

Catalogue of the collection of Gryllidae and Gryllotalpidae (Orthoptera) preserved in the Prof. Dr. Niyazi Lodos Museum, İzmir, Turkey

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Summary

In this study, Gryllidae and Gryllotalpidae (Orthoptera) material of the Prof. Dr. Niyazi Lodos Museum, İzmir, Turkey have been evaluated. According to the results of studies, a total of 21 species belonging to 14 genera of family Gryllidae and 1 species of Gryllotalpidae have been preserved in the collection of Prof. Dr. Niyazi Lodos Museum.

Key words: Catalogue, collection, fauna, Gryllidae, Gryllotalpidae, Orthoptera, Turkey

Anahtar sözcükler: Katalog, koleksiyon, fauna, Gryllidae, Gryllotalpidae, Orthoptera, Türkiye

Introduction

The entomology museum of the Plant Protection Department of Faculty of Agriculture, Ege University was named in October, 1998 in honour of the Late Prof. Dr. Niyazi LODOS to acknowledge his valuable contributions on different aspects of entomology.

This museum consists of a rich collection of most of the known groups of insects. It seems useful to present information about these groups in a series of publications. We would like to dedicate these publications to the Late Prof. Dr. Niyazi LODOS as a gratitude and appreciation for his outstanding achievements in the department as well as his distinguished role in the establishment of this museum.

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In this part it is evaluated the Gryllidae and Gryllotalpidae material of the Prof. Dr. Niyazi Lodos Museum (NLMI).

Gryllidae fauna of Turkey is quite rich and the studies of Bolivar (1899), Ebner (1919), Karabağ (1958), Karabağ et al. (1971; 1974; 1980) and Gümüşsuyu (1978; 1981) have great importance.

Gryllidae and Gryllotalpidae material have been collected but have not been published up to now within the research projects by the researchers of Department of Plant Protection, Faculty of Agriculture, University of Ege (Lodos et al., 1978; 1983; 1989 and others). These are preserved in the Prof. Dr. Niyazi Lodos Museum. In addition to these, material collected and given as a gift to the museum by the researchers of Plant Protection Research Institutes, students, amateurs etc. are included in that collection.

The aim of this paper is to present the complete records of preserved Gryllidae and Gryllotalpidae material to researchers and relevant persons.

Material and Methods

In this study, the species are listed in alphabetical order within the families. The information concerning specific name, describer and description date, locality and date of collection, place/plant from which the specimens were collected, number of species (in brackets) and determinant (in brackets) were given.

Following abbreviations were used for determinants: (İ.G.): Prof. Dr. İbrahim Gümüşsuyu; (K.H.): Late Prof. Dr. Kurt Harz; (N.L.): Late Prof. Dr. Niyazi Lodos; (T.K.): Prof. Dr. Tevfik Karabağ.

At the end of work, species index were given.

List of species:

Family: Gryllidae

1. *Acheta domesticus* Linnaeus, 1758

Adana (Central province), 13.VIII.1971, by light trap, (1), (K.H.); Ankara (Central province), 25.VI.1939, (1), (N.L.)/10.IV.1963, *Sorghum halapense*, (1), (N.L.); (Sincan), 1.IV.1970, (4), (N.L.); Konya (Akşehir), 8.VII.1973, (4), (N.L.); Hatay (Antakya-Central province), 1.II.1982, (8), (N.L.); İzmir (Central province), 4.XII.1983, (2); (N.L.); (Bornova), 12.V.1984, weed, (1), (N.L.); (Çeşme), 22.VI.1983, weed, (1), (N.L.); Gaziantep (Oğuzeli), 5.VI.1985, weed, (1), (N.L.).

2. *Arachnocephalus vestitus* Costa, 1855

Antalya (Central province), 27.VII.1985, *Quercus* spp., (2), (N.L.); Balıkesir (Gönen), 14.X.1976, (1), (İ.G.); İstanbul (Silivri), July, 1965, (1), (İ.G.)/

June, 1971, (1), (İ.G.)/ July, 1973, (1), (İ.G.); İzmir (Tire), 07.VIII.1977, **Castanea sativa**, (1), (K.H.); Samsun (Central province), 10.IX.1972, (1), (İ.G.).

3. **Discoptila fragosoi** (Bolivar, 1885)

İstanbul (Central province), 15.III.1948, (1), (İ.G.); Zonguldak (Ereğli), 1968, poaceous plants, (1), (İ.G.).

4. **Gryllomorpha dalmatina** (Ocskay, 1832)

İstanbul (Erenköy), 19.VII.1977, (1), (İ.G.)/ 28.VII.1977, (1), (İ.G.).

5. **Gryllus bimaculatus** De Geer, 1773

Antalya (Central province), 18.VII.1975, on the ground, (1), (K.H.); Bursa (Central province), 1941, (1), (T.K.); Eskişehir (Central province), 26.VII.1977, (1), (İ.G.); (Sarıcakaya), 29.VI.1977, (3), (İ.G.); İçel (Mersin-Central province), 18.VII.1952, (1), (İ.G.); İzmir (Central province), 15.X.1973, (1), (K.H.) / 12.X.1977, (5), (İ.G.); (Bornova), 25.X.1973, (1), (İ.G.) / 23.IV.1978, weed, (1), (K.H.); Osmaniye (Düziçi), 17.VII.1952, (1), (İ.G.); Şanlıurfa (Ceylanpınar), 8.VII.1977, (1), (İ.G.).

6. **Gryllus campestris** Linnaeus, 1758

Bilecik (Bozhöyük), 23.V.1971, on the ground, (1), (K.H.); Çankırı (Eskipazar), 29.V.1980, (1), (İ.G.); Eskişehir (Sarıcakaya), 6.VI.1974, (1), (İ.G.); İzmir (Bornova), 12.IX.1977, (1), (İ.G.); Karabük (Safranbolu), 10.VI.1964, (2), (N.L.)/ 29.V.1980, (3), (İ.G.); Kayseri (Bünyan), 3.VII.1974, (2), (N.L.); Kırıkkale (Central province), 1969, (1), (İ.G.)/ 17.VII.1974, (1), (İ.G.); Kırşehir (Mucur), 26.VI.1980, (1), (N.L.); Konya (Central province), 14.VI.1973, (4), (İ.G.)/ 20.VI.1974, (1), (İ.G.); Kütahya (Central province), 8.VI.1974, (3), (İ.G.)/ 9.VI.1974, (1), (İ.G.); Nevşehir (Central province), 26.VI.1973, (2), (İ.G.); Niğde (Central province), 28.VII.1973, (1), (İ.G.).

7. **Gryllus urfaensis** Gümüşsuyu, 1978

Şanlıurfa (Hilvan), 24.V.1978, (9), (İ.G.)/ 1978, (1), (İ.G.). 1 Paratype.

8. **Melanogryllus desertus** (Pallas, 1771)

Adıyaman (Central province), 21.VI.1972, (1), (İ.G.); Aksaray (Central province), 24.VI.1967, (1), (İ.G.); Ankara (Ayaş-Alpınar), 17.VI.1974, (1), (İ.G.); (Nallıhan), 6.VII.1973, (1), (İ.G.); Antalya (Central province), 14.VI.1975, (1), (N.L.); (Korkuteli), **Apium graveolens**, (K.H.); Balıkesir (Manyas), 30.V.1989, **Lycopersicum esculentum**, (1), (N.L.); Bartın (Central province), 31.V.1980, **Rosa** spp., (1), (N.L.); Bilecik (Central province), 24.V.1971, **Humulus lupulus**, (1), (K.H.)/ 13.IV.1977, (9), (N.L.)/ 14.IV.1977, (2), (N.L.); Bingöl (Karlıova), 2.VI.1969, (2), (İ.G.); Bolu (Mengen), 26.V.1980, under stone, (1), (N.L.); Bursa (İnegöl), 15.VI.1976, on the ground, (6), (N.L.); (Karacabey), 29.IV.1990, on the ground, (1), (N.L.); (Mustafakemalpaşa), 14.VI.1976, on the

ground, (2), (N.L.); Diyarbakır (Silvan), 24.V.1978, (3), (N.L.); Isparta (Eğirdir), 23.IV.1976, (1), (K.H.); (Sütçüler), 2.VII.1971, on the ground, (2), (N.L.); İzmir (Bornova), 18.III.1977, under stone, (2), (K.H.)/ 13.V.1977, weeds, (2), (K.H.); (Kemalpaşa), 10.V.1974, weed, (1), (N.L.); Kahramanmaraş (Andırın), 9.VI.1985, on the ground, (13), (N.L.); Karabük (Central province), 29.IX.1980, **Triticum sativa**, (2), (N.L.); Karaman (Central province), 12.VI.1973, (6), (İ.G.); (Ermenek), 14.VI.1973, (2), (İ.G.); Kastamonu (Taşköprü), 5.VI.1980, **Papaver somniferum**, (1), (N.L.); Kırıkkale (Sulakyurt), 15.VII.1974, (1), (İ.G.); Kırklareli (Lüleburgaz), 21.VI.1967, (2), (İ.G.); Kocaeli (İzmit-Central province), 26.VI.1969, (1), (İ.G.); (Karamürsel), 17.VI.1976, on the ground, (1), (N.L.); Konya (Central province-Sille dam), 21.VI.1974, (1), (İ.G.); (Bozkır), 27.V.1961, (1), (K. H.); (Ereğli), 15.VI.1968, (3), (İ.G.); (Karapınar-Hotamış), 15.VI.1973, (4), (İ.G.); (Konuklar), 21.VI.1973, (3), (İ.G.); Kütahya (Gediz-Abide), 8.VI.1974, (1), (İ.G.); Nevşehir (Ürgüp), 26.VII.1973, (10), (İ.G.); Sakarya (Hendek), 20.VI.1976, on the ground, (1), (N.L.); Tekirdağ (Central province), 7.V.1975, **Vitis vinifera**, (13), (N.L.); Tunceli (Ovacık), 12.VII.1977, (6), (İ.G.).

9. **Modicogryllus chopardi** Kis, 1967

Ağrı (Central province), 15.VI.1974, (3), (İ.G.); Ankara (Etimesgut), 8.VII.1973, (2), (İ.G.); (Nallıhan), 6.VII.1973, (7), (İ.G.)/ 26.VII.1973, (3), (İ.G.); Artvin (Ardanuç), 25.VI.1974, (1), (İ.G.); (Borçka), 17.VI.1977, (2), (İ.G.); Balıkesir (Central province), 14.VIII.1989, **Lycopersicum esculentum**, (1), (N.L.); (Manyas), 30.V.1989, **Lycopersicum esculentum**, (1), (N.L.); Bursa (Mustafakemalpaşa), 14.VIII.1989, **Lycopersicum esculentum**, (1), (N.L.); Elazığ (Keban), 11.VII.1977, (1), (İ.G.); Eskişehir (Sarıcakaya-Mayıslar), 23.V.1974, (7), (İ.G.); Karabük (Safranbolu), (3), (N.L.); Manisa (Central province -Muradiye), 17.V.1989, **Lycopersicum esculentum**, (1), (N.L.); (Turgutlu), 23.VIII.1989, **Lycopersicum esculentum**, (1), (N.L.); Samsun (Bafra), 14.VI.1977, (3), (N.L.); Tunceli (Ovacık), 12.VII.1977, (9), (İ.G.).

10. **Modicogryllus frontalis** (Fieber, 1845)

Ankara (Polath), 18.VI.1974, (2), (İ.G.); Artvin (Central province), 24.VI.1974, (1), (İ.G.); Giresun (Espiyeye), 17.VI.1977, (1), (İ.G.).

11. **Myrmecophilus acervorum** (Panzer, 1799)

Isparta (Central province), 13.V.1954, (1), (İ.G.).

12. **Myrmecophilus ochracea** Fischer, 1853

Şanlıurfa (Hilvan), 24.V.1978, (2), (İ.G.).

13. **Myrmecophilus termitophilus** Maran, 1959

Karabük (Safranbolu), 7.X.1975, (3), (İ.G.).

14. *Oecanthus pellucens* (Scopoli, 1763)

Ankara (Güdül), 17.X.1973, (1), (İ.G.); (Kızılcahamam), 20.IX.1957, (1), (İ.G.); Antalya (Alanya), 24.VI.1980, *Tamarix* sp., (2), (N.L.); (Manavgat), 29.VI.1980, (2), (N.L.); Artvin (Hopa), 30.VIII.1971, *Alnus* spp., (1), (N.L.); Çorum (İskilip), 6.VIII.1979, (1), (N.L.); Elazığ (Karakoçan), 10.VIII.1977, (3), (N.L.); Eskişehir (Sarıcakaya-Mayıslar), 6.IX.1974, (22), (N.L.); Hatay (İskenderun), 30.V.1985, weed, (1), (N.L.); İzmir (Bornova), 14.X.1983, (1), (N.L.); (Kınık), 15.VII.1977, weeds, (3), (İ.G.); (Kiraz), 11.VIII.1979, weed, (1), (N.L.)/ 5.VIII.1983, weeds, (1), (N.L.); (Torbalı-Ayrancılar), 13.VII.1977, weed, (1), (N.L.)/ 3.VIII.1977, *Nicotiana tabacum*, (5), (N.L.); Kastamonu (Tosya), 4.VIII.1979, *Oryza sativa*, (2), (N.L.); Manisa (Alaşehir), 10.VII.1975, (1), (N.L.); Mardin (Nusaybin), 16.VII.1976, *Gossypium hirsutum*, (1), (N.L.)/ 20.VII.1977, *Gossypium hirsutum*, (1), (N.L.); Tekirdağ (Şarköy), 2.VIII.1977, (1), (İ.G.);

15. *Pteronemobius concolor* Walker, 1871

Adana (Pozanti), 19.VII.1973, (1), (İ.G.); Ankara (Beypazarı), 5.VII.1973, (1), (İ.G.); (Kızılcahamam), 25.VII.1973, (2), (İ.G.); (Nallıhan), 6.VII.1973, (1), (İ.G.)/ 5.VI.1974, (1), (İ.G.); Artvin (Hopa), 17.VI.1977, (1), (İ.G.); Batman (Central province), 5.VII.1977, (1), (İ.G.); Elazığ (Keban), 11.VII.1977, (6), (İ.G.); Karaman (Central province), 12.VI.1973, (5), (İ.G.); Kırıkkale (Sulakyurt), 15.VII.1973, (2), (İ.G.); Konya (Konuklar), 21.VI.1974, (2), (İ.G.); Nevşehir (Ürgüp), 27.VI.1973, (6), (İ.G.); Yalova (Central province), 28.VIII.1973, (6), (İ.G.).

16. *Pteronemobius gracilis* (Jakovleff, 1871)

Ankara (Central province), June, 1973, (1), (İ.G.); Diyarbakır (Central province), 16.VI.1977, (1), (İ.G.).

17. *Tartarogryllus bucharicus* (Bei-Bienko, 1933)

Elazığ (Central province), 11.VII.1977, (11), (N.L.).

18. *Tartarogryllus burdigalensis* Latreille, 1804

Adana (Central province), 13.VIII.1971, by light trap, (2), (K.H.); Ankara (Central province), 17.VIII.1969, (1), (İ.G.)/ 8.VII.1973, (7), (İ.G.); (Beypazarı), 25.VII.1975, (2), (İ.G.); (Güdül), 28.VII.1973, (1), (İ.G.); (Nallıhan), 26.VII.1973, (2), (İ.G.); Artvin (Borçka-Murgul), 5.IX.1971, (1), (K.H.); Bilecik (Central province), 14.VII.1977, (1), (İ.G.); Çankırı (Central province-Karaömer), 29.VII.1974, (3), (İ.G.); Edirne (Central province), 12.VI.1981, by light trap, (1), (İ.G.); Eskişehir (Central province), 5.VI.1974, (5), (İ.G.); İzmir (Karaburun), 6.VII.1977, by light trap, (2), (N.L.)/ 13.VII.1978, by light trap, (9), (N.L.); (Kınık), 2.IX.1971, (1), (K.H.); Kırıkkale (Sulakyurt), 16.VII.1974, (2), (İ.G.);

Kırşehir (Central province), 5.VIII.1975, by light trap, (1), (İ.G.); Konya (Central province-Hotamış Lake), 15.VI.1973, (16), (İ.G.); Şanlıurfa (Ceylanpınar), 5.VI.1976, weed, (1), (K.H.); (Siverek), 8.VII.1977, (1), (İ.G.); Yozgat (Yerköy), 18.VII.1974, (2), (İ.G.).

19. **Tartarogryllus tartarus** (Saussure, 1874)

Ankara (Nallıhan), 26.VII.1973, (3), (İ.G.); Çankırı (Central province-Karadağ), 21.VII.1974, (1), (İ.G.); Elazığ (Central province), 11.VII.1977, (1), (İ.G.); Kars (Kağızman), 17.VII.1973, (1), (İ.G.); Mardin (Central province), 7.VII.1977, (7), (İ.G.); (Kızıltepe), 7.VII.1977, (1), (İ.G.); (Nusaybin), 6.VII.1977, by light trap, (1), (İ.G.).

20. **Trigonidium cicindeloides** Rambur, 1839

Adana (Central province), 13.VIII.1971, (4), (K.H.); İçel (Mersin-Central province), 17.X.1970, (3), (İ.G.); (Tarsus), 9.VII.1980, weed, (1), (N.L.).

21. **Turanogryllus aelleni** (Chopard, 1954)

Kars (Central province), 21.IX.1974, (2), (İ.G.).

Family: Gryllotalpidae

22. **Gryllotalpa gryllotalpa** (Linnaeus, 1758)

Adıyaman (Central province), 30.VI.1973, **Oryza sativa**, (1), (N.L.)/ 30.VI.1975, (1), (N.L.); Antalya (Central province), 16.V.1988, by light trap, (1), (N.L.); Aydın (İncirliova), 10.VI.1976, on the ground, (1), (N.L.); Bursa (Karacabey), 27.IV.1989, **Lycopersicum esculentum**, (1), (N.L.); Diyarbakır (Central province), 14.VI.1976, (2), (N.L.); (Bismil), 17.IV.1979, **Nicotiana tabacum**, (1), (N.L.); (Silvan), 29.V.1980, **Nicotiana tabacum**, (2), (N.L.)/ 6.IX.1980, **Nicotiana tabacum**, (4), (N.L.); Çanakkale (Gökçeada), 26.VI.1975, weed, (1), (N.L.); İçel (Erdemli), 24.XI.1977, on the ground, (1), (N.L.); İzmir (Balçova), 2.I.1977, in the greenhouse, (3), (N.L.)/ 5.I.1977, in the greenhouse, (1), (N.L.)/ 4.IV.1977, on the ground, (1), (N.L.); (Bornova), 14.II.1965, (1), (N.L.)/ 24.IV.1973, on the ground, (1), (N.L.)/ 21.IX.1977, (1), (N.L.); (Kemalpaşa), 13.VI.1977, **Nicotiana tabacum**, (1), (N.L.); (Menemen), 5.VI.1976, **Lycopersicum esculentum**, (1), (N.L.); (Narlıdere), 26.VII.1976, on the ground, (1), (N.L.); (Tire), 2.VI.1975, **Lycopersicum esculentum**, (1), (N.L.); Manisa (Akhisar), 18.V.1976, on the ground, (2), (N.L.); Mardin (Mazıdağı), 8.IX.1980, **Nicotiana tabacum**, (1), (N.L.); Siirt (Eruh), 23.VI.1976, **Oryza sativa**, (2), (N.L.)/ 4.VIII.1976, **Oryza sativa**, (1), (N.L.); (Şirvan), 23.VI.1976, **Oryza sativa**, (1), (N.L.).

Discussion

In consequence of this study, it has been observed that a total of 21 species belonging to 14 genera of family Gryllidae and 1 species of Gryllotalpidae have been preserved in the collection of Prof. Dr. Niyazi Lodos Museum. Among these **Melanogryllus desertus** (Pallas, 1771), **Modicogryllus choparti** Kis, 1967, **Oecanthus pellucens** (Scopoli, 1763), **Tartarogryllus burdigalensis** Latreille, 1804 and **Gryllotalpa gryllotalpa** (Linnaeus, 1758) are richer species than others in collection.

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Özet

Prof. Dr. Niyazi Lodos Müzesi (İzmir)' nde korunmakta olan Gryllidae ve Gryllotalpidae (Orthoptera) familyaları türleri kataloğu

Bu çalışmada Prof. Dr. Niyazi Lodos Müzesi (Ege Üniversitesi, Ziraat Fakültesi, Bornova, İzmir)' nde korunmakta olan Orthoptera takımının Gryllidae familyasına bağlı 14 cinse ait teşhisli 21 türle, Gryllotalpidae familyasına bağlı 1 türün etiket bilgileri verilmekte ve bu türlerin doğal zenginlikler içindeki önemine değinilmektedir.

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