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CONSIDERATIONS ON THE ODONATE FAUNA OF TURKISH THRACE, WITH SOME TAXONOMIC NOTES

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The odon. fauna of Turkish Thrace (52 spp./sspp.) is discussed, based on 40 spp./sspp. gathered during 1997-1999 from 86 localities. *Lestes macrostigma* (Eversm.), *Enallagma cyathigerum* (Charp.), *Aeshna isosceles antehumeralis* (Schmidt), *Hemianax ephippiger* (Burm.), *Onychogomphus f. forcipatus* (L.), *Cordulegaster i. insignis* Schneider, *Pantala flavescens* (Fabr.) and *Sympetrum pedemontanum* (Müller) are new to this part of Turkey. Among the taxa discussed in some detail are *Calopteryx splendens amasina* Bart., *Chalcolestes parvidens* (Artobol.), *Lestes v. virens* (Charp.) / *L. virens vestalis* Ramb., *Ischnura elegans ebneri* Schmidt / *I. e. pontica* Schmidt, *Gomphus vulgatissimus* (L.) / *G. schneiderii* Sel., *Onychogomphus f. forcipatus* (L.) / *O. f. albotibialis* Schmidt, *Somatochlora meridionalis* Nielsen, *Libellula fulva* Müll. / *L. pontica* Sel., and *O. c. coerulescens* (Fabr.) / *O. c. anceps* (Schneider). Some identification errors in earlier publications are corrected.

INTRODUCTION

There are several early works dealing with the odonate fauna of Turkish Thrace (SPAGNOLINI (1877), KEMPNY (1908), MORTON (1915, 1922), SCHMIDT (1967) DUMONT (1977); most of these are related to the vicinity of İstanbul. A few recent studies have covered the Ergene River near Çorlu (YAZICIOĞLU, 1982) and the vicinity of Edirne (HAVZA & AKTAÇ, 1987). The work of HACET & AKTAÇ (1994, 1997) has included the Istranca Mountains, with peculiar habitats, such as the humid and dry forests in the Northwest of Turkish Thrace. HACET & AKTAÇ (1994, 1997) identified 8 new species for Turkish Thrace, the number of Odonata for this region reached 47 species and subspecies.

Although the above studies have provided a significant contribution towards the knowledge of the Odonata of Turkish Thrace, many localities involving a variety of habitats, such as the steppe area in the Ergene River basin, the humid and dry forests in

the South and the coastal regions containing maquis and pseudomaquis, have not yet been studied in detail. We have surveyed several of hitherto unexplored regions. In the present paper the results are presented and discussed.

MATERIAL AND METHODS

The collecting was conducted during May-September 1997-1999. The material collected during 1991--1992 and 1995-1996 was also analysed, and that in the Trakya University Museum, collected during previous studies, was re-examined. The collection of YAZICIOĞLU (1982) is in poor condition, therefore this material could not be considered.

The localities and the collection dates are given in Table I. Their topographic positions are shown in Figure I.

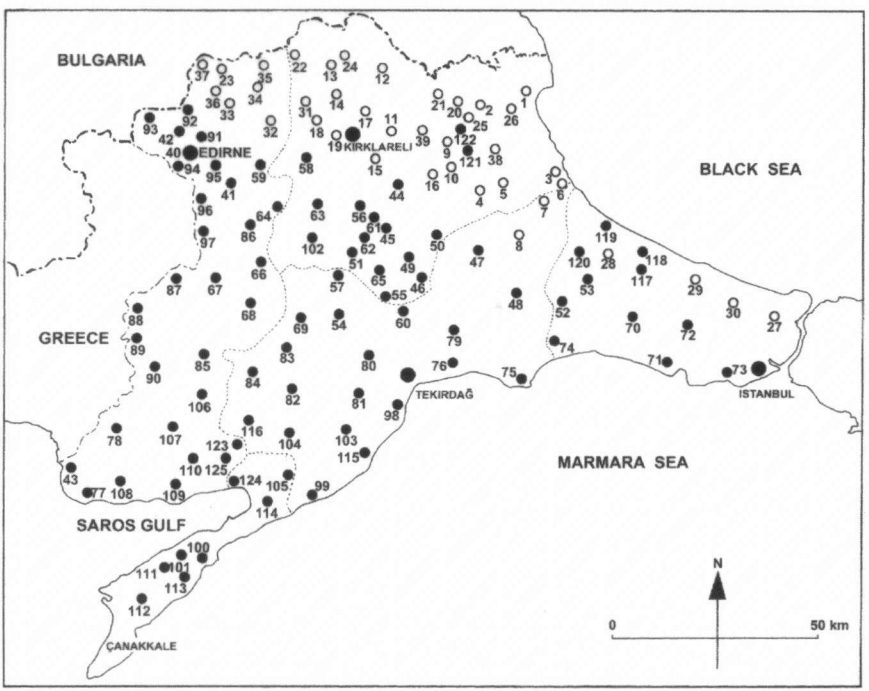

Fig. 1. Turkish Thrace province, showing the location of collecting sites. Open circles indicate the localities from HACET & AKTAÇ (1997). Numbers as in Table I.

Table I

List of localities and collecting dates. For the sake of convenience are included also the localities (Nos 1-39) from which originates the material published by HACET & AKTAÇ, (1997)

Locality No.	Province	Locality	Coordinates	Altitude (m)	Date
1	Kırklareli-	Demirköy-İğneada	41°52'N 27°59'E	sea level	29-VI-1992
2	Kırklareli-	Demirköy	41°49'N 27°45'E	250	30-VI-1992 01-VII-1992
3	Kırklareli-	Vize-Kıyıköy	41°38'N 28°05'E	200	05-VII-1992
4	Kırklareli-	Vize	41°34'N 27°45'E	200	16-VII-1992
5	Kırklareli-	Vize-Kömürköy	41°52'N 27°59'E	200	17-VII-1992
6	Kırklareli-	Kastro	41°35'N 28°08'E	sea level	18-VII-1992
7	Tekirdağ-	Saray-Bahçeköy	41°32'N 28°02'E	190	18-VII-1992
8	Tekirdağ-	Saray	41°26'N 27°55'E	180	19-VII-1992
9	Kırklareli-	Pınarhisar-Yenice	41°44'N 27°38'E	450	26-VII-1992
10	Kırklareli-	Vize-Soğucak	41°39'N 27°39'E	250	29-VII-1992
11	Kırklareli-	Üsküp	41°44'N 27°24'E	300	01-VIII-1992
12	Kırklareli-	Dereköy	41°55'N 27°22'E	300	06-VIII-1992
13	Kırklareli-	Kofçaz	41°55'N 27°09'E	500	07-VIII-1992
14	Kırklareli-	Kofçaz-Elmalı	41°53'N 27°10'E	210	07-VIII-1992
15	Kırklareli-	Üsküpdere	41°41'N 27°21'E	200	29-VIII-1992
16	Kırklareli-	Pınarhisar-Poyralı	41°37'N 27°35'E	310	30-VIII-1992
17	Kırklareli-	Demircihalil	41°48'N 27°18'E	350	05-IX-1992
18	Kırklareli-	Kayalı	41°46'N 27°05'E	120	12-IX-1992
19	Kırklareli-	Eriklice	41°45'N 27°10'E	190	12-IX-1992
20	Kırklareli-	Demirköy-Balaban	41°50'N 27°40'E	450	13-IX-1992
21	Kırklareli-	Demirköy-Sarpdere	41°52'N 27°34'E	300	13-IX-1992
22	Kırklareli-	Kofçaz-Devletliağaç	41°58'N 27°00'E	250	17-IX-1992
23	Edirne-	Lalapaşa-(between Donköy and Hamzabeyli)	41°56'N 26°41'E	350	26-V-1993
24	Kırklareli-	Kofçaz-Kocayazı	42°00'N 27°17'E	500	03-VI-1993
25	Kırklareli-	Demirköy-Velika stream	41°53'N 27°32'E	500	14-VI-1993
26	Kırklareli-	Demirköy-(İğneada-Longos)	41°52'N 27°57'E	sea level	14-VI-1993
27	İstanbul-	Sarıyer-Bahçeköy-Bilezikçi farm	41°10'N 28°59'E	25	24-VI-1993
28	İstanbul-	Çatalca-Karamandere	41°22'N 28°18'E	50	25-VI-1993
29	İstanbul-	Çatalca-Durusu	41°18'N 28°40'E	sea level	25-VI-1993
30	İstanbul-	Sarıyer-Kısırmandıra	41°13'N 28°49'E	75	25-VI-1993
31	Kırklareli-	Yoğuntaş	41°49'N 27°04'E	250	03-VII-1993
32	Edirne-	Süloğlu	41°46'N 26°54'E	175	04-VII-1993
33	Edirne-	Lalapaşa	41°50'N 26°44'E	140	05-VII-1993
34	Edirne-	Lalapaşa-(between Sarıdanişment and Ömeroba)	41°54'N 26°54'E	310	06-VII-1993
35	Edirne-	Lalapaşa-Vaysal	41°56'N 26°52'E	410	06-VII-1993
36	Edirne-	(between Lalapaşa and Hanlıyenice)	41°51'N 26°43'E	210	07-VII-1993
37	Edirne-	Lalapaşa-Hamzabeyli	41°57'N 26°38'E	350	07-VII-1993
38	Kırklareli-	Vize-Kızılağaç	41°39'N 27°51'E	300	08-VII-1993

Table I, continued

39	Kırklareli-	Pınarhisar-Kurudere	41°45'N 27°33'E	320	09-VII-1993
40	Edirne-	Tavuk woodland/ Sarayiçi -T.Ü. Campus	41°41'N 26°32'E	41	24-X-1991 05-VI-1992 21-IX-1995 10-VI-1996 20-V-1997 05-VI-1997 09-VI-1998 18-V-1999
41	Edirne-	Oğulpaşa stream and pond	41°36'N 26°44'E	70	06-VI-1992 16-VIII-1998
42	Edirne-	Avarız	41°44'N 26°33'E	55	09-V-1997
43	Edirne-	Enez	40°43'N 26°04'E	sea level	31-VIII-1996 01-IX-1996 18-V-1997 26-VI-1998 27-VI-1998
44	Kırklareli-	Pınarhisar-Ataköy	41°35'N 27°26'E	200	01-V-1997
45	Kırklareli-	Lüleburgaz-Turgutbey	41°27'N 27°23'E	80	14-VI-1997
46	Kırklareli-	Lüleburgaz-Büyükkarıştıran	41°18'N 27°32'E	75	10-VIII-1997
47	Tekirdağ-	Saray-Sinanlı	41°23'N 27°46'E	105	11-VIII-1997
48	Tekirdağ-	Çerkezköy-Veliköy	41°15'N 27°56'E	130	11-VIII-1997
49	Kırklareli-	Lüleburgaz-Evrensekiz	41°22'N 27°29'E	90	12-VIII-1997
50	Kırklareli-	Lüleburgaz-Ahmetbey	41°26'N 27°34'E	100	12-VIII-1997
51	Kırklareli-	Lüleburgaz-Sarıcali pond	41°23'N 27°14'E	50	13-VIII-1997
52	İstanbul-	Silivri-Beyciler	41°13'N 28°07'E	140	15-VIII-1997
53	İstanbul-	Silivri-Danamandıra	41°18'N 28°14'E	150	15-VIII-1997
54	Tekirdağ-	Hayrabolu-Çene	41°11'N 27°12'E	50	16-VIII-1997
55	Kırklareli-	Lüleburgaz-Çengelli	41°15'N 27°21'E	50	16-VIII-1997
56	Kırklareli-	Lüleburgaz-Çeşmekolu	41°31'N 27°16'E	100	19-VIII-1997
57	Tekirdağ-	Hayrabolu-Küçük Karakarlı	41°19'N 27°11'E	50	21-VIII-1997
58	Kırklareli-	İnece	41°40'N 27°04'E	95	23-VIII-1997 16-VIII-1998
59	Edirne-	Havsa-Hasköy	41°38'N 26°51'E	95	23-VIII-1997
60	Tekirdağ-	Muratlı-İnanlı	41°12'N 27°27'E	70	20-IX-1997
61	Kırklareli-	Lüleburgaz-Tatarköy dam	41°29'N 27°21'E	110	24-V-1998
62	Kırklareli-	Lüleburgaz-Ayvalı dam	41°26'N 27°18'E	90	06-VI-1998
63	Kırklareli-	Babaeski-Taşağıl	41°31'N 27°07'E	70	13-VI-1998
64	Edirne-	Havsa-Yolageldi	41°31'N 26°57'E	55	13-VI-1998
65	Kırklareli-	Lüleburgaz-Müsellim	41°29'N 27°45'E	70	14-VI-1998
66	Edirne-	Uzunköprü-Sazlımalkoç	41°21'N 26°53'E	20	23-VI-1998
67	Edirne-	Uzunköprü-Değirmenci dam	41°21'N 26°44'E	40	23-VI-1998
68	Edirne-	Uzunköprü-Çöpköy	41°13'N 26°49'E	65	23-VI-1998
69	Tekirdağ-	Hayrabolu-Faraş	41°11'N 27°02'E	65	23-VI-1998
70	İstanbul-	Çatalca-İnceğiz	41°11'N 28°24'E	70	24-VI-1998
71	İstanbul-	Büyükçekmece-Tepecik	41°01'N 28°32'E	20	24-VI-1998
72	İstanbul-	Çatalca-Hadımköy	41°09'N 28°36'E	100	24-VI-1998
73	İstanbul-	Küçükçekmece-Altınşehir	41°02'N 28°45'E	10	24-VI-1998

Table I, continued

74	İstanbul-	Silivri-Değirmenköy	41°05'N 28°01'E	40	25-VI-1998
75	Tekirdağ-	Çorlu-M.Ereğlisi	40°58'N 27°57'E	sea level	25-VI-1998
76	Tekirdağ-	Karaevli	41°02'N 27°39'E	18	25-VI-1998
77	Edirne-	Enez-Sultaniçe	40°37'N 26°09'E	sea level	28-VI-1998
78	Edirne-	İpsala-Karpuzlu dam	40°49'N 26°18'E	60	28-VI-1998
79	Tekirdağ-	Çorlu-Sarılar	41°08'N 27°39'E	120	29-VI-1998
80	Tekirdağ-	Banarlı	41°03'N 27°20'E	92	12-VII-1998
81	Tekirdağ-	İnecik	40°56'N 27°16'E	200	12-VII-1998
82	Tekirdağ-	Malkara-Karaidemir dam	40°56'N 26°59'E	100	12-VII-1998
83	Tekirdağ-	Hayrabolu-Kutlugün	41°06'N 26°59'E	100	15-VII-1998
84	Tekirdağ-	Malkara-Pirinççeşme	40°59'N 26°50'E	140	15-VII-1998
85	Edirne-	Uzunköprü-Alıç	41°03'N 26°39'E	110	15-VII-1998
86	Edirne-	Havsa-Çukurköy	41°28'N 26°49'E	52	16-VII-1998
87	Edirne-	Meriç-Serem	41°18'N 26°30'E	16	16-VII-1998
88	Edirne-	Meriç-Nasuhbey	41°13'N 26°21'E	20	17-VII-1998
89	Edirne-	Meriç-Küplü	41°06'N 26°21'E	40	17-VII-1998
90	Edirne-	İpsala-Sultanköy dam	41°01'N 26°28'E	22	17-VII-1998
91	Edirne-	Hasanağa	41°43'N 26°38'E	45	28-VII-1998
92	Edirne-	Hatip	41°49'N 26°34'E	32	28-VII-1998
93	Edirne-	Ahıköy	41°46'N 26°24'E	100	28-VII-1998
94	Edirne-	Karaağaç	41°39'N 26°31'E	40	29-VII-1998
95	Edirne-	Köşençiftliği	41°39'N 26°40'E	65	29-VII-1998
96	Edirne-	Höyüklütatar	41°32'N 26°36'E	20	30-VII-1998
97	Edirne-	Elçili	41°27'N 26°37'E	32	30-VII-1998
98	Tekirdağ-	Barbaros	40°54'N 27°58'E	sea level	10-VIII-1998
99	Tekirdağ-	Şarköy	40°36'N 27°06'E	60	10-VIII-1998
100	Çanakkale-	Gelibolu	40°24'N 26°40'E	10	12-VIII-1998
101	Çanakkale-	Fındıklı pond	40°26'N 26°32'E	104	12-VIII-1998
102	Kırklareli-	Babaeski	41°25'N 27°05'E	60	16-VIII-1998
103	Tekirdağ-	Tatarlı	40°49'N 27°13'E	210	17-VIII-1998
104	Tekirdağ-	Malkara-Balabancık stream	40°48'N 26°59'E	90	17-VIII-1998
105	Çanakkale-	Çokal dam	40°41'N 26°59'E	32	17-VIII-1998
106	Edirne-	Keşan-Paşayiğit-Muzalı pond	40°47'N 26°30'E	75	19-VIII-1998
107	Edirne-	Keşan-Boztepe pond	40°50'N 26°31'E	45	19-VIII-1998
108	Edirne-	Enez-Hasköy	41°38'N 26°51'E	80	19-VIII-1998
109	Edirne-	Keşan-Mecidiye pond	40°38'N 26°32'E	62	20-VIII-1998
110	Edirne-	Keşan-Mercan	40°44'N 26°36'E	50	20-VIII-1998
111	Çanakkale-	Gelibolu-Tayfur dam	40°23'N 26°28'E	95	21-VIII-1998
112	Çanakkale-	Eceabat-Kumköy	40°17'N 26°23'E	50	21-VIII-1998
113	Çanakkale-	Gelibolu-Sütlüce	40°20'N 26°36'E	sea level	21-VIII-1998
114	Çanakkale-	Kadıköy-Kavak	40°36'N 26°50'E	20	23-VIII-1998
115	Tekirdağ-	Şarköy-Gaziköy	40°45'N 27°19'E	sea level	23-VIII-1998
116	Tekirdağ-	Malkara-Kadıköy dam	41°01'N 27°31'E	110	23-VIII-1998
117	İstanbul-	Çatalca-Başak	41°19'N 28°26'E	75	18-VII-1999
118	İstanbul-	Çatalca-Ormanlı	41°23'N 28°27'E	75	18-VII-1999
119	İstanbul-	Çatalca-Yalıköy	41°28'N 28°17'E	sea level	18-VII-1999
120	İstanbul-	Çatalca-(between Aydınlar and Binkılıç)	41°23'N 28°11'E	125	20-VII-1999
121	Kırklareli-	Vize-Sergen	41°42'N 27°42'E	290	20-VII-1999

Table I, continued

122	Kırklareli-	Demirköy-Velika bridge	41°48'N 27°44'E	190	20-VII-1999
123	Edirne-	Keşan-K.Yerlisu	40°46'N 26°39'E	190	22-VII-1999
124	Çanakkale-	Kadıköy- (between Adilhan and Sazlıdere)	40°39'N 26°42'E	70	22-VII-1999
125	Edirne-	Keşan-Çamlıca	40°46'N 26°39'E	75	22-VII-1999

RECORDS

CALOPTERYGIDAE

Calopteyx splendens amasina Bartenev, 1912 × *C. s. balcanica* Fudakowski, 1930
(44): 3♀; – (47): 6♂, 2♀; – (52): 7♂, 3♀; – (54): 2♂; – (55): 1♀; – (58): (16-VIII-1998) 1♂; – (63): 3♂, 1♀; – (64): 3♂, 5♀; – (68): 1♂; – (69): 5♂, 5♀; – (70): 3♂, 2♀; – (73): 1♂; – (74): 1♀; – (80): 1♂, 1♀; – (83): 4♂; – (84): 1♂; – (86): 1♂, 1♀; – (91): 1♂; – (92): 1♂; – (95): 2♂, 4♀; – (98): 1♂; – (105): 1♂, 1♀; – (117): 1♀; – (125): 3♂.

Calopteryx virgo festiva (Brullé, 1832)
(45): 2♂; – (52): 1♂, 1♀; – (64): 1♀; – (80): 2♀; – (84): 2♂; – (95): 2♂, 7♀; – (98): 4♂, 1♀; – (117): 2♂; – (121): 1♂; – (122): 1♂.

LESTIDAE

Chalcolestes parvidens (Artobolevski, 1929)
(41): (16-VIII-1998) 6♂, 2♀; – (46): 5♂, 4♀; – (50): 11♂, 8♀; – (54): 2♂; – (57): 1♂; – (58): (16-VIII-1998) 1♂; – (59): 1♀; – (83): 1♀; – (84): 1♀; – (91): 1♀; – (94): 1♂; – (95): 2♂; – (99): 1♂; – (100): 13♂, 2♀; – (102): 1♀.

Lestes barbarus (Fabricius, 1798)
(43): (26-VI-1998) 1♂; – (47): 4♂, 1♀; – (51): 3♂, 1♀; – (52): 1♂, 1♀; – (53): 4♀; – (56): 3♂, 2♀; – (65): 5♂, 4♀; – (66): 2♀; – (77): 3♂, 1♀; – (79): 1♀; – (84): 1♀; – (90): 1♂; – (115): 3♂.

Lestes macrostigma (Eversmann, 1836)
(77): 12♂, 8♀.
New for Turkish Thrace.

Lestes virens ssp.?
(47): 1♂; – (53): 2♂, 10♀; – (54): 1♀.

Sympecma fusca (Vander Linden, 1820)
(53): 1♂, 1♀.

PLATYCNEMIDIDAE

Platycnemis p. pennipes (Pallas, 1771)
(40): (05-VI-1997) 1♂, 2♀; – (43): (18-V-1997) 2♂, (27-VI-1998) 1♀; – (44): 1♀; – (45): 7♂, 4♀; –

(46): 1♂; – (47): 9♂, 2♀; – (50): 5♂; – (52): 8♂, 6♀; – (53): 1♂; – (58): (23-VIII-1997) 2♂, (16-VIII-1998) 1♂; – (59): 1♂, 3♀; – (63): 1♂, 2♀; – (64): 2♂, 1♀; – (66): 1♂; – (67): 6♂, 5♀; – (68): 4♂, 1♀; – (69): 7♂, 5♀; – (70): 5♂, 3♀; – (71): 2♂, 2♀; – (74): 3♂; – (75): 2♂; – (76): 2♂; – (80): 6♂, 2♀; – (81): 2♂; – (82): 1♂; – (83): 4♂, 3♀; – (84): 7♂, 6♀; – (86): 3♂, 2♀; – (87): 4♂, 1♀; – (89): 2♂, 1♀; – (90): 2♂, 6♀; – (92): 1♂; – (93): 1♂; – (95): 2♂, 1♀; – (101): 3♂, 1♀; – (105): 1♂; – (109): 1♀; – (111): 4♂; – (117): 2♂, 2♀; – (119): 2♂, 1♀; – (120): 2♂, 1♀; – (121): 2♂; – (123): 2♀; – (125): 2♂.

COENAGRIONIDAE

Cercion l. lindenii (Selys, 1840)
(57): 1♂; – (62): 1♂.

Coenagrion ornatum (Selys, 1850)
(44): 1♂.

Coenagrion puella (Linnaeus, 1758)
(41): (06-VI-1992) 1♀; – (45): 3♂, 1♀; – (79): 2♂; – (121): 2♂.

Coenagrion scitulum (Rambur, 1842)
(73): 1♂.

Enallagma cyathigerum (Charpentier, 1840)
(61): 2♂.
New for Turkish Thrace.

Erythromma viridulum (Charpentier, 1840)
(43): (26-VI-1998) 1♂; – (90): 1♂; – (112): 2♂; – (113): 1♂.

Ischnura elegans pontica Schmidt, 1938
(40): (05-VI-1997) 1♀; – (41): (16-VIII-1998) 8♂, 4♀; – (43): (18-V-1997) 15♂, 28♀, (26-VI-1998) 3♀, (27-VI-1998) 5♂, 5♀; – (47): 1♂; – (50): 1♀; – (53): 1♂; – (54): 13♂, 2♀; – (55): 7♂, 1♀; – (57): 2♂, 2♀; – (58): (23-VIII-1997) 2♂, 2♀, (16-VIII-1998) 1 ♂, 1♀; – (59): 1♂; – (62): 1♂, 2♀; – (63): 1♂; – (64): 1♂, 2♀; – (66): 1♂, 2♀; – (70): 1♂; – (71): 2♂, 1♀; – (72): 1♂; – (75): 1♂, 1♀; – (78): 1♂, 1♀; – (79): 1♂; – (82): 1♂; – (83): 1♀; – (85): 4♂, 4♀; – (86): 2♂, 1♀; – (87): 1♀; – (88): 1♂; – (89): 1♀; – (90): 1♂, 3♀; – (92): 1♂; – (93): 1♂; – (95): 2♂; – (96): 1♂; – (105): 1♂; – (106): 2♂, 1♀; – (107): 4♂, 2♀; – (113): 2♂, 1♀; – (116): 1♂; – (117): 2♂, 2♀; – (118): 2♂, 1♀.

Ischnura pumilio (Charpentier, 1825)
(51): 1♂; – (58): (16-VIII-1998) 1♀; – (61): 2♂, 1♀; – (66): 2♂; – (81): 3♀; – (86): 1♂, 1♀; – (95): 1♂; – (99): 1♂; – (105): 1♂; – (124): 1♂, 1♀.

AESHNIDAE

Aeshna affinis Vander Linden, 1823

(41): (06-VI-1992) 1♀, (16-VIII-1998) 1♂ ; – (49): 1♂; – (50): 6♂; – (55): 1♀; – (65): 1♂; – (75): 1♂; – (77): 1♂; – (91): 1♂; – (94): 1♂; – (113): 3♂; – (121): 8♂, 2♀.

Aeshna mixta Latreille, 1805
(40): (24-X-1991) 2♂, 1♀; – (43): (26-VI-1998) 1♂, 2♀, (27-VI-1998) 1♂, 1♀ ; – (77): 1♀; – (83): 1♀; – (120): 1♂; – (122): 1♂, 1♀.

Anax imperator Leach, 1815
(85): 1♀.

Anax parthenope (Selys, 1839)
(43): (01-IX-1996) 1♂, (26-VI-1998) 1♂, (27-VI-1998) 2♂; – (110): 2♂.

Hemianax ephippiger (Burmeister, 1839)
(40): (21-IX-1995) 1♀, (10-VI-1996) 1♂; – (43): (31-VIII-1996) 1♀; – (62): 1♂; – (77): 2♂.
New for Turkish Thrace.

GOMPHIDAE

Gomphus vulgatissimus (Linnaeus, 1758)
(40): (20-V-1997) 1♂, (18-V-1999) 1♂, 1♀; – (42): 3♂; – (70): 1♀.

Onychogomphus f. forcipatus (Linnaeus, 1758)
(47): 1♂; – (64): 2♂; – (69): 2♂; – (70): 3♂; – (74): 6♂; – (83): 2♂; – (95): 1♂, 3♀; – (119): 1♂; – (121): 3♂.
New for Turkish Thrace.

CORDULEGASTRIDAE

Cordulegaster i. insignis Schneider, 1845
(40): (05-VI-1992) 1♂, 1♀; – (122): 1♂.
New for Turkish Thrace.

Cordulegaster picta Selys, 1854
(121): 4♂, 2♀.

CORDULIIDAE

Somatochlora meridionalis Nielsen, 1935
(43): (01-IX-1996) 1♂; – (45): 3♂, 3♀; – (83): 10♂; – (89): 1♂; – (91): 2♂; – (95): 1♂; – (123): 1♂.

LIBELLULIDAE

Crocothemis erythraea (Brullé, 1832)
(41): (16-VIII-1998) 6♂, 2♀; – (43): (18-V-1997) 1♂, (26-VI-1998) 1♂, 2♀, (27-VI-1998) 1♂, 13♀; – (51): 1♂; – (54): 1♂, 1♀; – (57): 3♀; – (58): (16-VIII-1998) 2♀; – (63): 1♂; – (73): 1♂; – (75): 2♀; – (78): 4♀; – (79): 5♂; – (85): 2♂, 1♀; – (89): 2♂, 1♀; – (92): 1♀; – (93): 1♂; – (96): 7♂, 5♀;

– (97): 4♂, 1♀; – (99): 2♂; – (102): 4♂; – (106): 13♂, 2♀; – (107): 8♂, 1♀; – (109): 7♂, 1♀; – (110): 6♂, 4♀; – (111): 1♂; – (112): 9♂; – (114): 1♂; – (115): 11♂; – (116): 1♂; – (118): 2♂; – (119): 1♂; – (123): 1♂, 2♀.

Libellula depressa Linnaeus, 1758
(40): (05-VI-1997) 2♂; – (44): 2♂; – (45): 1♀; – (49): 1♂; – (65): 1♂; – (72): 2♂, 1♀; – (74): 1♀; – (79): 2♂; – (80): 1♂; – (83): 4♂, 2♀; – (88): 1♀; – (89): 1♂, 1♀; – (95): 1♂; – (104): 1♂; – (119): 1♂; – (120): 2♂, 1♀.

Libellula fulva Müller, 1764
(44): 1♂; – (45): 1♀; – (86): 4♂, 1♀.

Orthetrum albistylum (Selys, 1848)
(40): (05-VI-1997) 1♀; – (41): (16-VIII-1998) 2♂, 1♀; – (43): (26-VI-1998) 3♀; – (54): 2♂, 2♀; – (63): 1♂, 1♀; – (66): 1♂, 1♀; – (67): 2♂, 3♀; – (71): 2♀; – (78): 5♀; – (82): 1♂; – (86): 1♂; – (87): 1♂, 3♀; – (88): 4♂; – (89): 1♀; – (91): 8♂, 8♀; – (94): 1♀; – (95): 2♀; – (96): 4♂, 2♀; – (97): 5♂, 4♀; – (105): 1♂; – (106): 3♂, 1♀; – (107): 2♂; – (108): 3♂, 1♀; – (109): 1♂, 1♀; – (110): 1♀; – (118): 1♂, 1♀.

Orthetrum brunneum (Fonscolombe, 1837)
(40): (05-VI-1997) 2♂; – (45): 1♂; – (51): 2♂; – (56): 6♂, 3♀; – (64): 1♂; – (67): 1♂, 2♀; – (68): 8♂; – (69): 2♂, 2♀; – (70): 1♂; – (73): 3♂; – (74): 12♂, 2♀; – (77): 1♀; – (80): 5♂, 1♀; – (81): 2♂, 2♀; – (82): 6♂, 1♀; – (83): 1♂; – (84): 1♂; – (86): 5♂; – (87): 1♂; – (88): 4♂; – (90): 1♀; – (91): 7♂; – (93): 9♂, 1♀; – (96): 2♂; – (97): 1♂; – (99): 2♂; – (101): 6♂; – (103): 7♂, 1♀; – (104): 1♂, 1♀; – (107): 1♀; – (108): 1♂; – (109): 3♂, 1♀; – (111): 2♂; – (113): 2♂; – (114): 3♂, 1♀; – (115): 11♂; – (116): 6♂; – (117): 1♂, 2♀; – (120): 1♂; – (121): 3♂, 1♀; – (123): 3♂; – (124): 11♂; – (125): 3♂, 2♀.

Orthetrum cancellatum (Linnaeus, 1758)
(40): (10-VI-1996) 1♀; – (43): (26-VI-1998) 1♂, (27-VI-1998) 2♂, 3♀; – (45): 1♂; – (51): 1♀; – (62): 2♂, 1♀; – (64): 1♀; – (65): 1♂, 1♀; – (67): 1♀; – (71): 3♂; – (72): 1♂; – (79): 2♀; – (83): 2♂; – (86): 1♀; – (89): 1♂, 1♀; – (95): 1♀; – (97): 2♂, 1♀; – (108): 1♂, 2♀; – (109): 1♂; – (119): 1♂; – (123): 1♀.

Orthetrum coerulescens anceps Schneider, 1845
(45): 1♂; – (49): 2♂; – (54): 1♂; – (59): 2♂; – (64): 1♂; – (65): 1♂, 1♀; – (67): 2♂, 2♀; – (75): 1♂, 1♀; – (86): 1♀; – (88): 1♀; – (89): 1♀; – (95): 3♂; – (102): 1♂; – (107): 1♂; – (108): 1♂; – (109): 1♂; – (110): 1♂; – (115): 2♂, 1♀.

Pantala flavescens (Fabricius, 1798)
(89): 1♀; – (108): 2♂, 2♀; – (114): 1♀.
New for Turkish Thrace.

Sympetrum depressiusculum (Selys, 1841)
(55): 7♂, 2♀; – (58): (23-VIII-1997) 3♂, 2♀; – (87): 1♀.

Sympetrum fonscolombii (Selys, 1840)
(41): (16-VIII-1998) 1♀; – (43): (18-V-1997) 1♀, (27-VI-1998) 2♀; – (51): 1♂; – (53): 4♂, 4♀; –

(86): 1♀; – (87): 2♀; – (90): 3♂, 2♀; – (92): 1♀; – (93): 2♂, 2♀; – (95): 2♂, 4♀; – (96): 1♂, 1♀; – (105): 1♀; – (107): 3♂; – (108): 1♀; – (110): 1♀; – (114): 1♂, 1♀; – (116): 3♀; – (117): 1♂; – (118): 1♀; – (119): 1♂; –(124): 2♂; – (125): 1♂, 1♀.

Sympetrum meridionale (Selys, 1841)
(40): (09-VI-1998) 9♂, 3♀; – (41): (16-VIII-1998) 9♂, 3♀; – (46): 3♂; – (47): 5♀; – (48): 13♂, 3♀; – (50): 3♂, 1♀; – (54): 2♂; – (57): 1♂, 1♀; – (58): (23-VIII-1997) 2♀; – (60): 2♂, 3♀; – (65): 1♂,2♀; – (73): 1♂; – (77): 1♀; – (83): 1♂, 1♀; – (84): 3♂, 2♀; – (86): 1♂; – (94): 4♂, 2♀; – (95): 4♂, 3♀; – (102): 1♀; – (113): 1♂.

Sympetrum pedemontanum (Müller, 1766)
(58): (23-VIII-1997) 1♀.
New for Turkish Thrace.

Sympetrum s. sanguineum (Müller, 1764)
(41): (16-VIII-1998) 3♂; – (46): 5♂, 4♀; – (49): 2♂; – (50): 19♂, 4♀; – (52): 1♀; – (53): 1♂, 2♀; – (55): 7♂, 1♀; – (64): 1♂, 1♀; – (65): 4♂, 2♀; – (72): 15♂, 2♀; – (73): 1♂; – (75): 1♂, 2♀; – (79): 14♂, 3♀; – (83): 1♂, 1♀; – (85): 8♂; – (86): 1♂, 1♀; – (87): 1♂; – (90): 1♂, 1♀; – (91): 3♂, 1♀; – (92): 1♂; – (94): 15♂, 2♀; – (97): 3♂, 8♀; – (99): 1♂; – (102): 2♂, 3♀; – (104): 3♂; – (117): 1♂, 3♀; – (118): 1♂; – (120): 1♀; – (121): 1♂.

Sympetrum striolatum (Charpentier, 1840)
(40): (09-VI-1998) 2♂, 1♀; – (50): 1♂, 1♀; – (60): 1♀; – (75): 1♂; – (77): 7♂, 5♀; – (94): 1♀; – (102): 1♀; – (121): 2♀; – (123): 1♀.

TAXONOMIC NOTES

Calopteryx virgo is represented by *C. v. festiva* in Turkish Thrace and in Anatolia, This taxon is also known from Bulgaria and Greece (BESCHOVSKI, 1994; LOPAU & WENDLER, 1995). The wing features of our specimens match those given by BESCHOVSKI (1994) from Bulgaria.

Calopteryx splendens occurs from Europe to China (ASKEW, 1988). *C. s. waterstoni*, *C. s. amasina* and *C. s. intermedia* are the infraspecific taxa in Turkey. *C. s. waterstoni* occurs in the eastern Black Sea region. The distribution range of *C. s amasina* extends up to the western boundary of *waterstoni* (DUMONT et al., 1987). The distribution of *C. s. intermedia* ranges from the Mediterranean coast of the southern Taurus Mountains to beyond Antalya in the West (SEIDENBUSCH, 1997b). It is also known from Dalaman and Köyceğiz (KOHLER, 1993; KAZANCI, 1995). The wing spots of *C. splendens* vary significantly between male specimens from the Thrace region. According to wing spot variation, STOBBE (1990) identified two *C. splendens* morphological groups in Greece. The individuals in the first group have wide wing spots and resemble *C. s. balcanica*, whilst the individuals in the second group have narrower wing spots and resemble *C. s. amasina*.

29% of the specimens examined from the Thrace region, including the present study and the works of HAVZA & AKTAÇ (1987) and HACET & AKTAÇ (1997), are ref-

erable to *amasina*; that is, the narrowest spot does not exceed the node and has a curved basal edge (Fig. 2a). 13% of the specimens belong to *balcanica*; that is, the widest spot exceeds the node by 16 cells and it's zigzagged basal border (Fig. 2b). However, in 58% of the specimens collected from the region, the spot lies between the narrowest and widest ones and has a zigzagged basal border (Fig. 2c). The specimens are intermediate between these two wing features and exhibit characteristics of a hybrid population. Although specimens resembling subspecies *amasina* can be found in the region, these are thought to be intraspecific variations in a hybrid population.

The identity of *Chalcolestes viridis* in Thrace region is still debatable. Although HAVZA & AKTAÇ (1987) and HACET & AKTAÇ (1997) described their specimens as *C. viridis*; the same specimens were identified as *C. v. parvidens* by YAZICIOĞLU (1982). In the *parvidens* males, the superior appendages are yellow and their tips are black (DUMONT, 1991). The superior appendages possess an inner tooth apically and distal teeth which are small. In females, the carinal teeth of the ovipositor are 6-8 in number (JÖDICKE, 1997). The specimens given by HAVZA & AKTAÇ (1987) and HACET & AKTAÇ (1997) as *C. viridis* and material collected from the region show the characteristics of *C. parvidens*. However, in 4 of our specimens (1 ♂ and 3 ♀), collected from different localities, *C. viridis* features are apparent. Male superior appendages are light black at the base and laterally and its inner tooth resembles to that of *viridis* (Fig. 3a). Al-

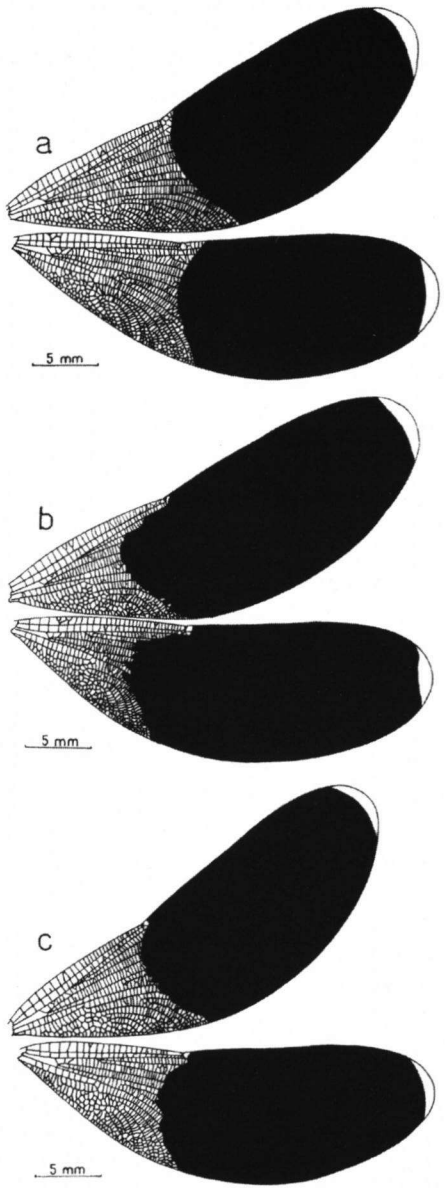

Fig. 2. *Calopteryx splendens*, wing spot variation in males: (a) Tekirdağ-Saray, 19-VII-1992; – (b) Tekirdağ-Barbaros (10-VIII-1998); – (c) Kırklareli-Vize-Kömürköy (17-VII-1992).

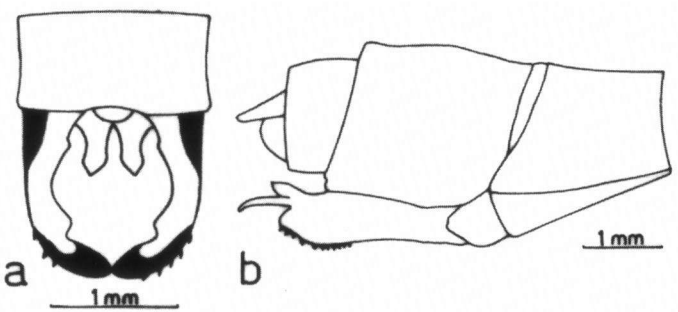

Fig. 3. *Chalcolestes viridis* ssp.: (a) superior appendages, ♂: Tekirdağ-Şarköy (10-VIII-1998); – (b) ovipositor: Tekirdağ-Hayrabolu-Kutlugün (15-VII-1998).

though the number of carinal teeth on the ovipositors of 3 females collected from different localities varies between 10-12 (Fig. 3b), according to JÖDICKE (1997) the separation of *parvidens* and *viridis* females is not practicable. Both of these species are recorded from Bulgaria near to Turkish Thrace (MARINOV, 2000). Consequently, in addition to the possibility of the presence of the two species in Turkish Thrace, we consider the recorded variations in *parvidens* as a population variation.

Lestes virens specimens exhibit both the nominate and the *vestalis*-like features. The humeral stripes are heterogeneous. While the humeral stripe is interrupted by a black spot near the fore wing base as in *vestalis* in 9 specimens, in one specimen it is not interrupted posteriorly, resembling the situation in *v. virens*. The stripe in four specimens from two different localities is narrow posteriorly with one black spot. The second lateral suture is with a thin, black stripe as in *v. virens*. Although YAZICIOGLU (1982) claimed the nominate subspecies for Turkish Thrace, the infraspecific identity in the eastern Balkan and in Turkey remains unclear (JÖDICKE, 1997). Consequently, the identification of these specimens at subspecies level is debatable.

The shape of the hind tibiae in our *Platycnemis pennipes* seems to fit the description given by MARTENS (1996) for the nominate subspecies. The previous records from this region also refer to the nominate subspecies (DUMONT, 1977; YAZICIOĞLU, 1982).

Two subspecies of *Cercion lindenii* are known from Turkey. The nominate subspecies occurs in Europe, Anatolia and in most of Syria (DUMONT, 1991). *C. l. zernyi* is known from Israel and from southeastern Anatolia (DUMONT,1991; DUMONT et al., 1995). Our material from Turkish Thrace displays features similar to the nominate form as given by DUMONT et al., (1995).

Ischnura elegans pontica and *I. e. ebneri* are known to occur in Turkish Thrace (SCHMIDT, 1967; DUMONT, 1977; YAZICIOĞLU, 1982). All available material from Turkish Thrace was checked with the descriptions provided by SCHMIDT (1967), BESCHOVSKI (1994) and DUMONT (1991). The posterior, distal part of the prothorax in males and females is not longer than it's width and, from the lateral view, it

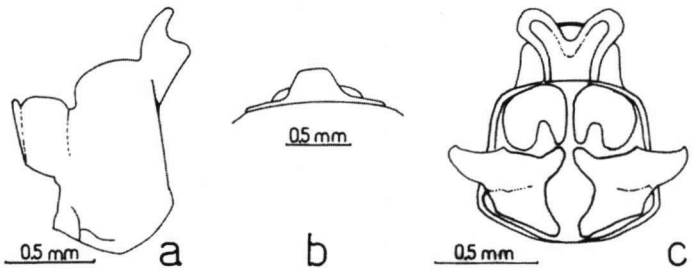

Fig. 4. *Ischnura elegans pontica*: (a) posterior extent of prothorax. lateral view, ♀: Edirne-Meriç-Küplü (17-VII-1998); – (b) same, anterior view (same locality and date); – (c) anal appendages, ♂: Edirne-Höyüklütatar (30-VII-1998).

is sharply curved towards the back (Fig. 4a,b). The inner branches of the male superior appendages are not crossed but lie downwards parallel to each other (Fig. 4c). Although, *I. e. ebneri*, having superior appendages with crossed inner branches, has been reported from the region recently (DUMONT, 1977; YAZICIOĞLU, 1982), all our material is referable to *I. e. pontica*. Orange females are not represented in it.

The specimen of *Aeshna isoceles* recorded by HACET & AKTAÇ (1997) from Kırklareli-Vize-Kıyıköy was reexamined along with other material obtained from the region. They are different from the nominate subspecies, having a yellow antehumeral stripe and an entirely yellow metepimeron, as indicated by ST. QUENTIN (1964) and DUMONT (1991).

Three *Gomphus* species are known from Turkish Thrace, viz. *G. flavipes*, *G. schneiderii* and *G. vulgatissimus*. Although YAZICIOĞLU (1982) recorded *G. flavipes* from the Çorlu-Ergene River, its infraspecific identity is unknown. Adults often fly over the sandy banks of large rivers. Such habitats are rare in the region. *G. schneiderii* was recorded as a subspecies of *G. vulgatissimus* from the Çorlu-Ergene River by YAZICIOGLU (1982), and as the typical species from the Edirne-Meriç River by HAVZA & AKTAÇ (1987). The most important distinctive features between *G. vulgatissimus* and *G. schneiderii* are the shape of the male's superior appendages and the female's vulvar scale. In *G. vulgatissimus*, the superior appendages are thick and are mediodorsally curved upwards; the apical tip is also curved upwards. The distance from the apical tip to the subapical one is not longer than the distal width of the superior appendage (Fig. 5a). In dorsal view, the distal superior appendages are narrowed very abruptly (SEIDENBUSCH, 1997a) (Fig. 5b). The vulvar scale is wide at the base, it's branches are narrower compared to *G. schneiderii* and terminate in a small point (Fig. 5c). Taking into consideration these features, it is certain that specimens, given by HAVZA & AKTAÇ (1987) as *G. schneiderii* actually belong to *G. vulgatissimus*. The latter has been recorded from Kırklareli-Kömürköy by HACET & AKTAÇ (1994). YAZICIOĞLU (1982) has recorded *G. schneiderii* and *G. flavipes* from this area, but we did not find these species along the Ergene River, therefore their status remains unclear.

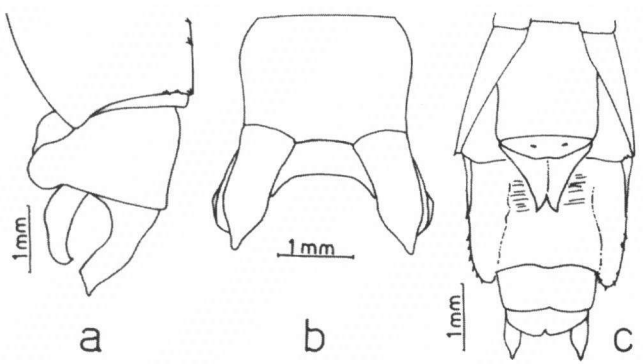

Fig. 5. *Gomphus vulgatissimus*: (a) superior appendages, lateral view, ♂: Edirne-Tavuk woodland (18-V-1999); – (b) same, dorsal view: Edirne-Avarız (9-V-1997); – (c) vulvar scale, same locality and date as (a).

Onychogomphus forcipatus has a wide distribution in Europe and is represented by *O. f. albotibialis* in Anatolia. The nominate subspecies has been reported from Bulgaria and Greece (BOUDOT et al., 1990; SUHLING & MÜLLER,1996). According to BOUDOT et al. (1990), the subspecific separation can be made on the basis of differences in male appendage morphology. A subterminal, dorsal projection on the male inferior appendages in the nominate subspecies is longer than wide and is straight or slightly curved backwards. The eye colour of the living specimens is greenish and differs from *albotibialis*. The subterminal, dorsal projection of the male inferior appendages in *albotibialis* is short and thick, and is as wide as it's length. White longitudinal stripes are present on the tibiae; these are not found in the nominate subspecies (DEMİRSOY, 1982). All our specimens belong to the nominate subspecies. It is likely, in view of the distribution of *albotibialis*, that it may be found in the region in the future.

Despite the various subspecies of *Cordulegaster insignis* recorded from Turkey, the characters separating them at subspecific level and their range of distribution remain unclear. It was recorded from Edirne in Turkish Thrace by HAVZA & AKTAÇ (1987), but its subspecific identity was not clarified. In the Turkish Thrace specimens the eyes are blue and the frons has a black band. The males have yellow spots in the front part of the 9th abdominal segment. These extend in females to behind the segment. In view of this, our material is to be addressed as the nominate subspecies.

Some of the specimens identified as *Somatochlora meridionalis* have yellow spots on the wing bases, similar to *S. metallica*, a species that is known also from Bulgaria. All specimens collected from the region exhibit some of the features (except spots at the base of the wing) described for *S. meridionalis* by SCHNEIDER (1986) and ASKEW (1988). Consequently, the occurrence of spots at the wing base in some specimens can be regarded as intraspecific variation. In the material from Şile (SCHNEIDER, 1986), there is a male with yellow spots on both mesepimeron and metepimeron; collected from the Edirne-Enez area.

Specimens identified as *Libellula fulva* are similar to those of BOS & WASSCHER (2002) and ASKEW (1988). Also *L. pontica* may be expected to occur in Turkish Thrace. According to LOPAU & WENDLER (1995), the abdomen in *L. pontica* males is

red with no pruinosity in older specimens. Specimens having these features have been recorded from Sakarya (G.J. van Pelt, pers. comm.).

Orthetrum coerulescens has a wide distribution in western and central Europe. *O. c. anceps* is known from the Balkan, Anatolia, eastwards from India and Afghanistan. *O. c. anceps* (SPAGNOLINI, 1877; MORTON, 1922; DUMONT, 1977; YAZICIOĞLU, 1982; HACET & AKTAÇ, 1997) and *O. c. coerulescens* (HAVZA & AKTAÇ, 1987; HACET & AKTAÇ, 1997) have been reported from Turkish Thrace. Upon reexamination of some of the previously published material, it appears that the specimens identified as *O. coerulescens* by HAVZA & AKTAÇ (1987) actually represent *O. cancellatum* and those of HACET & AKTAÇ (1997) belong to *O. c. anceps*. All material collected during our study is associated with the phenotype 5 of MAUERSBERGER (1994), who has given 5 phenotypic types according to the shape of the male lamina anterior. As in Bulgaria (MARINOV, 2001a), typical *O. c. coerulescens* was not found in Turkish Thrace.

Records of *S. s. sanguineum* and *S. s. armeniacum* are known from Anatolia, but only the nominate subspecies is known to occur in Turkish Thrace (DUMONT, 1977; YAZICIOĞLU, 1982). Although, the two subspecies are very similar to each other, *armeniacum* has a yellow stripe on all femora (SELYS, 1887). Our material belongs to *S. s. sanguineum*. Since the western limit of *S. s. armeniacum* is not clear, it is possible that this subspecies may occur in Turkish Thrace as well.

NOTES ON DISTRIBUTION

Out of the 40 species and subspecies, gathered during 1997-1999 from 86 localities, *Lestes macrostigma, Enallagma cyathigerum, Aeshna isoceles antehumeralis, Hemianax ephippiger, Onychogomphus f. forcipatus, Cordulegaster i. insignis, Pantala flavescens* and *Sympetrum pedemontanum* were not previously recorded from Turkish Thrace. *L. macrostigma, E. cyathigerum, H. ephippiger* and *S. pedemontanum* are known from Greece (LOPAU & WENDLER, 1995) and from Bulgaria (BESCHOVSKI, 1994). *P. flavescens* is a migratory species and has been recorded from the Mediterranean region of Turkey. According to DUMONT (1977) it occurs occasionally in Greece as well. *O. f. forcipatus* is also known to occur in Greece and Bulgaria (LOPAU & WENDLER, 1995; MARINOV, 2000). *A. i. antehumeralis* and *C. i. insignis* have a wide range in Anatolia and have also been found in Greece (VAN PELT,1999).

The typical habitat of *Lestes macrostigma* are temporary, brackish pools. The species is represented in our material from a single locality in the South of Turkish Thrace.

Enallagma cyathigerum has been reported to occur on the Edirne-Merkez-Zogo Stream (HAVZA & AKTAÇ 1987), based on misidentification. Upon reexamination of the specimen, it appears to represent a *Sympecma fusca*. Consequently, the present record is actually the first for the region. It is not surprising the species was found at a single locality, since it is also rare in the neighbouring northern Greece (LOPAU & WENDLER, 1995).

Although several earlier publications have suggested the occurrence of *Epallage fatime, Lestes dryas, Coenagrion pulchellum, Pyrrhosoma nymphula, Aeshna cyanea, Aeshna isoceles, Aeshna juncea, Brachytron pratense, Caliaeschna microstigma, Gomphus flavipes, Gomphus schneiderii* and *Somatochlora flavomaculata*, none of these has turned up in our surveys.

HACET & AKTAÇ (1997) recorded *Epallage fatime* from Kırklareli-Vize-Kızılağaç. Its typical habitat are fast running, rocky rivers, therefore the southern and middle parts of the Ergene Basin, which form much of our research area, may not provide adequate habitats (YAZICIOĞLU, 1982). We have sighted one individual in Kırklareli-Sergen, a site on the Istranca Mountains.

Two records of *Lestes dryas* (MORTON, 1915; YAZICIOGLU, 1982) are available from Turkish Thrace. MORTON (1915) reported it from the Asian part of İstanbul. It has also been found in some parts of northern Anatolia and Balıkesir (G.J. van Pelt, pers. comm.). This species is rare in Greece (LOPAU & WENDLER, 1995), and in Turkish Thrace. Records from northern Thrace are expected.

The first records of *Coenagrion pulchellum, Pyrrhosoma nymphula* and *Aeshna cyanea* from Turkish Thrace were presented by HACET & AKTAÇ (1994, 1997). *P. nymphula* is known from the two localities (Kırklareli-Kocayazı, Edirne-between Donköy and Hamzebeyli). *C. pulchellum* and *A. cyanea* have been reported from İstanbul-Karamandere and Durusu, and from Kırklareli-Balaban, respectively. There are also records of these three species in Bulgaria and Greece (BESCHOVSKI, 1994; LOPAU & WENDLER, 1995). Although *Aeshna isoceles* has been recorded from Kırklareli-Vize-Kıyıköy earlier (HACET & AKTAÇ, 1997), we did not find it during our 1997-1999 surveys. However, it was found in three localities; "Edirne-Elçili (20-VI-2001), Edirne-Tavuk woodland (25-V-2002) and Edirne-T.Ü. Campus (05-VI-2002)" in high densities.

Aeshna juncea from Edirne, reported by HAVZA & AKTAÇ (1987), is actually an *A. mixta*. It is known from Bulgaria (MARINOV, 2000) and NE Anatolia (Erzurum, Artvin) (G.J. van Pelt, pers.comm.).

Brachytron pratense has been recorded in the region, including İstanbul-Büyükçekmece (MORTON, 1915) and Kırklareli-Longos (HACET & AKTAÇ, 1997). It is also known to occur in Greece and in parts of Bulgaria, close to Turkish Thrace (LOPAU & WENDLER, 1995; MARINOV, 2000). The flight period of this species begins in April and is relatively short (ASKEW, 1988). LOPAU & WENDLER (1995) found adults in late April-early May. According to WEIHRAUCH (2000), the early flight period is one of the reasons explaining why *B. pratense* is also rare in the Adriatic region. Other reasons may be the paucity of suitable breeding sites and the possibility that the ecological needs of this species are complex. Our lack of records may be due to the few samples made in the appropriate season.

Caliaeschna microstigma was recorded from Kırklareli-Kocayazı and Istanbul-Bilezikçi farm in Turkish Thrace (HACET & AKTAÇ, 1997). It has a wide distribution in Greece close to southern Thrace (LOPAU & WENDLER, 1995). New records are expected.

Gomphus vulgatissimus was recorded from Edirne-(Avarız, T.Ü. Campus) and İstanbul-Çatalca-İnceğiz. We did not find *G. flavipes* and *G. schneiderii* during our study. The former is known from Bulgaria, Greece and Anatolia and the latter occurs in Greece and Anatolia (DUMONT,1991; LOPAU & WENDLER, 1995; MARINOV, 2000). The discovery of more localities in Turkish Thrace is to be expected.

To date, *Somatochlora flavomaculata* has been recorded by YAZICIOGLU (1982) from a single locality in Turkish Thrace. Two records are known from Bulgaria and it was also recorded from Greece (LOPAU & WENDLER, 1995; MARINOV, 2001b). Although known from the Asian part of İstanbul (MORTON, 1922), we have not observed it in our area. This may be due to its very local occurrence.

Odonate records from Bulgaria and Greece, close to Turkish Thrace, suggest that some other species may turn up there (LOPAU & WENDLER, 1995; KALKMAN et al., 2003). This particularly applies to *Erythromma najas, Ophiogomphus cecilia, Cordulegaster bidentata* and *Somatochlora borisi*, which are known to occur close to the Turkish Thrace border.

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