

Nepomorpha (Heteroptera) fauna of south-western Anatolia (Turkey)

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Abstract: A number of aquatic Heteroptera have been collected in the provinces of Antalya, Aydın, Burdur, Denizli, Isparta and Muğla, in south-western Anatolia. They belong to 14 species and 4 subspecies, from 11 genera and 6 families. Of these, 8 species and 3 subspecies are here recorded from south-western Anatolia for the first time. The presence of *Notonecta obliqua* in Turkey is confirmed.

Key words: Heteroptera, Nepomorpha, faunistics, south-western Anatolia, Turkey.

Fauna de Nepomorpha (Heteroptera) de Anatolia suroccidental (Turquía)

Resumen: Durante este estudio se han colectado especímenes de Heteroptera de las provincias de Antalya, Aydın, Burdur, Denizli, Isparta y Muğla, en el suroeste de Anatolia. Pertenecen a 14 especies y 4 subspecies, de 11 géneros y 6 familias. De ellas, 8 especies y 3 subspecies son primeras citas del suroeste de Anatolia. Se confirma la presencia de *Notonecta obliqua* en Turquía.

Palabras clave: Heteroptera, Nepomorpha, faunística, suroeste de Anatolia, Turquía.

Introduction

Aquatic insects are a very abundant and diverse group that inhabits a variety of aquatic environments. These organisms are an important component of aquatic (and sometimes terrestrial) food-chains because they break down and process organic matter and provide food for invertebrates and vertebrates. Aquatic and semiaquatic Heteroptera are important members of these communities.

The current state of knowledge about the distribution of aquatic Heteroptera in Turkey is generally poor, since only a few, limited works have been published about it. Among these works is the surveys by Hoberlandt (1952) and Seidenstücker (1957) which listed, respectively, 47 species and 5 subspecies and 4 species. Much of the information contained herein comes from the very useful catalogue by Aukema & Rieger (1995), who report 79 species and 5 subspecies from the country. For their part, Kiyak & Özsaraç (2001) record a total of 90 species and 9 subspecies from Turkey.

The study area chosen for this particular work of the aquatic and semi-aquatic Heteroptera fauna lies in the south-west of Turkey, only two of whose provinces (Burdur and Antalya) were mentioned by Hoberlandt (1952) and Jansson (1986). The main purpose of our study was to determine the composition of the aquatic and semi-aquatic Heteroptera fauna of the south-western provinces of Anatolia (Antalya, Burdur, Isparta, Denizli, Aydın and Muğla).

Material and methods

The specimens mentioned in this study were collected at 271 localities (Fig. 1, Table I) in south-western Turkey. A total of 3128 adults and nymphs of Nepomorpha belonging to 14 species and 4 subspecies were collected between April and September in 2000 and 2001 and between April and June of 2002. All the specimens were collected by means of aquatic nets, dip nets and kitchen sieves with a mesh size of about 2 x 2 mm and were killed in jars filled with 70 % alcohol; the samples were prepared and labelled following the standard procedure of museum material. For the identification of the material we have used the keys to freshwater Heteroptera published by the Freshwater Biological Association (Macan, 1939, 1941 and 1965; Savage, 1989 and 1999) and some additional works for the family Corixidae (Blackburn, 1984; Savage & Parkin, 1998; Read, 1986; Savage & Swift, 1997). We have intensively used the revision of the European Corixidae by Jansson (1986). All the material is deposited in the collection of the Zoological Museum of Gazi University (=ZMGU), Ankara, Turkey.

Results and Discussion

Three thousand hundred twenty-eight (3128) adults and nymphs of the infraorder Nepomorpha were collected in the provinces of Antalya, Burdur, Isparta, Denizli, Aydın and Muğla in 2000-2002, representing a total of 14 species and 4 subspecies belonging to 11 genera and 6 families. The localities, dates, altitudes, numbers of

specimens and their identities are given in Table II. The numbers of species per family are as follows: Nepidae, 2; Ochteridae, 1; Corixidae, 9; Naucoridae, 1; Notonectidae, 4; Pleidae, 1. Of these, 12 species are new records for Antalya, 11 for Aydın, 11 for Burdur, 15 for Denizli, 16 for Isparta, and 14 for Muğla province. The number of previous and new records of each species for each province is given in Table III.

Taking into account both the earlier studies (Hoberlandt, 1952; Jansson, 1986) and the present one, a total of 21 species belonging to 6 families of the infraorder Nepomorpha have now been reported from the south-west of Turkey.

Eight species and three subspecies are the first records from south-western Anatolia (Table 3). These species and subspecies are: *Ranatra linearis* (Linnaeus, 1758), *Ochterus marginatus marginatus* (Latreille, 1804), *Micronecta anatolica* Lindberg, 1922, *Micronecta griseola* Horvath, 1899, *Hesperocorixa parallela* (Fieber, 1860), *Sigara striata* (Linnaeus, 1758), *Ilyocoris cimicoides cimicoides* (Linnaeus, 1758), *Anisops sardeus sardeus* Herrich-Schaeffer, 1849, *Notonecta maculata* Fabricius, 1794, *Notonecta obliqua* Thunberg, 1787, and *Notonecta viridis* Delcourt, 1909.

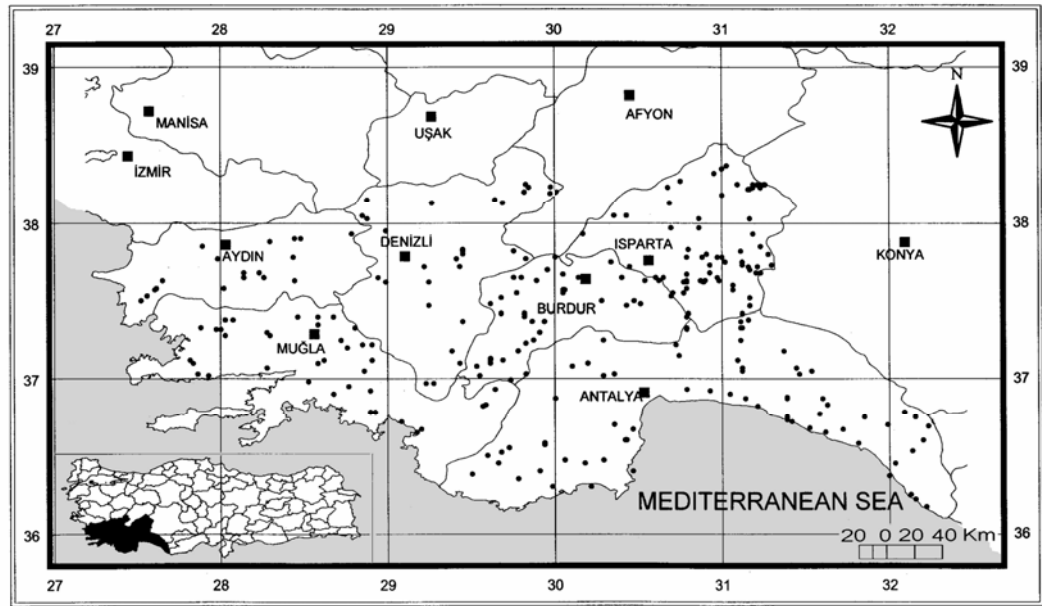
Previous studies carried out in these provinces reported 11 taxa of the infraorder Nepomorpha (Hoberlandt, 1952; Jansson, 1986; Seidenstücker, 1958; Stichel, 1955-1956). These species are *Nepa cinerea* Linnaeus, 1758, *Corixa affinis* Leach, 1817, *Corixa punctata* (Illiger, 1807), *Corixa panzeri* Fieber, 1848, *Paracorixa concinna* (Fieber, 1848), *Hesperocorixa linnaei* (Fieber, 1848), *Sigara lateralis* (Leach, 1817), *Sigara nigrolineata nigrolineata* (Fieber, 1848), *Sigara kervillei* (Poisson, 1927) and *Plea minutissima* Leach, 1817.

Hoberlandt (1952) and Jansson (1986) reported *Paracorixa concinna* (Fieber, 1848) from Burdur and Antalya. Jansson (1986) reported *Corixa panzeri* Fieber, 1848 from Burdur and *Sigara kervillei* (Poisson, 1927) from Antalya. However, we were not able to collect these species. In south-western Anatolia herbicides and pesticides are commonly used in agricultural areas, threatening aquatic insects, and the drainage of wetlands and pollution constitute a major problem in Turkey and pose a serious threat for aquatic insects.

The presence of *Notonecta obliqua* in Turkey was questioned in the *Catalogue of the Heteroptera of the Palaearctic Region* (Aukema & Rieger, 1995) due to its similarity to dark forms of *N. glauca*. We have studied the genitalia of the specimens collected for our study, and we can confirm the presence of *N. obliqua* in Turkey.

Of the six families represented in our material, the most abundant were the Corixidae (8 species and 1 subspecies), followed by the Notonectidae (3 species and 1 subspecies). The most abundant species were *Notonecta viridis* (17,58% of the catches), *Micronecta griseola* (16,40%), *Notonecta maculata* (16,17%) and

Fig. 1. Sampling localities in the study area.



Sigara lateralis (15,50 %). The number of specimens of these species accounted together for 65,66 % of all the catches (Fig. 2).

The present study represents the first comprehensive survey of the aquatic Heteroptera of southern Anatolia, an area with a very rich and diverse aquatic insect fauna seldom visited by aquatic biologists. Undoubtedly, as more surveys are carried out many more taxa will be added to the list, and new species remain to be discovered.

Acknowledgements

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Table I. Details of the 271 localities (L). Tabla I. Datos de las 271 localidades (L).

L Provinces/ Exact locality, types of water sources/ coordinates/ altitude

1	Antalya / Akseki, Murtiçi, stream / 36°52'N 31°45'E / 510 m	15	Antalya / Beşkonak, branches of Köprü river / 37°07'N 31°12'E / 112 m
2	Antalya / Akseki, between Murtiçi and Güçlüköy / 36°50'N 31°47'E / 660 m	16	Antalya / Beşkonak, Tazı V. / 37°15'N 31°13'E / 320 m
3	Antalya / Alanya, Başköy / 36°27'N 32°21'E / 670 m	17	Antalya / Elmalı, Avlan Lake / 36°34'N 29°57'E / 1033 m
4	Antalya / Alanya, between Beldibi and Fakırcalı, small stream / 36°28'N 32°17'E / 520 m	18	Antalya / Elmalı, Avşar V., stream / 36°33'N 29°43'E / 1130 m
5	Antalya / Alanya, Demirtaş, Sedre stream / 36°25'N 32°10'E / 22 m	19	Antalya / Elmalı, Çobanisa V. near / 36°52'N 30°01'E / 1170 m
6	Antalya / Alanya, 5. km from Demirtaş to Gazipaşa / 36°27'N 32°13'E / 60m	20	Antalya / Elmalı, Göltaşı, Avlan Lake / 36°35'N 29°57'E / 1200 m
7	Antalya / Alanya, Konakhan, Serapsu / 36°35'N 31°59'E / 18 m	21	Antalya / Finike, Akyaka V., Akçay Stream / 36°28'N 30°05'E / 345 m
8	Antalya / Alanya, Payallar V. / 36°37'N 31°45'E / 20 m	22	Antalya / Finike, Alakır Dam and Alakır stream / 36°27'N 30°13'E / 144 m
9	Antalya / Alanya, Yeşilöz stream / 36°22'N 32°11'E / 20 m	23	Antalya / Finike, Hasyurt, Alakır stream / 36°18'N 30°15'E / 5 m
10	Antalya / between Bağlıaç V. and Kayadibi V. / 36°24'N 30°31'E / 120 m	24	Antalya / Gazipaşa / 36°13'N 32°21'E / 60 m
11	Antalya / Belen, road Kaş-Elmalı / 36°24'N 29°55'E / 250 m	25	Antalya / Gazipaşa, Gazipaşa stream / 36°15'N 32°19'E / 25 m
12	Antalya / Beşkonak, between Çaltepe and Değirmenözü, branches of Köprü river, Kanlı stream / 37°20'N 31°13'E / 492 m	26	Antalya / Gazipaşa, Hacımusa stream / 36°10'N 32°25'E / 62 m
13	Antalya / Beşkonak, between Değirmenözü and Yeşilbağ, stream / 37°20'N 31°14'E / 517 m	27	Antalya / Gazipaşa, Kocadere / 36°15'N 32°19'E / 30 m
14	Antalya / Beşkonak, between Kırkkavak and Tazı V. / 37°17'N 31°13'E / 510 m	28	Antalya / Gündoğmuş, road Gündoğmuş-Akseki / 36°46'N 31°44'E / 220 m
		29	Antalya / İbradı, road Derebucak-İbradı, spring water / 37°11'N 31°30'E / 1545 m
		30	Antalya / İbradı, Orman V., spring water / 37°04'N 31°35'E / 970 m
		31	Antalya / İbradı, Ürünlü V., Altınbeşik cave / 37°02'N 31°36'E / 800 m

- 32 Antalya / between İkidere and Yeşilbağ, branches of Köprü river / 37°23'N 31°16'E / 733 m
- 33 Antalya / Kale, Demre stream / 36°18'N 30°00'E / 1200 m
- 34 Antalya / Kaş, Çamlıova V., Dargaz stream / 36°23'N 29°29'E / 845 m
- 35 Antalya / Kaş, Gömbe, stream / 36°30'N 29°35'E / 1275 m
- 36 Antalya / Kaş, 2. km from Gömbe to Elmalı / 36°31'N 29°40'E / 1260 m
- 37 Antalya / Kaş, Kasaba, Ortabağ near / 36°21'N 29°47'E / 175 m
- 38 Antalya / Kaş, Sinekçibeli mountain pass / 36°27'N 29°39'E / 1450 m
- 39 Antalya / Kemer, Göynük Stream / 36°40'N 30°31'E / 67 m
- 40 Antalya / Kemer, Kozluca stream / 36°36'N 30°29'E / 165 m
- 41 Antalya / Kemer, between Kuzdere and Kemer / 36°36'N 30°28'E / 360 m
- 42 Antalya / Korkuteli, Dereköy, Korkuteli Dam / 37°05'N 30°08'E / 1088 m
- 43 Antalya / Korkuteli, Döşemealtı, Kırkgöz / 37°06'N 30°14'E / 310 m
- 44 Antalya / Korkuteli, Söğütçük V. / 37°01'N 30°20'E / 930 m
- 45 Antalya / Kumluca, between Güzören and Karaağaç V. / 36°28'N 30°20'E / 535 m
- 46 Antalya / 25. km from Manavgat to Beşkonak, Köprü stream / 37°04'N 31°14'E / 54 m
- 47 Antalya / Manavgat, Boztepe, Alara stream / 36°39'N 31°39'E / 20 m.
- 48 Antalya / Manavgat, Doğançam, Zıfır bridge near / 36°45'N 31°31'E / 28 m
- 49 Antalya / Manavgat, Evrenseki, stream / 36°49'N 31°20'E / 21 m
- 50 Antalya / Manavgat, Hocalar V., Sarısu / 36°52'N 31°15'E / 22 m
- 51 Antalya / Manavgat, Karacalar V., stream / 36°44'N 31°31'E / 15 m
- 52 Antalya / Manavgat, Kızılot, Karpuz stream / 36°43'N 31°33'E / 10 m
- 53 Antalya / Manavgat, Manavgat Dam / 36°52'N 31°31'E / 42 m
- 54 Antalya / Manavgat, Oymapınar Dam / 36°53'N 31°31'E / 40 m
- 55 Antalya / Manavgat, Sağırını / 37°03'N 31°14'E / 200 m
- 56 Antalya / Kayadibi, Aksu stream / 37°13'N 30°48'E / 77 m
- 57 Antalya / Tehneli stream / 36°56'N 30°52'E / 18 m
- 58 Antalya / Üçoklar V. / 36°42'N 30°24'E / 900 m
- 59 Antalya / Serik, Kayaburnu bridge / 36°55'N 31°01'E / 21 m
- 60 Antalya / Serik, east of Kayadibi / 37°19'N 30°52'E / 300 m
- 61 Antalya / Serik, Kırbaş V., spring water / 37°09'N 30°49'E / 57 m
- 62 Antalya / Serik, Köprüpazarı stream, Köprü river / 36°54'N 31°09'E / 34 m
- 63 Antalya / Alanya, Çırlasun stream / 36°43'N 32°28'E / 1260 m
- 64 Antalya / Alanya, Erikli stream / 36°32'N 32°20'E / 1335 m
- 65 Antalya / Alanya, Güney V., Zeytinbükü stream / 36°40'N 31°53'E / 125 m
- 66 Antalya / Alanya, Karapınar V., Gevne bridge / 36°36'N 32°24'E / 1110 m
- 67 Antalya / Gündoğmuş, Kemer, Alarakemer stream / 36°45'N 32°01'E / 325 m
- 68 Antalya / İbradı, 15. km from Akseki to İbradı / 37°03'N 31°41'E / 657 m
- 69 Antalya / Korkuteli road, Söğütçük near / 37°02'N 30°24'E / 904 m
- 70 Aydın / Bozdoğan, branches of Kemer Dam / 37°24'N 28°29'E / 645 m
- 71 Aydın / Bozdoğan, Örmapınar V. / 37°24'N 28°21'E / 816 m
- 72 Aydın / Buharkent, Meyremoğlu, Büyükmenderes river / 37°56'N 28°42'E / 142 m
- 73 Aydın / Çine, Elderesi, pond / 37°41'N 28°06'E / 625 m
- 74 Aydın / Çine, Kavşit, Çatak small lake / 37°39'N 28°08'E / 705 m
- 75 Aydın / Çine, Tepeköy, Topçam Dam / 37°41'N 28°00'E / 130 m
- 76 Aydın / Çine, Yörükler, Çine stream / 37°39'N 28°00'E / 68 m
- 77 Aydın / İncirliova, İkiz stream / 37°51'N 27°44'E / 58 m
- 78 Aydın / Karpuzlu, Abak V., branches of Çine stream / 37°35'N 27°52'E / 104 m
- 79 Aydın / Nazilli, near Esen V., Akçay / 37°47'N 28°19'E / 80 m
- 80 Aydın / Nazilli, Güzelköy civarı, stream / 37°54'N 28°22'E / 100 m
- 81 Aydın / Nazilli, Dereköy stream / 37°54'N 28°20'E / 105 m
- 82 Aydın / Söke, Avşar V., Azap Lake / 37°35'N 27°26'E / 35 m
- 83 Aydın / Söke, Karacahayit stream / 37°38'N 27°28'E / 26 m
- 84 Aydın / Söke, Sarıkemer, Büyükmenderes / 37°32'N 27°22'E / 21 m
- 85 Aydın / Söke, Yeşilköy, Azap lake / 37°34'N 27°25'E / 17 m
- 86 Aydın / Sultanhisar, Malkaç stream / 37°53'N 28°10'E / 115 m
- 87 Aydın / Centre, Baltolay, water heap / 37°46'N 27°50'E / 50 m
- 88 Aydın / Söke, Büyükmenderes / 37°30'N 27°20'E / 19 m
- 89 Burdur / Ağlasun, Dereköy near / 37°38'N 30°36'E / 1060 m
- 90 Burdur / Ağlasun-Yeşilbaş yolu, stream / 37°39'N 30°27'E / 1400 m
- 91 Burdur / Altınyayla, small lake / 37°01'N 29°32'E / 1300 m
- 92 Burdur / Bucak, İncidere, stream / 37°28'N 30°29'E / 880 m
- 93 Burdur / Bucak, Onaç Dam / 37°29'N 30°34'E / 828 m
- 94 Burdur / road Çavdır-Kozağacı / 37°07'N 29°41'E / 1035 m
- 95 Burdur / Çavdır, Söğüt town, stream / 37°02'N 29°50'E / 1420 m
- 96 Burdur / Çavdır, Yazır Lake / 36°59'N 29°44'E / 1512 m
- 97 Burdur / Çeltikçi, Akyayla V., stream / 37°30'N 30°19'E / 1400 m
- 98 Burdur / Çeltikçi-Dağarcık, branches of Onaç Dam / 37°30'N 30°32'E / 840 m
- 99 Burdur / Gölhisar, Gölhisar Lake / 37°07'N 29°36'E / 956 m
- 100 Burdur / Gölhisar, between Gölhisar and Çavdır / 37°08'N 29°36'E / 966 m
- 101 Burdur / Gölhisar, Karapınar V. / 37°05'N 29°31'E / 1005m
- 102 Burdur / Gölhisar, Ulupınar V., Gölhisar Lake / 37°06'N 29°36'E / 955 m
- 103 Burdur / Güney-Yeşilova arası, Saldabeli, stream / 37°29'N 29°36'E / 1165 m
- 104 Burdur / Hacılar V., small lake / 37°34'N 30°05'E / 945 m
- 105 Burdur / Karamanlı Dam / 37°25'N 29°49'E / 1207 m
- 106 Burdur / Karamanlı, 1. branches of Karamanlı Dam / 37°24'N 29°49'E / 1206 m
- 107 Burdur / Karamanlı, 2. branches of Karamanlı Dam / 37°25'N 29°49'E / 1196 m
- 108 Burdur / Karamanlı, Karataş Lake / 37°22'N 29°57'E / 1054 m
- 109 Burdur / Karamanlı, Kayalı V., Sulama pond / 37°18'N 29°55'E / 1110 m
- 110 Burdur / Karamanlı, Kılavuz V. near, Karataş Lake / 37°22'N 29°52'E / 1062 m
- 111 Burdur / 1. branches of Askeriye and Gelincik, stream / 37°45'N 30°23'E / 1140 m
- 112 Burdur / Başmakçı V., small stream / 37°47'N 30°01'E / 1400 m
- 113 Burdur / Boğaziçi V., Eren stream / 37°40'N 30°04'E / 1000 m
- 114 Burdur / Hacilar V. / 37°34'N 30°04'E / 910 m
- 115 Burdur / Karaçal Dam / 37°34'N 30°05'E / 945 m
- 116 Burdur / down of Karaçal Dam / 37°33'N 30°04'E / 920 m
- 117 Burdur / Kovacık, small stream / 37°42'N 29°58'E / 1206 m
- 118 Burdur / Tefenni, between Başpınar and Karamusa / 37°11'N 29°45'E / 1228 m
- 119 Burdur / Tefenni, between Çaylı and Yeşilköy / 37°14'N 29°50'E / 1176 m
- 120 Burdur / Tefenni, Hasanpaşa Town, branches of Eren stream, Hasanpaşa pond / 37°15'N 29°53'E / 1217 m
- 121 Burdur / Yeşilova, Bayındır V., Marshy / 37°39'N 29°45'E / 1040 m
- 122 Burdur / Yeşilova, Büyükyaka V., Fountain pond / 37°38'N 29°54'E / 1180m
- 123 Burdur / Yeşilova, Dereköy stream / 37°39'N 29°48'E / 1090 m
- 124 Burdur / Yeşilova, Işıklar V., small stream / 37°33'N 29°46'E / 1170 m
- 125 Burdur / Yeşilova, Saldal Lake side / 37°31'N 29°40'E / 1160 m
- 126 Burdur / between Yeşilova and Karamanlı, branches of Karamanlı Dam / 37°25'N 29°40'E / 1217 m
- 127 Burdur / Ağlasun, Çamlidere, stream / 37°38'N 30°41'E / 940 m
- 128 Burdur / Çavdır, Yamadı V. / 37°07'N 29°36'E / 960 m
- 129 Burdur / Centre, Suludere stream / 37°39'N 30°10'E / 915 m
- 130 Denizli / Acıpayam, Yeniköy, irrigation canal / 37°22'N 29°25'E / 863 m
- 131 Denizli / Bekilli, between Süller and Kocaköy / 38°08'N 29°41'E / 962 m
- 132 Denizli / Buldan, Beyler V. / 38°09'N 28°48'E / 530 m
- 133 Denizli / Buldan, Süleymanlı LAke / 38°03'N 28°46'E / 1175 m
- 134 Denizli / Buldan, 8. km from Buldan to Süleymanlı / 38°02'N 28°48'E / 900 m
- 135 Denizli / Çal, Adıgüzel barajı, small pond / 38°08'N 29°13'E / 686 m
- 136 Denizli / Çameli, Çamlıbel V. / 37°11'N 29°21'E / 1130 m
- 137 Denizli / Çameli, east of İmamlar V. / 37°06'N 29°24'E / 1335 m
- 138 Denizli / border Çardak-Dazkırı / 37°49'N 29°45'E / 863 m
- 139 Denizli / Çivril, Bucak, west of Işıklı Lake / 38°14'N 29°51'E / 838 m
- 140 Denizli / Çivril, Düzbel V., stream / 38°10'N 30°03'E / 845 m
- 141 Denizli / Çivril, between Emirhisar and Tuğlu, pond / 38°15'N 29°50'E / 840 m
- 142 Denizli / Çivril, Gökgöl V. civarı, marsh / 38°12'N 30°02'E / 850 m
- 143 Denizli / Çivril, Gökgöl V., Ahır stream / 38°11'N 30°03'E / 930 m
- 144 Denizli / Çivril, İshaklı V. civarı, flow stream of Işıklı Lake / 38°11'N 30°03'E / 850 m
- 145 Denizli / Çivril, Sarıbeyli V., Büyük Menderes / 38°09'N 29°38'E / 827 m
- 146 Denizli / Çivril, near Seraser, Işıklı Lake, irrigation pump / 38°12'N 29°49'E / 840 m
- 147 Denizli / Denizli-Tavas road 5. km, Şahintepesi place / 37°43'N 29°10'E / 590 m
- 148 Denizli / Honaz, Kaklık, branches of Aksu stream / 37°48'N 29°25'E / 572m
- 149 Denizli / Honaz, Yokuşbaşı, stream / 37°50'N 29°25'E / 595 m
- 150 Denizli / Kale-Muğla yolu, Gazeller, Akçay / 37°20'N 28°43'E / 440 m
- 151 Denizli / Köyceğiz, Sandras mountain, Stream / 37°07'N 28°50'E / 1400 m
- 152 Denizli / Sarayköy, Köprübaşı, small pond / 37°57'N 28°55'E / 155 m
- 153 Denizli / Tavas, Güzelköy, Dünberek stream / 37°37'N 28°55'E / 910 m
- 154 Denizli / Tavas, 6 km to Kızılca / 37°28'N 29°12'E / 1410 m
- 155 Denizli / Tavas, Sarıabat V., small pond / 37°37'N 29°12'E / 1120 m
- 156 Denizli / Tavas, near Yağlılar V., pond / 37°39'N 28°52'E / 1077 m
- 157 Denizli / Çameli, Kirazlıyaylı V., Karabayır stream / 36°58'N 29°11'E / 840m
- 158 Denizli / Çardak, cost of Acıgöl, fresh water spring / 37°49'N 29°25'E / 780 m
- 159 Denizli / Çardak, Gemiş V., Acı Lake (absent specimen) / 37°46'N 29°50'E / 860 m
- 160 Denizli / Denizli-Çameli arası, Elmalı V., stream / 36°58'N 29°14'E / 885 m
- 161 Denizli / Honaz, Akbaş V., stream / 37°43'N 29°24'E / 1050 m
- 162 Denizli / Honaz, Yukarıdağdere, Saklı Lake / 37°46'N 29°23'E / 990 m
- 163 Isparta / Aksu, between Aksu-Yılanlı, stream / 37°48'N 31°00'E / 1215 m
- 164 Isparta / Aksu, 7. km road Anamas plateau, stream / 37°45'N 31°14'E / 1765 m
- 165 Isparta / Aksu, Anamas plateau, stream / 37°49'N 31°13'E / 1896 m
- 166 Isparta / Aksu, Dedegöl Mountains, stream / 37°42'N 31°17'E / 1610 m
- 167 Isparta / Aksu, Karaği V., Stream / 37°45'N 31°07'E / 1210 m
- 168 Isparta / Aksu, branches of Köprü river, Aksu stream / 37°47'N 31°04'E / 1230 m

- 169 Isparta / Aksu, Yakaköy, Stream / 37°44'N 31°14'E / 1425 m
170 Isparta / Aksu, between Yakaköy and Yenişarbademli / 37°43'N 31°16'E / 1753 m
171 Isparta / between Aksu and Karağı, Aksu stream and / 37°47'N 31°06'E / 1305 m
172 Isparta / between Ayvalıpınar and Sipahiler / 37°37'N 30°59'E / 1255 m
173 Isparta / between Belence and Ayvalı / 37°38'N 31°05'E / 1075 m
174 Isparta / Eğirdir, between Aksu and Yılanlı, fountain pond / 37°47'N 30°58'E / 1210 m
175 Isparta / road Eğirdir-Aşağıgökdere V. / 37°33'N 30°47'E / 365 m
176 Isparta / Eğirdir, between Ayvalıpınar and Pazarköy, Stream / 37°44'N 31°01'E / 1180 m
177 Isparta / Eğirdir, Göktaş, Koyasız stream / 37°50'N 30°53'E / 950 m
178 Isparta / Eğirdir, south of Kovada Lake / 37°37'N 30°52'E / 935 m
179 Isparta / Eğirdir, Kozyazı bridge, flow stream of Eğirdir Lake / 37°50'N 30°53'E / 935 m
180 Isparta / 3. km from Eğirdir to Isparta, Stream / 37°58'N 30°46'E / 1000 m
181 Isparta / Eğirdir, Akbenli V. / 37°15'N 30°20'E / 1050 m
182 Isparta / Eğirdir, Aşağıgöktepe V. near / 37°32'N 30°46'E / 340 m
183 Isparta / Eğirdir, Balkırı near, flow stream from Kovada to Eğirdir / 37°47'N 30°52'E / 930 m
184 Isparta / Eğirdir, HES I. / 37°37'N 30°51'E / 975 m
185 Isparta / Eğirdir, Kovada Dam / 37°20'N 30°52'E / 920 m
186 Isparta / Gelendost, Hacılar near, Eğirdir Lake / 38°02'N 30°57'E / 936 m
187 Isparta / Gölcük Lake / 37°43'N 30°30'E / 1410 m
188 Isparta / Keçiborlu, north of Kaplanlı V. / 37°56'N 30°12'E / 1100 m
189 Isparta / Centre, Güneyce near, Stream / 37°39'N 30°43'E / 666 m
190 Isparta / Centre, road Isparta-Ağlasun, Doğan stream / 37°39'N 30°40'E / 770 m
191 Isparta / Senirkent, Eğirdir Lake side / 38°08'N 30°46'E / 935 m
192 Isparta / Senirkent, Gençali V., Eğirdir Lake side / 38°14'N 30°45'E / 950 m
193 Isparta / Sütçüler entry, Kovada stream / 37°35'N 30°52'E / 890 m
194 Isparta / Sütçüler yol ayırımı, Kovada stream / 37°33'N 30°51'E / 630 m
195 Isparta / Sütçüler, Ayvalıpınar, Köprü river / 37°41'N 31°01'E / 1120 m
196 Isparta / Sütçüler, Belence arası, Köprü river / 37°36'N 31°10'E / 920 m
197 Isparta / Sütçüler, between Belence and Ayvalı / 37°39'N 31°04'E / 1100 m
198 Isparta / Sütçüler, between İncidere and Belence, Köprü river / 37°34'N 31°10'E / 730 m
199 Isparta / Sütçüler, Karacaören Dam / 37°25'N 30°53'E / 280 m
200 Isparta / Sütçüler, north of Kesme, stream / 37°28'N 31°17'E / 1005 m
201 Isparta / Sütçüler, road Kesme-Aşağıyaylabel, branches of Köprü river / 37°31'N 31°17'E / 892 m
202 Isparta / Sütçüler, Kızılsu, stream / 37°24'N 30°53'E / 290 m
203 Isparta / Sütçüler, Kovada Lake / 37°40'N 30°52'E / 927 m
204 Isparta / Sütçüler, Kovada I (HES near, irrigation canal / 37°38'N 30°52'E / 950 m
205 Isparta / Sütçüler, south of Sipahiler, stream / 37°38'N 30°58'E / 1209 m
206 Isparta / Sütçüler, Sipahiler, Taşlıkkır stream / 37°38'N 30°59'E / 1185 m
207 Isparta / Sütçüler, between Yeşilbağ and Kesme / 37°25'N 31°14'E / 938 m
208 Isparta / Şarkikaraağaç, north of Salur V., stream / 38°02'N 31°17'E / 1158 m
209 Isparta / Uluborlu, İleydağı V., Pupa Stream / 38°03'N 30°29'E / 1160 m
210 Isparta / Uluborlu, down of Süleyman Demirel Dam / 38°03'N 30°24'E / 1116 m
211 Isparta / Yalvaç, Aşağıkaşıkara V. near, Eğirdir Lake / 38°16'N 30°50'E / 930 m
212 Isparta / Yalvaç, north of Bağkonak Dam, stream / 38°13'N 31°16'E / 1203 m
213 Isparta / Yalvaç, between Bağkonak and Cankurtaran, Sultan Mountains, fountain pond / 38°15'N 31°20'E / 1663 m
214 Isparta / Yalvaç, north of Bağkonak / 38°14' 31°18' 872'E / 1420 m
215 Isparta / Yalvaç, west of Bağkonak, Sultan Mountains / 38°13' 890"N 31°17'654"E / 1260 m
216 Isparta / Yalvaç, between Bağkonak and Cankurtaran / 38°14'865"N 31°21'597"E / 1615 m
217 Isparta / Yalvaç, between Bağkonak and Cankurtaran, Sultan Mountains, flow stream of Akşehir Lake / 38°14'N 31°21'E / 1657 m
218 Isparta / Yalvaç, Bağlarbaşı V. near / 38°21'N 31°07'E / 1216 m
219 Isparta / Yalvaç, Celeptaş V. / 38°19'N 31°03'E / 1185 m
220 Isparta / Yalvaç, Eğirler V. near / 38°11'N 31°06'E / 1035 m
221 Isparta / Yalvaç, Kuyucak V. / 38°15'N 31°12'E / 1125 m
222 Isparta / Yalvaç, Sultan Mountains / 38°15'N 31°20'E / 1680 m
223 Isparta / Yalvaç, Sultan Mountains / 38°15'N 31°23'E / 1570 m
224 Isparta / Yalvaç, northwest of Sultan Mountains / 38°15'093"N 31°18'513"E / 1438 m
225 Isparta / Yalvaç, Sultan Mountains, Stream / 38°15'N 31°20'E / 1730 m
226 Isparta / Yalvaç, Sultan Mountains, Stream / 38°15'N 31°22'E / 1556 m
227 Isparta / Yalvaç, Sultan Mountains, Stream / 38°15'N 31°21'E / 1565 m
228 Isparta / Yalvaç, Sücüllü, Yalvaç Dam / 38°22'N 31°08'E / 1180 m
229 Isparta / Yenişarbademli, Gedikli, Beyşehir Lake side / 37°56'N 31°18'E / 1140 m
230 Isparta / Yenişarbademli, Forest Orman store naer / 37°41'N 31°21'E / 1280 m
231 Isparta / Yenişarbademli, Yakaköy near, Stream / 37°43'N 31°20'E / 1430m
232 Isparta / between Yenişarbademli and Gökyaka, stream / 37°44'N 31°25'E / 1167 m
233 Isparta / between Yenişarbademli and Şarkikaraağaç / 37°51'N 31°21'E / 1137 m
234 Isparta / Beyşehir Lake side, opposite side of İğdeli Peninsula / 37°48'N 31°24'E / 1130 m
235 Isparta / Yenişehirbademli, stream / 37°41'N 31°19'E / 1230 m
236 Isparta / Gelendost, Sarıdris V., Eğirdir Lake side / 37°58'N 30°57'E / 1090 m
237 Muğla / Bodrum, Mumcular Dam / 37°07'N 27°39'E / 110 m
238 Muğla / Bodrum, Mumcular, small lake / 37°06'N 27°40'E / 125 m
239 Muğla / Bozdoğan, Çayboyu town, stream / 37°38'N 28°20'E / 670 m
240 Muğla / Dalaman, Tersakan stream / 36°47'N 28°51'E / 250 m
241 Muğla / Dalaman, Tersakan II stream / 36°47'N 28°49'E / 23 m
242 Muğla / Fethiye, Seki near, branches of Esen stream / 36°49'N 29°33'E / 1130 m
243 Muğla / between Göcek and Fethiye, Günlüklü town, stream / 36°43'N 29°01'E / 599 m
244 Muğla / from Kale to Köyceğiz / 37°06'N 28°29'E / 590 m
245 Muğla / between Kemer and Karahasantaşı V., flow stream of Esen stream / 36°56'N 29°38'E / 1390 m
246 Muğla / Kemer, Seki, Seki stream / 36°50'N 29°34'E / 1150 m
247 Muğla / between Kemer and Kaynazlı V., Kaynazlı stream / 36°40'N 29°10'E / 250 m
248 Muğla / Köyceğiz Lake side / 36°57'N 28°41'E / 75 m
249 Muğla / Köyceğiz, Sultanıye near / 36°54'N 28°35'E / 15 m
250 Muğla / Avcılar V. / 37°21'N 28°29'E / 545 m
251 Muğla / between Beyağaç and Karacaören / 37°13'N 28°50'E / 625 m
252 Muğla / Göktepe / 37°24'N 28°35'E / 767 m
253 Muğla / between Karacaören and Yörükoğlu / 37°13'N 28°46'E / 595 m
254 Muğla / between Kulatak and Akyaka V. / 37°04'N 28°09'E / 80 m
255 Muğla / Murat V., stream / 37°15'N 28°38'E / 590 m
256 Muğla / Milas, Geyik Dam / 37°23'N 27°53'E / 486 m
257 Muğla / Milas, exit of Gökbel V. / 37°01'N 27°46'E / 350 m
258 Muğla / Milas, between Kayabaşı and Yusufça V. / 37°19'N 27°51'E / 225m
259 Muğla / Milas, Tuzabat, small lake / 37°17'N 27°53'E / 520 m
260 Muğla / 10 km to Milas / 37°19'N 27°49'E / 98 m
261 Muğla / 6. km from Milas to Söke, Sarıçay / 37°20'N 27°43'E / 41 m
262 Muğla / Ula, south of Yeşilçam / 36°59'N 28°25'E / 157 m
263 Muğla / Yatağan, Bozarmut near, Alishar stream / 37°17'N 28°10'E / 400 m
264 Muğla / Yatağan, between Bozarmut and Bozhöyük, stream / 37°18'N 28°09'E / 370 m
265 Muğla / Yatağan, between Gökgedik and Katranlı / 37°23'N 27°56'E / 595 m
266 Muğla / between Yeniköy and Makıköy / 37°02'N 27°42'E / 350 m
267 Muğla / Fethiye, Murt stream / 36°39'N 29°07'E / 37 m
268 Muğla / Köyceğiz, road Beyobası-Sayhisar, Yuvarlak stream / 36°55'N 28°49'E / 150 m
269 Muğla / Köyceğiz, Yayla V., Gölge Mountains / 37°03'N 28°47'E / 1730 m
270 Muğla / Ula, Gölcük town, stream / 37°07'N 28°31'E / 690 m
271 Muğla / Ula, Yaylasöğüt V. near / 37°12'N 28°40'E / 925 m

Table II. Species of the infraorder Nepomorpha from south-western Anatolia
(numbers for the localities (L) refer to sampling sites listed in table I; * = first record from southern Anatolia).

Tabla II. Especies del infraorden Nepomorpha del suroeste de Anatolia
(los números de localidad (L) remiten a la lista de la Tabla I; * = primera cita para el sur de Anatolia).
L= localities / localidades; Ny= Nymphs / ninfas; Sp=Specimens / ejemplares

L	♂♂	♀♀	Ny	sp	date	L	♂♂	♀♀	Ny	sp	date	L	♂♂	♀♀	Ny	sp	date												
NEPIDAE																													
Nepa cinerea																													
112	-	1	-	-	15.09.2000	120	2	1	-	-	23.06.2000	44	1	5	-	-	26.06.2002												
117	-	-	1	-	18.07.2001	122	14	27	-	-	08.08.2000	63	-	1	-	-	12.09.2000												
114	1	11	-	-	20.04.2002	122	-	1	-	-	11.08.2000	71	-	1	-	-	22.08.2001												
164	-	-	6	-	14.07.2000	123	3	8	-	-	15.09.2000	74	5	5	-	-	21.05.2005												
209	-	6	-	-	15.09.2000	130	4	6	-	-	07.08.2000	77	-	1	-	-	19.05.2001												
220	-	1	-	-	20.06.2001	138	1	-	-	-	20.06.2002	78	-	6	-	-	20.05.2001												
227	3	12	7	-	15.09.2000	144	2	-	-	-	11.09.2001	78	3	8	-	-	23.06.2002												
*Ranatra linearis																													
107	1	-	-	-	14.09.2001	155	4	2	-	-	07.08.2000	79	2	1	-	-	21.05.2001												
108	-	-	16	-	23.06.2000	157	7	14	-	-	16.07.2000	81	-	3	-	-	19.05.2001												
134	1	2	-	-	19.05.2001	158	5	4	-	-	19.07.2000	84	2	-	-	-	20.05.2001												
139	1	-	2	-	26.06.2001	160	1	2	-	-	16.07.2000	85	2	-	-	-	23.06.2002												
146	-	-	1	-	26.06.2001	167	3	2	-	-	10.08.2000	86	-	3	-	-	27.05.2002												
196	1	-	-	-	23.08.2001	195	5	3	-	-	27.06.2000	87	3	1	-	-	27.05.2002												
242	-	-	1	-	20.08.2001	204	1	15	-	-	19.05.2000	88	-	2	-	-	23.06.2002												
26	-	-	1	-	18.08.2001	208	4	-	-	-	02.08.2000	93	-	3	-	-	23.04.2001												
OCHTERIDAE																													
Ochterus marginatus marginatus																													
160	1	1	-	-	16.07.2000	209	1	4	-	-	15.09.2000	93	4	3	-	-	25.05.2002												
CORIXIDAE																													
*Micronecta anatolica																													
4	-	-	-	12	18.08.2001	211	1	-	-	-	11.09.2001	94	1	-	-	-	22.06.2002												
125	-	-	-	1	17.07.2001	211	1	-	-	-	11.09.2001	95	2	1	-	-	26.06.2002												
145	-	-	-	57	26.06.2001	227	-	1	-	-	15.09.2001	96	-	4	-	-	21.06.2002												
178	-	-	-	4	23.08.2001	237	1	2	-	-	17.04.2000	100	2	2	-	-	27.06.2001												
199	-	-	-	182	21.06.2001	254	1	-	-	-	18.04.2000	106	-	5	-	-	27.06.2001												
253	-	-	-	12	21.08.2001	261	-	1	-	-	23.06.2001	107	2	2	-	-	20.08.2001												
257	-	-	-	3	17.04.2000	263	2	1	-	-	27.05.2002	107	1	-	-	-	14.09.2001												
98	-	-	-	1	28.05.2001	265	-	1	-	-	23.06.2001	107	1	8	-	-	20.06.2002												
*Micronecta griseola																													
17	-	-	-	1	21.05.2000	269	3	5	-	-	17.07.2000	108	1	2	-	-	20.08.2001												
33	-	-	-	158	20.05.2000	Corixa punctata																							
46	-	-	-	1	25.06.2000	45	-	1	-	-	25.06.2000	108	6	10	-	-	20.06.2002												
116	-	-	-	1	09.08.2000	73	3	4	-	-	21.05.2001	114	-	1	-	-	22.05.2001												
176	-	-	-	6	27.06.2000	78	2	1	-	-	20.05.2001	115	6	4	-	-	20.06.2002												
203	-	-	-	108	19.05.2000	108	-	1	-	-	23.06.2000	116	1	1	-	-	09.08.2000												
233	-	-	-	5	27.06.2000	110	1	-	-	-	23.06.2000	120	1	-	-	-	23.06.2000												
237	-	-	-	193	17.04.2000	122	-	1	-	-	08.08.2000	121	2	3	-	-	22.08.2001												
139	-	-	-	1	22.05.2000	133	-	2	-	-	19.05.2001	122	1	3	-	-	08.08.2000												
240	-	-	-	39	22.05.2000	133	-	2	-	-	25.06.2001	124	1	3	-	-	20.06.2002												
Corixa affinis																													
17	-	1	-	-	21.05.2000	157	1	-	-	-	16.07.2001	127	1	-	-	-	28.05.2001												
23	-	1	-	-	14.07.2001	158	1	-	-	-	19.07.2001	128	-	5	-	-	22.06.2002												
42	-	1	-	-	22.04.2001	160	1	-	-	-	16.07.2000	129	5	5	-	-	20.06.2002												
43	1	1	-	-	25.05.2002	171	2	-	-	-	28.08.2001	132	4	3	-	-	28.05.2002												
44	-	1	-	-	26.06.2002	211	5	8	-	-	21.06.2000	133	-	4	-	-	17.07.2001												
51	1	-	-	-	27.06.2002	Hesperocorixa linnaei																							
52	-	1	-	-	27.06.2002	11	1	-	-	-	20.05.2001	140	5	6	-	-	19.06.2002												
62	1	1	-	-	14.09.2001	82	14	1	-	-	23.06.2001	148	-	1	-	-	22.08.2001												
65	1	3	-	-	11.07.2000	85	-	2	-	-	23.06.2002	149	1	-	-	-	26.06.2001												
72	2	-	-	-	19.05.2001	86	-	1	-	-	27.05.2002	169	1	-	-	-	14.09.2001												
73	1	1	-	-	21.05.2001	88	1	-	-	-	23.06.2002	177	1	-	-	-	25.05.2002												
74	2	1	-	-	21.05.2001	96	1	-	-	-	21.06.2002	178	6	-	-	-	23.08.2001												
78	21	17	-	-	20.05.2001	128	5	6	-	-	22.06.2002	179	1	1	-	-	18.07.2001												
78	2	-	-	-	23.06.2002	133	3	2	-	-	19.05.2001	182	14	29	-	-	15.07.2000												
83	2	1	-	-	21.04.2002	133	-	1	-	-	25.06.2001	185	1	-	-	-	21.06.2001												
85	-	1	-	-	23.06.2002	144	-	1	-	-	11.09.2001	190	13	-	-	-	23.08.2001												
87	-	1	-	-	27.05.2002	145	-	1	-	-	18.05.2001	191	-	2	-	-	21.06.2000												
93	2	2	-	-	25.05.2002	145	1	-	-	-	26.06.2001	195	-	1	-	-	27.06.2000												
99	1	2	-	-	13.09.2001	145	1	-	-	-	26.06.2001	211	7	7	-	-	21.06.2000												
104	2	2	-	-	09.08.2000	186	2	-	-	-	20.06.2001	211	14	18	-	-	11.09.2001												
107	1	4	-	-	14.09.2001	208	11	-	-	-	02.08.2000	211	2	2	-	-	28.05.2002												
108	2	3	-	-	23.06.2000	211	1	-	-	-	21.06.2000	211	16	19	-	-	19.06.2002												
109	1	6	-	-	14.09.2001	229	3	-	-	-	02.08.2000	212	2	-	-	-	29.05.2001												
110	-	2	-	-	23.06.2000	*Hesperocorixa parallela																							
115	-	1	-	-	20.06.2002	65	9	6	-	-	11.07.2000	227	1	-	-	-	22.05.2001												
116	1	3	-	-	09.08.2000	86	-	1	-	-	27.05.2002	228	1	-	-	-	20.06.2001												
116	1	2	-	-	21.06.2001	103	1	-	-	-	23.05.2000	228	9	7	-	-	24.08.2001												
118	-	1	-	-	23.06.2000	164	7	6	-	-	14.07.2000	228	7	22	-	-	11.09.2001												
Sigara lateralis																													
4	-	1	-	-	18.08.2001	175	-	2	-	-	17.07.2000	232	2	2	-	-	27.06.2000												
10	1	-	-	-	22.05.2000	195	1	-	-	-	27.06.2000	233	3	2	-	-	27.06.2000												
18	-	2	-	-	24.06.2000	Sigara lateralis																							
19	4	7	-	-	26.05.2002	4	-	1	-	-	18.08.2001	236	2	2	-	-	25.05.2002												
20	12	-	-	-	26.05.2002	10	1	-	-	-	22.05.2000	238	-	4	-	-	23.06.2001												
33	1	-	-	-	20.05.2000	18	-	2	-	-	24.06.2000	241	4	3	-	-	15.07.2001												
42	1	4	-	-	21.06.2002	19	4	7	-	-	26.05.2002	243	1	1	-	-	22.05.2000												
Sigara lateralis																													
4	-	1	-	-	18.08.2001	20	12	-	-	-	26.05.2002	248	1	6	-	-	18.04.2000												
10	1	-	-	-	22.05.2000	33	1	-	-	-	20.05.2000	249	3	5	-	-	25.06.2002												
18	-	2	-	-	24.06.2000	42	1	4	-	-	21.06.2002	256	2	9	-	-	23.06.2001												
19	4	7	-	-	26.05.2002	Sigara lateralis																							
20	12	-	-	-	26.05.2002	4	-	1	-	-	18.08.2001	259	-	2	-	-	21.04.2002												
33	1	-	-	-	20.05.2000	10	1	-	-	-	22.05.2000	261	-	4	-	-	20.05.2001												
42	1	4	-	-	21.06.2002	18	-	2	-	-	24.06.2000	Sigara lateralis																	

L	♂♂	♀♀	Ny	sp	date
261	1	6	-	-	23.06.2001
* Sigara nigrolineata nigrolineata					
2	-	1	-	-	29.06.2001
17	-	1	-	-	21.05.2000
18	1	-	-	-	24.06.2000
22	1	-	-	-	20.05.2000
29	-	1	-	-	03.08.2000
51	-	1	-	-	27.06.2002
54	3	2	-	-	19.08.2001
69	2	-	-	-	26.05.2002
79	-	1	-	-	21.05.2001
81	1	-	-	-	19.05.2001
95	-	1	-	-	26.06.2002
108	1	-	-	-	27.06.2001
111	-	2	-	-	28.06.2001
118	1	1	-	-	23.06.2000
124	-	1	-	-	18.07.2001
127	-	1	-	-	28.05.2001
127	-	1	-	-	21.06.2002
127	9	5	-	-	21.06.2002
131	1	-	-	-	26.06.2001
149	1	-	-	-	26.06.2001
150	1	-	-	-	22.06.2001
154	-	1	-	-	22.06.2001
167	11	14	-	-	14.09.2000
168	-	1	-	-	28.06.2001
171	-	1	-	-	28.06.2001
174	1	-	-	-	28.06.2001
175	1	-	-	-	21.06.2002
176	3	2	-	-	27.06.2000
179	1	-	-	-	18.07.2001
182	-	23	-	-	15.07.2000
205	4	15	-	-	26.06.2000
207	-	8	-	-	26.06.2000
208	-	1	-	-	02.08.2000
219	1	3	-	-	21.06.2000
219	2	-	-	-	19.07.2000
235	2	-	-	-	13.07.2000
243	-	3	-	-	22.05.2000
247	4	3	-	-	22.05.2000
268	2	1	-	-	22.04.2002
* Sigara striata					
7	3	2	-	-	27.06.2002
18	-	1	-	-	22.04.2001
27	1	1	-	-	26.05.2001
44	1	-	-	-	26.06.2002
47	1	-	-	-	21.04.2001
50	-	1	-	-	26.06.2002
52	1	3	-	-	27.06.2002
53	1	1	-	-	26.06.2002
57	1	-	-	-	26.06.2002
59	-	1	-	-	26.06.2002
62	13	5	-	-	14.09.2001
76	-	1	-	-	23.06.2002
80	-	2	-	-	27.05.2002
82	4	3	-	-	21.04.2002
83	5	1	-	-	21.04.2002
84	1	-	-	-	20.05.2001
94	9	-	-	-	22.06.2002
96	1	1	-	-	23.06.2000
105	1	1	-	-	23.06.2000
108	-	1	-	-	23.06.2000
108	-	22	-	-	27.06.2001
124	-	1	-	-	20.06.2002
133	1	-	-	-	19.05.2001
133	-	2	-	-	25.06.2001
133	-	4	-	-	17.07.2001
154	1	1	-	-	20.06.2002
178	5	4	-	-	21.06.2002
183	-	3	-	-	21.06.2001
192	1	-	-	-	21.06.2000
204	2	-	-	-	19.05.2000
208	4	1	-	-	27.06.2000
213	1	1	-	-	27.06.2000
217	4	2	-	-	27.06.2000
228	3	7	-	-	20.06.2001
228	-	2	-	-	24.08.2001

L	♂♂	♀♀	Ny	sp	date
228	-	4	-	-	11.09.2001
233	1	-	-	-	27.06.2000
237	-	1	-	-	17.04.2000
260	1	3	-	-	23.06.2002
NAUCORIDAE					
* Ilyocoris cimicoides cimicoides					
82	16	18	15	-	23.06.2001
102	4	2	6	-	27.06.2001
128	2	1	-	-	22.06.2002
133	1	-	-	-	19.05.2001
133	1	-	2	-	25.06.2001
136	1	-	-	-	22.06.2002
142	5	-	-	-	18.05.2001
144	2	-	-	-	11.09.2001
146	-	-	2	-	26.06.2001
204	-	1	-	-	19.05.2000
234	-	1	-	-	27.06.2000
249	2	-	2	-	12.09.2001
258	1	-	-	-	12.09.2001
NOTONECTIDAE					
* Anisops sardeus sardeus					
4	-	1	-	-	18.08.2001
5	-	2	-	-	29.06.2001
9	-	1	-	-	26.05.2001
44	-	1	-	-	26.06.2002
48	1	-	-	-	21.04.2001
49	-	1	-	-	13.07.2001
61	-	1	-	-	19.08.2001
76	1	-	-	-	20.05.2001
133	1	-	-	-	17.07.2001
147	4	7	-	-	17.07.2001
152	2	-	-	-	22.08.2001
156	-	1	-	-	22.06.2002
237	2	6	-	-	17.04.2000
238	17	15	-	-	23.06.2001
238	1	2	-	-	23.06.2001
256	-	1	-	-	23.06.2001
261	1	-	-	-	23.06.2001
266	-	4	-	-	17.04.2001
* Notonecta maculata					
1	6	4	-	-	29.06.2001
3	3	2	-	-	18.08.2001
5	2	3	-	-	27.06.2002
6	1	1	-	-	18.08.2001
8	4	-	-	-	21.04.2001
14	7	7	-	-	25.06.2000
15	4	3	-	-	25.06.2000
18	1	-	-	-	21.05.2000
22	1	-	-	-	20.05.2000
25	6	2	-	-	27.06.2002
28	4	1	-	-	29.06.2001
29	-	6	-	-	03.08.2000
31	4	-	-	-	03.08.2000
32	2	-	-	-	26.06.2000
34	9	7	-	-	05.08.2000
36	-	2	-	-	05.08.2000
37	1	-	-	-	26.05.2002
39	4	1	-	-	26.05.2001
40	1	-	-	-	14.07.2001
41	1	-	-	-	14.07.2001
45	3	1	-	-	25.06.2000
46	9	5	-	-	25.06.2000
48	1	-	-	-	21.04.2001
51	1	-	-	-	27.06.2002
55	1	3	-	-	25.06.2000
56	4	2	-	-	19.08.2001
58	2	3	-	-	13.07.2001
60	13	9	-	-	21.06.2001
63	1	-	-	-	12.09.2000
66	4	3	-	-	12.09.2000
67	-	1	-	-	11.07.2000
67	4	3	-	-	13.09.2000
70	1	2	-	-	23.05.2000
73	6	3	-	-	21.05.2001
75	-	1	-	-	27.05.2002
79	1	3	-	-	25.06.2001
89	1	-	-	-	28.05.2001

L	♂♂	♀♀	Ny	sp	date
90	-	2	-	-	15.07.2000
91	1	-	-	-	20.08.2001
92	2	1	-	-	21.06.2001
97	1	-	-	-	21.06.2001
99	4	-	-	-	20.08.2001
101	1	-	-	-	06.08.2000
103	2	2	-	-	16.07.2000
103	2	1	-	-	14.09.2000
107	1	-	-	-	20.08.2001
110	-	1	-	-	23.06.2000
111	3	-	-	-	28.06.2001
112	3	1	-	-	15.09.2000
113	-	1	-	-	21.06.2001
116	1	-	-	-	21.06.2001
121	1	2	-	-	20.06.2002
122	22	17	-	-	08.08.2000
124	1	-	-	-	18.07.2007
127	1	-	-	-	21.06.2002
133	1	4	-	-	25.06.2001
135	1	-	-	-	20.04.2002
137	-	1	-	-	27.06.2001
143	1	-	-	-	22.06.2000
145	1	-	-	-	26.06.2001
151	7	5	-	-	21.08.2001
153	2	1	-	-	07.08.2000
157	6	3	-	-	16.07.2000
160	-	1	-	-	16.07.2000
161	1	-	-	-	18.07.2000
163	1	-	-	-	28.06.2001
165	-	1	-	-	14.07.2000
166	-	5	-	-	13.07.2000
167	3	2	-	-	10.08.2000
167	6	3	-	-	14.09.2000
171	2	3	-	-	28.06.2001
172	2	-	-	-	26.06.2000
173	1	1	-	-	26.06.2000
175	1	-	-	-	21.06.2002
176	1	2	-	-	23.08.2001
180	1	-	-	-	25.05.2002
182	1	-	-	-	15.07.2000
184	13	20	-	-	10.08.2000
184	5	1	-	-	21.06.2001
189	1	-	-	-	23.08.2001
193	1	2	-	-	19.05.2000
194	-	2	-	-	19.05.2000
195	2	2	-	-	14.07.2000
195	-	2	-	-	10.08.2000
195	4	2	-	-	23.08.2001
196	-	1	-	-	23.08.2001
196	5	2	-	-	23.08.2001
197	1	-	-	-	23.08.2001
200	3	3	-	-	26.06.2000
201	4	3	-	-	26.06.2000
202	-	1	-	-	21.06.2001
203	1	-	-	-	19.05.2000
206	4	6	-	-	15.07.2000
208	1	1	-	-	02.08.2000
214	1	1	-	-	19.07.2001
216	-	2	-	-	19.07.2001
221	-	1	-	-	20.07.2000
224	1	-	-	-	19.07.2001
225	7				

L	♂♂	♀♀	Ny	sp	date	L	♂♂	♀♀	Ny	sp	date	L	♂♂	♀♀	Ny	sp	date
267	1	-	-	-	17.07.2000	65	14	22	-	-	11.07.2000	172	-	1	-	-	26.06.2000
269	1	3	-	-	17.07.2000	67	2	-	-	-	13.09.2000	176	1	-	-	-	23.08.2001
270	3	6	-	-	18.07.2000	68	5	1	-	-	12.07.2000	184	4	6	-	-	10.08.2000
271	-	1	-	-	18.07.2000	78	4	3	-	-	20.05.2001	184	2	-	-	-	21.06.2001
*Notonecta obliqua						79	1	-	-	-	22.08.2001	188	9	15	-	-	19.07.2000
24	1	-	-	-	20.08.2000	90	1	2	-	-	15.07.2000	192	1	-	-	-	21.06.2000
28	-	1	-	-	29.06.2001	99	1	-	-	-	23.06.2000	198	-	1	-	-	23.08.2001
41	2	2	-	-	14.07.2001	99	2	1	-	-	13.09.2001	206	-	2	-	-	15.07.2000
49	1	-	-	-	13.07.2001	103	1	-	-	-	16.07.2000	208	1	1	-	-	02.08.2000
107	2	-	-	-	14.09.2001	103	-	1	-	-	09.08.2000	209	3	-	-	-	15.05.2000
108	-	1	-	-	23.06.2000	106	-	1	-	-	27.06.2001	210	-	2	-	-	21.06.2000
108	1	-	-	-	27.06.2001	107	3	-	-	-	20.08.2001	211	31	50	-	-	21.06.2000
116	3	2	-	-	21.06.2001	107	1	1	-	-	14.09.2001	214	1	-	-	-	19.07.2001
117	2	2	-	-	18.07.2001	107	2	-	-	-	14.09.2001	218	9	2	-	-	24.08.2001
133	1	-	-	-	25.06.2001	108	3	8	-	-	23.06.2000	219	1	1	-	-	21.06.2000
141	1	-	-	-	26.06.2001	108	1	1	-	-	27.06.2001	219	3	4	-	-	19.07.2000
144	4	2	-	-	11.09.2001	108	-	2	-	-	20.08.2001	221	3	2	-	-	20.07.2000
166	1	-	-	-	14.07.2000	112	2	14	-	-	15.09.2000	222	1	7	-	-	15.09.2000
167	1	-	-	-	14.09.2000	116	-	1	-	-	21.06.2001	223	3	1	-	-	11.08.2000
184	-	2	-	-	21.06.2001	117	1	1	-	-	18.07.2001	224	1	1	-	-	19.07.2001
198	-	1	-	-	23.08.2001	119	-	1	-	-	23.06.2000	225	-	3	-	-	02.08.2000
210	1	-	-	-	21.06.2000	120	1	-	-	-	23.06.2000	226	9	4	-	-	02.08.2000
215	1	-	-	-	19.07.2001	121	3	2	-	-	20.06.2002	227	6	20	-	-	15.09.2000
218	3	-	-	-	24.08.2001	122	4	4	-	-	08.08.2000	229	2	2	-	-	02.08.2000
228	-	1	-	-	23.06.2001	122	5	2	-	-	11.08.2000	230	4	1	-	-	04.09.2000
235	1	-	-	-	13.07.2000	123	-	1	-	-	15.09.2000	231	1	-	-	-	14.09.2000
238	1	-	-	-	23.06.2001	126	1	1	-	-	23.06.2000	238	1	1	-	-	23.06.2001
242	-	1	-	-	20.08.2001	128	-	1	-	-	22.06.2002	244	1	-	-	-	21.08.2001
255	1	-	-	-	22.06.2001	130	-	3	-	-	07.08.2000	245	1	-	-	-	06.08.2000
271	-	1	-	-	18.07.2000	138	1	-	-	-	20.06.2002	252	-	1	-	-	16.07.2001
*Notonecta viridis						144	1	1	-	-	11.09.2001	254	3	6	-	-	18.04.2000
5	-	1	-	-	27.06.2002	151	-	2	-	-	21.08.2001	257	7	1	-	-	17.04.2000
9	1	6	-	-	10.07.2000	154	1	-	-	-	20.06.2002	270	12	11	-	-	18.07.2000
12	1	8	-	-	26.06.2000	155	-	2	-	-	07.08.2000	271	2	1	-	-	18.07.2000
13	2	-	-	-	26.06.2000	156	-	1	-	-	22.06.2002	PLEIDAE					
16	1	-	-	-	25.06.2000	158	3	6	-	-	19.07.2000	<i>Plea minutissima</i>					
21	1	2	-	-	05.08.2000	160	1	-	-	-	16.07.2000	5	6	5	-	-	27.06.2002
28	-	1	-	-	12.07.2000	161	1	-	-	-	18.07.2000	18	-	1	-	-	24.06.2000
30	9	1	-	-	03.08.2000	162	-	1	-	-	09.07.2000	38	-	1	-	-	23.04.2001
31	1	-	-	-	03.08.2000	164	23	7	-	-	14.07.2000	54	1	-	-	-	04.08.2000
35	10	7	-	-	05.08.2000	165	3	-	-	-	14.07.2000	115	1	2	-	-	20.06.2002
39	10	4	-	-	04.08.2000	166	2	3	-	-	13.07.2000	133	2	4	-	-	19.05.2001
45	-	2	-	-	25.06.2000	166	1	-	-	-	14.07.2000	181	-	1	-	-	10.08.2000
50	3	-	-	-	26.06.2002	167	2	-	-	-	14.07.2000	187	1	-	-	-	28.06.2001
51	1	2	-	-	27.06.2002	167	2	-	-	-	10.08.2000	237	-	1	-	-	17.04.2000
52	-	1	-	-	27.06.2002	167	5	-	-	-	14.09.2000	TOTAL 1171 1310 62 785					
58	1	-	-	-	13.07.2001	169	-	1	-	-	14.09.2000						
64	1	-	-	-	11.07.2000	170	-	1	-	-	27.06.2000						

Table III. Distribution of previously and newly recorded species, by provinces / Tabla III. Distribución por provincias de las especies, tanto las citadas en el presente trabajo como en estudios anteriores.

■ this work / presente trabajo; ▲ earlier studies / estudios anteriores;
An= Antalya; Ay= Aydin; Bu=Burdur; De=Denizli; Is=Isparta; Mu= Muğla.

FAMILY SPECIES	Provinces of south-western Anatolia					
	An	Ay	Bu	De	Is	Mu
Nepidae						
<i>Nepa cinerea</i>			■▲	■	■	
<i>Ranatra linearis</i>	■		■	■	■	■
Ochteridae						
<i>Ochterus marginatus marginatus</i>				■		
Corixidae						
<i>Micronecta anatolica</i>	■		■	■	■	■
<i>Micronecta griseola</i>	■		■		■	■
<i>Corixa affinis</i>	■▲	■	■▲	■	■	■
<i>Corixa punctata</i>	■	■	■▲	■	■	■
<i>Corixa panzeri</i>			▲			
<i>Paracorixa concinna</i>	▲		▲			
<i>Hesperocorixa linnaei</i>	■	■	■	■▲	■	
<i>Hesperocorixa parallela</i>	■	■	■		■	
FAMILY SPECIES						
Provinces of south-western Anatolia						
An Ay Bu De Is Mu						
Naucoridae						
<i>Sigara lateralis</i>	■▲	■	■▲	■	■	■
<i>Sigara nigrolineata nigrolineata</i>	■▲	■	■	■	■	■
<i>Sigara striata</i>	■	■	■	■	■	■
<i>Sigara kervillei</i>	▲					
Ilyocoris cimicoides cimicoides						
		■	■	■	■	■
Notonectidae						
<i>Anisops sardeus sardeus</i>	■	■		■		■
<i>Notonecta maculata</i>	■	■	■	■	■	■
<i>Notonecta obliqua</i>	■	■	■	■	■	■
<i>Notonecta viridis</i>	■	■	■	■	■	■
Pleidae						
<i>Plea minutissima</i>	■		■▲	■	■	■
Total number of species	17	11	18	16	16	14