

PAPER DETAILS

TITLE: Türkiye Auchenorrhyncha türlerinin yayilis ve önemlerine ait notlarla ön listesi. 1. Familya Cixidae Spinola

AUTHORS: N LODOS,A KALKANDELEN

PAGES: 0-0

ORIGINAL PDF URL: <https://dergipark.org.tr/tr/download/article-file/64261>

**Preliminary list of Auchenorrhyncha with notes on distribution and
importance of species in Turkey
I. Family Cixiidae Spinola**

N. Lodos *

A. Kalkandelen **

Summary

Introduction

The fauna of Auchenorrhyncha in Turkey is very rich and many striking forms are included. However, Auchenorrhyncha families are well studied and documented in Europe and Palaearctic region, there are few published informations on the species of Eastern Mediterranean countries, particularly that of Turkey. Fahringer (1922), Oshanin (1912), Haupt (1930), Bodenheimer (1958) have listed some Auchenorrhyncha species from Turkey in their publications. Although Zachvatkin (1946), Dlabola (1957a, 1970b, 1971a and b, 1974a, 1977), Linnavuori (1965) and Kalkandelen (1974) have published papers concerning of the Turkish Auchenorrhyncha, there is no comprehensive work dealing with the vertical distribution, importance and abundance of the species within the boundary of Turkey. Therefore, Auchenorrhyncha specimens have been collected during last 10 years by the authors from all over in Turkey.

Many of the recorded species occur only infrequently, but some are economically important, which exist more regularly, sometimes building up large populations and cause considerable damage to the agricultural crops. For instance, species of Delphacidae, *Kelisia ribauti* Wagn. together with *Toya suzezensis* (Mats.), which are just recently become known being in Turkish fauna, caused extensive damage to rice in southeastern part of Turkey. The value of the loss was estimated about 4.500.000.— TL., only in a small area in 1978. Therefore in recent years, attentions have been focused on such economically important species and researches started on their biology, population dynamics and control measures.

* University of Ege, Faculty of Agriculture, Department of Entomology and Agricultural Zoology, Bornova, Izmir, Turkey.

** Plant Protection Research Institute, Plant Protection Museum. Kalaba, Ankara, Turkey.

Alınış (Received): 19.XII.1979

However, the list by no means cannot be accepted complete, yet it has representative of the species practically from all parts of Turkey. Still, it must be remembered that many Auchenorrhyncha species are being to Turkish fauna. Also many of them are still waiting for discovery. Therefore it is likely that this list will be out of date, even before it is published. In spite, it is possible to hope that may serve to its purpose by bringing the list up to level of feasible accuracy at the time of writing.

The authors are thinking to publish the list of Auchenorrhyncha in a series of publications, which each one comprising one or several families together according to contented species number. The list will also include the species given by the other authors from Turkey, even though the authors have no representative specimens. Systematics of genera and species will be followed mostly according to Nast (1972) catalogue. Also, synonymy and distribution on in Palaearctic region are taken from Nast (1972). In case of additional country, besides Nast (1972) distribution in Palaearctic region, it is given at the end with literature citation. Informations on distribution, abundance, and host plants of the species is based mainly on either to collections and observations made by the authors, or from the revelant literature. Specimens have been collected generally by sweeping vegetation, shaking plants on sweeping net. Some specimens have been obtained from light traps are certain places. The list will include the records of the specimens collected up to the end of 1979. The identified specimens are in collections of Department of Entomology and Agricultural Zoology Faculty of Agriculture, University of Ege, Izmir and Plant Protection Research Institute in Ankara.

Majority of the species were identified by Dr. J. Dlabola of Prague, some by Dr. M. S. K. Ghauri of British Museum Nat. Hist., Dr. M. Bouland of Paris and some by the authors. The authors wish to express their grateful and sincere thanks to the taxonomists above for naming the specimens.

In the present paper, the list of species of the family Cixiidae is given. The family Cixiidae is representated in Turkish fauna for the time being, by 28 species belonging to 10 genera, from which 6 of them are new records for Turkey.

Cixius distenguendus Kirshbaum, 1868

Synonymmy : *Cixius intermedius* Scott, 1870; *C. brachycranus* Scott, 1870.

General Distribution : Austria, (?) Bulgaria, Czechoslovakia, England, Finland, France, Germany, Irland, Italy, Netherlands, Norway, Poland, Sweden, Turkey, USSR., Yugoslavia, Cyprus (Georghiou, 1977), Israel (Linnavuori, 1962).

Distribution in Turkey : Dlabola (1957a) recorded this species from Ankara and so far known only from this locality.

The authors have no representative of this species.

Cixius pallipes Fieber, 1876

Synonymy : *Cixius pallipes notaticollis* Rey, 1894; *C. pallipes fumipennis* Horvath, 1897.

General Distribution : Afghanistan, Bulgaria, Cyprus, Czechoslovakia, France, Hungary, Iraq, Israel, Italy, Romania, Turkey, USSR., Yugoslavia.

Distribution in Turkey : This species has been listed from Turkey by Nast (1972). Up to now, the exact locality is not known. The authors are now able to confirm the presence of this species in Turkish fauna.

Material examined : Adıyaman (Kâhta), Afyon (Dinar), Ankara (Çubuk), Artvin (Borçka, Fidanlık), Aydın (Söke-Samsun dağı), Balıkesir (Balya, Dursunbey), Çanakkale (Gökçeada), Diyarbakır, Erzincan (Bahçeliköy), Erzurum (Uzundere), Gaziantep (Bostancık), Giresun (Şebinkarahisar), Gümüşhane (Torul), Hakkari (Yüksekova), İzmir (Ödemiş-Bozdağ), Konya (İçeri Çumra), Kütahya, Mardin (Ömerli, Cizre), Muğla (Marmaris), Ordu (Kumru), Urfa (Ceylanpınar) - Totally 30 specimens have been examined.

Occurrence : Common, but in small numbers.

Biological note : Adults have been collected in fields from the end of April to middle of October. Host plants were mostly various deciduous trees, including fruit trees and shrubs. It is not a serious pest and never been found in large numbers.

Tachycixius bidentifer Dlabola, 1971

Dlabola (1971a) described this species from the specimens collected by W. Wittmer from Gaziantep and Kahramanmaraş. Probably it is a species of endemic distribution. So far it is known only from the mentioned localities above.

The authors have no representative of this species.

Tachycixius desertorum (Fieber, 1876)

General Distribution : Albania, Bulgaria, Cyprus, Czechoslovakia, Greece, Israel, Italy, Romania, Turkey, USSR., Yugoslavia, Hungary (Dlabola, 1970a).

Distribution in Turkey : This species was previously listed from Turkey by Oshanin (1912). Dlabola (1957a) recorded it from Edirne and Ankara (Mogan gölü, Beynam).

Material examined: Adıyaman (Gerger), Diyarbakır, Hakkari (Çukurca), İzmir (Çeşme, Dikili, Sabuncubeli), Manisa (Akkisar), Mardin (Derik), Muğla (Fethiye) - Totally 12 specimens have been examined.

Occurrence : Occasional.

Biological note. Adults have been collected in steppe fields from April to October, but in small numbers. Specimens recorded on *Medicago sativa*, *Pimpinella sativa*, *Salicornia* sp.

General Distribution : Afghanistan, Bulgaria, Cyprus, Czechoslovakia, France, Hungary, Iraq, Israel, Jordan, Lebanon, Libya, Morocco, Pakistan, Palestine, Saudi Arabia, Syria, Turkey, U.S.S.R., Yugoslavia.

Diabla (1974a) described this species from the specimens collected in Ankara (Beyran) and Van (Baskale).

The species is of endemic distribution and so far it is known only from the above localities. The authors have no representative of this species.

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General Distribution : Austria, Belgium, Cyprus, Czechoslovakia, Denmark, England, France, Germany, Greece, Hungary, Ireland, Italy, Netherlands, Norway, Poland, Portugal, Romania, Spain, Sweden, Tunisia, USSR, Yugoslavia, w. China. (Diabola, 1971a).

Distribution in Turkey: *Diabola* (1971a, 1974b) recorded this species from Izmir (Efes) and Ankara (Kızılcahamam).

Material examined : Ankara, Tekirdağ (Sarköy). Totally 2 specimens.

Occurrence: Very occasional

Biological note: The specimens have been collected in May, from *Quercus* sp. According to Diabola (1971a) this species lives on *Quercus* and *Salix*.

Myndus musivus (Germar, 1825)

General Distribution : Afghanistan, Belgium, Bulgaria, Czechoslovakia, France, Germany, Hungary, Italy, Netherlands, Poland, Romania, Switzerland, Turkey, USSR, Yugoslavia.

Distribution in Turkey. It has been previously recorded from Edirne (Dilalov 1957a) and Diyarbakir (Dilalov 1957a) recorded it from Edirne (1957a) and Diyarbakir (1957a).

Material examined : Elazığ, Isparta (Eğridir), Mardin (Musaybin), Muğla, Tunceli, Van (Başkale-Güzelsu, Beyüzümü, Edremit) - Totally 14 specimens.

Occurrence : Common, but in small numbers.

Biological note : Adults have been collected in fields from June to August, on *Fraxinus*, *Ulmus*, *Elaeagnus*, *Pinus* and different species of weeds.

Hemitropis tamaricis (Puton et Lethierry, 1887)

General Distribution : USSR.

Distribution in Turkey : This species constitutes a new record for Turkey.

Material examined : Aydın (Söke-Samsun dağı), Çanakkale (Ayvacık), Çorum (Osmancık), Erzincan (İlç), İzmir (Karşıyaka, Ödemiş, Selçuk), Muğla (Dalaman) - Totally 50 specimens.

Occurrence : Common, but in small numbers.

Biological note : Adults have been caught in June and July on *Tamarix*.

Oliarus angustiformis Linnavuori, 1953

General Distribution : Israel.

Distribution in Turkey : This species constitutes a new record for Turkey.

Material examined : Manisa (Gördes), Urfa - Totally 21 specimens.

Occurrence : Occasional, but sometimes in large numbers.

Biological note : Adults have been collected in July and August on wild pear, *Myrtus communis*. Linnavuori (1962) has given *Platanus orientalis* and *Quercus ithaburensis* as host plants of this species.

Oliarus barajus Dlabola, 1957

General Distribution : Afghanistan, Turkey, USSR.

Distribution in Turkey : Dlabola (1957a) described this species from the specimens collected in Ankara (Baraj and Mogan gölü). Linnavuori (1965) collected it from Adana (Pozantı).

Material examined : Ankara (Çubuk, Eymir gölü), Bursa (İnegöl, Süpürütü), Diyarbakır, Elazığ (Karakoçan, Kinderiz), Erzincan (Bahçelikköy), Erzurum (Tufanç köyü), Gümüşhane (Kelkit), İzmir (Ayrancılar, Kemalpaşa), Kars (İğdır), Malatya, Mardin (İdil, Nusaybin), Muş, Samsun (Bafra), Sinop (Boyabat, Gerze), Siirt, Sivas (Suşehri) - Totally 39 specimens.

Occurrence : Common, but in small numbers.

Biological note : Adults have been collected in fields from June to end of August, on *Triticum* sp. *Secale cereale*, *Tamarix* sp., *Nicotiana tabacum*, *Glycyrrhiza glabra* and various weeds. Dlabola (1957a) stated that this species had been particularly found on *Ariemisia*.

Oliarus gyaurus Dlabola, 1957

Dlabola (1957a) described this species from the specimens collected in Adana (Tapan-Gavurdağı).

It is a species of endemic distribution and so far known only from the above locality.

Oliarus lindbergi Dlabola, 1957

General Distribution : Afghanistan, Cyprus, Iran, Iraq, Israel, Turkey, USSR., Egypt (Dlabola, 1974b)

Distribution in Turkey : Dlabola (1957a) described this species from the specimens collected in Adana (Kozan), and so far known only from this locality in Turkey.

Biological note : Linnavuori (1962) stated that this species could be found in moist biotops.

Oliarus pallens (Germar, 1821)

Synonymy : *O. stenocephalus* Haupt, 1917; *O. suezensis* Mats., 1910; *O. modestus* Haupt, 1927.

General Distribution : Afghanistan, Algeria, (?) Czechoslovakia, Egypt, Iran, Israel, Italy, Jordan, Libya, Portugal, Romania, Spain, Turkey, USSR., Yugoslavia and Ethiopian region.

Distribution in Turkey : This species has been recorded in Konya (Akşehir) by Haupt (1930) and there is no other record up to now.

Biological note : Dlabola (1961, 1971b) and Linnavuori (1962) stated that *Phragmites communis* is the host plant of this species.

Oliarus panzeri Löw, 1883

General Distribution : Algeria, Austria, Belgium, Bulgaria, Czechoslovakia, England, France, Germany, Italy, Poland, Romania, Spain, Tunisia, Turkey, USSR., Yugoslavia.

Distribution in Turkey : Dlabola (1957a) recorded this species from Ankara (Baraj) and it is only known from this locality up to now.

Oliarus torossicus Dlabola, 1957

Dlabola (1957a) described this species from the specimens collected in Adana (Bürücek, Suluhan). It has an endemic distribution and known only from this locality in Turkey for the time being.

Pseudoliarus fuscofasciatus (Melichar, 1902)

Synonymy : *Oliarus fuscofasciatus obliterated* Kuzn., 1937; *P. fuscofasciatus aegyptiacus* Wagner, 1954.

General Distribution : Egypt, Iran, Iraq, Libya, Tunisia, USSR., Ethiopian region (Yemen).

Distribution in Turkey : This species constitutes a new record for Turkey.

Material examined : Mardin (Cizre, Ömerli) - Totally 2 specimens.

Occurrence : Very occasional.

Biological note : Adults have been collected in August on *Prosopis* and *Scrophularia*. Dlabola (1961) and Linnavuori (1962) recorded *Tamarix* and *Platanus orientalis* as host plants of this species respectively.

Pseudoliarus palestinensis Linnavuori, 1962

Synonymy : *Oliarus fuscofasciatus palestinensis* Linnavuori, 1962.

General Distribution : Israel (Linnavuori, 1962).

Distribution in Turkey : This species constitutes a new record for Turkey.

Material examined : Diyarbakır (Silvan), Urfa (Ceylanpınar) - Totally 3 specimens.

Biological note : Adults have been found in field from June to July and collected on *Gossypium* sp. and weeds. Linnavuori (1962) collected the specimens on *Platanus orientalis* and at light trap.

Pentastridius leporinus (Linnaeus, 1761)

Synonymy : *Flata pallidus* Herrich-Schäffer, 1835

General Distribution : Afghanistan, Albania, Algeria, Austria, Belgium, n. China, Cyprus, Czechoslovakia, Denmark, England, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Mongolia, Netherlands, Poland, Romania, Spain, Sweden, Switzerland, Tunisia, Turkey, USSR., Yugoslavia.

Distribution in Turkey : This species had been recorded in Turkey by Fahringer (1922) from Bulgar dağı and Yarbaşı (Amanus region) on *Quercus robur*.

Material examined : Ağrı (Doğubeyazıt), Ankara (Eymir gölü), Aydın (Söke-Samsun dağı), Bitlis (Hizan), Diyarbakır (Deve geçidi), Erzurum (Hasankale, Tufanç köyü), Mardin (İdil), Nevşehir (Avanos, Boyalı, Çardak, Çat, Yüksekli köyü), Siirt (Kurtalan, Tokat, Urfa (Ceylanpınar) - Totally 69 specimens.

Occurrence : Common, sometimes in large numbers.

Biological note : Adults have been found in fields from May to end of September, mostly on *Oryza sativa*, *Triticum* sp., different species of weeds in humid biotops and some attracted to light trap. Dlabola (1961, 1971a) stated that this species could be found on *Eriophorum*, *Scirpus*, *Phragmites communis*.

Pentastira major Kirschbaum, 1868

Synonymy : *Oliarus roridus opalinus* Fieber, 1876; *O. major interjectus* Linn., 1957; *O. major atratus* Dlab., 1958.

General Distribution : Albania, Cyprus, Hungary, Iraq, Israel, Jordan, Romania, Syria, Turkey, USSR. Libanon (Dlabola, 1974a).

Distribution in Turkey : This species has been previously listed by Oshanin (1912). Dlabola (1957a) recorded it from Ankara (Baraj) and Linnavuori (1965) from Ankara, Bolu (Gerede) and Niğde (Ulukışla).

Material examined : Ankara (Etimesgut, Eymir gölü), Çankırı (Şaban-özü), Diyarbakır (Akziyaret, Kağıtlı), Giresun (Şebinkarahisar), Isparta (Keçiborlu), İzmir (Selçuk), Manisa (Kula), Mardin (Silopi), Samsun, Tekirdağ, Tokat (Zile), Urfa (Hilvan, Van (Çatak) - Totally 30 specimens.

Occurrence : Common, but in small numbers.

Biological note : Adults have been collected in field from June to end of August on various plants, such as *Triticum* sp., *Hordeum* sp., *Gossypium* sp., *Astragalus* sp., *Helianthus annuus*, *Sesamum* sp. and weeds. Linnavuori (1962) collected it on *Olea europaea*, *Ficus carica*, *Quercus calliprinos* and *Q. ithaburensis*.

Pentastira rorida Fieber, 1876

Synonymy : *Oliarus roridus maculatus* Fieber, 1876

General Distribution : Afghanistan, Bulgaria, Czechoslovakia, Greece, Romania, Syria, Turkey, USSR.

Distribution in Turkey : This species has been previously listed in Turkey by Fieber (1876). Dlabola (1974b) recorded it from Tokat (Reşadiye).

Material examined : Balıkesir (Dursunbey), Edirne (Keşan), Erzincan (Demirpınar), İzmir (Selçuk), Manisa (Gördes), Mardin - Totally 7 specimens.

Occurrence : Occasional.

Biological note : Adults have been seen in field in June and July and collected on *Pyrus* sp., *Mrytus communis* and some weeds.

Reptalus cuspidatus (Fieber, 1876)

General Distribution : Albania, Czechoslovakia, France, Hungary, Italy, Portugal, Romania, Spain, Turkey, USSR.

Distribution in Turkey : This species has been listed from Turkey by Nart (1972), without specific location. The authors are now able to confirm its presence in Turkish fauna.

Material examined : Adıyaman (Besni), Mardin. Totally 22 specimens.

Occurrence : Occasional.

Biological note : Adults have been seen in field in June and July. Its host plants are not known exactly, but collected from weeds.

***Reptalus melanochaetus* Fieber, 1876**
Synonymy : *Oliarus melanochaetus fasciatus* Kuznezov, 1920.

General Distribution : Bulgaria, Czechoslovakia, France, Hungary, Italy, Romania, Turkey, USSR, Yugoslavia.

Distribution in Turkey : This species has been previously recorded from Ankara (Ayaş) and Ankara, İzmit and Istanbul (Silivri) by Diabola (1957a) and Linnavuori (1965) respectively.

Material examined : Ankara (Çubuk), Artvin (Bakır, Fidanlık, Muğul, Taşköy), Aydın (Söke, Samsunçuk), Bilecik (Gölpazarı), Diyarbakır (Edirne (Keşan), Erzurum (Hasankale), Giresun (Şebinkarahisar), Isparta (Eğirdir), İzmir (Ayrancılar, Selçuk), Kırklareli (Lüleburgaz, Vize), Muğla (Bodrum), Tekirdağ (Hayrabolu). Totally 34 specimens.

Occurrence : Common, but in small numbers.

Biological note : Adults have been found in field from June up to end of August, on various plants such as *Olea europaea*, *Rhododendron*, *Fraxinus*, *Pinus*, *Cupressus*, *Cistus*, *Crataegus*, *Tamarix*, *Prunus amygdalus* and weeds. Many adults are attracted to light trap. It seems that the species prefers *Fraxinus*. Diabola (1957a) recorded *Populus* and *Salix*, Linnavuori (1965) also has given *Salix*, and *Quercus* as host plants of this species.

***Reptalus quinquecostatus* (Dufour, 1833)**

Synonymy : *Oliarus quinquecostatus pallidus* Kuzn., 1937; *O. quinquecostatus flavidus* Kuzn., 1937; *O. quinquecostatus rufocarinatus* Kuzn., 1937.

General Distribution : Austria, Bulgaria, n. China, Czechoslovakia, France, Greece, Hungary, Italy, Romania, Spain, Turkey, USSR, Yugoslavia, W. China (Diabola, 1957a).

Distribution in Turkey : Diabola (1957a) collected this species in Edirne and Ankara (Mogan gölü), Linnavuori (1965) in Bolu (Akçakoca).

Material examined : Ağrı (Doğubeyazıt, Karabulak, Patnos, Taşlıçay, Tutak), Amasya, Artvin (Murgul), Bilecik (Pazaryeri), Çanakkale (Ayvacık), Edirne (İpsala), Elazığ (Kinderiz), Erzurum (Aşkale), Isparta (Atabey), İstanbul (Erenköy), İzmir (Dikili, Ödemiş- Bozdağ), Kars (İğdır), Kırklareli (Lüleburgaz - Türkgeldi), Malatya, Muş, Samsun (Terme), Siirt (Kurtalan), Tekirdağ (Barbaros), Tokat (Niksar), Trabzon, Urfa (Ceylanpınar, Hilvan), Van (Başkale) - Totally 87 specimens.

Occurence : Common, sometimes in large numbers.

Biological note : Adults have been seen in field from June up to the beginning of September and collected on various plants, such as *Prunus cerasus*, *P. domestica*, *P. persica*, *Pyrus malus*, *Crataegus* sp., *Pistacia vera*, *Frazinus* sp., *Platanus* sp., *Salix* sp., *Glycine soja*, *Oryza sativa*, *Sesamum* sp., *Medicago sativa*, *Humulus lupulus*, *Chenopodium* sp. and various weeds.

Hyalesthes luteipes Fieber, 1876

General Distribution : Austria, Bulgaria, France, Greece, Hungary, Israel, Italy, Portugal, Romania, Spain, Tunisia, Turkey, USSR., Yugoslavia.

Distribution in Turkey : This species has been recorded from Ankara (Baraj) by Dlabola (1957a). Linnavuori (1965) also found it in Ankara (Kızılcahamam) and İstanbul (Silivri).

The authors have no representative of this species.

Hyalesthes mavromoustakisi Dlabola, 1959

General Distribution : Cyprus, Greece (Rhodes), Jordan.

Distribution in Turkey : This species constitutes a new record for Turkey.

Material examined : Diyarbakır (in Centrum, Kulp) - Totally 2 specimens.

Occurence : Very occasional.

Biological note : Adults have been found in field in June through July, on *Glycyrrhiza glabra* and light trap.

Hyalesthes mlokosiewiczzi Signoret, 1879

General Distribution : Cyprus, Iran, Turkey, USSR.

Distribution in Turkey : This species had been listed from Turkey by Oshanin (1912). Dlabola (1957a) recorded it in İçel (Alata).

Material examined : Adıyaman (Gölbaşı), Aydın (Kuşadası), Bilecik (Gölpazarı), Burdur (Gölhisar), Diyarbakır (Lice, Silvan), Isparta (Eğridir), İzmir (Bornova, Şemikler), Malatya, Mardin (Ömerli), Muğla (Köyceğiz, Marmaris), Siirt (Şırnak), Tokat (Erbaa), Urfa (Güverti) - Totally 62 specimens.

Occurrence : Common, but in small numbers.

Biological note : Adults have been seen in field in June and July and collected from *Prunus avium*, *P. persica*, *P. armeniaca*, *P. domestica*, *P. amygdalus*, *Pyrus communis*, *Crataegus* sp., *Juglans regia*, *Populus* sp., *Salix* sp., *Quercus* sp., *Liquidamber orientale*, *Elaeagnus* sp., *Tamarix* sp., *Sesamum* sp., various weeds, including umbellifers. This species has been accused to be the vector of tomato big bud virus disease of some species of Solanaceae in Russia (Emelyanov, 1964).

Hyalesthes obsoletus Signoret, 1865

Synonymy : *Liorhinus albolimbatus* Kbm., 1868; *Hyalesthes obletus flavovarius* Kuzn., 1935.

General Distribution : Afghanistan, Albania, Algeria, Austria, Bulgaria, Cyprus, Czechoslovakia, France, Germany, Hungary, Iraq, Israel, Italy, Jordan, Portugal, Romania, Spain, Switzerland, Syria, Tunisia, Turkey, USSR., Yugoslavia.

Distribution in Turkey : Fahringer (1922) reported this species from İstanbul (Polenezköy). Bodenheimer (1958) also reported it from Turkey without giving specific locality. Dlabola (1957a) collected specimens in Ankara (Baraj, Beynam, Mogan gölü) and Adana (Kozan, Misis).

Material examined : Adapazarı, Adıyaman (Kâhta), Ağrı (Patnos), Ankara (Çubuk), Diyarbakır (Çermik, Deve geçidi, Lice, Silvan), Elazığ (Karakoçan), Erzincan (Bahçelik köy, Demirpınar), Erzurum (Hasankale, Uzun-dere), Gaziantep (Bostancık, Nurgana), Giresun (Şebinkarahisar), Hakkari (Uludere), Kars (İğdır - Küllük), Manisa (Gördes), Mardin (Cizre, İdil, Sinop (Kanlıçay), Sivas (Suşehri), Tokat (Erbaa), Trabzon (Derecik, Maçka), Sinop (Kanlıçay), Sivas (Suşehri), Tokat (Erbaa), Trabzon (Derecik, Maçka), Urfa (Ceylanpınar, Harran, Siveerk), Van (Van gölü) - Totally 242 specimens,

Occurrence : Very largely distributed and often abundant.

Biological note : Adults have been collected from June to the end of August on various plants, such as *Quercus* sp., *Elaeagnus* sp., *Olea europaea*, *Pistacia vera*, *Medicago sativa*, *Trifolium* sp., *Oryza sativa*, *Hibiscus esculentus*, *Beta vulgaris rapa*, *Panicum miliaceum*, *Sesamun* sp., *Cirsium* sp., *Mrytus communis*, *Fragaria vesca*, *Capsicum annum*, *Cucumis sativus*, *Gossypium* sp., some weeds. Some specimens were attracted to light traps. Dlabola (1957b, 1971b) stated that this species lives on *Convolvulus* and in cultivated area. It is known to be an effective vector of Lucerne witches broom, potato witches broom and tomato big bud (Stolbur) in European countries (Carter, 1962). It also transmits the stolbur disease

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