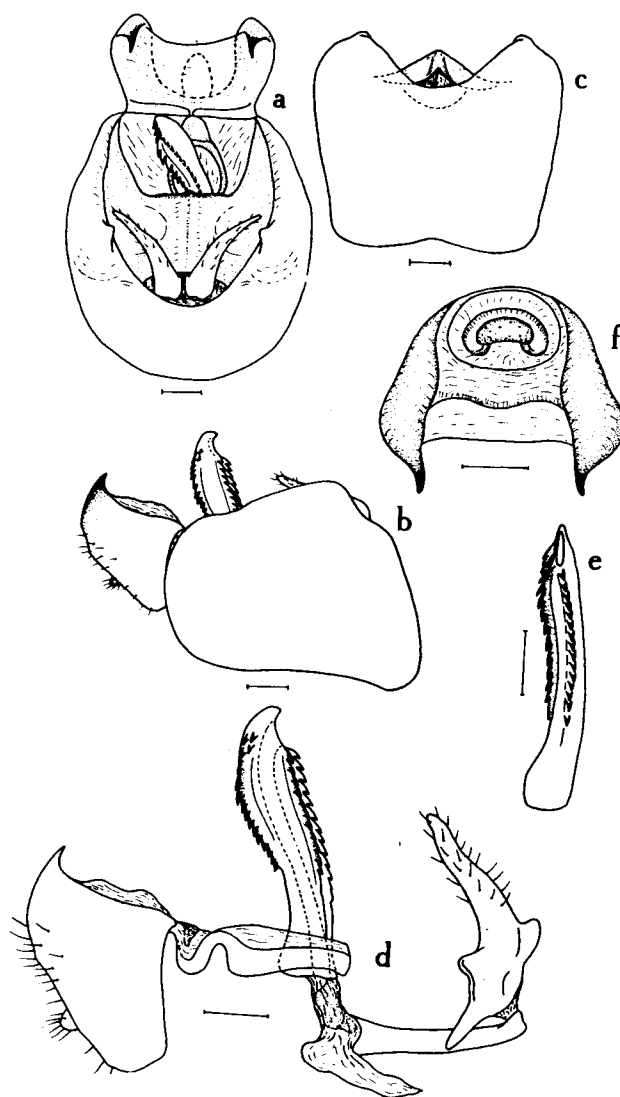


Fig. 2. *Metropis inermis* (Wagner, 1939): Locality N.E.-Greece, Nomos Drama, Elatia-Rodopi, 11.VI.82.

a. male genitalia ventrocaudal, b. male genitalia left lateral, c. genital segment ventral, d. male genitalia (without pygofer) left lateral, e. aedeagus ventral, f. anal tube caudal.

Festuca cyllenica from which it could be collected by sweeping and sucking. It is a species occurring at higher elevations than *M. inermis* ranging from 1700-2200 m. The phenology of this species seems to be the same as that of *M. inermis*. It has more or less the same distribution as the previous species reported for the Balkan peninsula only from Yugoslavia (32).

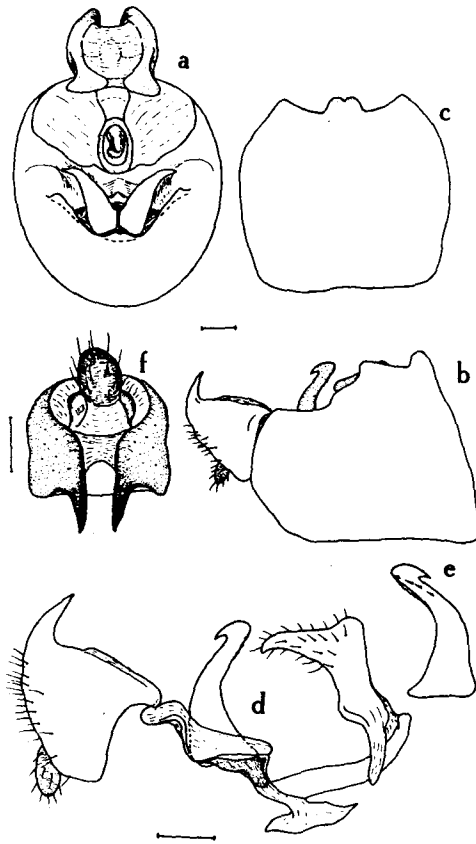


Fig. 3. *Metropis mayri* (Fieber, 1866): Locality N.W.-Greece, Nomos Florina, Kalo-Nero (Vernon) mountains, *supra* Agia Triada, 24.V.82.

a. male genitalia ventrocaudal, b. male genitalia left lateral, c. genital segment ventral, d. male genitalia (without pygofer) left lateral, e. aedeagus right lateral, f. anal tube caudal.

Eurybregma bielawskii (List, No 42)

Externally this species, is very similar to *E. porcus* (Emeljanov, 1964) and *E. nigrolineata* Scott, 1875. Therefore, each of these species may be misinterpreted with the other congeneric species (fig. 4). Although this species was endemic for Bulgaria until now (25), it was very common on many grasses and rushes in Vourinos mountain. It is probably univoltine, hibernating at the larval stage. Larvae and adults were severely parasitized by Strepsiptera, especially the last existing adults.

Delphax crassicornis (List, No 47)

Morphological characters of the male genitalia are shown in fig. 5. Ossiannilsson (34) refers also to the morphology, biology and distribution of this species. However

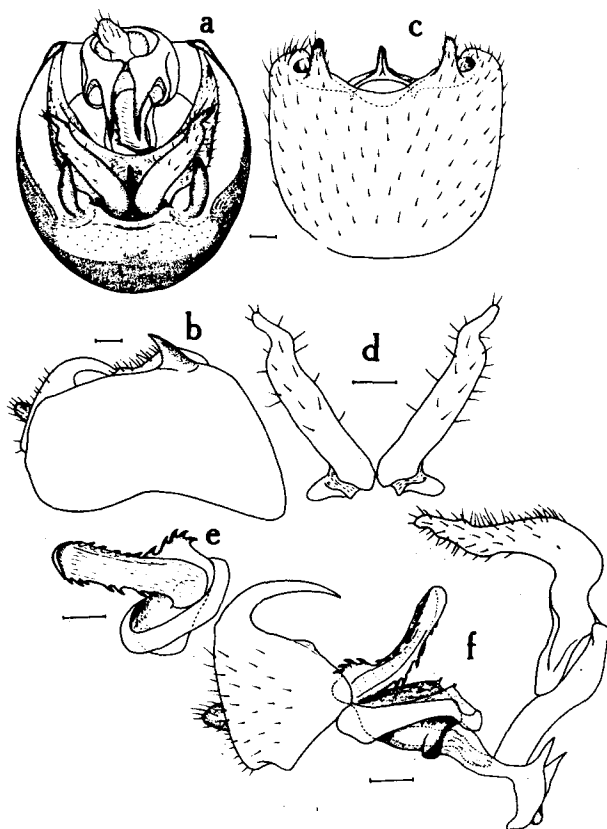


Fig. 4. *Eurybregma bielawskii* (Nast, 1977): Locality N.E.-Greece, Nomos Florina, Kalo-Nero (Vernon) mountains, *supra* Agia Triada, 24.V.82.

a. male genitalia ventrocaudal, b. male genitalia left lateral, c. genital segment ventral, d. parameres ventrocaudal, e. aedeagus right lateral (little turned), f. male genitalia (without pygofer) left lateral.

this species is distributed only in the eastern part of Greece in the islands Samothraki and Ikaria. It is possible, therefore, that there are some erroneous records concerning the distribution of this species especially those of south-western Europe. In Greece this species was common on *Phragmites communis* at coastal localities.

Chloriona glaucescens (List, No 53)

Adequately illustrated by Ossiannilsson (34). It was collected on *Phragmites communis*. Although its main distribution is Central Europe (32), there is evidence that its distribution extends into the Mediterranean region (25).

Leptodelphax cyclops (List, No 59)

This species was found very recently only in the island of Rhodos. It is likely,

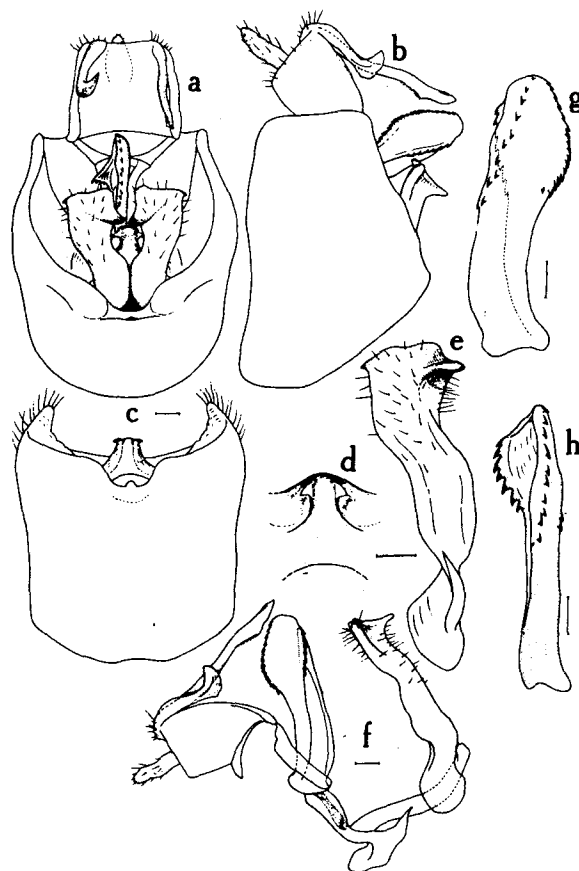


Fig. 5. *Delphax crassicornis* (Panzer, 1796): Locality N.E.-Greece, Samothraki, N.W. Kamariotissa, 5.VI.82.

a. male genitalia ventrocaudal, b. male genitalia left lateral, c. genital segment ventral, d. median process of genital phragma, e. left paramer ventrocaudal, f. male genitalia (without pygofer) left lateral, g. aedeagus right lateral, h. aedeagus ventral.

that Rhodos is the northern limit of its distribution. Previously, it has been reported from Cyprus, S. Turkey, Israel, Egypt and eastern Africa. It was found together with another delphacid *Perkinsiella rivularis*, both feeding on a species of *Saccharum*.

Paraliburnia adela (List, No 61)

This species is well known morphologically and ecologically from central and northern Europe (34). Its food plant is reported to be *Phalaris arundinacea*, which

grows near Agios Germanos, Florina. The only long winged specimen was swept on a grass vegetation other than its food plant.

It was never reported from the Balkan peninsula and Italy (32).

Delphacodes sp. (List, No 69)

This species was found very recently at high population densities in a wet biotope near Prassino-Florina during an expedition of the participants of the "International Congress concerning the Rhynchofauna of Balkan and adjacent regions".

It was collected on *Carex riparia* by: M. Asche, H. Hoch and R. Remane, W. Germany; R.H. Cobben and P. and P. de Vrijer, Holland; V.D. Urso, Italy; S. Drosopoulos, Greece.

It is remarkable, that this species is the only "true parthenogenetic" species of the family Delphacidae and the second one of the whole group of Auchenorrhyncha (Cobben, Den Bieman, De Vrijer, personal communications).

Muellerianella brevipennis (List, No 70)

The genus *Muellerianella* has been extensively studied (16, 20). Although the other two European species of this genus *M. fairmairei* & *M. extrusa* were found to occur in Greece (9, 24) *M. brevipennis* was discovered only at two localities along the northern border-line of Greece and on its known food plant *Deschampsia caespitosa* which grows in reasonable densities specially at Rodopi. There this species was present only during the last days of July, while in the beginning of June no larvae could be found. Phenologically, therefore, this species is seasonally later than in Holland (20) and in Rodopi region it has only one generation per year, because in the middle of October only a few adults of that single generation could be found. The other congeneric species *M. fairmairei* was found also on Rodopi mountain range but at lower altitudes and at lower population densities than *M. brevipennis*. These two localities in northern Greece where *M. brevipennis* was found are the southern borders of its distribution. All samples taken of *M. brevipennis* gave no evidence that it coexists with any triploid "species" (20).

Acanthodelphax spinosus (List, No 76)

Also a well known European species (37). It was very common at Rodopi and Falakron mountains at altitudes ranging from 1600-2100 m. Morphologically, it was not different as compared with specimens from central Europe. It was collected by sweeping on a *Festuca* sp. At Falakron mountain it occurred syntopically with *Ribautodelphax* spp. and *Metropis mayri*. Most probably it is univoltine at the localities it was found.

Halmyra aeluropodis (List, No 77)

This species is described by Emeljanov (28) from Kazakhstan and recorded later by Dlabola (18) from Iran. This is the shortest palaeartic delphacid we know

(length of male brachypterous 1,3 mm). Identification characters are presented in fig. 6.

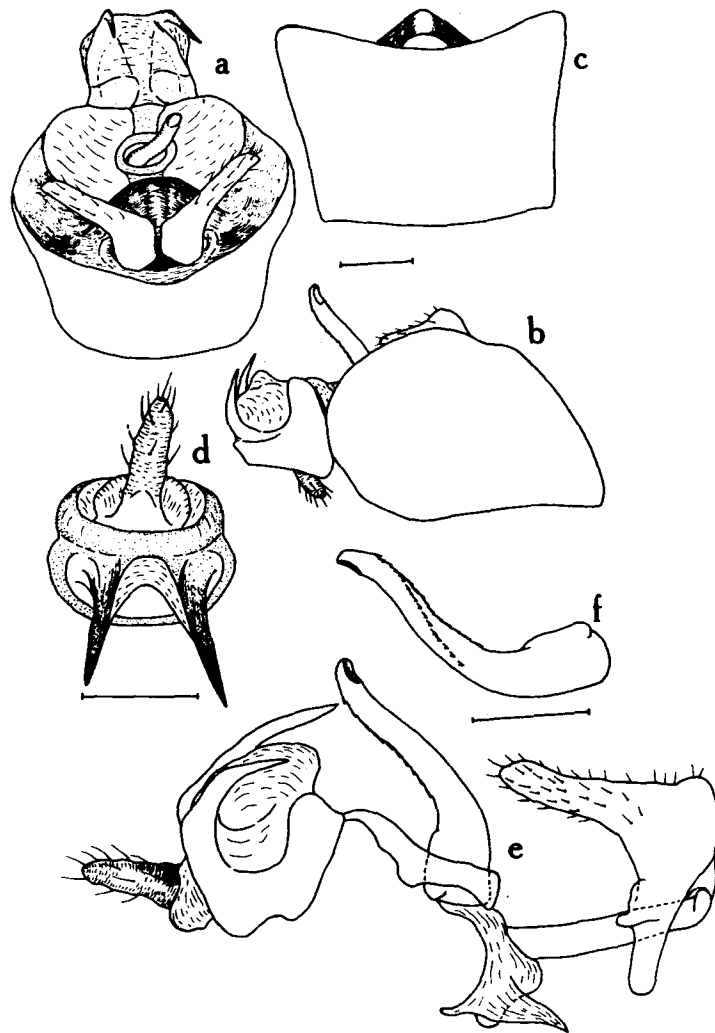


Fig. 6. *Halmyra aeluropidis* (Emelyanov, 1964): locality N.E.-Greece. Nomos Xanthi, near Porto-Lagos, 29.VII.82.

a. male genitalia ventrocaudal, b. male genitalia left lateral, c. genital segment ventra, d. anal tube caudal, e. male genitalia (without pygofer) left lateral, f. aedeagus right lateral.

It occurred in very high population densities in the Porto Lagos region feeding exclusively on *Aeluropus littoralis* growing in salt-marshes. At the beginning of June we could collect only females, but at the end of July high population densities comprised numerous males, females and larvae. Probably this species is polyvoltine.

H. aeluropidis is probably a Pontomediterranean species reported here for the first time for Europe.

Dicranotropis beckeri (List, No 78)

Also a Pontomediterranean species (25) reported here for the first time from the Balkan peninsula. Identification figures are reported by Vilbaste (37) and Logvinenko (31). It was swept in large numbers from open biotopes where a *Poa* sp. was common.

Xanthodelphax flaveolus (List, No 85)

Morphologically the genital structure from male specimens collected in Greece are slightly different from corresponding characters reported by Ossiannilsson (34). Therefore the male genital characters are given in fig. 7. This species occurred only along the northern border-line of Greece and it was swept from a mixture of grass species (*Festuca* sp. *Poa* sp. *Agrostis* sp.). It was very common in Rodopi mountain range and there it probably is univoltine.

Widely distributed in central and northern Europe.

Criomorphus albomarginatus (List, No 86)

A well known European species (34). In Greece it was common in Rodopi mountain range on grasses under *Pinus nigra* and *Betula pendula* forests.

Toya ibiturca (List, No 89)

This species has recently been described by Asche (1). The same author reported the potential relationship between this species and its closely related ones. In Greece it was found only in one locality at Porto Lagos. A rare coastal species, reported, so far, from Turkey and Ibiza (Balearic islands). Mediterranean (1).

Javesella discolor (List, No 94)

J. forcipata (List, No 96)

Morphology and biology of these two species are well known in central and northern Europe, where they are common and widespread (34). *J. discolor* was very common only in northeastern Greece together with *J. forcipata*, while the latter species was found also in the northwestern part of Greece. In Rodopi mountain range these two species have one generation but their phenologies apparently were different. Thus, adults of *J. discolor* were common in the middle of June and rare at the end of July, while adults of *J. forcipata* were rare in the middle of June and very

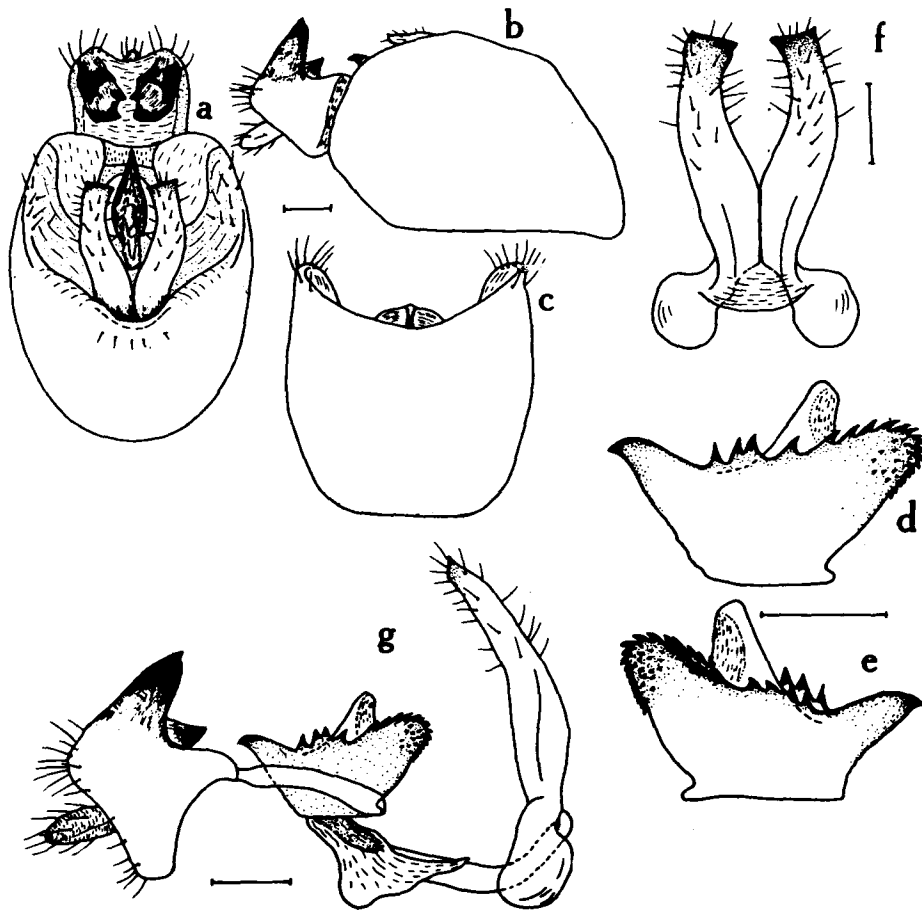


Fig. 7. *Xanthodelphax flaveolus* (Flor, 1861): Locality N.E.-Greece, Nomos Drama, Elatia-Rodopi, 27.VII.82.

a. male genitalia ventrocaudal. b. male genitalia left lateral, c. genital segment ventral, d. aedeagus left lateral. e. aedeagus right lateral, f. parameres ventrocaudal, g. male genitalia (without pygofer) left lateral.

common at the end of July. In Rodopi these two species could be collected from several plant species, thus, the two species can be characterized as polyphagous.

Ribautodelphax angulosus (List, No 100)

This species is known in central and northern Europe, but species of this genus are difficult to distinguish. It is reported only from Romania for the Balkan Peninsula. In Greece it was found recently only at one locality of Rodopi mountain range

in a wood of *Betula pendula*. It was feeding exclusively on *Anthoxanthum odoratum*, which was very common in that biotope (Den Bieman, personal communication).

b. New species described from Greece

Stenocranus gialovus Asche and Hoch, 1983 (10)

Morphologically this species is closely related to *S. major* (Kirschbaum, 1868) which has not been found in Greece. *S. gialovus* has been found only in southern Greece (Peloponnesos).

Eurysa fornasta Asche, Drosopoulos and Hoch, 1983 (13)

Morphologically it is closely related to *E. forficula* (Horvath, 1908) which has not been found in Greece until now. It was collected from four localities in Greece including the Peloponnesos.

Eurysa duffelsi Drosopoulos and Asche, 1984 (27)

Morphologically similar to *E. lineata* which occurs in many places in Greece but, so far, could not be found in Crete, where *E. duffelsi* has been collected (Leg. J.P. Duffels, Amsterdam). There is evidence, therefore, that in Crete *E. lineata* is replaced by the new species.

Metropis aris Asche, Drosopoulos and Hoch, 1983 (14)

Morphologically this species is closely related to *M. latifrons* (Kirschbaum, 1868). The latter species has not been found in Greece while *M. aris* occurred, so far, in the area of Olympos and Vourinos mountains (1000-13000 m).

Delphacodes schinias Asche and Remane, 1983 (12)

This species found only in Schinias (Attiki) has been collected in the past also from S. France (Leg. R. Remane, Marburg).

Ribautodelphax fanari Asche, Drosopoulos and Hoch (15)

A species occurring in coastal biotopes in northern Greece has been collected previously also in Turkey (Leg. M. Asche).

Ribautodelphax falakron Asche, Drosopoulos and Hoch (15)

This species morphologically seems to be closely similar to *R. pallens* (Stal, 1854), which has not been found in Greece. It occurred at high altitudes in Kalo Nero (=Varnous) and Falakron mountains.

Ribautodelphax spec. cf. *collinus* (Boheman, 1847)

This species was found only on *Arrhenatherum elatius* at Kalo Nero mountain.

It will be described as a new species by our colleague K. den Bieman (Wageningen, the Netherlands).

c. Additional notes for some known species

Delphax meridionalis

This species was only known from the three type specimens since it was described (8). It has been found again at its type-locality (Nisi-Messini) as well as in Kerkyra. Probably its distribution extends to other countries.

Florodelphax leptosoma and *F. mourikisi*

These two species seem to be closely related. *F. leptosoma* is a European species. In Greece, it has been found at many localities and various altitudes ranging from the sea level to 1200 m. Its food plants seem to be the *Juncus effusus-gerardii* group, *Carex* spp. and *Cyperus* spp. We could not find morphological differences between the two populations from extrem altitudes (mountainous-coastal). A second species, however, *F. mourikisi* is distributed only along the coastal biotypes in many places in Greece. This species is morphologically different from *F. leptosoma* (genital structure and coloration) and it feeds on *Juncus maritimus* and *J. acutus*. The potential relationship between these two species seems to be an interesting subject for biosystematic studies.

Muirodelphax aubei

This species has been collected at many localities in Greece always two distinct types of biotopes: One of them in mountain areas, where the specimens feed on *Elymus pycnanthus* and the other in coastal regions where the specimens feed on *Ammophila arenaria*. However, so far, we could find neither morphological nor bioacoustic differences between the two "separated" populations. The problem could be solved biosystematically.

Delphax uncinata

This species is reported from Greece but its status remains enigmatic (11).

d. Morphological characters of 7 species

Other species of the fauna of Greece insufficiently described are the following:

Asiraca clavicornis (fig. 8)

Tropidocephala tuberipennis (fig. 9)

Jassideus lugubris (fig. 10)

Delphacodes capnodes (fig. 11)

Chlorionidea flava (fig. 12)

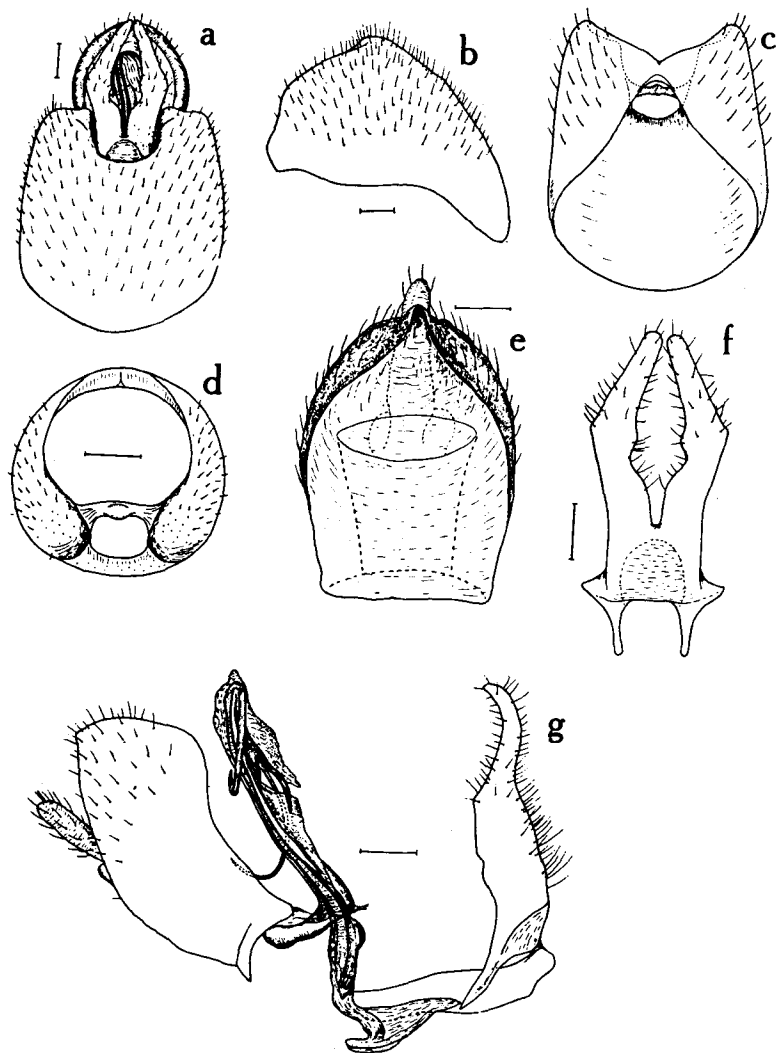


Fig. 8. *Asiraca clavicornis* (Fabricius, 1794): Locality E.-Greece, Icaria-Is., E Armenistis, 6.VII.82. a. male genitalia ventrocaudal, b. genital segment left lateral, c. genital segment dorsal, d. genital segment caudal, e. anal tube ventral, f. parameres ventrocaudal, g. male genitalia left lateral (without pygofer).

Falcotoya minuscula (fig. 13)

Pseudareopus lethierryi (fig. 14)

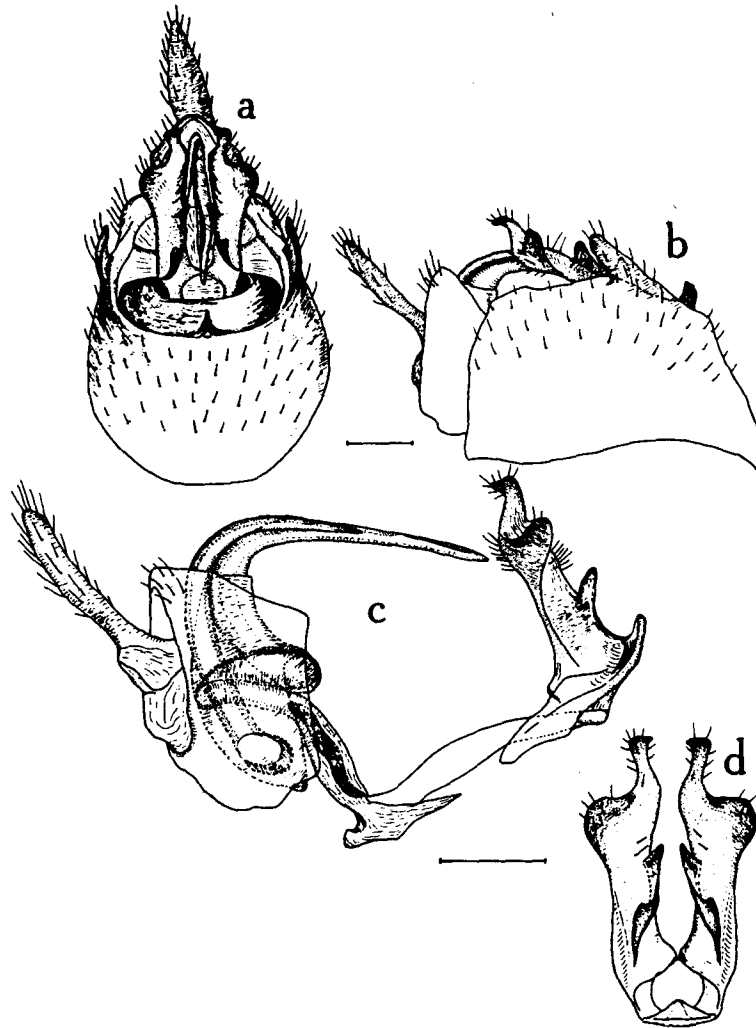


Fig. 9. *Tropicocephala tuberipennis* (Mulsant & Rey, 1855): Locality S. Greece, Peloponnesus, Nomos Iliia, about 6 Km east of Pyrgos, 22-23.IX.84.

a. male genitalia ventrocaudal. b. male genitalia left lateral. c. male genitalia (without pygofer) left lateral. d. parameres ventrocaudal.

e. Synonymized species

1. *Alatades trilineus* Dlabola, 1957: see *Delphacodoides anaxarchi* (Muir, 1962).

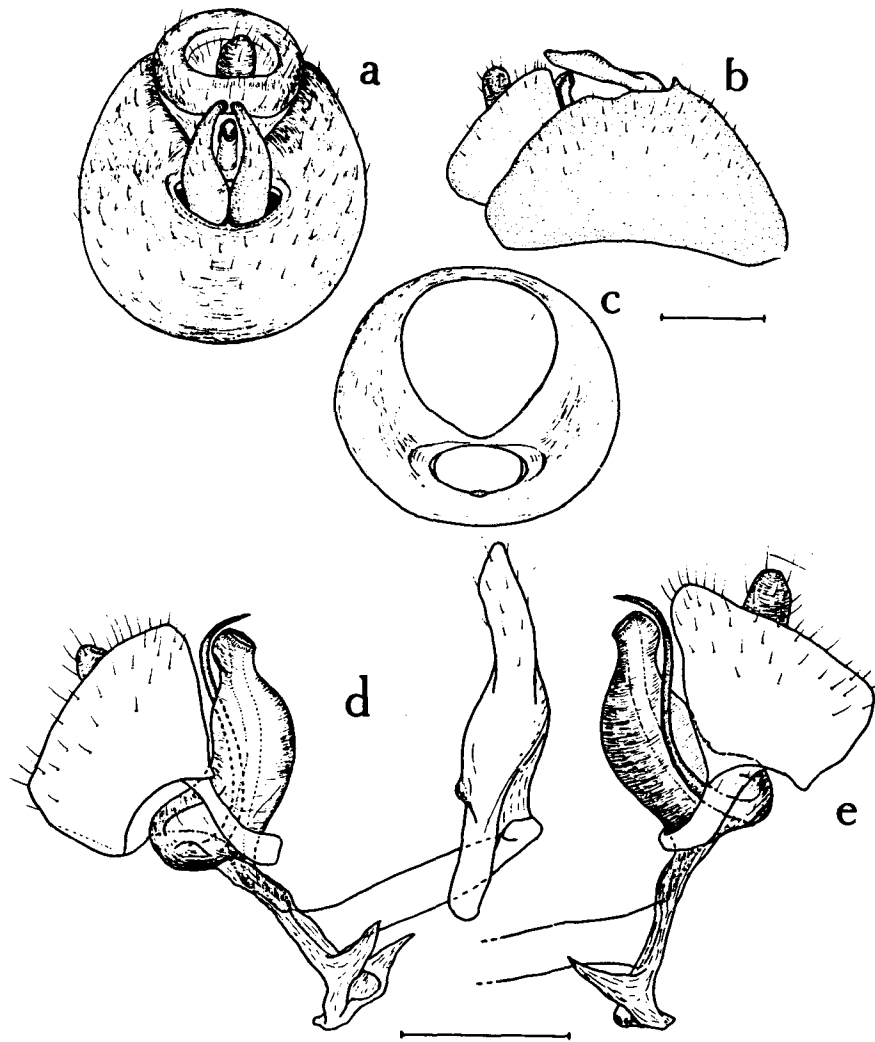


Fig. 10. *Jassidaeus lugubris* (Signoret, 1865): Locality W. Germany, Hessen, Korbach, 3.IV.1981, leg. M. Asche.

a. male genitalia ventrocaudal. b. male genitalia left lateral. c. genital segment caudal. d. male genitalia left lateral (without pygofer). e. anal tube and aedeagus wright lateral.

2. *Chloriona canariensis* Lindberg, 1954: see *C. unicolor* (Herrich-Schäffer, 1835).
3. *Conomelus clavifer* Remane et Asche, 1979 = *C. odryssi* Dlabola, 1965.
4. *Delphacodes* spec. cf. *audrasi* Asche et Remane, 1982 = *D. nastasi* Asche et Remane, 1983.

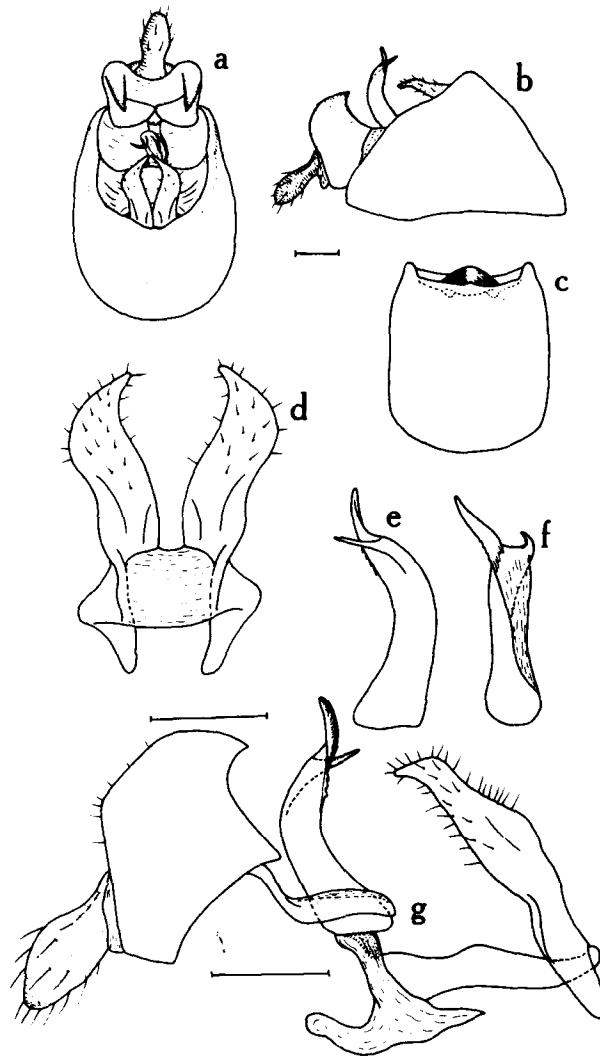


Fig. 11. *Delphacodes capnodes* (Scott, 1870): Locality S.-Greece, Peloponnesus, Nomos Messinia, Gialova, 20.VI.82.
 a. male genitalia ventrocaudal. b. male genitalia left lateral. c. genital segment ventral. d. parameres ventrocaudal. e. aedeagus right lateral. f. aedeagus ventral. g. male genitalia (without pygofer) left lateral.

5. Here, it should be mentioned that *Flastena fumata* (Lindberg, 1948) is not considered by the authors as different species from *F. fumipennis* (Fieber, 1866). (11, 23).

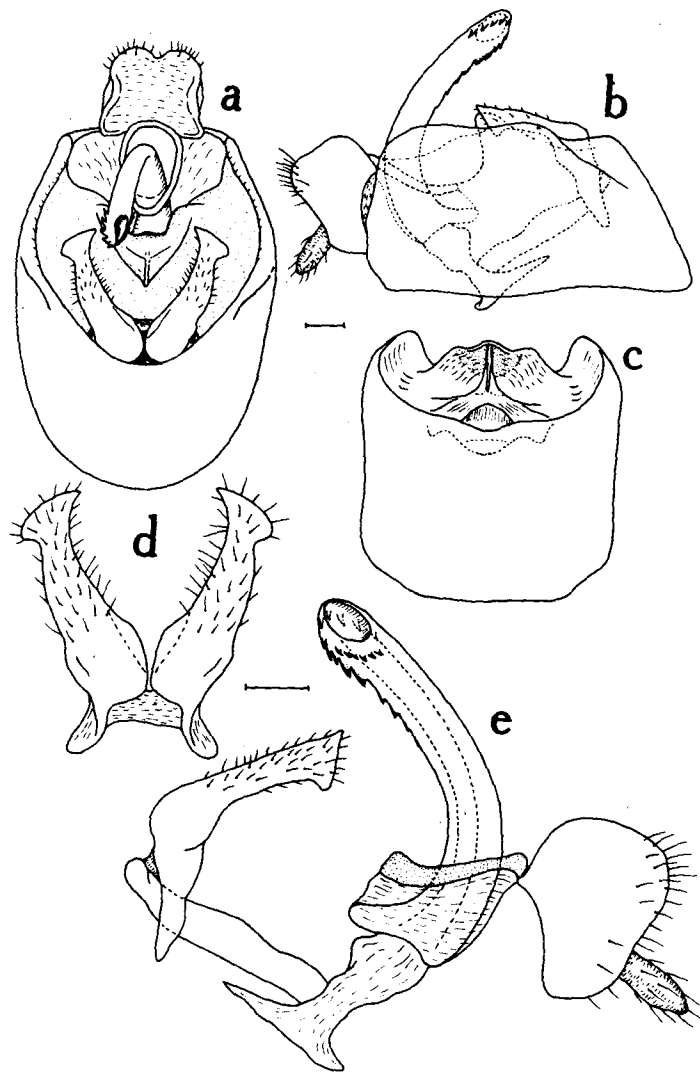


Fig. 12. *Chlorionidea flava* (Löw, 1885): Locality N.E.-Greece, Falakron oros. 13.VI.82.
 a. male genitalia ventrocaudal, b. male genitalia left lateral, c. genital segment ventral, d. parameres, e.
 male genitalia (without pygofer) right lateral.

6. In addition, the specimens reported as *Sogatella matsumurana* (Metcalf, 1943) by Drosopoulos (23) are conspecific with *Sogatella vibix* (Haupt, 1927).

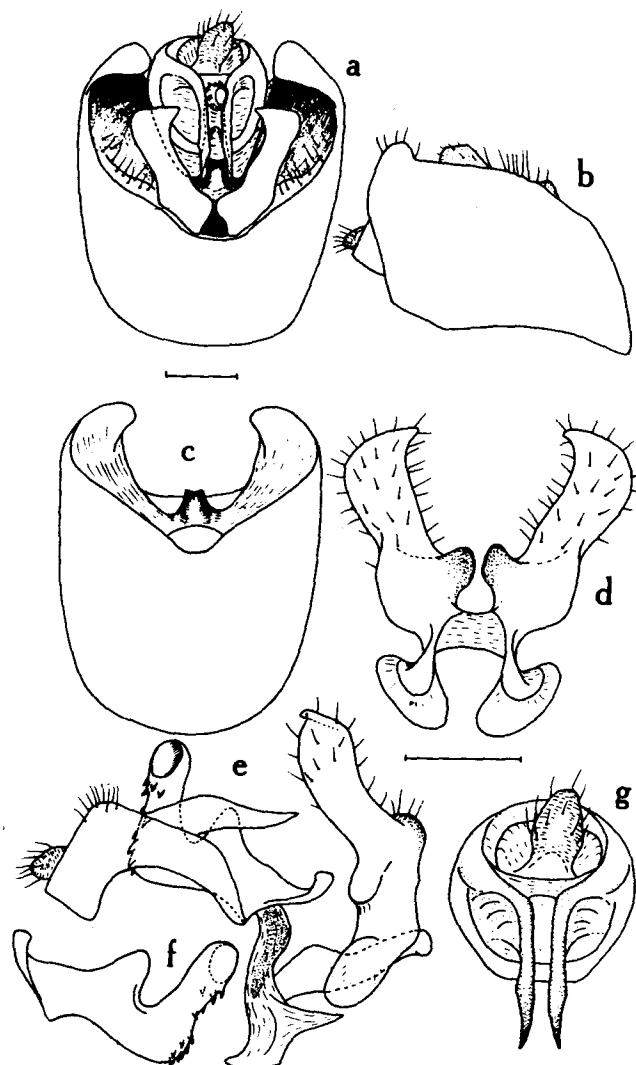


Fig. 13. *Falcotoya minuscula* (Horvath, 1897): Locality N.E.-Greece, Nomos Xanthi, near Porto-lagos, 29.VII.82.

a. male genitalia ventrocaudal, b. male genitalia left lateral, c. genital segment ventral, d. parameres ventrocaudal, e. male genitalia (without pygofer) left lateral, f. aedeagus right lateral, g. anal tube caudal.

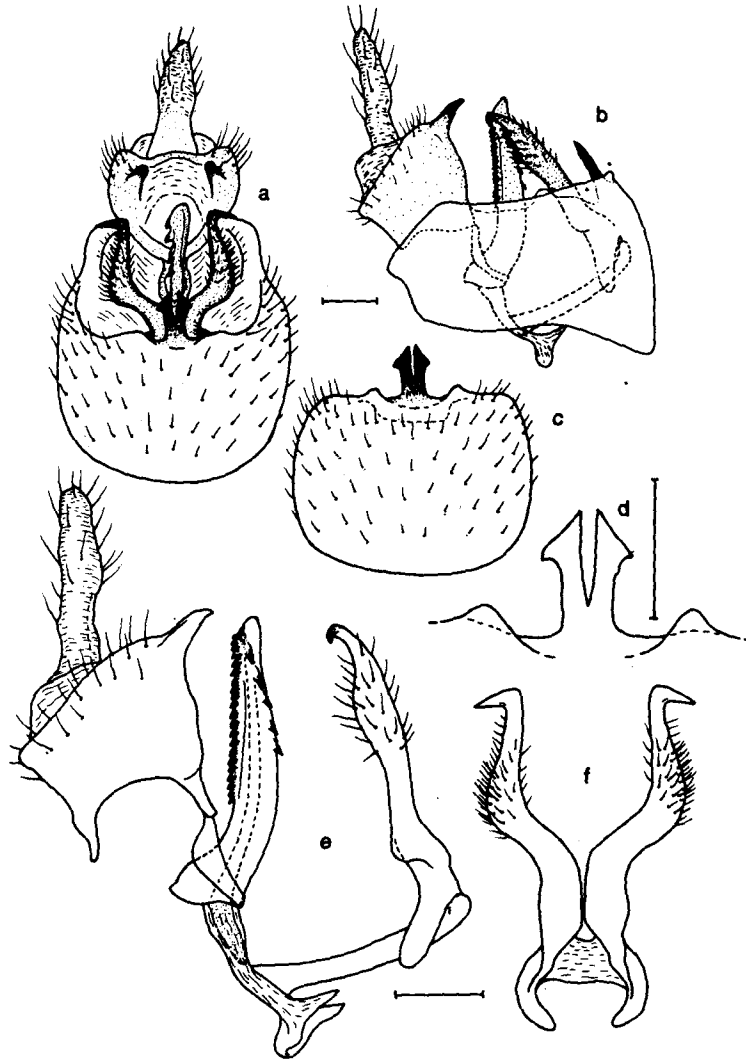


Fig. 14. *Pseudaraeopus lethierryi* (Mulsant & Rey, 1879): Locality N.W.-Greece, Kerkyra, Pantokrator: *infra* Spartylas, 20.V.82.

a. male genitalia ventrocaudal, b. male genitalia left lateral, c. genital segment ventral, d. process of ventral margin of pygofer, e. male genitalia (without pygofer) left lateral, f. parameres ventrocaudal.

(In all figures bars represent 0.1 mm).

3. LIST OF SPECIES, FOOD PLANTS, GEOGRAPHIC DISTRIBUTION

According to the data existing until now the list of the delphacid species which occur in Greece is shown in Table 1. The systematic order of the genera is arranged following Nast (32), while the species of each genus are in alphabetical order, except the species of the genus *Kelisia* which in this paper are separated according to their morphological characters in four groups: species with numbers 2-5, 6-12, 13-14 and 15-16, (Table 1).

Table 1: List of species of the family Delphacidae found so far in Greece, the food-plant and the known geographic distribution of each species.

No.	SPECIES	FOOD PLANT	DISTRIBUTION
1.	<i>Asiraca clavicornis</i>	several species	Eurosiberian-Mediterranean
2.	<i>Kelisia brucki</i>	<i>Juncus</i> spp., <i>Scirpus holoschoenus</i>	Pontomediterranean
3.	<i>K. cretica</i>	<i>Juncus</i> spp., <i>Scirpus holoschoenus</i>	Endemic
4.	<i>K. perrieri</i>	<i>Juncus</i> spp., <i>Scirpus holoschoenus</i>	W.C.-Mediterranean
5.	<i>K. yarkonensis</i>	<i>Juncus</i> spp., <i>Scirpus holoschoenus</i>	E. Mediterranean
6.	<i>K. confusa</i>	<i>Carex riparia</i> (e.g.)	Euromediterranean
7.	<i>K. gargano</i>	<i>Carex montana/humilis</i>	Holomediterranean
8.	<i>K. guttulifera</i>	<i>Carex divulsa</i> (e.g.)	European
9.	<i>K. haupti</i>	<i>Carex montana/humilis</i>	European
10.	<i>K. henschii</i>	<i>Carex</i> spp.	European
11.	<i>K. melanops</i>	<i>Carex</i> spp.	Euromediterranean
12.	<i>K. praecox</i>	<i>Carex</i> spp., <i>Cyperus</i> spp.	Eurosiberian
13.	<i>K. guttula</i>	<i>Carex</i> spp.	Eurosiberian
14.	<i>K. vittipennis</i>	<i>Eriophorum</i> spp.	Eurosiberian
15.	<i>K. ribauti</i>	<i>Juncus</i> spp., <i>Carex</i> spp.	Eurosiberian-Mediterranean
16.	<i>K. monoceros</i>	<i>Juncus</i> spp., <i>Carex</i> spp.	European
17.	<i>Anakelisia fasciata</i>	<i>Carex</i> spp. (<i>riparia</i> e.g.)	European
18.	<i>A. perspicillata</i>	<i>Carex montana/humilis</i>	Eurosiberian
19.	<i>Stenocranus minutus</i>	<i>Dactylis glomerata</i> (e.g.)	Euromediterranean
20.	<i>S. gjaļovus</i>	<i>Phalaris aquatica</i>	Endemic
21.	<i>S. fuscovittatus</i>	<i>Claudium mariscus</i>	Eurosiberian
22.	<i>Tropidocephala andropogonis</i>	<i>Chrysopogon gryllus</i>	European
23.	<i>T. tuberipennis</i>	<i>Imperata cylindrica</i>	Holomediterranean
24.	<i>Jassidaeus lugubris</i>	<i>Festuca</i> sp.	European
25.	<i>Conomelus odryssius</i>	<i>Juncus effusus/inflexus</i>	Pontomediterranean
26.	<i>C. sagittifer</i>	<i>Juncus inflexus</i>	C. Mediterranean
27.	<i>Megamelus notula</i>	<i>Carex riparia</i> (e.g.)	Eurosiberian
28.	<i>Eurysa brunnea</i>	<i>Secale montanum</i>	European
29.	<i>E. duffelsi</i>	grass species	Endemic
30.	<i>E. douglasi</i>	grass species	European
31.	<i>E. flavobrunnea</i>	<i>Helictotrichon convolutum</i> (e.g.)	Mediterranean
32.	<i>E. fornasta</i>	<i>Arrhenatherum elatius</i>	Endemic

33. <i>E. lineata</i>	Many grass species	Euromediterranean
34. <i>E. rubripes</i>	<i>Dactylis glomerata</i> (e.g.)	Mediterranean
35. <i>Metropis aris</i>	<i>Festuca</i> spp.	Endemic
36. <i>M. inermis</i>	<i>Festuca</i> spp.	Eurosiberian
37. <i>M. mayri</i>	<i>Festuca cyllenica</i>	European
38. <i>Stiroma affinis</i>	<i>Dactylis glomerata</i>	Eurosiberian
39. <i>S. bicarinata</i>	<i>Deschampsia caespitosa</i> (e.g.)	Eurosiberian
40. <i>Ditropis pteridis</i>	<i>Pteridium aquilinum</i>	European
41. <i>Remanodelphax cedroni</i>	<i>Dichanthium ischaemum</i>	Endemic
42. <i>Eurybregma bielawskii</i>	Many grass species	Pontomediterranean
43. <i>E. nigrolineata</i>	<i>Dactylis glomerata</i>	Eurosiberian
44. <i>Jubsoda stigmatica</i>	<i>Hyparrhenia hirta</i>	Mediterranean
45. <i>Euconomelus lepidus</i>	<i>Juncus</i> sp., <i>Carex</i> sp.	Eurosiberian
46. <i>Delphax armeniacus</i>	<i>Phragmites communis</i>	Pontomediterranean
47. <i>D. crassicornis</i>	<i>Phragmites communis</i>	Eurosiberian-Mediterranean
48. <i>D. inermis</i>	<i>Phragmites communis</i> , <i>Arundo donax</i>	Holomediterranean
49. <i>D. meridionalis</i>	<i>Phragmites communis</i> , <i>Arundo donax</i>	Endemic*
50. <i>D. ribautianus</i>	<i>Phragmites communis</i> , <i>Arundo donax</i>	Mediterranean
51. <i>Chloriona clavata</i>	<i>Phragmites communis</i> , <i>Arundo donax</i>	Pontomediterranean
52. <i>C. flaveola</i>	<i>Phragmites communis</i> , <i>Arundo donax</i>	Holomediterranean
53. <i>C. glaucescens</i>	<i>Phragmites communis</i> , <i>Arundo donax</i>	Euromediterranean
54. <i>C. ponticana</i>	<i>Phragmites communis</i> , <i>Arundo donax</i>	E. Mediterranean
55. <i>C. unicolor</i>	<i>Phragmites communis</i> , <i>Arundo donax</i>	Euromediterranean
56. <i>C. vasconica</i>	<i>Phragmites communis</i> , <i>Arundo donax</i>	European
57. <i>Euides speciosa</i>	<i>Phragmites communis</i> , <i>Arundo donax</i>	Eurosiberian
58. <i>Laodelphax striatellus</i>	Many grass species	Holarctic Oriental Region
59. <i>Leptodelphax cyclops</i>	<i>Saccharum</i> sp.	S.E. Mediterranean-Ethiopian
60. <i>Sogatella vibix</i>	Many grass species	S.E. Mediterranean-Ethiopian
61. <i>Paraliburnia adela</i>	<i>Calamagrostis</i> sp.?	Eurosiberian
62. <i>Hyledelphax elegantulus</i>	<i>Deschampsia flexuosa</i> (e.g.)	Eurosiberian
63. <i>Megamelodes quadrimaculatus</i>	Many hydrophilous plants	European
64. <i>Calligypona reyi</i>	<i>Cyperus</i> sp.	Eurosiberian
65. <i>Delphacodes capnodes</i>	<i>Carex riparia</i> (e.g.)	European
66. <i>D. nastasi</i>	Many grass species (<i>Carex-Juncus-Cyperus</i> spp. e.g.)	Mediterranean
67. <i>D. schinias</i>	<i>Carex</i> sp.? <i>Cyperus</i> sp., <i>Phragmites</i> sp.	Mediterranean
68. <i>D. venosus</i>	litter of grasses	Eurosiberian
69. <i>D. sp.</i>	<i>Carex riparia</i>	Endemic?
70. <i>Muellerianella brevipennis</i>	<i>Deschampsia caespitosa</i>	Eurosiberian
71. <i>M. extrusa</i>	<i>Molinia caerulea</i> , <i>Carex divulsa</i>	European
72. <i>M. fairmairei</i>	<i>Holcus lanatus/mollis</i>	European
73. <i>Chlorionidea flava</i>	<i>Carex montana</i>	C. European
74. <i>Muirodelphax aubei</i>	<i>Ammophila arenaria</i> , <i>E. pycnanthus</i>	Eurosiberian-Mediterranean
75. <i>Acanthodelphax denticauda</i>	<i>Deschampsia caespitosa</i>	European
76. <i>A. spinosus</i>	<i>Festuca cyllenica</i> , <i>Festuca</i> spp.	European
77. <i>Halmyra aeluropodis</i>	<i>Aeluropus littoralis</i>	Pontomediterranean
78. <i>Dicranotropis beckeri</i>	Many grass species	Pontomediterranean
79. <i>D. divergens</i>	<i>Deschampsia flexuosa</i> (e.g.)	European

80. <i>D. hamata</i>	<i>Dactylis glomerata</i> (e.g)	Eurosiberian
81. <i>Florodelphax leptosoma</i>	<i>Juncus</i> spp., <i>Cyperus</i> spp.	Eurosiberian- Mediterranean
82. <i>F. mourikisi</i>	<i>J. acutus</i> , <i>J. maritimus</i>	Endemic
83. <i>Horvathianella palliceus</i>	<i>Chrysopogon gryllus</i>	E. European
84. <i>Xanthodelphax hellas</i>	Many grass species	Endemic
85. <i>X. flaveolus</i>	Many grass species	Eurosiberian
86. <i>Criomorphus albomarginatus</i>	Many grass species	European
87. <i>Falcotoya minuscula</i>	Many grass species, <i>Cynodon dactylon</i> (e.g.)	Mediterranean
88. <i>Toya hispijimensis</i>	Many grass species, <i>Cynodon dactylon</i> (e.g.)	Mediterranean
89. <i>T. ibiturca</i>	Many grass species, <i>Cynodon dactylon</i> (e.g.)	Mediterranean
90. <i>T. obtusangula</i>	Many grass species, <i>Cynodon dactylon</i> (e.g.)	Holomediterranean
91. <i>T. propinqua</i>	Many grass species, <i>Cynodon dactylon</i> , (e.g.)	Holarctic
92. <i>Litochodelphax aliakmon</i>	grass species	Endemic
93. <i>Maculidelphax maculipennis</i>	<i>Imperata cylindrica</i>	E. Mediterranean
94. <i>Javesella discolor</i>	Many grass species	Eurosiberian
95. <i>J. dubia</i>	Many grass species	Euromediterranean
96. <i>J. forcipata</i>	Many grass species	Eurosiberian
97. <i>J. obscurella</i>	Many grass species	Eurosiberian- Nearctic
98. <i>J. pellucida</i>	Many grass species	Eurosiberian
99. <i>Ribautodelphax albostrigatus</i>	<i>Festuca</i> sp.?	Eurosiberian
100. <i>R. angulosus</i>	<i>Anthoxanthum odoratum</i>	European
101. <i>R. collinus</i>	<i>Agrostis tenuis</i>	Eurosiberian
102. <i>R. cf. collinus</i>	<i>Arrhenatherum elatius</i>	Endemic
103. <i>R. falakron</i>	<i>Festuca cyllenica</i>	Endemic
104. <i>R. fanari</i>	<i>Leymus racemosus</i> , <i>Elymus</i> sp.	E. Mediterranean
105. <i>R. imitans</i>	<i>Festuca</i> sp.	European
106. <i>R. pungens</i>	<i>Brachypodium</i> spp.	European
107. <i>Flastena fumipennis</i>	<i>Carex</i> sp.	Mediterranean
108. <i>Delphacodoides anaxarchi</i>	<i>Hemarthia altissima</i>	E. Mediterranean- African
109. <i>Pseudareopus lethierryi</i>	<i>Hyparrhenia hirta</i>	Mediterranean
110. <i>Euidopsis truncata</i>	<i>Imperata cylindrica</i>	Mediterranean- African
111. <i>Perkinsiella rivularis</i>	<i>Saccharum</i> sp.	S.E. Mediterranean- African
112. <i>Matutinus putoni</i>	<i>Typha latifolia</i>	Mediterranean- African

Special attention was given to the exact identification of the food plant of each species. Thus the scientific names of food plants are reported here after accurate and frequent observations and rearing of the insects. Food plant species not known to the authors were given to the botanist Dr. M. Damanakis (Benaki Phytopathological Institute) who sent them for identification to specialists: Dr. H. Scholz (Berlin) and

Dr. T.A. Cope (Kew Gardens, England). Dr. H. Scholz identified the food plants of the species with numbers 21, 74, 108 and Dr. T.A. Cope those with number 28, 102, 103. The food plant of the species 100, 101 and 106 are reported here after personal observations of Ir. K. Den Bieman (Wageningen, Holland) (Table 1). The food plant for several species are reported in this list for the first time.

The geographic distribution of each species is based not only on the existent literature, but also personal communications with specialists on this group of insects (25). Thus, according to the data presented in Table 1, the following zoogeographic analysis could be made:

The endemic species: As shown in Table 1 there are 12 species recorded as endemic to Greece (endemism 10.7%). The distribution of these species is as follows: One species *Florodelphax mourikisi* is distributed over many coastal places in Greece. Probably this species occurs also in W. Turkey since there is no sufficient geographic barrier in between. Four species (*Ribautodelphax falakron*, *R. cf. collinus*, *Metropis aris* and *Litochodelphax aliakmon*) are distributed in northern Greece. The first three species would probably no longer be endemic if investigations similar to ours were carried out in the countries adjacent to that area. Actually, these three species have been found very close to Bulgaria and Yugoslavia. *L. aliakmon* may occur also in other countries. Four other species (*Remanodelphax cedroni*, *Delphax meridionalis*, *Xanthodelphax hellas* and *Eurysa fornasta* apparently occur from the southern to the northern part of Greece and it is very likely that their distribution extends to other countries as well. The remaining species *Eurysa duffelsi*, *Kelisia creticola* and *Stenocranus gialovus* have a greater chance of remaining endemic for Greece. Indeed these species occur, so far, only in the southern Peloponnesus and Crete. It is very likely that these species originated from isolated populations of their closely related species which eventually are distributed in larger areas (allopatric speciation). We do not consider here the *Delphacodes* sp. which might be also an endemic one.

The Mediterranean species: There were 47 species recorded in the northeastern part of the Mediterranean region including the Italian peninsula (25). In Greece we have so far found 47 species. This number represents a relatively large part of the Greek planthopper fauna (41.96%). Although we can not define "strict barriers" of distribution for these mediterranean species, we could make the following zoogeographic analysis: a. Holomediterranean 5 species. b. Mediterranean 11 species. c. East-Mediterranean 4 species. d. Central Mediterranean 2 species. e. Euromediterranean 7 species. f. Eurosiberian-Mediterranean 5 species. g. Pontomediterranean 7 species. h. SE-Mediterranean-Ethiopian 3 species. i. Mediterranean-African 3 species. It is evident therefore that Greece possesses a very interesting zoogeographic position concerning this group of insects. Many of these species are coastal species but some of them are distributed more or less in continental regions up to about 1000 m altitudes, especially the Euromediterranean and Eurosiberian - Mediterranean species.

The European-Eurosiberian species: Surprisingly, this group of species is relatively the largest of the planthopper fauna of Greece (44.64%). This is the group that occurs mainly in the northern part of Greece close to the northern borders, especially

Florina and Rodopi region and, secondarily, in the mountain ranges of middle Greece and even Peloponnesus, usually at altitudes above 700-800 m. Particularly, some Eurosiberian species occur only in some localitiés which climatologically and floristically do not differ much from those of central and even northern Europe (Rodopi, Pindos, Olympus mountain ranges). Even the phenology of these species in these regions in Greece appears to be the same as in central and northern Europe (e.g. *Muellerianella brevipennis*, *Xanthodelphax flaveolus*, *Javesella discolor* and *J. forcipata*).

The Holarctic species: There are two species occurring in the northeastern part of the Mediterranean region. These species appear to be common in Greece in various biotopes and altitudes ranging from sea level to 1700 m.

Finally, we believe that these investigations on the distribution, morphology and ecology of 112 delphacid species contribute not only to the entomofauna of Greece but also to that of other countries of this region. In addition they contribute to the knowledge of the southern limits of distribution of some European-Eurosiberian species, to the eastern limits of some western Mediterranean species, to the western limits of distribution of some Pontomediterranean species, even to the northern limits of distribution of some African-Mediterranean species and in general to many species which had been considered until now as endemic or had had a limited distribution.

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