

Preliminary list of Auchenorrhyncha with notes
on distribution and importance of species in
Turkey. XIV. Family : Cicadellidae : Typhlocybinae :
Typhlocybini (Part II)

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Summary

At the results of this faunistic study, it is recorded that genus *Eupteryx* represented by 17 species in the fauna of Turkish Typhlocybini. 6 species: *E. collina* (Flor), *E. filicum* (Newman), *E. melissae* Curt., *E. pavlovskii* Zach., *E. urticae* (F.) and *E. zelleri* (Kbm.) are the new records for the Turkish fauna. Distribution, abundance and plants on which the specimens were collected for each species are given.

Introduction

This manuscript is dealing only with the *Eupteryx* species of Typhlocybini. The other genera and species of Turkish Typhlocybini were given in previous issue of this periodical. Eleven species of the genus of *Eupteryx* were previously recorded by the earlier authors. Oshanin (1912) had listed *E. fahringeri* Mel. and *E. stachydearum* (Hardy). Fahringer (1922) had made the records of *E. atropunctata* (Goeze), *E. fahringeri* Mel. and *E. tenella* (Fall.) together with their food plants. Metcalf (1968) also listed these species from Turkey according to these earlier records. Dlabola (1957a, 1971 and 1981) has mentioned such species of *E. cypria* (Rib.), *E. thoulessi* Edw., *E. notata* Curt., *E. aurata* (F.) in addition to the earlier records in his works and he also described *E. glaucoagica* Dlab. and *E. taborskyi* Dlab. from Turkey. Nast (1972) listed 9 previously recorded species.

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Looking through the food plants of **Eupteryx** species, it is apparent that they generally prefer to live on the species of Labiatae which are mostly medicinal plants and cause damage on them. Pollard (1968) reported **E. melissae** Curt. as the pest of cultivated sage (**Salvia officinalis**), mint (**Mentha** spp.) and **Chrysanthemum** spp. in Poland. **E. atropunctata** (Goeze) also has been reported infesting potato in Poland by Gromadzka (1970). Ural et al. (1972, 1973) made a survey on the fauna of hazelnut orchards in eastern Black-Sea Coast Region in 1965-1970. They determined **Eupteryx** sp. was one of the important pest of hazelnut. This **Eupteryx** sp. was found abundant on the leaves during late spring and summer, and it was accused to cause early drying of leaves and defoliation with other two pests. Unfortunately specific name of it was not known. Giray (1982) reported **E. gyaurdagica** Dlab. being the most abundant and serious pest of **Mentha** spp. in Aegean region of Turkey.

Synonyms, distribution of the species in Palaearctic region are taken from Nast (1972). Additional synonyms and countries are given with literature citations. The authors would like to express their thanks to Dr. J. Dlabola, of National Museum (Nast. Hist.) Pragmae, Czechoslovakia, for the identification of some species.

Eupteryx alticola Ribaut, 1936

Synonymy: **E. alticola bilobata** Cer., 1939; **E. alticola unita** Cer. 1939.

General Distribution: Afghanistan, Austria, Czechoslovakia, Finland, France, German F.R., Iraq, n.Italy, Romania, Switzerland, Turkey, USSR. (n.Russia, Moldavia.)

Distribution in Turkey: The authors have no literature indicating detailed distribution of this species in Turkey, except Dlabola (1957b) who only listed it from Turkey.

The authors have no representative material of the species.

Eupteryx atropunctata (Goeze, 1778)

Synonymy. **Cicada nigropunctata** Schrk., 1781; **C. carpini** Fourc. 1785; **C. tripunctata** Gmel., 1790; **C. melanostica** Gmel., 1790; **C. picta** F., 1794; **Typhlocyba aureola** Boh., 1845; **Eupteryx carpini petasitidis** Ferr., 1882; **E. atropunctata impunctata** Cer., 1939; **E. atropunctata marginata** Cer., 1939.

General Distribution: Albania, Algeria, Austria, Belgium, Bulgaria, Czechoslovakia, Denmark, England, Finland, France, Germany, Hungary, Italy, Netherlands, Poland, Romania, Spain, Sweden, Switzerland, Turkey, USSR., Yugoslavia.

Distribution in Turkey: Fahringer (1922) mentioned this species from İstanbul (Polenezköy) and Metcalf (1968) listed it from Turkey according to this earlier record.

Material examined: Ankara (Karagöl, Kızılcahamam), Erzincan (Demirpınar), Erzurum, (Tortum, Tufanç, Uzundere), Kars (Gaziler), Samsun (Bafra-Karaköy, Çarşamba), Trabzon (Maçka) - Totally 26 specimens.

Occurrence: Somewhat common, but found in small numbers.

Biological note: Specimens were collected starting from early April through August, mostly in July, and some early September, on *Trifolium* spp., *Phaseolus vulgaris*, *Vicia* sp., *Helianthus annuus*, *Salvia officinalis*, *Mentha aquatica* and *Artemisia* sp.. It has also been reported on *Solanum tuberosum*, *S. melangona*, *Dahlia*, *Verbascum*, *Urtica*, Labiatae: *Melissa officinalis*, *Mentha piperita*, *Ocimum basilicum*, *Salvia officinalis*, *S. sclarea*; Compositae: *Chrysanthemum balsamita*, *Ch. vulgare*; umbelliferous and alliaceous vegetables, such as carrot, parsley, celery, leek onion by the following authors: Fahringer, 1922, Günthart 1974, Trolle 1974, Nowacka and Adamska-Wilczek 1974, Nowacka and Zoltanska 1974, Vidano and Arzone 1978. Gromadzka (1970) investigated the biology of this species which was commonly infesting potato in Poland. He concluded that egg stage lasted, 9-10 days, duration of nymphal stage ranged 18-21 days, femals laid 2-8 eggs each 24 h. deposited on the lower surface of the leaves. It has two generations a year.

***Eupteryx aurata* (Linnaeus, 1758)**

Synonymy: *Cicada festiva* F., 1794; *Typhlocyba fulva* H.S., 1836; *Eupteryx aurata interrupta* Cer., 1939; *E. aurata nigerrime* Cer., 1939.

General Distribution: Austria, Belgium, Bulgaria, Czechoslovakia, Denmark, England, France, Germany, Hungary, Ireland, Italy, Netherlands, Norway, Poland, Romania, Spain, Sweden, Switzerland, USSR., Yugoslavia, Iran and Turkey (Dlabola, 1981).

Distribution in Turkey: First time Dlabola (l.c.) reported it from İzmir (Ödemiş-Bozdağ 1500 m) and Kastamonu (Ilgaz dağı geçidi 800-2300 m).

Material examined: Gümüşhane (Zigana), İzmir (Ödemiş-Bozdağ), Ordu (Kumru, Mesudiye), Trabzon (Maçka), Zonguldak (Ulus) - Totally 11 specimens.

Occurrence: Occasional.

Biological note: Specimens were collected late June and through July on *Urtica* and *Mentha*. It has been found feeding and breeding on *Urtica*, has then moved to the other host plants in summer and has two generations a year (Stilling, 1978). Labiatae, *Mentha*: Scrophulariaceae: *Scoparia dulcis*; *Senecio alpinus*, *Arctium lappa* have been reported as secondary host plants of this species by the following authors: Ribaut 1936, Dlabola 1961, Günthart 1974, Trolle 1974.

***Eupteryx collina* (Flor, 1861)**

Synonymy: *E. collina florida* Ribaut, 1936.

General Distribution: Austria, Belgium, Czechoslovakia, England, France, Germany, Greece (Corfu), Italy (also Sardinia), Morocco, Netherlands, Poland, Romania, Spain, Switzerland, USSR., Yugoslavia; (Nearctic region).

Distribution in Turkey: This is the first record of this species in Turkey.

Material examined: Rize-Only one specimen.

Occurrence: Very occasional.

Biological note: The specimen was collected in late August of 1975 on a Labiatae species. Ribaut 1936, Günthart 1974, Nowacka and Adamska-Wilzeck 1974 have been giving the following plants a host of this species: *Larum*, *Melissa officinalis*, *Lamium*, *Mentha piperita*, *Salvia officinalis* and *Urtica*.

***Eupteryx cypria* (Ribaut, 1948)**

General Distribution: Cyprus, Egypt, Israel, Jordan, Turkey, USSR, (Kazakhstan) Crete, Iran (Dlabola 1977, 1981).

Distribution in Turkey: Dlabola (1957 a) collected specimens of this species in Adana (Gavur dağı) and stated that it is rare a one. The authors have no representative material of this species.

Eupteryx fahringeri Melichar, 1911

General Distribution: Turkey.

Distribution in Turkey: Oshanin (1912) listed this species from Turkey. Fahringer (1922) reported it from Bursa (Uludağ 1700 m), collected on *Verbascum prusianum* and *V. glomeratum* in 1911. Metcalf (1968) listed it according to the authors mentioned above. Recently Dlabola (1981) reported it again from Bursa.

Material examined: Bursa (Uludağ), İzmir (Ödemiş-Bozdağ) - Totally 38 specimens.

Occurrence: Occasionally, but found sometimes in small numbers.

Biological note: Specimens were collected in late July on *Verbascum*.

Eupteryx filicum (Newman, 1853)

Synonymy: *E. laureti* Lindberg, 1936.

General Distribution: Azores, Belgium, Canary Is., Czechoslovakia, England, Greece, Italy (also Sardinia and Giglio Is.), Madeira Archipelago, Netherlands, Poland, Portugal, Switzerland, USSR. (Turkestan).

Distribution in Turkey: This is the first record of the species in Turkey.

Material examined: İzmir (Gümüldür) - Only 2 specimens.

Occurrence: Very occasional.

Biological note: Specimens were collected in November on *Citrus*. Ribaut (1936) reported this species on *Aspidium*, and mainly *A. aculeatum* as the host plant.

Eupteryx gyaurdagica Dlab., 1957

Synonymy: *E. gyaurdagicus* Dlabola 1957

General Distribution: Greece (Crete), Turkey.

Distribution in Turkey: Dlabola (1957 a) described it from the material collected from Adana (Gavur dağı). Later on he reported it in 1971 about some more specimens from Bitlis-Baykan, Keçiborlu - İzmir (Afyon) road junction. Recently Giray (1982) reported it in İzmir (Bornova, Menemen, Ödemiş-Bozdağ) and Manisa (Central province-Beydere).

Material examined: Ankara (Çubuk, Karagöl, Kayaş, Lalahan, Hasanoglan, Elmadağ, Eymir gölü), Isparta (Eğridir), İzmir (Bornova), Kozak, Kemalpaşa, Ödemiş-Bozdağ, Manisa (Gölmarmara), Nevşehir

(Nar, Ürgüp), Sinop (Boyabat, Kanlıçay) - Totally 67 specimens.

Occurrence: Somewhat common and sometimes found in small numbers.

Biological note: Specimens were collected starting from late May through the mid-October, on weeds, some on *Mentha* spp., *Trifolium* and a few in vineyards. Dlabola (1957a) has given steppe vegetation as the habitus of the species. Giray (1982) reported it on *Mentha piperita* and *M. longifolia* as an economically important pest.

Eupteryx melissae Curtis, 1837

General Distribution: Algeria, Austria, Belgium, Bulgaria, Czechoslovakia, Denmark, England, France, Germany, Greece, Hungary, Italy (also Sardinia and Sicily), Morocco, Netherlands, Portugal, Romania, Spain, Switzerland, Syria, Tunisia, USSR. (?Caucasus, Ukraine, ?Uzbekistan); (Nearctic and Ethiopian regions). Crete (Dlabola, 1977).

Distribution in Turkey: This is the first record of this species in Turkey.

Material examined: Ankara (Kızılcahamam-Çamkoru), Kastamonu, Sinop (Boyabat, Kanlıçay) - Totally 4 specimens.

Occurrence: Occasionally.

Biological note: Specimens were collected in late August and the beginning of September on weeds. Ribaut (1936) has given *Marrubium* as the host plant and also found on *Ballota nigra* and *Althaea officinalis* Günthart (1974) reported *Phlomis* and Trolle (1974) Labiatae (*Marrubium* and *Ballota*) as the host plants of this species. Vidano and Arzone (1978) stated that it is oligophagous. Polard (1968) stated that the feeding of this species on mesophyll of cultivated sage (*Salvia officinalis*), *Mentha* spp. and *Chrysanthemum* spp. causes chlorotic spots on the leaf.

Eupteryx notata Curtis, 1837

Synonymy: *Typhlocyba wallengreni* Stal, 1853; *T. dimiunta* Kbm., 1868.

General Distribution: Austria, Belgium, Bulgaria, Czechoslovakia, Denmark, England, Finland, France, Germany, Hungary, Ireland, Italy, Mongolia, Netherlands, Norway, Poland, Romania, Sweden, Switzerland, USSR., Yugoslavia. Turkey (Dlabola, 1971).

Distribution in Turkey: Dlabola (l.c.) reported it first time from Bitlis (Tatvan).

The authors have no representative material of this species.

Eupteryx pavlovskii Zachvatkin, 1947.

Synonymy: *E. tochalica* Dlabola, 1974 (Dlabo'a, 1981).

General Distribution: Iran.

Distribution in Turkey: This is the first record of this species in Turkey.

Material examined: Erzincan (Çağlayan)-Only one male specimen.

Occurrence: Very occasional.

Biological note: The specimen was collected at the beginning of July, on weeds. Dlabo'a (1974, 1981) reported it in steppe vegetation with *Artemisia* and *Urtica*.

Eupteryx stachydearum (Hardy, 1850)

Synonymy: *Typhleocyba curtusii* Flor, 1861; *Eupteryx curtusii catenata* Rey, 1894; *E. curtusii confluens* Rey, 1894; *E. stachydearum glechomae* Haupt, 1917; *E. stachydearum continua* Cerutti, 1939.

General Distribution: Algeria, Austria, Belgium, Bulgaria, Czechoslovakia, Cyprus, Denmark, England, Germany, Hungary, Ireland, Italy (also Sardinia and Sicily), Netherlands, Norway, Palestine, Poland, Portugal, Romania, Spain, Sweden, Switzerland, Turkey, USSR., Yugoslavia. Greece (Dlabola, 1977).

Distribution in Turkey: Oshanin (1912) listed it from Turkey. Metcalf (1968) listed it again from Turkey according to the earlier authors such as: Horvath (1905), Bergevin (1934), Ossiannilsson (1935) and Oshanin (1912). Recent Dlabo'a's record (1981) from İzmit (Sapanca gölü) confirmed the presence of this species in Turkey.

Material examined: Ankara (Kayaş), Nevşehir (Nar), Ordu (Kumru), Rize, Trabzon, Van (Beyüzümü)-Totally 26 specimens.

Occurrence: Occasionally, but sometimes found in small numbers.

Biological note: Specimens were collected from mid-July through the mid-September, on Labiatae and *Medicago sativa*. Trolle (1974) reported it on Labiatae (*Stachys silvatica*, *Lamium album*), Nowacka and Adamska-Wilczek (1974) on medicinal plants, especially predominatingly on *Mentha piperita*, *Melissa officinalis*, *Salvia officinalis*. Vidano and Arzone (1978) also reported it on *Mentha officinalis* and *M. piperita*.

Eupteryx taborskyi Dlabola, 1957

General Distribution: Afghanistan, Iran, Turkey.

Distribution in Turkey: Dlabola (1.c.) described it from the material collected from Ankara (Mogan gölü).

Material examined: Ankara (Eymir, Kayaş, Kırıkka'e), Erzincan (Central province - Altıntepe), Konya (Ereğli), Nevşehir (Boyalı, Nar, Ürgüp), Sinop (Kanlıçay), Van (Akköprü), Yozgat (Boğazlıyan) - Totally 26 specimens.

Occurrence: Occasionally.

Biological note: Specimens were collected starting from early July through the early October, on weeds and *Medicago sativa*. Dlabola (1.c.) stated that this species found on steppe vegetations.

Eupteryx tenella (Fallén, 1806)

Synonymy: *Typhlocyba pulchella* H.S., 1834.

General Distribution: Austria, Czechoslovakia, England, Finland, Germany, Hungary, Italy, Netherlands, Norway, Poland, Romania, Switzerland, Turkey, USSR.

Distribution in Turkey: Fahringer (1922) reported it from Bursa (Uludağ 1700 m) and Metcalf (1968) listed it according to him.

The authors have no representative material of the species.

Eupteryx thoulessi Edwards, 1926

General Distribution: Austria, Czechoslovakia, England, France, Germany, Hungary, Italy, Netherlands, Romania, Sweden, Switzerland, Turkey, USSR., Yugoslavia.

Distribution in Turkey: Dlabola (1957 a) collected specimens from Konya (Beyşehir gölü), on the vegetation around the lake.

The authors have no representative material of the species.

Eupteryx urticae (Fabricius, 1803)

Synonymy: *E. tarsalis* Curt., 1837; *Typhlocyba jucunda* Hardy, 1850 (primary homonym); *T. octonotata* Hardy, 1850; *Eupteryx urticae basalis* Rey, 1894. *E. urticae conjuncta* Rey, 1894; *E. urticae leuconema* Osh., 1907; *E. urticae haupti* Wagner, 1935; *E. urticae deficiens* Rib., 1936; *E. urticae glomerata* Rib., 1936.

General Distribution: Albania, Austria, Belgium, Bulgaria, Czechos-

lovakia, Denmark, England, France, Germany, Hungary, Ireland, Italy (also Sardinia), Netherlands, Norway, Poland, Portugal, Romania, Spain, Sweden, Switzerland, USSR., Yugoslavia, Greece, Creta (Dlabola, 1977).

Distribution in Turkey: This is the first record of this species in Turkey.

Material examined: Kayseri (Yeşilhisar), Nevşehir (Boyalı), Rize, Trabzon (Akçaabat), Artvin (Petek), Zonguldak (Çaycuma)-Totally 7 specimens.

Occurrence: Occasionally.

Biological note: Specimens were collected in late May up to the end of August on Labiatae and *Urtica*, which is reported as host plants of species by the earlier authors: Ribaut 1936, Günthart 1974, Trolle 1974, Stilling 1978.

***Eupteryx zelleri* (Kirschbaum, 1868)**

Synonymy: *E. putoni* Leth., 1876; *E. zelleri hipposideros* Horv., 1892; *E. zelleri decussata* Rib., 1936.

General Distribution: Albania, (?) Belgium, Bulgaria, France, Greece (Corfu), Iran, Italy (also Sardinia and Sicily), Morocco, Portugal, Spain, Switzerland, USSR. (Armenia, Georgia), Yugoslavia, Corsica (Dlabola, 1977).

Distribution in Turkey: This is the first record of this species in Turkey.

Material examined: Ordu (Ünye)-Only one male specimen.

Occurrence: Very occasional.

Biological note: The specimen was collected in late August of 1975 on *Helianthus annuus*. Ribaut (1936) reported it on various Labiatae (*Rosmarinus officinalis*, *Lavandula* sp., *Mentha* spp.), Vidano and Arzone (1978) have given *Melissa officinalis*, *Mentha piperita*, *Satureja calamintha* as the host plant of this species.

Özet

Türkiye Auchenorrhyncha türlerinin yayılışı ve önemlerine ait ön listesi. XIV. Familya Cicadellidae: Typhlocybinae: Typhlocybini.
(Kısım II)

Bu faunistik çalışma ile, Türkiye Typhlocybini faunasında **Eupteryx** cinsinin 17 türle temsil edildiği ortaya konmuştur. Bunlardan altı tür: **E. collina** (Flor), **E. filicum** (Newman), **E. melissae** Curt., **E. pavlovskii** Zach., **E. urticae** (F.) ve **E. zelleri** (Kbm.) Türkiye faunası için yeni kayıtlardır. Her bir türün yayılışı, ekonomik önemi ve üzerinde toplandığı bitkiler verilmeye çalışılmıştır.

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