

Faunistical, Ecological and Zoogeographical Assessments on Some Subfamilies of The Family Staphylinidae (Coleoptera) in Ankara Province

Ankara İlinde Staphylinidae Familyasının Bazı Altfamilyaları Üzerinde Faunistik, Ekolojik ve Zoocoğrafik Değerlendirmeler

Research Article

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ABSTRACT

This study was carried out with excursions which species belonging to the family Staphylinidae (Coleoptera) were collected in May-July, 2003, May-August, 2008 and April-June, 2009 in Ankara province. As a result of the study, 28 species belonging to 15 genera and five subfamilies (Aleocharinae, Omaliinae, Oxytelinae, Tachyporinae, Paederinae) were identified. Sampling localities, distributions of the species in Turkey and World are given. Specimen numbers, vertical distributions, collecting months and habitats, distributions of species in other geographical regions of Turkey and Zoogeographic regions are shown. According to present literature 18 of all detected species are new records for Ankara and *Mycetoporus baudueri* Mulsant & Rey, 1875 is a new record for Turkey.

Key Words

Staphylinidae, Ankara, Turkey, new record

ÖZET

Bu çalışma, Ankara ilinde, Staphylinidae familyasına ait türlerin 2003 (Mayıs-Temmuz), 2008 (Mayıs-Ağustos) ve 2009 (Nisan-Haziran) yıllarında yapılan arazi çalışmalarıyla gerçekleştirilmiştir. Çalışmanın sonunda, beş altfamilyaya ait (Aleocharinae, Omaliinae, Oxytelinae, Tachyporinae, Paederinae), 15 cins içerisinde toplam 28 tür tespit edilmiştir. Türlerin örnekleme lokaliteleri, Türkiye ve Dünya yayılışları verilmiştir. Türlerin birey sayıları, yükseklik dağılımları, toplandıkları aylar, habitatları, zoocoğrafik ve Türkiye bölgelerine göre dağılımları gösterilmiştir. Mevcut literatüre göre toplanan türlerin 18'i Ankara ili için ve *Mycetoporus baudueri* Mulsant & Rey, 1875, Türkiye için yeni kayıttır.

Anahtar Kelimeler

Staphylinidae, Ankara, Türkiye, yeni kayıt

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INTRODUCTION

Family Staphylinidae is one of the largest families of beetles and, indeed, of animals, passing the 50,000 described species mark in 2007 [1]. The family Staphylinidae becomes the largest in Coleoptera and in the whole Animal Kingdom, with 55,440 described species, thus surpassing Curculionidae with an estimated 51,000 described species [2].

Owing to its biogeographic situation and its huge territory, Turkey is characterised by an enormous biological diversity. Its zoogeographically heterogeneous endemic fauna is composed of elements from the Balkans, the Caucasus, as well as from the Iranian and the Syrian regions. Also, its topography with numerous mountain ranges and its climatic heterogeneity are important factors accounting for the species richness of the region [3]

The recent world species catalog of Staphylinidae lists 563 species from Turkey [4], but it does not contain the subfamilies Aleocharinae, Paederinae, Pselaphinae and Scaphidiinae. The Catalogue of Palaearctic Coleoptera reports 1.112 species from Turkey [5].

MATERIAL AND METHODS

The species were collected in May-July, 2003, May-August, 2008 and April-June, 2009 in Ankara. Habitats like under soil and stone, leaf debris, edge of streams, carcass, dung, and mushroom which species belonging to the family Staphylinidae could be found were examined and samples were collected by aspirator, sifter and aerial net methods.

Identified specimens were deposited in our private collection in Hacettepe University. Some of the identified species were checked by Michael Schülke (Berlin, Germany) and Volker Assing (Hanover, Germany), Adriano Zanetti (Verona, Italy).

All species sampling localities and distributions in the world and Turkey were given. The figures showing species distributions according to their subfamilies, genera, collecting months and

altitudes were prepared.

At the end of the study 28 species belonging to 15 genera and five subfamilies (Aleocharinae, Omaliinae, Oxytelinae, Tachyporinae, Paederinae) were identified.

RESULTS

Subfamily: Aleocharinae

Aleochara bilineata Gyllenhaal, 1810

Material examined: **Ş. Koçhisar**, 25.V.2008, 1, 2, 991 m., 38°51'24"N, 33°37'23"E, leg. S. Firat; **Haymana**, 28.V.2008, 2, 2, 1173 m. 39°32'30"N, 32°38'08"E, leg. Y. Turan; **Beypazarı**, 15.VI.2008, 2, 1, 1290 m., 40°17'13"N, 31°56'52"E, leg. B. Şabanoğlu; 16.VI.2008, 3, 1505 m., 40°17'37"N, 31°56'52"E, leg. Y. Turan; 17.VI.2008, 3, 740 m., 40°10'56"N, 31°55'00"E, leg. O. Sert; **Kızılcahamam**, 19.VI.2008, 4, 1107 m., 40°36'19"N, 32°39'55"E leg. Y. Turan.

Distribution in the world: E: AU BE BH BU CT CZ DE EN FI FR GB GE GG HU IR IT LA LT LU MC NL PL PT RO SK SP SZ N: MR A: ES HP IN KA MG NP TR UP WS XIN NAR NTR ORR [5].

Distribution in Turkey: Artvin, Gümüşhane [6-8].

Aleochara bipustulata (Linnaeus, 1761)

Material examined: **Kalecik**, 05.VII.2003, 1, 626 m., 40°11'51"N, 33°34'42"E, leg. N. Yanbuloğlu; **Haymana**, 28.V.2008, 2, 2, 1173 m. 39°32'30"N, 32°38'08"E, leg. Y. Turan; **Çubuk**, 13.VI.2008, 3, 1, 1178 m., 36°49'54"N, 44°07'09"E, leg. O. Sert; **Kızılcahamam**, 19.VI.2008, 1107 m., 40°36'19"N, 32°39'55"E, leg. Y. Turan; 19.VI.2008, 4, 1137 m., 40°37'02"N, 32°40'38"E, leg. S. Firat; **Beypazarı**, 15.VI.2008, 4, 1, 1290 m., 40°17'13"N, 31°56'52"E, leg. B. Şabanoğlu; 16.VI.2008, 3, 1505 m., 40°17'37"N, 31°56'52"E, leg. Y. Turan; 17.VI.2008, 2, 740 m., 40°10'56"N, 31°55'00"E, leg. O. Sert; **Ayaş**, 14.VI.2008, 1, 3, 691 m., 39°54'14"N, 32°06'58"E, leg. Y. Turan; **Beypazarı**, 09.VII.2008, 4, 816 m., 40°12'29"N, 31°53'51"E, leg. Y. Turan.

Distribution in the world: E: AB AL AR AU AZ BE BH BU CR CT CZ DE EN FI FR GB GE GG GR HU IR IT LA LT LU MC NL NR NT PL PT RO SK SL SP ST SV SZ UK YU N: AG CI EG MO MR TU A: AF BEI CY ES FE HP IN JA KA KI KZ LE MG NP PA SA SI TD TM TR UP UZ WS YE [5].

Distribution in Turkey: Istanbul, Kocaeli, Izmir, Muğla, Ordu, Gümüşhane, Rize, Antalya, Antakya, Niğde, Konya, Malatya, Van [6, 9, 10, 11].

***Aleochara haematoptera* Kraatz, 1858**

Material examined: **Çubuk**, 16.V.2003, 1, 1, 1028 m., 40°15'59"N, 33°01'39"E, leg. N. Yanbuloğlu; **Elmadağ**, 31.V.2009, 2, 3, 887 m., 39°50'11"N, 33°15'15"E, leg. Y. Turan; **Beyazarı**, 17.VI.2008, 3, 2, 1341 m., 40°21'46"N, 32°00'38"E, leg. Y. Turan; **Kızılcahamam**, 19.VI.2008, 1, 1200 m., 40°38'24"N, 32°42'11"E, leg. Y. Turan; **Çamlıdere**, 21.VI.2008, 1, 2, 1017 m., 40°26'56"N, 32°18'14"E, leg. B. Şabanoğlu; **Kalecik**, 11.VII.2008, 3, 2, 837 m., 40°01'16"N, 33°26'53"E, leg. M. Kabalak; **Lalahan**, 30.V.2009, 1, 1, 1179 m., 39°55'41"N, 33°07'50"E, leg. Y. Turan.

Distribution in the world: **E:** AB AU BE BH CR CT CZ EN FR GE GG GR IT LU NL PL PT SK SP ST SZ UK **N:** AG MO **A:** IN TR [5].

Distribution in Turkey: Amasya, Sinop, Trabzon, Bitlis, Tunceli, Van, Hatay, Osmaniye, Kahramanmaraş, Istanbul, Niğde, Siirt [6, 7, 12].

***Aleochara intricata* Mannerheim, 1830**

Material examined: **Ş. Koçhisar**, 25.V.2008, 1, 1, 991 m., 38°51'24"N, 33°37'23"E, leg. S. Fırat.

Distribution in the world: **E:** AL AU BE BH BU CR CT CZ DE FI FR GB GE GG GR HU IR IT LA LT LU NL NR NT PL PT SK SP ST SV SZ **N:** AG CI (La Palma) MO **A:** CY ES FE IN IS KZ NC TR WS [5].

Distribution in Turkey: İstanbul, Konya, Ankara, Rize, Artvin, Mersin, Osmaniye, Hatay, Urfa, Bitlis, Van [6, 11, 13, 14].

***Aleochara lata* Gravenhorst nec Kirby, 1802**

Material examined: **Çubuk**, 13.VI.2008, 2, 1, 1178 m., 36°49'54"N, 44°07'09"E, leg. Y. Turan; **Beyazarı**, 09.VII.2008, 1, 856 m., 40°19'36"N, 32°03'09"E, leg. Y. Turan.

Distribution in the world: **E:** AU BE BH BU CR CZ FR GB GE GG GR HU IT MC NL PL RO SK SZ **A:** CY ES FE JA JIL NC SC TR **AFR NAR NTR** [5].

Distribution in Turkey: Ankara [14].

***Aleochara moesta* Gravenhorst, 1802**

Material examined: **Çubuk**, 16.V.2003, 1, 1, 1028 m., 40°15'59"N, 33°01'39"E, leg. N. Yanbuloğlu; **Kızılcahamam**, 17.VI.2003, 1, 1098 m., 40°34'54"N, 32°39'53"E, leg. N. Yanbuloğlu **Ayaş**, 14.VI.2008,

1, 960 m., 40°00'35"N, 32°16'50"E, leg. O. Sert; **Beyazarı**, 16.VI.2008, 1, 1505 m., 40°17'37"N, 31°56'52"E, leg. Y. Turan.

Distribution in the world: **E:** AU BH CR CT CZ DE EN FI FR GB GE GG GR HU IT LT IR NR NT PL PT RO SK SP ST SV SZ **N:** AG CI EG MO MR TU **A:** AF IN IS KA KZ MG SA TR UP UZ **AFR ORR** [5]

Distribution in Turkey: Erzurum, Tunceli, Bitlis, Van, Konya [10, 13, 15].

***Aleochara tristis* Gravenhorst, 1806**

Material examined: **Ayaş**, 29.V.2008, 1, 1, 1088 m., 40°01'44"N, 32°22'40"E, leg. B. Şabanoğlu; **Ş. Koçhisar**, 25.V.2008, 2, 1024 m., 39°04'44"N, 33°35'15"E, leg. S. Fırat; 27.V.2008, 1, 3, 1111 m., 38°46'14"N, 33°42'23"E, leg. Y. Turan; **Haymana** 28.V.2008, 1, 2, 1017 m., 38°44'41"N, 33°40'48"E, leg. Y. Turan; **Çubuk**, 13.VI.2008, 1, 1345 m., 36°49'42"N, 44°07'21"E, leg. O. Sert, **Ayaş**, 14.VI.2008, 2, 1029 m., 39°59'57"N, 32°16'47"E, leg. Y. Turan; **Beyazarı**, 16.VI.2008, 2, 540 m., 40°06'58"N, 32°03'50"E, leg. O. Sert; **Kızılcahamam** 19.VI.2008, 1, 1090 m., 40°19'37"N, 32°43'22"E, leg. Y. Turan; 19.VI.2008, 3, 2, 1060 m., 40°35'07"N, 32° 39' 40"E, leg. B. Şabanoğlu.

Distribution in the world: **E:** AL AU BE BH BU CR CT CZ DE EN FI FR GB GE GR HU IT LA LT NL NR NT PL PT RO SK SP ST SV SZ UK YU **N:** AG EG MO TU **A:** AF CY ES FE HEI HP IN IS KZ NC TR UP UZ WS **AFR NAR ORR** [5].

Distribution in Turkey: Erzurum, Malatya, Bitlis, Bingöl, Artvin, Konya, Mersin, Osmaniye, Antakya, Kahramanmaraş, Hatay, Gaziantep, Urfa, Mardin, Bursa, Manisa [7, 13, 17].

***Drusilla canaliculata* (Fabricius, 1787)**

Material examined: **Kalecik**, 05.VII.2003, 2, 706 m., 40°06'14"N, 33°24'24"E, leg. N. Yanbuloğlu.

Distribution in the world: **E:** AR AU BE BU BY CR CT CZ DE EN FI FR GB GE GG GR HU IR IT LA LT LU NC NL NR NT PL PT SK SP ST SV SZ UK **A:** ES FE TR WS **NAR** [5].

Distribution in Turkey: Ardahan, Bitlis, Erzurum, Kars, Bolu, Gümüşhane, Sinop, Kastamonu, Bursa, Istanbul, Kahramanmaraş, Osmaniye, Konya, Kayseri [17-20].

***Falagria caesa* Erichson, 1837**

Material examined: **Çamlıdere**, 21.VI.2008, 3, 2, 1111 m., 40°32'33"N, 32°35'19"E, leg. Y. Turan;

Polatlı, 28.IV.2009, 2, 2, 1000 m., 39°18'39"N, 32°21'17"E, leg. M. Kabalak; **Lalahan**, 30.V.2009, 2, 1, 1179 m., 39°55'41"N, 33°07'50"E, leg. Y. Turan; **Elmadağ**, 31.V.2009, 2, 3, 934 m., 39°42'51"N, 33°08'39"E, leg. Y. Turan.

Distribution in the world: E: AL BE BU CT CZ DE EN FI FR GB GE GG GR HU IR IT LA LT NL NR NT PL PT SK SP ST SV SZ UK **N:** AG EG MO TU **A:** BEI CY ES FE GAN GUA HEB HP IN IS JA NC NP SC SHA SHN SY TR UP UZ WS XIN **NAR ORR** [5].

Distribution in Turkey: Not cited [17].

***Falagria sulcatula* (Gravenhorst, 1806)**

Material examined: **Kalecik**, 05.VII.2003, 1, 706 m., 40°06'14"N, 33°24'24"E, leg. N. Yanbuloğlu.

Distribution in the world E: AU BE BU CT CZ DE EN FI FR GB GE GG GR HU IT LA LT NL NR PL PT SK ST SV SZ UK **A:** AF ES FE HEI TR WS [5].

Distribution in Turkey: İstanbul [21]

***Nehemitropia lividipennis* (Mannerheim, 1830)**

Material examined: **Kalecik**, 05.VII.2003, 1, 706 m., 40°06'14"N, 33°24'24"E, leg. N. Yanbuloğlu; **Beypazarı**, 17.VI.2008, 1, 1549 m., 40°22'10"N, 31°57'43"E, leg. Y. Turan.

Distribution in the world: E: AB AL AU AZ BE BH CT CZ DE FI FR GB GE GG GR HU IR IT LA LT LU NL NR NT PL PT SK SP ST SV SZ UK **N:** CI EG MO MR **A:** AF BEI CY GAN HEB HEN IN IS JA KZ NC SI TAI TR UP UZ YUN ZHE [5].

Distribution in Turkey: İstanbul, Manisa, Tunceli [17, 22].

Subfamily: Omaliinae

***Lesteva longoelytrata* (Goeze 1777)**

Material examined: **Kalecik**, 05.VII.2003, 1, 706 m., 40°06'14"N, 33°24'24"E, leg. N. Yanbuloğlu; **Çubuk**, 05.VI.2008, 3, 1, 1512 m., 40°24'43"N, 32°54'44"E, leg. Y. Turan.

Distribution in the world: E: AR AU BE BH BU CR CT CZ DE FA FI FR GB GE GG GR HU IC IR IT LA LT MC NL NR NT PL PT RO SK SL SP ST SV SZ UK YU **N:** AG MO **A:** CY LE TM TR [5].

Distribution in Turkey: İzmir [17,23].

Subfamily: Oxytelinae

***Carpelimus corticinus* (Gravenhorst, 1806)**

Material examined: **Polatlı**, 28.IV.2009, 2, 3, 804 m., 39°47'40"N, 32°18'19"E, leg. M. Kabalak; **Çamlidere**, 21.VI.2008, 1, 2, 1111 m., 40°32'33"N, 32°35'19"E, leg. Y. Turan; **Beypazarı**, 09.VII.2008, 4, 2, 816 m., 40°12'29"N, 31°53'51"E, leg. Y. Turan.

Distribution in the world: E: AR AU AZ BE BH BU CR CT CZ DE EN FI FR GB GE GG GR HU IR IT LA LT NL NR NT PL PT RO SK SL ST SP SV SZ UK YU **N:** AG CI EG IN LB MO MR **A:** CY ES LE SA TR WS **AUR NAR NTR** [5].

Distribution in Turkey: Adana, Kilis, Mersin, Ankara, Konya, Manisa [12,17,24].

***Platystethus cornutus* (Gravenhorst, 1802)**

Material examined: **Ş. Koçhisar**, 25.V.2008, 4, 5, 991 m., 38°51'24"N, 33°37'23"E, leg. S. Firat; **Haymana** 28.V.2008, 3, 2, 1017 m., 38°44'41"N, 33°40'48"E, leg. Y. Turan; **Beypazarı**, 17.VI.2008, 8, 6, 744 m., 40°11'30"N, 31°54'25"E, leg. B. Şabanoğlu; **Kızılcahamam**, 05.VIII.2008, 4, 4, 1432 m., 40°38'31"N, 32°44'54"E, leg. S. Firat.

Distribution in the world: E: AR AU BE BH BU CR CT CZ DE EN FI FR GB GE GG GR HU IR IT LA LT MC NL PL PT RO SK SL SP ST SV SZ UK YU **N:** AG CI EG LB MO MR **A:** AF CY ES FE IN IQ IS JA KA KZ MG NP PA SA SY TD TM TR UP UZ WS XIN **AFR NAR ORR** [5].

Distribution in Turkey: Ankara, Aydın, Manisa, Edirne, Mersin [25].

***Platystethus nitens* (C. R. Sahlberg, 1832)**

Material examined: **Beypazarı**, 17.VI.2008, 1, 744 m., 40°11'30"N, 31°54'25"E, leg. B. Şabanoğlu.

Distribution in the world: E: AB AR AU AZ BE BH BU CR CT CZ DE EN FI FR GB GE GG GR HU IT LA MD NL NT PL PT RO SK SL SP ST SV SZ UK YU **N:** AG CI EG MO MR **A:** AF CY ES HEI IN KA KZ MG PA SHA TR UZ WS [5].

Distribution in Turkey: Ankara, Kilis, Sakarya, Isparta [12,23,24,26]

Subfamily: Paederinae

***Lobrathium rugipenne* (Hochhuth, 1851)**

Material examined: **Nallıhan**, 14.V.2003, 2, 745 m., 40°10'44"N, 31°06'56"E, leg. N. Yanbuloğlu.

Distribution in the world: E: AL AR BU GG GR ST YU **A:** TR [5].

Distribution in Turkey: Adana, Isparta (Sultan Dağları), Antalya, Burdur, Hatay, Isparta, (Yalvaç,

Bağkonak), Mersin, Afyonkarahisar, İzmir, Muğla, Artvin, İstanbul, Bolu, Kastamonu, Sinop, Düzce (Akçakoca), Ordu, Rize, Giresun, Gümüşhane, Erzurum, Zonguldak, Sakarya, Ankara, Kayseri, [22,27,29,30,31].

***Paederidus ruficollis* (Fabricius, 1777)**

Material examined: **Çubuk**, 25.VI.2003, 1, 1113 m., 40°18'18"N, 32°55'53"E, leg. N. Yanbuloğlu; **Beypazarı**, 15.VI.2008, 2, 2, 1632 m., 40°20'38"N, 31°56'49"E, leg. B. Şabanoğlu; **Çamlıdere**, 21.VI.2008, 3, 2, 1111 m., 40°32'33"N, 32°35'19"E, leg. Y. Turan; **Kalecik**, 27.IV.2009, 3, 2, 666 m., 40°01'16"N, 33°26'53"E, leg. M. Kabalak.

Distribution in the world: **E:** AU BE BH CR CT CZ DE FR GB GE GG GR HU IT MC NL PL PT SK SL SP ST SV SZ UK YU **N:** AG MO TU **A:** IN TR [5].

Distribution in Turkey: İzmir, Sivas, Ankara [14,27,28,32,33].

***Paederus fuscipes* Curtis, 1826**

Material examined: **Çubuk**, 13.VI.2008, 3, 1, 1345 m., 36°49'42"N, 44°07'21"E, leg. O. Sert; **Ayaş**, 14.VI.2008, 1, 1, 691 m., 39°54'14"N, 32°06'58"E, leg. Y. Turan; **Beypazarı**, 09.VII.2008, 3, 856 m., 40°19'36"N, 32°03'09"E, leg. Y. Turan; **Kızılcahamam**, 05.VIII.2008, 4, 3, 1432 m., 40°38'31"N, 32°44'54"E, leg. S. Fırat.

Distribution in the world: **E:** AB AL AR AU BE BU CR CT CZ DE EN FI FR GB GE GG GR HU IR IT LA LT MC NL NR PL PT RO SK SL SP ST SV SZ UK YU **N:** AG EG TV **A:** AF BT ES FUJ HEB HKG HP IN IQ IS JA JO KA KI KZ NC NP PA SC SCH SD SHA SY TAI TD TM TR UP UZ YUN WS **AFR AUR ORR** [5].

Distribution in Turkey: Ankara, Diyarbakır, Gaziantep, Mardin, İstanbul, İzmir, Manisa, Trabzon [17,22,27,31,33,34,35].

***Paederus littoralis* Gravenhorst, 1802**

Material examined: **Beypazarı**, 15.VI.2008, 2, 2, 1038 m., 40°16'41"N, 31°54'77"E, leg. B. Şabanoğlu; **Kızılcahamam**, 05.VIII.2008, 1, 4, 1165 m., 40°29'56"N, 32°40'34"E, leg. S. Fırat; **Lalahan**, 30.V.2009, 3, 4, 1179 m., 39°55'41"N, 33°07'50"E, leg. Y. Turan; **Elmadağ**, 31.V.2009, 2, 3, 887 m., 39°50'11"N, 33°15'15"E, leg. Y. Turan.

Distribution in the world: **E:** AL AU BE BU CR CT CZ DE EN FI FR GB GE GR HU IR IT LA LT MD NL PL PT RO SK SL SP ST SV SZ UK YU **N:** AG **A:** CY TR WS [5].

Distribution in Turkey: Bilecik, Sakarya, Mardin, Şanlıurfa, Mersin, Karaman [17,27,33,36,37].

***Rugilus angustatus* (Geoffroy, 1785)**

Material examined: **Nallıhan**, 14.V.2003, 2, 745 m., 40°10'44"N, 31°06'56"E, leg. N. Yanbuloğlu.

Distribution in the world: **E:** AR AU BE BH BU CT CZ FI FR GB GE GG GR HU IT LA NL NT PL RO SK SP ST SV SZ UK **A:** CY TR **NAR** [5].

Distribution in Turkey: İzmir, Manisa, Samsun [17, 31,38].

Subfamily: Tachyporinae

***Lordithon rostratus* (Motschulsky 1860)**

Material examined: **Haymana**, 28.V.2008, 1, 1209 m., 39°26'24"N, 32°30'05"E, leg. Y. Turan.

Distribution in the world: **E:** AB GG **A:** FE TR [5].

Distribution in Turkey: Ordu, Rize [28].

***Lordithon trinotatus* (Erichson, 1839)**

Material examined: **Ş. Koçhisar**, 25.V.2008, 1, 1, 991 m., 38°51'24"N, 33°37'23"E, leg. S. Fırat; **Beypazarı**, 25.IV.2009, 2, 1110 m., 40°16'03"N, 31°54'47"E, leg. O. Sert.

Distribution in the world: **E:** AU BE BH BU CR CT CZ DE FI FR GB GE GG GR HU IR IT LA LT MC NL NR PL PT RO SK SL SP ST SV SZ UK YU **N:** AG **A:** CY ES FE IN TR [5].

Distribution in Turkey: Ankara, Aydın, İzmir, Isparta [12,17].

***Mycetoporus baudueri* (Mulsant and Rey, 1875)**

Material examined: **Beytepe**, 22.IV.2008, 2, 1030 m., 39°52'55"N, 32°43'17"E, leg. M. Kabalak; **Beypazarı**, 25.IV.2009, 2, 1258 m., 40°20'52"N, 32°00'19"E, leg. O. Sert.

Distribution in the world: **E:** AB AU BE BY CT DE EN FI FR GB GE GG GR HU IT LT NL NR NT PL PT SP SV SZ UK **N:** AG MO TU **A:** CY IN [5].

Distribution in Turkey: New record

***Tachinus signatus* Gravenhorst, 1802**

Material examined: **Kızılcahamam**, 21.V.2003, 1, 1484 m., 40°39'00"N, 32°35'18"E, leg. N. Yanbuloğlu; **Kalecik**, 05.VII.2003, 1, 706 m., 40°06'14"N, 33°24'24"E, leg. N. Yanbuloğlu.

Distribution in the world: **E:** AB AU BE BH BU BY CR CT CZ DE EN FA FI FR GB GE GG GR HU IR IT LA LT NL NR NT PL PT RO SK SL SP ST SV SZ UK YU **N:** AG MO **A:** ES FE IN KZ LE SY TR WS **NAR** [5].

Distribution in Turkey: Gümüşhane (Zigana) [34].

***Tachinus scapularis* Stephens, 1832**

Material examined: Nallıhan, 14.V.2003, 1, 745 m., 40°10'44"N, 31°06'56"E, leg. N. Yanbuloğlu.

Distribution in the world: E: AL AU BE BH CR CZ PI FR GB GE GR HU IT MC NL PL RO SK SZ A: CY ES FE SY TR WS [5].

Distribution in Turkey: Isparta (Eğirdir) [7,39].

***Tachyporus caucasicus* (Kolenati, 1846)**

Material examined: Çubuk, 13.VI.2008, 2, 1345 m., 36°49'42"N, 44°07'21"E, leg. Y. Turan; **Bey pazarı**, 15.VI.2008, 1, 1, 1290 m., 40°17'13"N, 31°56'52"E, leg. Y. Turan.

Distribution in the world: E: AU BH BU CR FR GG GR HU IT MC PT SP TR YU N: AG MO A: CY IS JO LE SY [5].

Distribution in Turkey: İstanbul, Sakarya, Bolu, Konya İzmir, Antalya [12,25,40].

***Tachyporus hypnorum* (Fabricius, 1775)**

Material examined: Bey pazarı, 16.VI.2008, 2, 2, 766 m., 40°13'12"N, 32°02'54"E, leg. Y. Turan; **Çubuk**, 05.VI.2008, 1, 1, 1512 m., 40°24'43"N, 32°54'44"E, leg. B. Şabanoğlu; **Lalahan**, 30.V.2009, 1, 1245 m., 39°55'03"N, 33°08'09"E, leg. Y. Turan.

Distribution in the world: E: AB AR AU BE BH BU CR CT CZ DE EN FI FR GB GE GG GR HU IR IT LA LT MC NL NR NT PL PT RO SK SL STSP SV SZ UK YU N: AG MO TU A: AF CY IN KA LE PA SY TR UP UZ WS [5].

Distribution in Turkey: Adıyaman, Ankara, Aydın, İzmir, Manisa Muğla, Bilecik, Kahramanmaraş, Mersin, Malatya, Tunceli, Isparta [12,17].

***Tachyporus nitidulus* (Fabricius, 1781)**

Material examined: Beytepe, 22.IV.2008, 2, 1035 m., 39°52'05"N, 32°44'22"E, leg. M. Kabalak; **Şereflikoçhisar**, 27.V.2008, 2, 1, 1124 m., 38°46'18"N, 33°42'31"E, leg. B. Şabanoğlu; **Bala**, 31.V.2009, 2, 2, 1004 m., 39°26'15"N, 33°04'07"E, leg. M. Kabalak; **Çubuk**, 24.IV.2009, 2, 2, 1004 m., 40°21'55"N, 32°56'45"E, leg. Y. Turan.

Distribution in the world: E: AL AR AU AZ BE BH BU CR CT CZ DE EN PI FR GB GE GG GR HU IC IR IT LA LT LU MC NL NR NT PL PT RO SK SL SP ST SV SZ UK YU N: AG CI EG MR TU A: AF CY ES FE HP IN KA KI KZ LE MG PA SA SHA TD TM TR UP UZ WS

NAR NTR ORR [5].

Distribution in Turkey: Ankara, Kayseri, Aydın, İzmir, Manisa, Bursa, İstanbul, Mersin, Konya, Isparta, Niğde, Adana [12,25].

DISCUSSION

In this study, 28 species belonging to five subfamilies of the family Staphylinidae were identified from Ankara province. The subfamily Aleocharinae has the largest number of species in Staphylinidae worldwide. Its members occupy tremendous diversity of ecological niches and are often extremely abundant [41]. Our findings are similar to this literature. The subfamily Aleocharinae composes the major part of research area's Staphylinidae fauna with 11 species (39%) followed by Tachyporinae (29.8% species), Paederinae (18.5% species), and Oxytelinae (11.3% species). The subfamily Omaliinae has the minor part with 1 species (3%) (Figure 1). As a result of the study, *Aleochara* has the highest number of species (7 Species), followed by *Tachyporus* (3 species). While the genera *Falagria*, *Platystethus*, *Paederus*, *Lordithon* and *Tachinus* have two species each, the genera *Drusilla*, *Nehemitropia*, *Lesteva*, *Carpelimus*, *Lobrathium*, *Paederidus*, *Rugilus* and *Mycetoporus* have the lowest number of species with one species each. The species numbers according to detected genera is shown in Figure 2.

According to the number of specimens, *Platystethus cornutus* has the highest number of specimens (36 specimens). *Drusilla canaliculata*, *Falagria sulcatula*, *Nehemitropia lividipennis*, *Platystethus nitens*, *Lobrathium rugipenne*, *Rugilus angustatus*, *Lordithon rostratus*, *Tachinus scapularis*, which are the least detected species of this study, have only one specimen (Table 1).

As a result of zoogeographical evaluations, we have detected that all of the species distribute in Europe. The fauna of Ankara shares less species with other zoogeographical regions, which are Middle East (21 species), North Africa (20 species), Far East (18 species), Middle Asia (18 species), Siberia (18 species), Nearctic region (8 species), Oriental region (5 species), Afrotropical region (5 species), Neotropical region (3 species), Australian

Table 1 The number of specimens, collecting habitats.

(VIN: From Vegetation with Insect net, ES: Edge of Stream, D: Dung, C: Carcass, US: Under Stone, S: Soil, ULD: Under Leaf and Debris), collecting months (Apr: April, May: May, Jun: June, Jul: July, Aug: August), vertical distributions (A-500-750 m, B-751-1000 m, C-1001,1250 m, D- 1251-1500 m, E- 1501-1750 m), Turkey distributions (SEAR: South-East Anatolia Region, EAR: East Anatolia Region, CAR: Central Anatolia Region, MR: Mediterranean Region, AR: Aegean Region, MAR: Marmara Region, BSR: Black Sea Region) and Zoogeographical distributions (OR: Oriantel Region, NtR: Neotropical Region, NR: Nearctic Region, AuR: Australian Region, AtR: Afrotropical Region, MA: Middle Asia, ME: Middle East, NA: North Africa, FE: Far East, S: Siberia, Eu: Europe) of detected species.

Species	Number of specimens	Collecting habitats	Collecting months	Vertical distributions	Zoogeographical distributions	Turkey distributions
<i>Aleochara bilineata</i>	20	D, ES	May, Jun	A, B, C, D, E	Eu, S, FE, MA, NR, NtR, OR	BSR
<i>Aleochara bipustulata</i>	30	D, ES, ULD	May, Jun, Jul	A, B, C, D, E	Eu, S, FE, NA, MA, ME	MAR, AR, BSR, MR, CAR, EAR
<i>Aleochara haematoptera</i>	21	US, ULD	May, Jun, Jul	B, C, D	Eu, NA, MA	BSR, MR, EAR, MAR, CAR, SEAR
<i>Aleochara intricata</i>	2	D, C, US	May	B	Eu, S, FE, NA, MA, ME	MAR, CAR, BSR, MR, SEAR, EAR
<i>Aleochara lata</i>	4	D, C	Jun, Jul	B, C	Eu, FE, AtR, NR, NtR	CAR
<i>Aleochara moesta</i>	2	US, ULD	May, Jun	C, D, E	Eu, NA, MA, ME, AtR, OR	EAR, CAR
<i>Aleochara tristis</i>	22	ES	May, Jun	A, B, C, D	Eu, S, FE, NA, MA, ME, AtR, NR, OR	EAR, BSR, CAR, MR, SEAR, MAR, AR
<i>Drusilla canaliculata</i>	1	S	Jul	A	Eu, S, FE, NR	EAR, BSR, MAR, MR, CAR
<i>Falagria caesa</i>	17	US, S, ULD	Apr, May, Jun	B, C	Eu, S, FE, NA, ME, MA	CAR
<i>Falagria sulcatula</i>	1	S	Jul	A	Eu, S, FE, ME	MAR
<i>Nehemitropia lividipennis</i>	1	US	Jun, Jul	E	Eu, NA, FE, MA, ME	MAR, AR, EAR
<i>Lesteva longolytrata</i>	4	US, S	Jun, Jul	E	Eu, NA, MA	AR
<i>Carpelimus corticinus</i>	14	US, S	Apr, Jun, Jul	B, C	Eu, S, FE, NA, MA, ME, AuR, NtR, NR	MR, CAR, AR
<i>Platystethus cornutus</i>	36	ES, S	May, Jun, Aug	A, B, C, D	Eu, S, FE, NA, MA, ME, AtR, NR, OR	CAR, AR, MAR, MR
<i>Platystethus nitens</i>	1	ES	Jun	A	Eu, S, NA, MA, ME	CAR, MR
<i>Lobrathium rugipenne</i>	1	ES	May	A	Eu	MR, AR, BSR, EAR, MAR, CAR
<i>Paederidus ruficollis</i>	14	ES	Apr, Jun	A, B, C, D, E	Eu, NA, ME	AR, CAR
<i>Paederus fuscipes</i>	16	ES	Jun, Jul, Aug	A, B, C, D	Eu, S, FE, NA, MA, ME, AtR, AuR, OR	CAR, SEAR, MAR, EB, BSR
<i>Paederus littoralis</i>	20	ES	May, Jun, Aug	B, C	Eu, S, FE, NA, MA, ME	MAR, SEAR, MR, CAR
<i>Rugilus angustatus</i>	1	ES	May	A	Eu, ME, NR	AR, BSR
<i>Lordithon rostratus</i>	1	VIN	May	C	Eu, FE	BSR
<i>Lordithon trinotatus</i>	4	S	Apr, May	B, C	Eu, FE, NA, MA, ME	CAR, AR
<i>Mycetoporus baudueri</i>	2	VIN	Apr	C, D	Eu, NA, ME	New Record
<i>Tachinus signatus</i>	2	S	May, Jul	A, D	Eu, S, FE, NA, ME, MA, NR	BSR
<i>Tachinus scapularis</i>	1	S	May	A	Eu, S, FE, ME	MR
<i>Tachyporus caucasicus</i>	4	ES, S	Jun	D	Eu, NA, ME	MAR, AR, MR
<i>Tachyporus hypnorum</i>	7	ES, S	May, Jun	B, C, D, E	Eu, NA, ME, MA	SEAR, CAR, AR, MAR, MR, EAR
<i>Tachyporus nitidulus</i>	13	ES, S	Apr, May	C	Eu, S, FE, NA, ME, MA	CAR, AR, MAR, MR

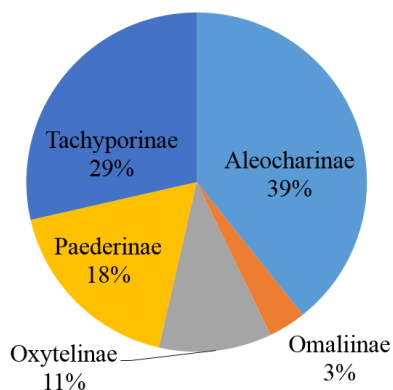


Figure 1. Distribution of species according to detected subfamilies.

region (2 species). Distribution data of the species in Palaearctic region shows that, eight species (*A. bilineata*, *A. bipustulata*, *A. tristis*, *Carpelimus corticinus*, *Platystethus cornutus*, *Platystethus nitens*, *Paederus fuscipes* and *Paederus littoralis*) distribute in the whole Palaearctic region (including Europe, Asia, North Africa). 14 species (*A. haematoptera*, *A. intricata*, *A. lata*, *A. moesta*, *Nehemitropia lividipennis*, *Falagria caesa*, *Falagria sulcatula*, *Lesteva longoelytrata*, *Paederidus ruficollis*, *Rugilus angustatus*, *Mycetoporus baudueri*, *Lordithon trinotatus*, *Tachinus signatus* and *Tachinus scapularis*) distribute in Western Palaearctic region (including, Europe, North Africa and Middle East). Some of the detected species distribute more restrictedly. As an example, *Lobrathium rugipenne* only distributes in several Balkan countries and Georgia and *L. rostratus* distributes in Ordu and Rize provinces of Turkey and Caucasus. These data show us that, 22 species broadly distribute. Zoogeographical distributions of detected species are given in Figure 7 and Table 1.

According to present literature on the family Staphylinidae of Turkey [5, 6, 7, 8, 9, 10, 11, 13, 15, 16, 17, 18, 19, 20, 21, 22, 27, 29, 31, 33, 36, 37, 38, 42] *Aleochara bilineata*, *A. bipustulata*, *A. haematoptera*, *A. moesta*, *A. tristis*, *Drusilla canaliculata*, *Falagria caesa*, *F. sulcatula*, *Nehemitropia lividipennis*, *Lesteva longoelytrata*, *Lobrathium rugipenne*, *Paederus littoralis*, *Rugilus angustatus*, *Lordithon rostratus*, *Tachinus signatus*, *T. scapularis*, *T. caucasicus* are new records for Ankara province and *Mycetoporus baudueri* is a new record for Turkey. Furthermore, the detailed locality for *Falagria caesa*, which was previously reported from Turkey without detailed locality, is given for the first time with this study.

After comparing the Staphylinidae fauna of Ankara and geographical regions of Turkey (Figure 8), we determined that, most of the detected species are shared with Central Anatolian region because of the major part of Ankara province is situated in this region. The minimum number of detected species are shared with Eastern Anatolian region and South Eastern Anatolian Region which are the furthest regions to Ankara. Although some part of Ankara is situated in the Black Sea region, more number of species are shared with Marmara, Aegean and Mediterranean Regions than with the Black Sea region.

The species were collected between April and August. When we examine the species distributions according to months, 6 species in April, 17 species each in May and June, 10 species in July and 3 species in August were collected (Figure 3). While

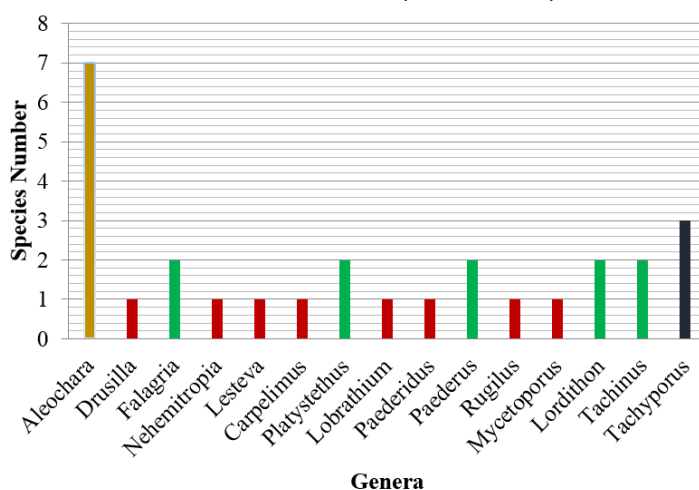


Figure 2. Species numbers according to detected genera.

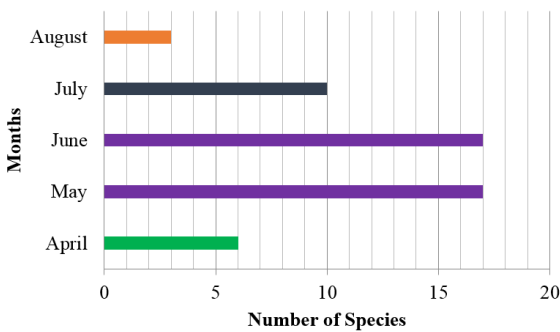


Figure 3. Number of collected species according to months.

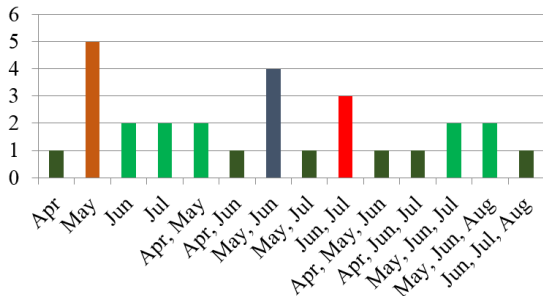


Figure 4. Species numbers according to collecting periods (Apr: April, May: May, Jun: June, Jul: July, Aug: August).

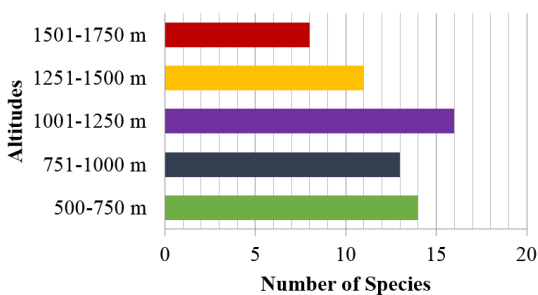


Figure 5. Species numbers according to altitudes.

the highest number of species were collected in May and June, the least number of species were collected in August. We thought that, warmer weather in July and August in Turkey is the probable reason for this. When we assess the phenologies of the species according to collecting periods, one species was collected only in April, five species only in May, two species only in June, two species only in July, two species in April and May, one species in April and June, four species in May and June, one species in May and July, three species in June and July, one species in April, May and June, one species in April, June and July, two species in May, June and July, two species in May, June and August, and one species in June, July and August (Figure 4). According to this data, 10 species were collected for a one month period, 11 species were collected for two months period and seven species were collected for three months period.

The species were collected from different altitudes, between 500 m-1750 m. Species numbers according to altitudes was given at Figure 5. With reference to this figure; 14 species were collected between 500 and 750 m, 13 species were collected between 751 and 1000 m, 16 species were collected between 1001 and 1250 m, 11 species were collected between 1251 and 1500 m and 8 species were collected between 1501 and 1750 m. So, the highest number of species were collected between 1000 and 1250 m and the least number of species were collected between 1501 and 1750 m. While *Aleochara bilineata*, *A. bipustulata* and *Paederidus ruficollis* were determined at

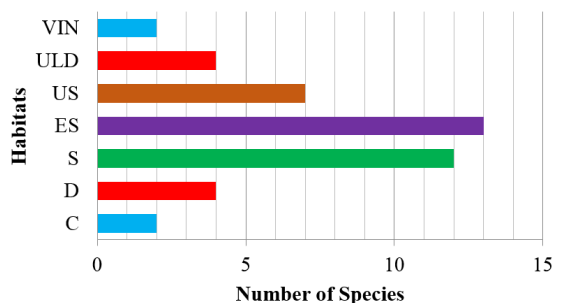


Figure 6. Species numbers according to collecting habitats (VIN: From Vegetation with Insect net, ES: Edge of Stream, D: Dung, C: Carcass, US: Under Stone, S: Soil, ULD: Under Leaf and Debris).

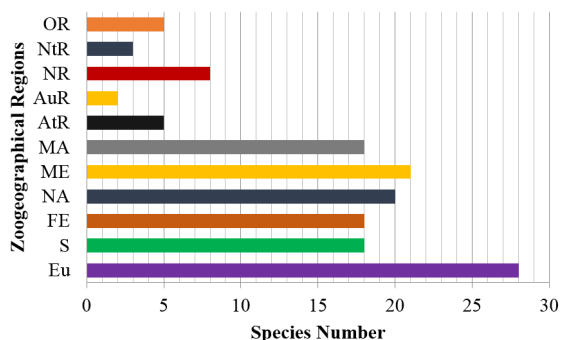


Figure 7. Zoogeographical distributions of detected species (OR: Oriental Region, NtR: Neotropical Region, NR: Nearctic Region, AuR: Australian Region, AtR: Afrotropical Region, MA: Middle Asia, ME: Middle East, NA: North Africa, FE: Far East, S: Siberia, Eu: Europe).

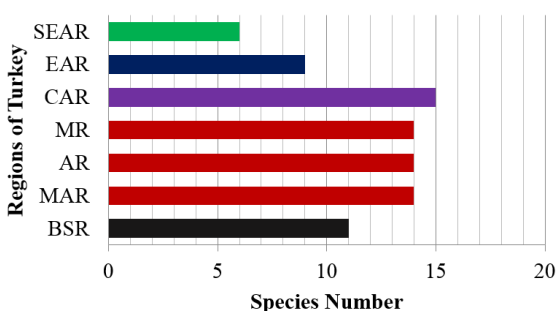


Figure 8. Distributions of detected species in other geographical regions of Turkey (SEAR: South-East Anatolia Region, EAR: East Anatolia Region, CAR: Central Anatolia Region, MR: Mediterranean Region, AR: Aegean Region, MAR: Marmara Region, BSR: Black Sea Region).

all altitude ranges, *Aleochara intricata*, *Drusilla canaliculata*, *Falagria sulcatula*, *Nehemitropia lividipennis*, *Lesteva longolytrata*, *Platystethus nitens*, *Lobrathium rugipenne*, *Rugilus angustatus* and *Lordithon rostratus* were determined at only one altitude range (Table 1).

Species were collected from different habitats (Figure 6). Most of the species were collected on edge of streams. Followed by other habitats, which are under stones, in soil and dung, under leaf, debris and carcass, and on herbaceous vegetation by using insect net. As a result of these findings, it could be stated that detected species primarily prefer moist habitats.

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Abbreviations (From Smetana, 2004)

E Europe

- AB Azerbaijan
- AL Albania
- AR Armenia
- AU Austria
- BE Belgium
- BH Bosnia Herzegovina
- BU Bulgaria
- BY Belarus
- CR Croatia
- CT Russia: Central European Territory
- CZ Czech Republic
- DE Denmark
- EN Estonia
- FA Faeroe Islands
- FI Finland
- FR France (incl. Corsica, Monaco)
- GB Great Britain (incl. Channel Islands)
- GE Georgia
- GG Georgia
- GR Greece (incl. Kriti)
- HU Hungary
- IC Iceland
- IR Ireland
- IT Italy (incl. Sardegna, Sicilia, San Marino)
- KZ Kazakhstan
- LA Latvia
- LT Lithuania
- LU Luxembourg
- MA Malta
- MC Macedonia
- NL The Netherlands
- NR Norway
- NT Russia: North European Territory
- PL Poland
- PT Portugal

RO Romania
 RU Russia
 SK Slovakia
 SL Slovenia
 SP Spain (incl. Gibraltar)
 ST Russia: South European Territory
 SV Sweden
 SZ Switzerland
 TR Turkey
 UK Ukraine
 YU Yugoslavia (Serbia, Montenegro)

N North Africa

AG Algeria
 CI Canary Islands
 EG Egypt
 LB Libya
 MO Morocco (incl. Western Sahara) AHN Anhui (Anhui)
 MR Madeira Archipelago
 TU Tunisia

A Asia

AE Arab Emirates
 AF Afghanistan
 AP India: Arunachal Pradesh
 BA Bahrain
 BT Bhutan
 CE China: Central Territory
 CH China
 CY Cyprus
 ES Russia: East Siberia
 FE Russia: Far East
 HP India: Himachal Pradesh
 IN Iran
 IQ Iraq
 IS Israel
 JA Japan
 JO Jordan
 KA India: Kashmir
 KI Kyrgyzstan
 KU Kuwait
 KZ Kazakhstan
 LE Lebanon
 MG Mongolia
 NP Nepal
 NE China: Northeast Territory
 NC North Korea
 NO China: Northern Territory
 NW China: Northwest Territory

OM Oman
 PA Pakistan
 QA Qatar (incl. United Arab Emirates)
 RU Russia
 SA Saudi Arabia
 SC South Korea
 SD India: Sikkim, Dmjeeling District
 SE China: Southeastern Territory
 Macao, Hongkong)
 SI Egypt: Sinai
 SW China: Southwestern Territory
 SY Syria
 TD Tajikistan
 TM Turkmenistan
 TR Turkey
 UP India: Uttaranchal, Uttar Pradesh
 UZ Uzbekistan
 WP China: Western Plateau
 WS Russia: west Siberia
 YE Yemen (incl. Socotra)
CHINA: PROVINCES, AUTONOMOUS REGIONS OR MUNICIPALITIES, AND TAIWAN
 BEI Beijing (Peking or Peiping)
 FUJ Fujian (Fukien)
 GAN Gansu (Kansu)
 GUA Guandong (Kwantung)
 HEB Hebei (Hopeh)
 HEI Heilongjiang (Heilungkiang)
 HKG Hongkong
 JIL Jilin (Kirin)
 SCH Sichuan (Szechwan)
 SHA Shaanxi (Shensi)
 SHN Shandong (Shantung)
 TAI Taiwan (Formosa)
 XIN Xinjiang (Sinkiang)
 YUN Yunnan
 ZHE Zhejiang (Chekiang)
 AFR Afrotropical Region

WORLD ZOOGEOGRAPHICAL REGIONS:

AUR Australian Region
 NAR Nearctic Region
 NTR Neotropical Region
 ORR Oriental Region

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