

Contributions to the knowledge of the Lixinae (Coleoptera: Curculionidae) from Turkey

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Summary

In this study, the new localities of 60 species belonging to Lixinae subfamily of Curculionidae has been determined. Material from the different parts of Turkey have been collected during the years of 1933-1996. Amongst those *Larinus latus* (Herbst) and *Lixus cardui* Olivier are more widespread compared to the others.

Key words: Coleoptera, Curculionidae, Lixinae, fauna, Turkey

Anahtar sözcükler: Coleoptera, Curculionidae, Lixinae, fauna, Türkiye

Introduction

Curculionidae (Coleoptera) fauna of Turkey is quite rich and the studies of Fairmaire (1866), Gadeau de Kerville (1939), Voss (1962), Hoffman (1964), Lodos (1960), Bajtenov & Lodos (1980), Osella & Lodos (1979 a, b), Korotyaev et al. (2002) and Gültekin (2004) retain great importance.

The first research project on Curculionidae has been realised in the Aegean and Marmara Regions of Turkey during the years of 1972-1976 by Lodos et al. (1978). In this project 348 species belonging to Curculionidae have been determined.

The second and third projects have been realised in the Western Black Sea and Central Anatolia and in the Mediterranean Regions of Turkey during the years of 1979-1982 and 1984-1987, respectively (Lodos et al., 2003). In these projects totally 385 species belonging to Curculionidae have been determined.

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In this paper, material collected from the different parts of Turkey belonging to Lixinae occurring in LEMT (Lodos Entomological Museum, Turkey) have been evaluated and their new locality records have been given.

Material and Methods

Material have been collected by sweeping net, beating tray and other methods (Lodos et al., 1978, 2003) during the field studies of the projects (TUBITAK-TOAG/168, 336, 502) and also during the other excursions to the different parts of Turkey. In addition to these, material collected and presented to the museum by researchers of Plant Protection Research Institutes, amateurs, students have also been included in this study.

The information concerning the species' name, describer, locality and the date of collection, place/plant on which the species were collected and the number of species (in brackets) was also given. Although the name of the plants on which the specimens collected has been given, this doesn't necessarily mean that they are the host of the species.

Material have been determined by the Late Prof. Dr. N. Lodos, Dr. J. Fremuth, Dr. R. E. Warner, Dr. R. T. Thompson, Dr. H. Perrin. In this paper, classification and nomenclature of Curculionids suggested by Alonso-Zarazaga & Lyal (1999) and Colonnelli (2003) have been followed. The recorded insect genera have been listed in phylogenetic order and species sorted in alphabetical order.

Results

In this study, 60 species of 13 genera belonging to Lixinae have been reported.

Lixinae

Conorhynchus Motschulsky

Conorhynchus nigrivittis (Pallas, 1781)

Material studied: **Amasya** (Central province), 02.VI.1954, (1). **Balıkesir** (Susurluk), 28.VI.1966, *Beta vulgaris* var. *rapa*, (6). **Burdur** (Central province), 06.VI.1962, (7). **İzmir** (Menemen), 20.V.1969, weeds, (1). Totally 15 specimens.

Pachycerus Schönherr

Pachycerus cordiger (Germar, 1819)

Material studied: **Balıkesir** (İvrindi), 26.VII.1978, (1). **Bursa** (Karacabey), 10.VI.1988, *Lycopersicum esculentum* Miller, (1). **Erzurum** (Central province), 05.VII.1973, (1). **İzmir** (Menemen), 20.V.1969, weeds, (2); (Selçuk), 29.VI.1971, *Citrullus vulgaris* Schrad., (1). **Manisa** (Gördes), 26.VII.1977, *Echium* sp., (2); (Salihli), 16.V.1962, (1). Totally 9 specimens.

Cleonis Dejean

Cleonis piger (Scopoli, 1763)

Material studied: **Ankara** (Esenboğa), 17.VII.1962, (1). **Artvin** (Karagöl), 23.V.1967, (1). **Erzurum** (Central province), 02.VI.1969, (1); 03.VI.1969, (3). **İzmir** (Narlıdere), 18.VII.1971, Compositous plants, (7); (Selçuk), 03.V.1970, **Cirsium** sp., (2). Totally 15 specimens.

Coniocleonus Motschulsky

Coniocleonus nigrosuturatus (Goeze, 1777)

Material studied: **Adana** (Central province), May 1970, (2). **Ankara** (Central province), 24.IV.1970, (7). **Aydın** (Karacasu), 25.IV.1968, **Anthemis** sp., (1). **Diyarbakır** (Central province), 12.VIII.1966, (1). **İzmir** (Bayındır), 30.V.1962, (2); (Bornova), 16.VI.1980, weeds, (1). **Kahramanmaraş** (Central province), 07.VI.1973, weeds, (1). Totally 15 specimens.

Chromoderus Motschulsky

Chromoderus fasciatus (O. F. Müller, 1776)

Material studied: **İstanbul** (Erenköy), 18.VIII.1981, weeds, (1). **İzmir** (Central province), 03.IX.1961, (1); (Menemen), 16.VII.1970, **Chenopodium** sp., (1). **Samsun** (Central province), 09.IX.1975, (1). **Uşak** (Central province), 05.V.1933, (1). Totally 5 specimens.

Bothynoderes Schönherr

Bothynoderes carinatus (Zoubkoff, 1829)

Material studied: **Ankara** (Kalecik), 04.V.1978, weeds, (1). **Burdur** (Central province), 06.VI.1962, (10). **Hatay** (İskenderun), 17.VII.1962, (1). Totally 12 specimens.

Bothynoderes carinicornis Gyllenhal, 1834

Material studied: **Burdur** (Central province), 06.VI.1962, (1). Totally 1 specimen.

Bothynoderes punctiventris (Germar, 1794)

Material studied: **Balıkesir** (Bandırma), 30.VI.1966, **Beta vulgaris** var. **rapa** Dumort, (1). **Burdur** (Central province), 06.VI.1962, (4). **Bursa** (Central province), 26.IV.1988, weeds, (1). **Iğdır** (Central province), 06.VIII.1977, (1). **İzmir** (Bozdağ), 24.VI.1977, weeds, (1); (Menemen), June 1970, (1); (Ödemiş), 06.IV.1968, (1). **Uşak** (Central province), 11.V.1964, (1). Totally 11 specimens.

Rhinocyllus Germar

Rhinocyllus conicus (Frölich, 1792)

Material studied: **Adıyaman** (Central province), 28.VI.1972, (2). **Denizli** (Pamukkale), 27.IV.1969, weeds, (1). **Diyarbakır** (Çüngüş), 14.VI.1972, weeds, (4). **Elazığ** (Kovancı), 13.VI.1972, **Rosa** sp., (1). **Gaziantep** (Oğuzeli), 08.VI.1972, **Populus** sp., (1). **Hatay** (Samandağ), 02.VII.1973, weeds, (2). **Isparta** (Eğirdir), 08.VII.1962, (1); weeds, (1). **İzmir** (Central province), 03.VII.1961, (3); (Bornova), 22.IV.1962, **Sinapis** sp., (1); 20.IV.1977, (1); (Gümüldür), 28.III.1978, **Cirsium** sp., (10); (Selçuk), 29.VI.1971, **Prunus armeniaca**, (3). **Kastamonu** (Taşköprü), 05.VI.1960, **Sinapis** sp., (1). **Mardin** (Central province), 17.VI.1975, **Cirsium** sp., (2); (Nusaybin), 25.V.1972, (1). **Muğla** (Seki), 09.VI.1973, weeds, (2). Totally 37 specimens.

Bangasternus Gozis

Bangasternus fausti (Reitter, 1890)

Material studied: **Şırnak** (Uludere), 15.VI.1976, weeds, (1). Totally 1 specimen.

Bangasternus orientalis (Capiomont, 1873)

Material studied: **Aydın** (Kapalıkuyu), 20.V.1970, weeds, (1); (Samsun Mountain), 02.VII.1973, weeds, (1). **Batman** (Beşiri), 11.VI.1976, weeds, (1). **Bilecik** (Central province), 28.V.1971, weeds, (1). **Bitlis** (Hizan), 09.VI.1975, (1); (Mutki), 08.VI.1975, weeds, (1). **Diyarbakır** (Çüngüş), 17.VI.1972, weeds, (6); (Silvan), 16.VI.1972, weeds, (1). **Elazığ** (Central province), 13.VI.1972, weeds, (1). **Gaziantep** (Oğuzeli), 08.VI.1972, **Prunus domestica**, (1). **İzmir** (Bornova), 14.V.1958, **Cirsium** sp., (1); 17.V.1962, weeds, (1); May 1962, (2); (Kemalpaşa), 23.V.1970, **Vicia faba**, (1). **Kayseri** (Yılanlıdağ), 11.VIII.1979, weeds, (1); 21.VI.1980, **Cirsium** sp., (3). **Mardin** (Central province), 03.VI.1976, weeds, (1); (Ömerli), 12.VI.1972, **Platanus** sp., (1). **Mersin** (Silifke), 03.VI.1972, weeds, (2). **Trabzon** (Akçaabat), 09.VI.1973, weeds, (2). Totally 30 specimens.

Bangasternus planifrons (Brullè, 1832)

Material studied: **Ankara** (Central province), July 1989, **Carthamus tinctorius** L., (3). **Antalya** (Manavgat), 29.VI.1980, weeds, (1). **Bitlis** (Mutki), 09.VI.1975, weeds, (1). **Diyarbakır** (Çüngüş), 14.VI.1972, weeds, (1). **Isparta** (Eğirdir), 09.VIII.1975, **Fraxinus** sp., (1). **İzmir** (Central province), 03.VI.1960, **Carthamus tinctorius**, (2); (Bornova), 22.IV.1962, **Sinapis** sp., (1); (Selçuk), 29.VI.1971, **Prunus armeniaca**, (1). **Manisa** (Kula), 16.VI.1995, weeds, (1). **Malatya** (Suçatı), 08.VI.1976, weeds, (1). **Tunceli** (Central province), 07.VI.1972, (4). Totally 17 specimens.

Microlarinus Hochhuth

Microlarinus lareynii (Jacquelin du Val, 1852)

Material studied: **Aydın** (Central province), 1970, ***Tribulus terrestris*** L., (7). **İzmir** (Menemen), 03.VII.1970, ***Tribulus terrestris***, (7); (Selçuk), 29.VI.1971, ***Tribulus terrestris***, (2); (Torbalı), 07.VIII.1970, ***Tribulus terrestris***, (8). **Muğla** (Datça), 14.VII.1970, ***Tribulus terrestris***, (9). Totally 33 specimens.

Eustenopus Petri

Eustenopus villosus (Boheman, 1843)

Material studied: **Kayseri** (Yılanlıdağ), 29.VI.1980, weeds, (1). Totally 1 specimen.

Larinus Dejean

Larinus aeruginosus Hochhuth, 1851

Material studied: **Şanlıurfa** (Central province), 14.VIII.1977, ***Centaurea*** sp., (1). Totally 1 specimen.

Larinus brenskei Faust, 1900

Material studied: **Diyarbakır** (Central province), 07.VIII.1965, (3); 06.V.1970, Cucurbitaceae, (1); 07.V.1970, Cruciferous plants, (4); 25.VI.1972, (6); 03.VII.1972, (2); (Kağıtlı), 25.VI.1972, (1); (Silvan), 04.VI.1972, (1). **Edirne** (İpsala), 23.VII.1973, weeds, (1). **Hatay** (Soğukoluk), 30.V.1985, ***Cirsium*** sp., (1). **İzmir** (Central province), 03.VI.1969, (1); 05.VI.1969, (1). **Siirt** (Kurtalan), 16.VI.1972, (1). Totally 23 specimens.

Larinus brevis (Herbst, 1795)

Material studied: **İzmir** (Bornova), 10.VII.1961, (1). Totally 1 specimen.

Larinus carinirostris Gyllenhal, 1836

Material studied: **İzmir** (Central province), 05.VI.1961, weeds, (5); (Bergama), 14.V.1971, weeds, (2); (Kınık), 10.VI.1969, (1). Totally 8 specimens.

Larinus centaureae (Olivier, 1807)

Material studied: **Gaziantep** (Central province), 08.VI.1973, weeds, (2). **Hakkari** (Central province), 23.V.1966, (1); 10.VIII.1972, (1). **İzmir** (Central province), 05.VI.1969, (1); (Bornova), 08.VII.1958, (1); (Kınık-Poyracık), 16.V.1969, weeds, (1); (Narlıdere), 25.VII.1971, ***Cirsium*** sp., (1). **Malatya** (Central province), 09.VI.1976, ***Onopordum*** sp., (4). **Şırnak** (Beytülşebab), 15.VI.1976, ***Centaurea*** sp., (8). Totally 20 specimens.

Larinus curtus Hochhuth, 1851

Material studied: **Adana** (Tufanbeyli), 12.VII.1981, **Cirsium** sp., (1). **Aydın** (Samsun Mountain), 02.VII.1973, weeds, (1). **Bingöl** (Solhan), 06.VIII.1975, **Oryza sativa** L., (2). **İzmir** (Bornova), 13.IV.1961, (3). **Sivas** (Suşehri), 12.VII.1978, weeds, (1). Totally 8 specimens.

Larinus cynarae (Fabricius, 1787)

Material studied: **İzmir** (Mordoğan), 13.VII.1971, on the ground, (2). Totally 2 specimens.

Larinus filiformis Petri, 1907

Material studied: **Bitlis** (Çukur), 14.VII.1972, weeds, (1). Totally 1 specimen.

Larinus flavescens Germar, 1824

Material studied: **Iğdır** (Central province), 14.VI.1980, (1). **İzmir** (Bornova), 06.VI.1972, **Centaurea** sp., (1). Totally 2 specimens.

Larinus grisescens Gyllenhal, 1836

Material studied: **İzmir** (Central province), 05.VI.1969, (2). Totally 2 specimens.

Larinus jaceae (Fabricius, 1775)

Material studied: **Ankara** (Eymir), 31.VII.1968, (1); (Lalahan), 27.V.1968, (1). **Erzurum** (Central province), 15.VII.1982, weeds, (1). **Gaziantep** (Araban), 08.VI.1976, weeds, (1). **Gümüşhane** (Central province), 11.VII.1978, weeds, (2). **Isparta** (Central province), 07.VI.1962, (4). Totally 10 specimens.

Larinus latus (Herbst, 1784)

Material studied: **Adıyaman** (Kırkgöz), 28.IV.1972, **Quercus** sp., (1). **Amasya** (Central province), 03.VII.1978, (1). **Aydın** (Kuşadası), 08.VI.1958, **Cirsium** sp., (2); (Samsun Mountain), 02.VII.1973, **Centaurea** sp., (6). **Bitlis** (Central province), 14.VII.1972, weeds, (9); 12.VI.1973, under stone, (4); (Hizan), 09.VI.1975, **Cirsium** sp., (2). **Diyarbakır** (Karacadağ), 13.IV.1961, (3). **Erzurum** (Central province), 23.IX.1965, (1); 04.VI.1970, (13); 09.VIII.1977, weeds, (3). **Hatay** (Central province), 07.VI.1973, weeds, (3). **Isparta** (Eğirdir), 10.VI.1973, weeds, (3); 08.VII.1975, weeds, (1); (Keçiborlu), 10.VII.1963, Compositous plants, (6). **İzmir** (Bornova), 04.VII.1964, (1); (Bozdağ), 06.VI.1969, **Centaurea** sp., (3); **Verbascum** sp., (1); (Kinik), 23.VII.1977, weeds, (8). **Kahramanmaraş** (Central province), 07.VI.1973, weeds, (4); (Afşin), 06.VI.1973, weeds, (1). **Kayseri** (Yılanlıdağ), 28.VI.1980, **Onopordum** sp., (31). **Mardin** (Midyat), 16.VI.1976, **Onopordum** sp., (2). **Siirt** (Central province), 11.VI.1976, weeds, (2); 12.VI.1976, weeds, (1); (Baykam), 08.VI.1996, **Quercus** sp., (1); (Şirvan), 08.V.1976, (2). Totally 115 specimens.

Larinus minutus Gyllenhal, 1836

Material studied: Ağrı (Central province-Çukurçayır), 02.VI.1974, weeds, (2). Antalya (Central province), 06.VI.1972, *Prunus domestica*, (1). Adıyaman (Kahta), 07.VI.1976, weeds, (2). Bitlis (Çukur), 14.VII.1972, weeds, (2); (Hizan), 09.VI.1975, weeds, (1); (Mutki), 08.VI.1975, weeds, (17). Çanakkale, (Gökçeada), 26.V.1978, *Cirsium* sp., (1). Diyarbakır (Central province), 19.VI.1972, weeds, (1); 11.VI.1976, weeds, (1). Hakkari (Central province), 11.VI.1975, weeds, (1); (Çukurca), 11.VI.1975, *Medicago sativa*, (1); 14.VI.1976, weeds, (1); (Şemdinli), 12.VI.1975, *Cirsium* sp., (11); *Quercus* sp., (5). Isparta (Eğirdir), 08.VII.1962, (1). İzmir (Bornova), 13.VIII.1961, (2); 22.IV.1962, (1); *Sinapis* sp., (2); 14.V.1963, *Onobrychis sativa* Lam., (1); 09.VI.1971, *Carthamus tinctorius*, (2); 17.VI.1971, (2); 18.VIII.1971, (1); (Menemen-Emiralem), 28.V.1970, *Cynara scolymus* Pers., (1); (Kozak), 21.VI.1969, weeds, (2). Kahramanmaraş (Central province), 07.VI.1973, weeds, (1). Malatya (Hekimhan), 21.VI.1975, (1). Mardin (Savur), 13.VI.1973, (2). Mardin (Sultanköy), 17.VI.1975, *Cirsium* sp., (2). Siirt (Sinan), 09.IX.1977, (1). Sivas (Suşehri), 12.VII.1978, weeds, (4). Şanlıurfa (Siverek), 07.VI.1976, *Lens esculenta*, (1). Van (Central province), 08.VIII.1972, (3). Totally 77 specimens.

Larinus obtusus Gyllenhal, 1836

Material studied: Balıkesir (Bigadiç), 08.VI.1970, weeds, (1). İzmir (Bornova), 13.VII.1961, (1). Totally 2 specimens.

Larinus onopordi (Fabricius, 1787)

Material studied: Adana (Central province), 15.VI.1947, (1); May 1970, (1). Adıyaman (Besni), 08.VI.1976, weeds, (1). Bingöl (Central province), 15.VII.1972, Compositous plants, (9); *Cirsium* sp., (1). Bitlis (Central province), 14.VII.1972, weeds, (9). Elazığ (Central province), 07.VIII.1972, (1); 15.VI.1978, *Cirsium* sp., (3). Gaziantep (Central province), 09.VI.1972, *Echinops* sp., (2). Hakkari (Çukurca), 11.VI.1975, *Cirsium* sp., (3); (Şemdinli), 12.VI.1975, *Cirsium* sp., (1). Hatay (Kırkhan), 23.IV.1986, *Cirsium* sp., (1); (Samandağı), 27.IV.1986, *Cirsium* sp., (1). İzmir (Kemalpaşa), 20.V.1987, weeds, (3). Manisa (Central province), 12.IV.1962, (2). Mardin (Central province), 17.VI.1975, *Cirsium* sp., (4); 14.VI.1976, weeds, (1). Şanlıurfa (Central province), 15.VI.1972, weeds, (1). Totally 45 specimens.

Larinus orientalis Capiomont, 1874

Material studied: İzmir (Kemalpaşa), 09.IV.1962, (1). Malatya (Central province), 06.VI.1972, (1); 09.VI.1976, *Onopordum* sp., (1). Mardin (Midyat), 12.VI.1974, (1). Totally 4 specimens.

Larinus ovaliformis Capiomont, 1874

Material studied: **Diyarbakır** (Central province), 07.V.1970, Cruciferous plants, (1). Totally 1 specimen.

Larinus planus (Fabricius, 1792)

Material studied: **Artvin** (Central province), 12.VI.1973, weeds, (1). **Samsun** (Kavak), 04.VII.1978, **Euphorbia** sp., (1). Totally 2 specimens.

Larinus rudicollis Petri, 1907

Material studied: **Gaziantep** (Central province), 09.VI.1972, **Echinops** sp., (4). **Gaziantep** (Oğuzeli), 08.VI.1972, **Medicago sativa**, (1). **Hatay** (Kırıkhan), 26.IV.1988, **Cirsium** sp. (1); (Samandağı), 27.IV.1988, **Cirsium** sp., (6). Totally 12 specimens.

Larinus rusticanus Gyllenhal, 1836

Material studied: **Diyarbakır** (Central province), 20.V.1970, **Triticum sativa** L., (1). **İzmir** (Central province), 05.VI.1969, (1); (Bornova), 10.VI.1961, (2). Totally 4 specimens.

Larinus sturnus (Schaller, 1878)

Material studied: **Artvin** (Central province), 16.VII.1979, **Medicago sativa**, (1); (Borçka), 27.VIII.1971, **Centaurea** sp., (1); (Murgul-Başköy), 27.VIII.1970, **Centaurea** sp., (1). **Isparta** (Central province), 06.VI.1962, (1). **Kars** (İğdir), 05.VII.1979, (1). **Konya** (Akşehir), 05.V.1962, (1). Totally 6 specimens.

Larinus syriacus Gyllenhal, 1836

Material studied: **Antalya** (Manavgat), 29.VI.1980, weeds, (1). **Denizli** (Central province), 25.VI.1964, (1). **İzmir** (Central province), 03.IX.1961, (1). **Manisa** (Gölmarmara), 31.V.1978, weeds, (1). Totally 4 specimens.

Larinus turbinatus Gyllenhal, 1836

Material studied: **Artvin** (Borçka), 27.VIII.1971, **Centaurea** sp., (2). **Balıkesir** (Susurluk), 09.VI.1970, **Centaurea** sp., (1). **Bayburt** (Central province), 14.VII.1982, weeds, (1). **Bingöl** (Central province), 15.VI.1975, **Cirsium** sp., (1). **Bitlis** (Hizan), 09.V.1975, **Cirsium** sp., (1). **Diyarbakır** (Central province), 07.V.1970, Cruciferous plants, (1). **Hakkari** (Çukurca), 11.VI.1975, **Cirsium** sp., (1). **İğdir** (Central province), 25.VI.1971, (1). **Mardin** (Central province), 14.VI.1976, weeds, (4). **Van** (Çaldıran), 08.VIII.1972, (1). Totally 14 specimens.

Larinus ursus (Fabricius, 1792)

Material studied: **Muğla** (Datça), 08.V.1972, (1). Totally 1 specimen.

Lixus Fabricius

Lixus anguinus (Linnaeus, 1767)

Material studied: **Antalya** (Aksu), 25.IV.1969, weeds, (1). **Kahramanmaraş** (Elbistan), 28.IV.1979, weeds, (1). Totally 2 specimens.

Lixus angustatus (Fabricius, 1775)

Material studied: **Amasya** (Central province), 20.IX.1978, **Prunus persica** L. Batsch., (1). **Aydın** (Central province), 20.V.1970, weeds, (1). **Balıkesir** (Bandırma-Edincik), 10.VI.1970, **Olea europaea**, (2); (Dursunbey), 16.IV.1968, **Vicia faba**, (1). **Bingöl** (Central province), 15.VI.1975, **Cirsium** sp., (1). **Bursa** (İznik), 01.VI.1971, **Centaurea** sp., (2). **Çanakkale** (Seddülbahir), 31.V.1971, **Malva** sp., (1). **Diyarbakır** (Central province), 24.VII.1964, (2). **Edirne** (İpsala), 27.VI.1972, **Prunus domestica**, (1). **Hakkari** (Yüksekova), 11.VI.1975, Apiaceae, (4). **İzmir** (Bornova), 17.IV.1962, **Vicia faba**, (2); 10.IV.1964, weeds, (2); 30.III.1977, weeds, (1); 26.IV.1977, (1); 30.V.1977, weeds, (1); 10.VI.1977, weeds, (3); 21.IV.1978, weeds, (1); 08.V.1978, weeds, (1); 18.V.1978, fruit orchards, (1); 27.V.1978, Cruciferous plants, (2); (Selçuk), 29.VI.1971, **Prunus amygdali**, (1); (Torbalı), 30.IV.1978, weeds, (3). **Kayseri** (Central province), 15.VIII.1976, (1). **Muğla** (Ula), 20.IV.1978, **Vicia faba**, (6); (Seki), 09.VI.1973, weeds, (1). **Osmaniye** (Central province), 02.VI.1972, **Triticum sativa**, (1). **Samsun** (Central province), 26.V.1950, (4); (04.IX.1973), weeds, (1). **Siirt** (Central province), 17.VI.1976, weeds, (1). **Şırnak** (Beytüşebab), 15.VI.1976, weeds, (1). Totally 51 specimens.

Lixus ascanii (Linnaeus, 1767)

Material studied: **Diyarbakır** (Central province), 03.VII.1972, (1). **Kars** (Central province), 04.VIII.1979, **Juniperus** sp., (1). **Kayseri** (Yılanlıdağ), 11.VIII.1979, **Prunus armeniaca**, (1). **Kocaeli** (İzmit), 03.VI.1971, weeds, (2). Totally 5 specimens.

Lixus bardanae (Fabricius, 1787)

Material studied: **İzmir** (Bergama), 14.V.1971, weeds, (1). **Van** (Muradiye), 08.VIII.1972, (1); (Özalp), 09.VIII.1972, (1). Totally 3 specimens.

Lixus cardui Olivier, 1807

Material studied: **Aksaray** (Central province), 29.V.1973, **Centaurea** sp., (2). **Amasya** (Merzifon), 06.VI.1973, weeds, (4). **Antalya** (Central province), 17.V.1980, **Centaurea** sp., (6); 26.VI.1980, **Solanum esculentum** L., (2); (Gündoğmuş), 27.VI.1980, **Pyrus elaeagrifolia**, (1); (Seki), 09.VI.1973, weeds, (1). **Aydın** (Samsun Mountain), 02.VII.1973, **Centaurea** sp., (1); weeds, (1). **Balıkesir** (Susurluk), 05.VI.1970, **Centaurea** sp., (2); 09.VI.1970, **Centaurea** sp., (1). **Bilecik** (Central province), 25.V.1971, **Centaurea** sp., (8); 28.V.1971,

Centaurea sp., (3), weeds, (1); (Gölpazarı), 28.V.1971, **Centaurea** sp., (8); (Pazaryeri), 25.V.1971, **Centaurea** sp., (4), **Cirsium** sp., (7). **Bingöl** (Central province), 15.VII.1972, (1). **Bitlis** (Hizan), 09.VI.1975, **Cirsium** sp., (1). **Çorum** (Central province), 02.VI.1987, weeds, (1). **Diyarbakır** (Central province), 07.VIII.1965, (1). **Erzurum** (Central province), 15.VI.1973, weeds, (1); 09.VIII.1977, weeds, (3). **Hakkari** (Çukurca), 11.VI.1975, **Cirsium** sp., (2). **Iğdır** (Central province), 25.VI.1971, (3). **Isparta** (Eğirdir), 10.VI.1973, weeds. (1); (Keçiborlu), 10.VII.1963, Compositous plants, (2). **İzmir** (Central province), 07.VI.1961, (1); (Bergama), 14.V.1971, weeds, (3); (Bornova), 06.V.1962, weeds, (2); 31.V.1962, (1); (Çatalkaya), 19.V.1971, **Cirsium** sp., (4); (Karaburun), 26.VIII.1987, **Cynara scolymus**, (4); (Karşıyaka), 16.V.1962, (2); (Menemen), 20.V.1969, weeds, (1); (Zeytindağ), 14.V.1971, **Centaurea** sp. (2). **Bursa** (İzmit), 01.VI.1971, **Centaurea** sp., (3). **Kars** (Central province), 13.VI.1973, weeds, (2). **Kastamonu** (Central province), 03.VI.1973, (3). **Kütahya** (Central province), 22.V.1971, **Verbascum** sp., (4); (Domaniç), 21.V.1971, **Centaurea** sp., (14); (Tavşanlı), 19.V.1971, **Centaurea** sp., (23). **Malatya** (Central province), 29.VI.1972, (1). **Mardin** (Central province), 17.VI.1975., **Cirsium** sp., (1); (Ömerli), 12.VI.1972, **Crataegus** sp., (2). **Niğde** (Central province), 31.V.1973, **Planatus** sp., (1). **Van** (Gevaş), 14.VII.1972, weeds, (1). Totally 143 specimens.

Lixus circumcinctus Boheman, 1836

Material studied: **Mardin** (Central province), 26.IV.1972, (1). Totally 1 specimen.

Lixus cylindrus (Fabricius, 1781)

Material studied: **Adana** (Ceyhan), 09.XI.1978, **Prunus persica**, (3). Totally 3 specimens.

Lixus elegantulus Boheman, 1843

Material studied: **Ağrı** (Central province), July 1974, light trap, (1); (Doğubeyazıt), 12.VII.1974, **Thymus** sp., (1). **Ankara** (Central province), 16.VI.1964, Cruciferous plants, (3). **Antalya** (Kumluca), 20.V.1988, **Onopordum** sp., (1); (Manavgat), 19.V.1972, light trap, (1). **Bilecik** (Pazaryeri), 25.V.1971, **Cirsium** sp., (3); **Humulus lupulus** L., (2). **Diyarbakır** (Central province), 20.V.1970, **Triticum sativa**, (1); 19.VI.1972, weeds, (1); (Çermik), 14.VI.1972, weeds, (1). **Elazığ** (Central province), 13.VI.1972, weeds, (1). **Erzurum** (Central province), 18.VI.1966, (2); (Hasankale), 10.VI.1981, **Beta vulgaris** L., (2). **Gaziantep** (Central province), 08.VI.1972, **Petroselinum sativum** Hoffm, (1). **Hakkari** (Şemdinli), 12.VI.1975, **Astragalus** sp., (1). **Iğdır** (Central province), 25.VI.1971, (2). **İzmir** (Bergama), 14.V.1971, weeds, (3); (Bornova), 16.V.1967, (1); 20.IV.1977, (1); (Bozdağ), 20.V.1970, Boraginaceae, (1); (Kinik-Poyracık), 14.V.1971, weeds, (1); (Pınarbaşı), 03.VI.1970, **Paliurus orientalis** Hemsl., (1).

Kars (Central province), 13.VI.1973, weeds, (1). **Kayseri** (Cırgalan), 01.VI.1973, weeds, (1); (Yılanlıdağı), 11.VIII.1979, **Prunus armeniaca**, (1). **Kütahya** (Gediz), 20.V.1971, **Malus sylvestris mitis** (Wallr.), (1). **Malatya** (Central province), 08.VI.1976, **Prunus armeniaca**, (1). **Mardin** (Ömerli), 13.VI.1972, **Echinops** sp., (4). **Nevşehir** (Central province), 03.X.1969, **Vitis vinifera** L., (1). **Van** (Central province), 14.VII.1972, weeds, (1); (Gevaş), 14.VII.1972, weeds, (3). Totally 46 specimens.

Lixus furcatus Olivier, 1807

Material studied: **Diyarbakır** (Central province), 25.V.1964, (1). Totally 1 specimen.

Lixus incanescens Boheman, 1836

Material studied: **Ağrı** (Ağrı Mountain), 06.VIII.1977, (1). **Iğdır** (Central province), 06.VIII.1977, weeds, (2). **Mardin** (Nusaybin), 13.VIII.1977, **Punica granatum** L., (1). Totally 4 specimens.

Lixus iridis Olivier, 1807

Material studied: **Ankara** (Karagöl), 03.V.1979, weeds, (1). Totally 1 specimen.

Lixus junci Boheman, 1836

Material studied: **Aydın** (Kuşadası), 29.IV.1970, **Hordeum vulgare** L., (1). **Balıkesir** (Ayvalık-Sarmısaklı), 17.VI.1981, **Brassica napus** var. **oleifera** DC., (1); (Susurluk), 09.VI.1970, **Beta vulgaris** var. **rapa**, (4). **Diyarbakır** (Karacadağ 1870 m), 14.IV.1983, on snow, (2). **İzmir** (Bornova), 26.VI.1968, **Raphanus sativus** L., (1); 28.IV.1970, sweeping net, (2); 05.V.1970, **Beta vulgaris** var. **rapa**, (1). **Muğla** (Seki), 09.VI.1973, weeds, (1). **Osmaniye** (Cevdetiye), 10.V.1988, sweeping net, (2). Totally 15 specimens.

Lixus myagri Olivier, 1807

Material studied: **Samsun** (Central province), 03.V.1971, **Raphanus sativus**, (1). **Zonguldak** (Ereğli), 01.IX.1973, **Brassica oleracea** L., (1). Totally 2 specimens.

Lixus obesus Petri, 1904

Material studied: **Bitlis** (Tatvan), 09.VIII.1977, **Crataegus** sp., (3). **Diyarbakır** (Karacadağ), 04.IV.1976, (1). **Kars** (Sarıkamış), 15.VII.1982, **Verbascum** sp., (1). Totally 5 specimens.

Lixus punctiventris Boheman, 1836

Material studied: **Denizli** (Central province), 09.V.1984, **Lens esculenta**, (1). Totally 1 specimen.

Lixus rubicundus Zoubkoff, 1833

Material studied: **Antalya** (Central province), 26.VI.1980, ***Solanum esculentum***, (3). **Artvin** (Central province), 12.VI.1973, weeds, (1). **Aydın** (Samsun Mountain), 02.VII.1973, ***Centaurea*** sp., (1). **Bilecik** (Gölpazarı), 28.V.1971, weeds, (1). **Erzurum** (Central province), 15.VI.1973, weeds, (1). **İzmir** (Menemen), 12.VI.1969, ***Chenopodium*** sp., (1). Totally 8 specimens.

Lixus scabricollis Boheman, 1843

Material studied: **Erzurum** (Aşkale), 26.VII.1989, (1). **Sakarya** (Adapazarı), October 1978, (3). Totally 4 specimens.

Lixus scolapax Boheman, 1836

Material studied: **Diyarbakır**(Central province), 10.VI.1972, (1). **Gaziantep** (Central province), 09.VI.1972, ***Echinops*** sp., (1). **İzmir** (Bornova), 11.V.1964, ***Medicago sativa***, (1); 30.IV.1971, ***Cynara scolymus***, (1); (Menemen), 28.V.1970, ***Cynara scolymus***, (1). **Kars** (Central province), 13.VI.1973, weeds, (1). **Mardin** (Central province), 14.VI.1976, weeds, (1); (Derik), 05.VI.1976, weeds, (1); (Midyat), 16.VI.1976, ***Onopordum*** sp., (1). **Muğla** (Central province), 21/26.V.1962, (1). **Samsun** (Gelemen), 29.VII.1964, (2). **Siirt** (Central province), 11.VI.1976, weeds, (1). **Şanlıurfa** (Siverek), 12.VI.1976, (4). **Van** (Gevaş), 14.VII.1972, weeds, (1). Totally 18 specimens.

Lixus speciosus Miller, 1861

Material studied: **Adana** (Central province), June 1971, ***Carthamus tinctorius***, (1). **İzmir** (Central province), 24.IV.1982, (1). Totally 2 specimens.

Lixus subtilis Boheman, 1836

Material studied: **Ağrı** (Hamur), 10.VIII.1974, weeds, (1). **Aksaray** (Central province), 29.V.1973, ***Centaurea*** sp., (2). **Ankara** (Haymana), 19.VI.1970, ***Triticum sativa***, (2). **Artvin** (Central province), 12.VI.1973 weeds, (3). **Balıkesir** (Bigadiç), 08.VI.1970, weeds, (1). **Batman** (Kozluk), 11.VI.1976, ***Tamarix*** sp., (1). **Diyarbakır** (Karacadağ), 07.VIII.1971, (1). **Erzincan** (Central province), 16.VI.1973, ***Morus alba*** L., (1). **Iğdır** (Central province), 13.VI.1973, weeds, (2); (Aralık), 19.IX.1980, ***Gossypium hirsutum***, (2). **İzmir** (Bornova), 18.V.1961, (2). **Kars** (Central province), 13.VI.1973, ***Onobrychis sativa***, (1); weeds, (1); (Kağızman), 12.VI.1973, ***Cirsium*** sp., (4). **Kastamonu** (Central province), 03.VI.1973, (1). **Kayseri** (Tomarza), 29.V.1989, ***Vicia ervilia*** L., (1). **Manisa** (Urganlı), 06.VIII.1981, ***Oryza sativa***, (1). Totally 27 specimens.

Lixus vilis (Rossi, 1790)

Material studied: **Aksaray** (Central province), 29.V.1973, ***Centaurea*** sp., (1). **Ankara** (Bağlum), 11.VII.1979, ***Malus sylvestris mitis***, (1). **Balıkesir**

(Susurluk), 09.VI.1970, **Salix** sp., (1). **Bursa** (Uludağ), 04.VIII.1969, (1). **İzmir** (Bornova), 08.VIII.1963, (1); (Bozdağ), 13.IV.1976, on the ground, (2). **Kütahya** (Altıntaş-Zafertepe), 17.VI.1975, weeds, (1). **Mardin** (Central province), 13.VI.1973, (1). **Muğla** (Seki), 09.VI.1973, weeds, (1). Totally 10 specimens.

Hypolixus Petri

Hypolixus nubilosus (Boheman, 1836)

Material studied: **Adana** (Central province), 17.VI.1979, **Amaranthus** sp., (1). **Antalya** (Kumluca), 28.VIII.1979, weeds, (1). **Mardin** (Nusaybin), 21.VII.1976, **Gossypium hirsutum** L., (1). **Osmaniye** (Cevdetiye), 10.V.1988, (1). Totally 4 specimens.

Discussion

In this study, a total of 60 species of 13 genera belonging to Lixinae subfamily of Curculionidae has been given. In the previous studies conducted by Lodos et al. (1978, 2003) the number of genera was 12 and 13 and the number of species was 49 and 60, respectively.

In this study, a total of 10 species was added to the previous records of Lodos et al. (1978 & 2003). The names of those species were given as follows: **Bangasternus fausti** (Reitter), **Larinus aeruginosus** Hochhuth, **L. filiformis** Petri, **Lixus angustatus** (Fabricius), **L. bardanae** (Fabricius), **L. circumcinctus** Boheman, **L. cylindrus** (Fabricius), **L. furcatus** Olivier, **L. obesus** Petri and **Microlarinus lareynii** (Jacquelin du Val). It is expected that this number will exceed considerably in the following years by further studies.

Özet

Türkiye Lixinae (Coleoptera: Curculionidae) faunasına katkılar

Bu çalışmada Lixinae altfamilyasından 60 türün Türkiye'deki yayılışlarına ilişkin yeni bilgiler verilmiştir. Materyal Türkiye'nin değişik yörelerinden 1933-1996 yılları arasında toplanmıştır. Ele alınan türlerden en bol bulunanları **Larinus latus** (Herbst) ve **Lixus cardui** Olivier'dir.

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