

## AN ANNOTATED CHECKLIST OF THE ODONATA OF TURKEY

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In addition to the checklist, spp. of which the taxonomic status has changed, or with significant changes in the known distribution, are annotated. At present a total of 96 spp. (6 of which are divisible into 2 or more sspp.) are now known to occur in Turkey with certainty, and at least 15 spp. and an additional 5 sspp. are to be expected. *Ischnura fountaineae* is new to the Turkish fauna. The sole Turkish record of *Ophiogomphus cecilia* pertains to *O. reductus* which is here mentioned for the first time from Turkish territory.

### INTRODUCTION

The knowledge of the dragonfly fauna of Turkey has mainly been based on the review article by DUMONT (1977), and the book on Turkish dragonflies by DEMIRSOY (1982). Dumont presented all known records from Turkey and the adjacent Mediterranean islands up to 1977, listing a total of 85 species for Turkish territory (five of which are divisible into two or more subspecies). At least 11 species were listed as 'to be expected'. This article still forms the basis for research on Turkish dragonflies. The work of DEMIRSOY (1982) contains a key to the species, a review of known records and a number of new records from his own collection at the Hacetepe University in Ankara. Unfortunately, the book is written in Turkish, which makes it less accessible to international science.

More recently, a great deal of new information has become available, partly in the form of faunistic regional studies (e.g. BUSSE, 1993; SEIDENBUSCH, 1995), or merely as notes on the presence of a single species (e.g. ARLT, 1999). Also some taxonomic revisions of supraspecific taxa with representatives in Turkey have been published (e.g. BATTIN, 1993; JÖDICKE, 1994). As a consequence, the list of Odonata known from Turkey has changed significantly. Here an updated checklist of the Odonata

of Turkey is presented, and the main changes compared with DUMONT (1977) and DEMIRSOY (1982) are discussed.

### CHECKLIST OF TURKISH ODONATA

The checklist below is based on DUMONT (1977) and DEMIRSOY (1982), with the inclusion of subsequently published records and hitherto unpublished material present in the collections of the Zoological Museum of Amsterdam (ZMAN) and the National Museum of Natural History, Leiden (RMNH). The list of species 'to be expected' has been revised on the basis of literature on the fauna of adjacent regions. At present a total of 96 species (six of which are divisible into two or more subspecies) are now known to occur in Turkey with certainty, and at least 15 species and an additional five subspecies are to be expected.

DUMONT (1977) listed 11 species as 'to be expected', 6 of which (*Ischnura fontaineae*, *Pseudagrion syriacum*, *Aeshna cyanea*, *Lindenia tetraphylla*, *Anormogomphus kiritshenkoi*, and *Trithemis arteriosa*) have since been reported from Turkey. The remaining 5 species (*Agriocnemis sania*, *Ischnura senegalensis*, *Cordulegaster bidentata*, *Sympetrum danae*, *Zygonyx torridus*) are still listed here as 'to be expected', and 10 species and 5 subspecies are added here.

The present list of species 'to be expected' can be divided according to their distributional patterns:

- SE Europe. – In Thracia *Erythromma najas* and *Lestes viridis* may very well occur as these species have been found in SE Bulgaria. Also some subspecies may have to be added to the fauna of Turkey (e.g. *Gomphus f. flavipes*, *Onychogomphus f. forcipatus*), as these have been reported from nearby parts of Bulgaria and Greece. Some of these species are indeed known to occur in Thracia without being identified at the subspecific level.
- Caucasus. – In NE Turkey both *Leucorrhinia caudalis* and *Sympetrum danae* might occur as these species are present in the Caucasus. *Lestes viridis* may also be present in NE Turkey.
- Mediterranean coast of Israel, Lebanon and Syria. – Three species found in the Levant might be present in southern Turkey. Of these *Calopteryx hyalina* is the most likely candidate. *Agriocnemis sania* and *Zygonyx torridus* have not been found in or north of the Lebanon, and their presence in Turkey appears unlikely.
- Iran/Iraq/Syria. – The southeastern part of Turkey, adjacent to Iran, Iraq and Syria, has not been investigated thoroughly, and the information on the fauna of the adjacent countries is also scarce. In the lower part of Turkey, roughly between the Euphrates and the Tigris, *Ischnura evansi*, *I. senegalensis* and *Gomphus kinzelbachi* are to be expected. In the mountainous area of SE Turkey, *Coenagrion persicum* might occur.

## SOME REMARKS ON SELYS' (1887) RECORDS FROM MALATYA

In 'Odonates de l'Asie mineure et revision de ceux des autres parties de la faune dite européenne' SELYS (1887) reported upon numerous species from Asia Minor, and many of these were listed from the territory of present Turkey for the first time. Based on material from the collection of Albarda (now in RMNH) 15 species are reported from the locality "Malatya", situated in SE Turkey. Two of those species, *Ophiogomphus reductus* and *Orthetrum ransonneti* (notes 43 and 61), have never been found in Turkey again and two other species, *Sympetma paedisca* and *Sympetrum arenicolor* (notes 10 and 64) have only been reported from a single other locality. As the combination of these four species is more likely to be encountered in central Asia, it was questioned whether the material in fact originated from this region. Unfortunately, all other (sub)species mentioned by Selys are widespread and not uncommon in large parts of both Turkey and Central Asia. Therefore, the answer to the question whether a locality error is involved remains inconclusive. As the combination of species from Malatya is rather odd but not impossible, both *Ophiogomphus reductus* and *Orthetrum ransonneti* are listed for Turkey.

Table I

List of species recorded in Turkey, or to be expected. For each taxon the status in DUMONT (1977), and DEMIRSOY (1982) is given. The column 'Recorded for Turkey' gives the present-day situation. Within the families the species are listed in alphabetical order. – [Abbreviations: x = listed; – p = listed under other name; – e = expected; – n = new after the publication of DEMIRSOY (1982); – RMNH = National Museum of Natural History, Leiden; – ZMAN = Zoological Museum of Amsterdam]

Taxa	Dumont 1977	Demirsoy 1982	Recorded or expected for Turkey	Recorded for Thracia	Note
<b>CALOPTERYGIDAE</b>					
<i>CALOPTERYX</i> Leach, 1815					1
<i>C. splendens</i> (Harris, 1782)				x	
<i>C. s. amasina</i> Bartenef, 1911	p	x	x	p	2
<i>C. s. hyalina</i> Martin, 1909			e		3
<i>C. s. intermedia</i> Selys, 1887	x	p	x		4
<i>C. s. mingrelica</i> Selys, 1868	x		e		5
<i>C. s. waterstoni</i> Schneider, 1984			n		5
<i>C. s. tschaldirica</i> (Bartenef, 1909)	x		x		
<i>C. syriaca</i> Rambur, 1842	x	x			6
<i>C. virgo</i> (Linnaeus, 1758)					
<i>C. v. festiva</i> (Brullé, 1832)	x	x	x	x	
<b>EUPHAEIDAE</b>					
<i>EPALLAGE</i> Charpentier, 1840					
<i>E. fatime</i> Charpentier, 1840	x	x	x	x	

Table I, continued

Taxa	Dumont 1977	Demirsoy 1982	Recorded or expected for Turkey	Recorded for Thracia	Note
<b>LESTIDAE</b>					
<i>LESTES</i> Leach, 1815					
<i>L. barbarus</i> (Fabricius, 1798)	x	x	x	x	
<i>L. dryas</i> Kirby, 1890	x	x	x	x	
<i>L. macrostigma</i> (Eversmann, 1836)	x	x	x		
<i>L. sponsa</i> (Hansemann, 1823)	x	x	x		
<i>L. virens</i> (Charpentier, 1825)			x	x	7
<i>L. v. vestalis</i> Rambur, 1842		x			7
<i>L. v. virens</i> (Charpentier, 1825)	x				7
<i>L. viridis</i> (Vander Linden, 1825)			e		8
<i>L. parvidens</i> Artobolevski, 1929	p	x	x	x	9
<i>SYMPECMA</i> Burmeister, 1839					
<i>S. fusca</i> (Vander Linden, 1820)	x	x	x	x	
<i>S. paedisca</i> (Brauer, 1882)	p	x	x		10
<b>PLATYCNEMIDIDAE</b>					
<i>PLATYCNEMIS</i> Burmeister, 1839					
<i>P. dealbata</i> Selys in Selys & Hagen, 1850	x	p	x		11
<i>P. kervillei</i> (Martin, 1909)	x	p	x		12
<i>P. pennipes</i> (Pallas, 1771)		x			
<i>P. p. pennipes</i> (Pallas, 1771)	x		x	x	
<b>COENAGRIONIDAE</b>					
<i>AGRIOCNEMIS</i> Selys, 1869					
<i>Agriocnemis sania</i> Nielsen, 1959	e		e		13
<i>CERCION</i> Navas, 1907					
<i>C. lindenii</i> (Selys, 1840)		x			
<i>C. l. lindenii</i> (Selys, 1840)	x		x	x	
<i>C. l. zernyi</i> Schmidt, 1939			n		14
<i>CERIAGRION</i> Selys, 1876					
<i>C. georgfreyi</i> Schmidt, 1953	x	x	x		15
<i>C. tenellum</i> (De Villers, 1789)		x			16
<i>COENAGRION</i> Kirby, 1890					
<i>C. hastulatum</i> (Charpentier, 1825)	x				17
<i>C. lunulatum</i> (Charpentier, 1840)	p	x	x		18
<i>C. ornatum</i> (Selys, 1850)	x	x	x	x	
<i>C. persicum</i> Lohmann, 1993			e		19

Table I, continued

Taxa	Dumont 1977	Demirsoy 1982	Recorded or expected for Turkey	Recorded for Thracia	Note
<i>C. ponticum</i> (Bartenef, 1929)			n		20
<i>C. puella</i> (Linnaeus, 1758)		x	x	x	
<i>C. pulchellum</i> (Vander Linden, 1825)	x	x		x	21
<i>C. p. pulchellum</i> (Vander Linden, 1825)			x		21
<i>C. p. saisanicum</i> Belyshev, 1964					21
<i>C. scitulum</i> (Rambur, 1842)	x	x	x	x	
<i>C. syriacum</i> (Morton, 1924)	x	x	x		22
<i>C. vanbrinkae</i> Lohmann, 1993			n		23
<i>ENALLAGMA</i> Charpentier, 1840					
<i>E. cyathigerum</i> (Charpentier, 1840)				x	24
<i>E. c. cyathigerum</i> (Charpentier, 1840)	x		x		24
<i>E. c. rotundatum</i> Bartenef, 1929		x			24
<i>ERYTHROMMA</i> Charpentier, 1840					
<i>E. najas</i> (Hansemann, 1823)			e		25
<i>E. viridulum</i> (Charpentier, 1840)				x	
<i>E. v. viridulum</i> (Charpentier, 1840)			x		26
<i>E. v. orientale</i> Schmidt, 1960	x	x			26
<i>ISCHNURA</i> Charpentier, 1840					
<i>I. elegans</i> (Vander Linden, 1820)					
<i>I. e. ebneri</i> Schmidt, 1938	x	x	x	x	
<i>I. e. pontica</i> Schmidt, 1938	x	x	x		
<i>I. evansi</i> Morton, 1919			e		27
<i>I. fontaineae</i> Morton, 1905	e		n		28
<i>I. intermedia</i> Dumont, 1974	x		x		
<i>I. pumilio</i> (Charpentier, 1825)	x	x	x	x	
<i>I. senegalensis</i> (Rambur, 1842)	e		e		29
<i>PSEUDAGRION</i> Selys, 1876					
<i>P. syriacum</i> (Selys, 1887)	e		n		30
<i>PYRRHOSOMA</i> Charpentier, 1840					
<i>P. nymphula</i> (Sulzer, 1776)	x	x		x	
<i>P. n. nymphula</i> (Sulzer, 1776)			x		31
<b>AESHNIDAE</b>					
<i>AESHNA</i> Fabricius, 1775					
<i>A. affinis</i> Vander Linden, 1820	x	x	x	x	
<i>A. cyanea</i> (O.F. Müller, 1764)	e	e	n	x	32
<i>A. isoceles</i> (O.F. Müller, 1767)			x	x	33
<i>A. i. isoceles</i> (O.F. Müller, 1767)					33

Table I, continued

Taxa	Dumont 1977	Demirsoy 1982	Recorded or expected for Turkey	Recorded for Thracia	Note
<i>A. i. antehumeralis</i> (Schmidt, 1950)	x	p			33
<i>A. juncea</i> (Linnaeus, 1758)	x	x	x		34
<i>A. mixta</i> Latreille, 1805	x	x	x	x	
<i>A. serrata</i> (Hagen, 1856)	x	x			
<i>A. s. serrata</i> Hagen, 1856			x		
<i>ANAX</i> Leach, 1815					
<i>A. immaculifrons</i> Rambur, 1842	x		x		
<i>A. imperator</i> Leach, 1815	x	x			
<i>A. i. imperator</i> Leach, 1815			x	x	
<i>A. parthenope</i> (Selys, 1839)	x	x			
<i>A. p. parthenope</i> (Selys, 1839)			x	x	
<i>BRACHYTRON</i> Evans, 1845					
<i>B. pratense</i> (O.F. Müller, 1764)	x	x	x	x	35
<i>CALIAESCHNA</i> Selys, 1883					
<i>C. microstigma</i> (Schneider, 1845)	x	x	x	x	
<i>HEMIANAX</i> (Selys, 1883)					
<i>H. ephippiger</i> (Burmeister, 1839)	x	x	x		
<b>GOMPHIDAE</b>					
<i>ANORMOGOMPHUS</i> Selys, 1854					
<i>A. kiritshenkoi</i> Bartenev, 1913	e		n		36
<i>GOMPHUS</i> Leach, 1815					
<i>G. davidi</i> Selys, 1887	x	p	x		37
<i>G. flavipes</i> (Charpentier, 1825)				x	
<i>G. f. flavipes</i> (Charpentier, 1825)			e		38
<i>G. f. lineatus</i> Bartenev, 1929	x	x	x		
<i>G. kinzelbachi</i> Schneider, 1984			e		39
<i>G. schneideri</i> Selys, 1850	x	x	x	x	40
<i>G. vulgatissimus</i> (Linnaeus, 1758)			n	x	40
<i>LINDENIA</i> De Haan, 1826					
<i>L. tetraphylla</i> (Vander Linden, 1825)	e		n		41
<i>ONYCHOGOMPHUS</i> Selys, 1854					
<i>O. assimilis</i> (Schneider, 1845)	x	x	x		
<i>O. flexuosus</i> (Schneider, 1845)	x	x	x		
<i>O. forcipatus</i> (Linnaeus, 1758)				x	
<i>O. f. forcipatus</i> (Linnaeus, 1758)	x		e		42

Table I, continued

Taxa	Dumont 1977	Demirsoy 1982	Recorded or expected for Turkey	Recorded for Thracia	Note
<i>O. f. albotibialis</i> Schmidt, 1954	x	x	x		
<i>O. lefebvrei</i> (Rambur, 1842)	x	x	x		
<i>O. macrodon</i> (Selys, 1887)	x		x		
<i>OPHIOGOMPHUS</i> Selys, 1854					
<i>O. cecilia</i> (Fourcroy, 1785)	p	p	e		43
<i>O. reductus</i> Calvert, 1898			n		44
<i>PARAGOMPHUS</i> Cowley, 1934					
<i>P. lineatus</i> (Selys, 1850)	x		x		
<i>P. genei</i> (Selys, 1841)	x		e		45
<b>CORDULEGASTRIDAE</b>					
<i>CORDULEGASTER</i> Leach, 1815					46
<i>C. bidentata</i> (Selys, 1843)	e		e		47
<i>C. insignis</i> Schneider, 1845				x	
<i>C. i. amasina</i> Morton, 1915	p	x	x		48
<i>C. i. charpentieri</i> (Kolenati, 1846)	x		x		49
<i>C. i. insignis</i> Schneider, 1845	x		x		
<i>C. i. mzyntae</i> Bartenev, 1929			n		50
<i>C. i. nobilis</i> Morton, 1915	x	x	x		
<i>C. picta</i> Selys, 1854	p	p	x	x	51
<b>CORDULIIDAE</b>					
<i>CORDULIA</i> Leach, 1815					
<i>C. aenea</i> (Linnaeus, 1758)		e	n		52
<i>SOMATOCHLORA</i> Selys 1871					
<i>S. borisi</i> Marinov, 2001			e		53
<i>S. flavomaculata</i> (Vander Linden, 1825)	x		x	x	
<i>S. meridionalis</i> Nielsen, 1935	p	p	x	x	54
<i>S. metallica</i> (Vander Linden, 1825)			e		55
<b>LIBELLULIDAE</b>					
<i>BRACHYTHERMIS</i> Brauer, 1868					
<i>B. fuscopallata</i> (Selys, 1887)	x		x		
<i>B. leucosticta</i> (Burmeister, 1839)	x	x	x		
<i>CROCOTHEMIS</i> Brauer, 1868					
<i>C. erythraea</i> (Brullé, 1832)	x	x	x	x	
<i>C. servilia</i> (Drury, 1770)			n		56

Table I, continued

Taxa	Dumont 1977	Demirsoy 1982	Recorded or expected for Turkey	Recorded for Thracia	Note
<i>DIPLACODES</i> Kirby, 1889					
<i>D. lefebvrei</i> (Rambur, 1842)	x	x	x		
<i>LEUCORRHINIA</i> Brittinger, 1850					
<i>L. caudalis</i> (Charpentier, 1840)			e		57
<i>L. pectoralis</i> (Charpentier, 1825)	x	x	x		
<i>LIBELLULA</i> Linnaeus, 1758					
<i>L. depressa</i> Linnaeus, 1758	x	x	x	x	
<i>L. fulva</i> O.F. Müller, 1764		x	x	x	58
<i>L. pontica</i> Selys, 1887	x		x		59
<i>L. quadrimaculata</i> Linnaeus, 1758	x	x	x		
<i>ORTHETRUM</i> Newman, 1833					
<i>O. albistylum</i> (Selys, 1848)	x	x	x	x	
<i>O. brunneum</i> (Fonscolombe, 1837)					
<i>O. b. brunneum</i> (Fonscolombe, 1837)	x	x	x	x	
<i>O. cancellatum</i> (Linnaeus, 1758)	x	x	x	x	
<i>O. chrysostigma</i> (Burmeister, 1839)		x			
<i>O. c. chrysostigma</i> (Burmeister, 1839)	x		x		
<i>O. coerulescens</i> (Fabricius, 1798)					60
<i>O. c. anceps</i> (Schneider, 1845)	p	x	x	x	60
<i>O. ransonneti</i> (Brauer, 1865)			n		61
<i>O. sabina</i> (Drury, 1770)					
<i>O. s. sabina</i> (Drury, 1770)	x	p	x		62
<i>O. taeniolatum</i> (Schneider, 1845)	x	x	x		
<i>O. trinacria</i> (Selys, 1841)	x	x	x		
<i>SELYSIOTHEMIS</i> Ris, 1909					
<i>S. nigra</i> (Vander Linden, 1825)	x	x	x	x	63
<i>SYMPETRUM</i> Newman, 1833					
<i>S. arenicolor</i> Jödicke, 1994	p		x		64
<i>S. danae</i> (Sulzer, 1776)	e		e		65
<i>S. depressiusculum</i> (Selys, 1841)	x		x	x	66
<i>S. flaveolum</i> (Linnaeus, 1758)		x			
<i>S. f. flaveolum</i> (Linnaeus, 1758)			x		67
<i>S. f. austrinum</i> Akramowski, 1948	x				67
<i>S. fonscolombii</i> (Selys, 1840)	x	x	x	x	
<i>S. haritonovi</i> Borisov, 1983			n		68
<i>S. meridionale</i> (Selys, 1841)	x	x	x	x	
<i>S. pedemontanum</i> (Allioni, 1766)	x	x	x		
<i>S. sanguineum</i> (O.F. Müller, 1764)		x			
<i>S. s. armeniacum</i> (Selys, 1884)	x		x		69



Table I, continued

Taxa	Dumont 1977	Demirsoy 1982	Recorded or expected for Turkey	Recorded for Thracia	Note
<i>S. s. sanguineum</i> (Müller, 1764)	x		x	x	
<i>S. sanguineum</i> ssp.			n		70
<i>S. striolatum</i> (Charpentier, 1840)		x			
<i>S. s. pallidum</i> Selys, 1887			x		71
<i>S. s. striolatum</i> (Charpentier, 1840)	x		x	x	
<i>S. vulgatum</i> (Linnaeus, 1758)					
<i>S. v. decoloratum</i> (Selys, 1884)	p	p	x		72
<i>S. v. vulgatum</i> (Linnaeus, 1758)			e		73
<i>TRITHEMIS</i> Brauer, 1868					
<i>T. annulata</i> (P. de Beauvois, 1807)	x	x	x		
<i>T. arteriosa</i> (Burmeister, 1839)	e		n		74
<i>T. festiva</i> (Rambur, 1842)	x	x	x		
<i>PANTALA</i> Hagen, 1861					
<i>P. flavescens</i> (Fabricius, 1798)	x		x		
<i>ZYGONYX</i> Hagen, 1867					
<i>Z. torridus</i> (Kirby, 1889)	e		e		75

## NOTES

- (1) *Calopteryx* – The genus puzzled many authors for a considerable period of time. There are hardly any structural differences between nominal taxa, and many (sub)species have been merely characterised on the size and shape of the wing spot.  
In Turkey, apart from *C. virgo festiva*, various representatives of the *C. splendens* complex sensu lato occur. Especially in the southern and eastern parts of the country taxa are present of which the exact taxonomical status has yet to be established. Although parts of the taxonomic puzzle have been clarified (e.g. DUMONT et al., 1987), we refrain from a definitive list, and restrict ourselves to a summary of the various taxonomical interpretations.
- (2) *Calopteryx splendens amasina* – Listed by DUMONT (1977) under the name *C. s. mingrelica*.
- (3) *Calopteryx splendens hyalina* – The northernmost records of this species are from the river Orontes (Asi Nehri) near the border of Turkey with Syria. According to SCHNEIDER (1986a), all Turkish records of *C. syriaca* as well as the records of *C. splendens pseudosyriaca* Buchholz, 1955, are in fact hybrids between *C. hyalina* and *C. s. intermedia*. DUMONT et al. (1988) also reported upon hybrids between these two taxa from SE Turkey, and considered also the former to be a

subspecies of *C. splendens*. The possibility of the occurrence of 'true' *C. s. hyalina* in Turkey cannot be excluded.

- (4) *Calopteryx splendens intermedia* – Listed by DEMIRSOY (1982) as a subspecies of *C. xanthostoma*. According to SCHNEIDER (1986a), this taxon should be separated at the specific level.
- (5) *Calopteryx splendens waterstoni* – This taxon was described on the basis of material from the Trabzon province (SCHNEIDER, 1984a). It appears to be confined to the low-altitude coastal zone of the Black Sea between Görele in the West and Batum (Gruziya) in the East. At first it was given specific status but hybrids with *C. s. amasina* present at the western limit of its distributional range justify a subspecific status (DUMONT et al., 1987). It hybridizes with *C. s. mingrelica* (Bartenev) at the eastern limit of its range, a taxon described from SE Russia that probably does not occur in Turkey.
- (6) *Calopteryx syriaca* – Mentioned for Turkey by SCHMIDT (1954a) and DUMONT (1977) from Reyhanli (Iskenderun province). Specimens from the same area were described by BUCHHOLZ (1955) as *C. splendens pseudosyriaca*. According to SCHNEIDER (1986a), the latter taxon as well as all Turkish records of *C. syriaca* pertain to hybrids between *C. hyalina* and *C. s. intermedia*. DUMONT et al. (1988) agreed with this view (see also note 2). The northernmost localities of *C. syriaca* are from Syria, at the upper course of the River Orontes and it has not been found North of the Sea of Homs near the border with Lebanon. It is therefore unlikely that the species is present in Turkey.
- (7) *Lestes virens* – DUMONT (1977) listed the nominate subspecies for Turkey, while DEMIRSOY (1982) indicated *L. virens vestalis*. According to JODICKE (1997), the subspecific division of *Lestes virens* in the eastern Balkans and Turkey is far from clear, and he suspects a separate subspecies might be involved.
- (8) *Lestes viridis* – It is likely to occur in Thracia as it has been reported 15 km N of the Turkish border near Akhtopol (M. Marinov, pers. comm.). Whether material listed as *L. viridis* by HACET & AKTAÇ (1997) pertains to this species or to the following is unknown. *L. viridis* might also occur in NE Turkey, as it was found near Pizunda (Georgia), less than 200 km from the Turkish border (BEUTLER, 1987).
- (9) *Lestes parvidens* – DUMONT (1977) considered *L. parvidens* as a subspecies of *L. viridis*.
- (10) *Sympecma paedisca* – DUMONT (1977) referred to this taxon as *annulata*. JÖDICKE (1997) showed that the valid name for it is *paedisca*.
- (11) *Platycnemis dealbata* – Listed by DEMIRSOY (1982) under the name *P. latipes dealbata*.
- (12) *Platycnemis kervillei* – Listed by DEMIRSOY (1982) under the name *P. pennipes kervillei*.
- (13) *Agriocnemis sania* – Outside Africa, this species only occurs in the Levant, where its northern limit seems to be the southern fringe of the Lebanon. DUMONT

- (1977) noted: "Along the Syrian border, I should expect *Pseudagrion syriacum* (Sélys) to turn up [see under that species], while in the same area *Agriocnemis sania* Nielsen might occur". As the fauna of Syria and Turkey adjacent to the Levant has been more thoroughly explored since then (DUMONT et al., 1988; SCHNEIDER, 1981, and 1985a), it now appears less likely that the species is present in Turkey.
- (14) *Cercion lindenii zernyi* – DUMONT (1991) considered *zernyi* to be confined to the Jordan valley. DUMONT et al. (1995a) stated that it extends more to the North than was expected, and that there is a large hybridisation zone with the nominate subspecies. As far as known, all populations West of the Seyhan river pertain to the nominate subspecies, while East of this river hybrids between the two subspecies are found. It was noted that, at least in some populations, the spring animals were resembling *C. l. lindenii* while the summer animals resembled *C. l. zernyi*. In Hazar (Elazig province) and Cizre (Mardin province) only *zernyi* phenotypes have been found (DUMONT et al., 1995a). These populations were, however, only visited during the summer.
  - (15) *Ceriagrion georgfreyi* – Its type locality is Sariseki, Hatay province (SCHMIDT, 1953). This taxon is considered both by DUMONT (1977) and DEMIRSOY (1982) as a subspecies of *C. tenellum*, but SCHNEIDER (1986a) described structural differences in both male and female between *georgfreyi* and *tenellum*. Therefore it appears appropriate to separate *georgfreyi* at the specific level.
  - (16) *Ceriagrion tenellum* – DEMIRSOY (1982) listed both *C. t. tenellum* and *C. t. georgfreyi* for Turkey, but reported the latter only from the type locality in the Hatay province. Yet, all specimens from Turkey checked by us pertain to the preceding species, and the easternmost records of *C. tenellum* known to us are from Albania and Crete. For this reason, *C. tenellum* is not listed for Turkey here.
  - (17) *Coenagrion hastulatum* – SCHNEIDER (1845) listed a female from Gelemisch under this name. This species is not mentioned in SÉLYS (1887), and it is likely that he considered the record to be based on a misidentification. As no other records for Turkey are available, the presence of *C. hastulatum* in this region seems unlikely; as a consequence, the species is not listed for Turkey here.
  - (18) *Coenagrion lunulatum* – Listed by DUMONT (1977) under the name *C. vernale*.
  - (19) *Coenagrion persicum* – LOHMANN (1993a) described it from specimens from Iran (Istgah-e-Ezna, some 100 km East of Khorramabad, more than 500 km from the Turkish border). As the western part of Iran has hardly been investigated odonatologically, it cannot be excluded that the species occurs in SE Turkey.
  - (20) *Coenagrion ponticum* – DUMONT (1977) considered this name a junior synonym of *C. puella syriacum*.
  - (21) *Coenagrion pulchellum* – LOHMANN (1993a) considered the specimens from the melanic population of *C. pulchellum* near Sultansazlik, province of Kayseri (as described in DUMONT et al., 1988), and the syntypes of *C. p. saisanicum* Belyshev, 1964 from Saissan (Kazakhstan) as identical. *C. p. pulchellum* in Turkey

is much darker than in western Europe, while also specimens from populations in parts of eastern Europe have a darker abdomen (JÖDICKE, 1999). Material recently collected in Turkey from the provinces of Mugla and Ankara varies a great deal, but whether *saisanicum* should be treated as a subspecies rather than as a mere colour variation, remains unclear.

- (22) *Coenagrion syriacum* – DUMONT (1977) listed all records of *C. puella* under the name *C. syriacum* stating that if *C. puella* were to occur in Turkey 'it should be looked for in Thracia'. Yet, *C. puella* is present in most of Turkey, while *C. syriacum* appears to be restricted to the southern part of the country (BATTIN, 1993).
- (23) *Coenagrion vanbrinkae* – LOHMANN (1993a) described this species on the basis of specimens from Iran and Turkey. So far the species is only known from its original description, with four known localities in Turkey: provinces of Adana, Agri, Van (?) and Kahraman Maraş/Gaziantep (the last two localities are not exactly known). The species was named after Professor Dr Janny M. van Brink (a woman), therefore the appropriate spelling of the name is *vanbrinkae*, as pointed out by VAN TOL (1994).
- (24) *Enallagma cyathigerum* – BARTENEV (1929) described *E. c. rotundatum* from Lake Inkit (Georgia), and this subspecies was later reported from Lake Burdur (SW Turkey) by ST. QUENTIN (1964a). DUMONT (1977) checked a long series of *E. cyathigerum* from this locality but found the material inseparable from the nominate subspecies. It is unclear why DEMIRSOY (1982) mentioned only *rotundatum* for Turkey.
- (25) *Erythromma najas* – This species has been found in eastern Greece and southeastern Bulgaria (M. Marinov, pers. comm.) at 50 km distance from the Turkish border at Trigrad (15 km S of Devin). It is therefore possible that this species is present in Thracia.
- (26) *Erythromma viridulum* – The original description of subspecies *orientale* by SCHMIDT (1960) is quite short; it was redescribed by SCHNEIDER (1985c). It is mainly characterised by being smaller and having more pronounced antehumeral markings. BOUDOT & JACQUEMIN (1988) pointed out that these characters are also present in populations in France and Morocco. The only remaining character to separate "subspecies *orientale*" (the number of doubled cells in the hind wing apical of the pterostigma) is here considered too unreliable to justify a subspecific division.
- (27) *Ischnura evansi* – This species is known from Iraq, Iran and Syria, and might also occur in SE Turkey. The nearest known locality is Palmyra, Syria (SCHNEIDER, 1981), at about 250 km from the Turkish border.
- (28) *Ischnura fountaineae* – This species was named after Miss Margaret Fountaine, and therefore the species name is feminine (JÖDICKE, 1995). DUMONT (1977) stated that it "has not strictly been reported from Turkish territory, but its occurrence in Azerbajdzan, on the Kura river and as far west as Mingecaur (AKRAMOWSKI, 1964) and near the Turkish border of Korikavana, northern

- Iraq (ASAHINA, 1973) make it almost certain that it lives in East Anatolia.” SCHNEIDER & KRUPP (1996) noted a locality of this species at about 300 m from the Syrian border. Kählert (in litt.) was the first to report it from Turkey as he found it at the river Euphrates near Birecik (Gaziantep province).
- (29) *Ischnura senegalensis* – This species is distributed from Africa to SE Asia and is known from a few records from Iran and Iraq (ASAHINA, 1973; SCHMIDT 1954b). It might occur in SE Turkey as well.
  - (30) *Pseudagrion syriacum* – DUMONT (1977) already expected this species to occur in Turkey (along the Syrian border), and based on a great deal of material from Syria, SCHNEIDER (1987) included southeastern Turkey in its distributional range. The first record for Turkey was by SCHNEIDER (1995), a single specimen collected in the Hatay province.
  - (31) *Pyrrhosoma n. nymphula* – There are only a few records of this species from Turkey. HACET & AKTAÇ (1996) reported its occurrence on two localities in Thracia, and more recently, two specimens were collected near Bolu (RMNH), of which at least the male pertains to the nominate subspecies.
  - (32) *Aeshna cyanea* – This species was listed by DUMONT (1977) and DEMIRSOY (1982) as ‘to be expected’ in eastern Anatolia and the Pontic Alps. HACET & AKTAÇ (1996) were the first to report it from Turkey (a single locality in Thracia). The species was recently encountered at various localities in the provinces of Bolu, Ordu, and Artvin (RMNH), and found to be locally common. Recently, the species was reported from the Greek island of Ródos (LOPAU, 2000), a remarkable extension of its range.
  - (33) *Aeshna isoceles* – Listed by DEMIRSOY (1982) as *A. isosceles humeralis*. The species name should be written without an s before the c (JODICKE, 2000). Whether *A. i. antehumeralis* (Schmidt, 1954) should be treated as a valid taxonomical entity remains unclear. In the material from SW Turkey the stripe on the metepimeron is definitely larger than in that from N and NE Turkey. If *antehumeralis* is a valid subspecies, then probably more than one subspecies is present in Turkey.
  - (34) *Aeshna juncea* – Both DUMONT (1977) and DEMIRSOY (1982) listed only two old records: Erzurum, Erzurum province (SÉLYS, 1887) and Balik Göl, Agri province (KOLENATI, 1846). Its presence in NE Turkey was recently confirmed (RMNH), sometimes co-occurring with *A. cyanea*.
  - (35) *Brachytron pratense* – Both DUMONT (1977) and DEMIRSOY (1982) listed only previous records. New localities have been found in the provinces of Kırklareli (HACET & AKTAÇ, 1996), Balıkesir (RMNH), Muğla (near lake Köyceğiz, RMNH), and Afyon (ZMAN).
  - (36) *Anormogomphus kiritshenkoi* – First recorded for Turkey from a single male collected N of Ceylanpınar in the province of Urfa (BÖRZSÖNY, 1996); so far no other records are available.
  - (37) *Gomphus davidi* – Listed by DEMIRSOY (1982) as *G. simillimus*.

- (38) *Gomphus f. flavipes* – The nominate subspecies is likely to occur in Turkey, as it is present on the Bulgarian side of the border near the rivers Maritza (Avros), Tundja and Struma (M. Marinov, pers. comm.). The easternmost records from Greece (Strimonas, Liomnos) also pertain to the nominate subspecies (W. Lopau, pers. comm.).
- (39) *Gomphus kinzelbachi* – The holotype of this species is a male collected at Khanagin, Alwand River, Iraq, less than 400 km from the Turkish border. The accessory genitalia of a male *G. davidi* from Dohok, N Iraq, as figured by ASAHINA (1973), are reminiscent of those of *G. kinzelbachi*, which led SCHNEIDER (1984b) to conclude that this specimen in fact pertains to the present species. If this is true, *G. kinzelbachi* is likely to occur in the mountainous area of SE Turkey as well, as Dohok is situated less than 50 km from the Turkish border. The only other known record from this species involves a male from about 50 km SE of Khoramabad, Iran (LOHMANN, 1992a).
- (40) *Gomphus vulgatissimus* – HAVZA & AKTAÇ (1987) listed *G. schneideri* for Thracia, but HACET & AKTAC (1994) mentioned *G. vulgatissimus* from the province of Kırklareli. Whether indeed both species occur in Thracia is unknown.
- (41) *Lindenia tetraphylla* – KAZANCI et al. (1992) published the first record for Turkey. Unaware of this, BUSSE (1993) also published the species as new for the Turkish fauna. Both records are from Köycegiz Lake, SW Turkey, and recent observations show that the lake is inhabited by a flourishing population (OLSVIK, 1997; RMNH). Outside the Köycegiz area the species is known from a single specimen from Gölbaşı (Adıyaman) (SCHORR et al., 1998) and a population at the Euphrates River near Birecik at the border of the provinces of Gaziantep and Sanli Urfa (A. Kop, pers. comm.).
- (42) *Onychogomphus f. forcipatus* – This subspecies is likely to occur in NW Turkey as it is present at the Bulgarian (near the rivers Maritza (Avros), Tundja and Struma) (M. Marinov, pers. comm.), and Greek side of the border (W. Lopau, pers. comm.). BOUDOT et al. (1990) showed that the subspecies of *Onychogomphus forcipatus* cannot be recognised on colour pattern only and described structural differences between the subspecies. Specimens listed by DUMONT (1977) as ssp. *unguiculatus* should be re-examined. Material from the provinces of Bolu, Sakarya, and Kütahya (RMNH) pertains to ssp. *albotibialis*. The specimen listed as the nominate subspecies by DUMONT (1977) from Abant, Bolu province, should therefore also be re-examined.
- (43) *Ophiogomphus cecilia* – Both DUMONT (1977) and DEMIRSOY (1982) cited the single, old record of *O. serpentinus* (now *O. cecilia*) from Malatya (SELYS, 1887), which was based on material in the Albarda collection, now preserved in the RMNH. An examination of the two specimens revealed that these pertain to *O. reductus*. As a consequence, no records of *O. cecilia* from Turkey are known. In eastern Greece the species is locally abundant (SCHNAPAUFF et al., 1996), and the possibility of its occurrence in Turkey cannot be excluded.

- (44) *Ophiogomphus reductus* – The old record of *O. cecilia* from Malatya by SELYS (1887) pertains to *O. reductus* (see under the preceding species). Unfortunately, further information on the locality or date is unavailable (see above). *O. reductus* is known to occur in Kashmir, Turkestan and Afghanistan (ASAHINA, 1979). Its occurrence in Iran is likely, and perhaps it indeed occurs in eastern Turkey as well.
- (45) *Paragomphus genei* – An exuviae of this species is reported upon by SCHMIDT (1954a) from Antakya. According to SCHNEIDER (1985a), however, it might pertain to *P. lineatus*, and the specimen should therefore be re-examined. The species is also listed by ARDIÇ & UYGUN (1996) from the province of Adana, but the authors failed to describe the material, which should be re-examined.
- (46) *Cordulegaster* – In Europe and western Asia, the genus can be divided into two species-groups, both consisting of species with an essentially vicarious distributional pattern. In Turkey, the *C. boltonii* species-group is represented by *C. picta* only. The second species in Turkey, *C. insignis*, has various subspecies, some of a doubtful taxonomical status. It has a distributional range vicarious to *C. helladica* in Greece and *C. bidentata* in the Balkans. Therefore, these species all pertain to a single supraspecific taxon, the *C. bidentata* species-group, and it is not considered useful to follow LOHMANN (1992b) in recognising the newly erected genus *Sonjagaster* for *C. insignis* sensu lato.
- (47) *Cordulegaster bidentata* – This species is replaced by *C. insignis* in eastern Greece, eastern Bulgaria and Turkish Thrace, but its range extends into SE Bulgaria (G.J. van Pelt, pers. comm.). It cannot be excluded that it occurs in Turkey, but then only in the mountains North of Edirne.
- (48) *Cordulegaster insignis amasina* – This taxon was described on the basis of material from Amasya. According to DUMONT (1977), it should be considered identical to the nominate subspecies, but contrary to this, LOHMANN (1993b) gave it full specific status. The characteristics useful for the identification of the various subspecies of *C. insignis* in Turkey have yet to be established. The series from Amasya, described by SÉLYS (1887) and MORTON (1916), varies in many characters, and recent material from the type locality is not available. In NW Turkey a distinct subspecies of *C. insignis* occurs, but whether this should be regarded as pertaining to 'subspecies *amasina*' remains unclear.
- (49) *Cordulegaster insignis charpentieri* – This subspecies probably does not occur W of Ankara, where it is replaced by the nominate subspecies.
- (50) *Cordulegaster insignis mzymtae* – Up to now, this taxon has been regarded by most authors as a separate species, close to *C. bidentata*. Yet, specimens with abdominal markings intermediate between *C. i. charpentieri* and *mzymtae*, found in the northern part of the Erzurum province and in Artvin (ZMAN, RMNH, coll. J.-P. Boudot), suggest that the two taxa interbreed. A series from Savsat consists of 'true' *mzymtae* and forms reminiscent of ssp. *charpentieri*. Therefore, *mzymtae* is regarded as a subspecies of *C. insignis* here.
- (51) *Cordulegaster picta* – Both DUMONT (1977) and DEMIRSOY (1982) listed

this species as *C. pictus*. In the latter, part of the material listed under *C. boltoni charpentieri* pertains to this species.

- (52) *Cordulia aenea* – First mentioned for Turkey by SCHNEIDER (1986b) on the basis of material in British Museum (Natural History). At this locality (Lake Karagöl, NE of Ankara), the species was recently re-encountered (RMNH). A second locality is from the Bolu province (RMNH).
- (53) *Somatochlora borisi* – This new species of *Somatochlora* was described from a single locality in the eastern Rhodopes mountains, Bulgaria (MARINOV, 2001). Its range is still insufficiently known and it might well occur in Turkish Thracia. All records of *Somatochlora* from the region involved should be checked.
- (54) *Somatochlora meridionalis* – DUMONT (1977) and DEMIRSOY (1982) listed it as a subspecies of *S. metallica*. All records from Turkey were originally considered to pertain to *S. metallica* (MORTON, 1915, 1922; KEMPNY, 1908; HACET & AKTAÇ, 1997). SCHNEIDER (1986) showed that at least the specimen from Belgrade Forest (MORTON, 1922) pertains to *S. meridionalis*, including a specimen from the Asian side of the Bosphorus near Istanbul. Possibly all specimens from Turkey pertain to *S. meridionalis*, but especially the material listed by HACET & AKTAÇ (1996) should be checked as *S. borisi* cannot be excluded.
- (55) *Somatochlora metallica* – All previous records from Turkey might be referable to the preceding species. The nearest locality where *S. metallica* has been found is in the mountains of SW Bulgaria (M. Marinov, pers. comm.). Perhaps the species occurs in Thracia.
- (56) *Crocothemis servilia* – DUMONT (1977) considered this species to be conspecific with *C. erythraea*, but first LOHMANN (1981), and later SCHNEIDER (1985b) described structural differences between the two taxa. New data show an overlap in distributional range, and records of syntopical breeding (DIJKSTRA & KALKMAN, 2001) show that both taxa should be considered as separate species. Due to the confusion in the past the actual distribution is still not clear. *C. erythraea* is probably distributed over most of Turkey, while all records that can be ascribed to *C. servilia* are from the southern parts of Turkey adjacent to the Mediterranean Sea; whether the latter is restricted to that part of Turkey remains unclear.
- (57) *Leucorrhinia caudalis* – This species occurs in the southwestern part of the Caucasus (KETENCHIEV & HARITONOV, 1998) and might be present in NE Turkey.
- (58) *Libellula fulva* – DUMONT (1977) listed records of *L. pontica* and *L. fulva* under the name *L. pontica*, stating that ‘the question whether in geographic Turkey both *L. fulva* and *L. pontica* occur remains open’. DEMIRSOY (1982) considered *pontica* to be conspecific with *fulva*, and added a new locality; in view of our present knowledge, however, this record needs to be checked. *L. fulva* is known with certainty from Thracia (HACET & AKTAÇ, 1994), the province of Fatsa (RMNH) and various provinces in western and central Turkey (J.-P. Boudot and



- G. Jacquemin, pers. comm.; RMNH).
- (59) *Libellula pontica* – LOPAU & WENDLER (1995) reported upon the presence of this taxon in SE Turkey, and remarked that the abdomen is brick-red without any pruinosity in mature specimens. It has been reported from the province of Adana (DUMONT, 1991), and Elazig (M. Wasscher, photographs). Recently, *L. pontica* has also been found NW of Ankara (RMNH), a remarkable extension of its known range. The latter record and new records of *L. fulva* from Turkey show that the distributional ranges of both species overlap considerably.
- (60) *Orthetrum coerulescens* – DUMONT (1977) referred to this taxon as *O. ramburii* (Selys, 1848). SCHNEIDER (1985d) re-examined the type material and pointed out that *ramburii* is a junior synonym of *O. anceps* (Schneider, 1845), which taxon is here considered to be a subspecies of *O. coerulescens*.
- (61) *Orthetrum ransonneti* – A single specimen from Malatya was described by SELYS (1887) as *O. gracilis*. According to RIS (1909), it pertains to *O. ransonneti*. This identification was questioned by ST. QUENTIN (1965) and DUMONT (1977). The type specimen of *O. gracilis* in the RMNH (ex coll. Albarda) has been re-examined and indeed pertains to the present species. No other records of *O. ransonneti* from Turkey are available, and the nearest known localities are situated in S Israel and Jordan (SCHNEIDER, 1986a), and in NE Iran, Astrabad (= Gorgan) (SCHMIDT, 1954b).
- (62) *Orthetrum sabina* – Listed by DEMIRSOY (1982) as *O. sabina ampullacea* (Schneider, 1845).
- (63) *Selysiothemis nigra* – According to LOPAU & WENDLER (1995), the species has been found in NE Greece, Lésbos, and Ródos. From Turkey it is only known from the southern parts (DUMONT, 1977). Surprisingly, it has not been reported from western Turkey; recently it has been found in Thracia, at the border with Greece (K. Mostert, pers. comm.).
- (64) *Sympetrum arenicolor* – JODICKE et al. (2000) clarified the taxonomic relationships between this taxon, *S. sinaiticum* Dumont, 1977, *S. deserti* Jödicke, 1994, and *S. tarraconense* Jödicke, 1994. In Turkey, of these only *S. arenicolor* (syn. *S. deserti*) occurs, a species known from Turkmenistan, Uzbekistan, Kirghistan, and Tadjikistan, and ranging through Iran southwest into northeastern Syria. From Turkey it was known from an old record from Malatya only (see JÖDICKE et al., 2000). In July 2002 a male was caught near Elazig roughly 100 km E of Malatya (pers. comm. A. Kop).
- (65) *Sympetrum danae* – It occurs in the southwestern Caucasus (KETENCHIEV & HARITONOV, 1998) and might also occur in NE Turkey.
- (66) *Sympetrum depressiusculum* – DUMONT (1977) listed the first record for Turkey. Recently, the species was encountered in the provinces of Bolu, Kastamonu, Samsun and Karaman Maraş (RMNH).
- (67) *Sympetrum flaveolum austrinum* – This subspecies is characterised by the reduced basal amber on the wings. DUMONT (1977) listed it for Turkey on the basis of

a specimen from the province of Konya, citing a note of MORTON (1914) on material from the province of Van: "the yellow basal markings of the wings seem to be more restricted than usual." As the amount of amber on the wing is highly variable, it is considered not useful to give this variation any taxonomic rank.

- (68) *Sympetrum haritonovi* – DUMONT et al. (1995b) redescribed the species and listed it for Turkey for the first time. A female in the Séllys collection from Tortum (Erzurum prov.), labelled by RIS (1911) as one of the four type specimens of *S. vulgatum decoloratum* (see JÖDICKE, 1994), as well as material from the Taurus mountains (SEIDENBUSCH, 1994; and 1995) pertain to this species. *S. haritonovi* is now known from Tadjikistan, Kirghizistan, Uzbekistan, Afghanistan, Iran and Turkey. The species inhabits mountainous areas (1750-3500 m) and has been found at marshes fed by spring water, a habitat at high altitude not frequently explored by odonatologists. Until now it has only been recorded from two localities in Turkey (Antalya and Erzurum provinces); a third record is also from the Erzurum province, SE of Oltu (RMNH).
- (69) *Sympetrum s. armeniacum* – It has been found in the provinces of Konya, Erzurum, and Hakkari. Its range, and its relation to the nominate subspecies, remain unknown.
- (70) *Sympetrum sanguineum* ssp. – RIS (1911) described a series of specimens of *S. sanguineum* from Makri (= Fethiye) having extensive yellow markings in the wings and having black femora. In his view, these specimens pertain neither to the nominate subspecies nor to ssp. *armeniaceum*. Similarly marked specimens have recently been found in the vicinity of Lake Köycegiz, SW Turkey (RMNH). These agree with the description of *S. sanguineum obsoletum* Bartenev, 1925. Yet *obsoletum* is distributed predominantly in the regions East and North of the Caspian Sea, and it is hardly likely that the material from SW Turkey pertains to this subspecies; the distributional areas are widely disjunct, while other subspecies of *S. sanguineum* inhabit the intermediate area. It is likely that specimens from SW Turkey pertain to an undescribed subspecies.
- (71) *Sympetrum striolatum pallidum* – Although recorded from Van Gölü by SCHMIDT (1961), both DUMONT (1977) and DEMIRSOY (1982) failed to mention this subspecies.
- (72) *Sympetrum vulgatum decoloratum* – Present in DUMONT (1977) and DEMIRSOY (1982) under the name *S. v. flavum* Bartenev, 1915. Re-examination of the four type specimens of *S. decoloratum* showed that two of these are conspecific with *S. vulgatum* while the other two pertain to *S. haritonovi* Borisov, 1983 (JÖDICKE, 1994; DUMONT et al., 1995b). Of these four specimens, one female *vulgatum* was denoted as lectotype of *S. decoloratum* (JÖDICKE, 1994). As a consequence, *S. v. flavum* became a junior synonym of *S. v. decoloratum*.
- (73) *Sympetrum v. vulgatum* – This subspecies is present in the southwestern Caucasus (KETENCHIEV & HARITONOV, 1998) and might occur in NE Turkey.

- (74) *Trithemis arteriosa* – Predicting his own first record for Turkey, the species was mentioned by DUMONT (1977) as likely to occur in Turkey. After the first record of the species (DUMONT et al., 1988), it was recorded at a few other localities as far West as Gozcu (ARLT, 1999). So far all records are from southern Turkey, adjacent to the Mediterranean Sea (DUMONT et al., 1988; ARLT, 1999, RMNH).
- (75) *Zygonyx torridus* – This species has a wide distribution in the tropical parts of both Africa and Asia. Its African range extends north to the S of Lebanon, its Asian range extends as far west as the east of Iran (HEIDARI & DUMONT, 2002). It is possible that this species will be found in Turkey.

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