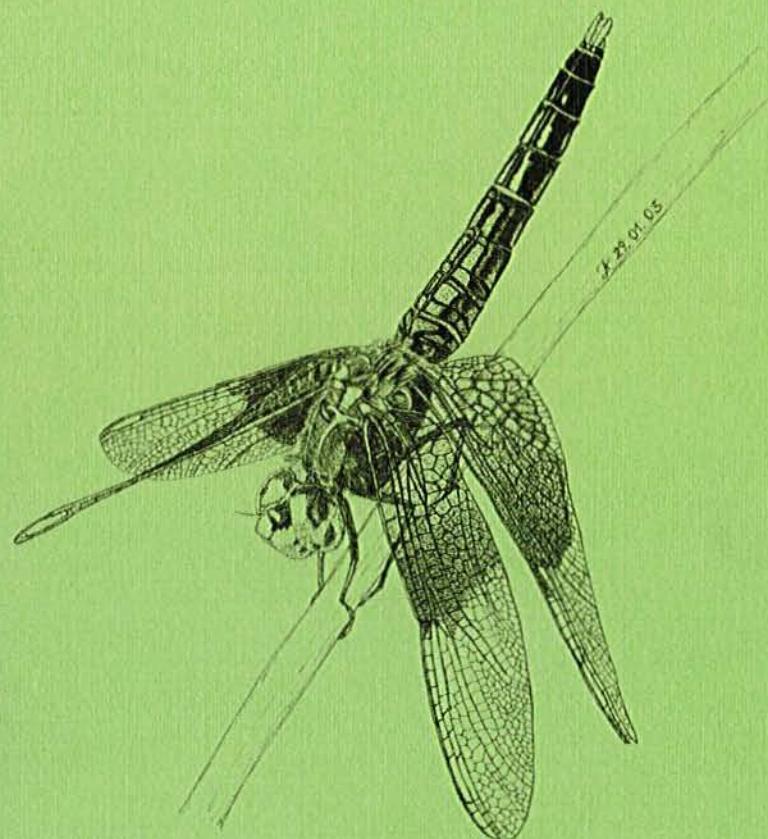


INHALT – CONTENTS

Editorial	1-2
VAN PELT, G.J.: New records of dragonflies from Turkey (Odonata)	3-38
KALKMAN, V.J., A. KOP, M. WASSCHER & G.J. VAN PELT: The dragonflies of the surroundings of Lake Köyceğiz and the River Eşen, Muğla province, SW Turkey (Odonata)	39-63
KALKMAN, V.J., W. LOPAU & G.J. VAN PELT: Hitherto unpublished records of dragonflies from Turkey (Odonata)	65-166
VAN PELT, G.J. & V.J. KALKMAN: Research on dragonflies in Turkey: present status and future aims (Odonata)	167-192
Colour photographs	193-200

Studies on the dragonfly fauna of Turkey

Studien zur Libellenfauna der Türkei



Libellula	Supplement 5	2004
Zeitschrift der Gesellschaft deutschsprachiger Odonatologen (GdO) e.V.		



Abbildung auf der Titelseite:
Brachythemis fuscopalliata ♂

Zeichnung: Dietrich Kern

LIBELLULA SUPPLEMENT 5, Reutlingen, März 2004
Sonderband zur Zeitschrift der
Gesellschaft deutschsprachiger Odonatologen (GdO) e.V.

Redaktion

Vincent J. Kalkman, Leiden, NL
Arjan Kop, Oegstgeest, NL
Marcel Wasscher, Utrecht, NL

Jean-Pierre Boudot, Nancy, F
Gert Jan van Pelt, Leiden, NL
Jürgen Ruddek, Lilienthal, D

LIBELLULA SUPPLEMENT dient der Veröffentlichung umfangreicher Arbeiten und der Zusammenstellung besonderer Themen auf dem Gebiet der Libellenkunde. Es erscheint unregelmäßig als Beilage der Zeitschrift Libellula.

Anfragen zur Libellenfauna der Türkei bitte richten an:

Vincent J. Kalkman, National Museum of Natural History, P.O. Box 9517, NL-2300 RA Leiden, The Netherlands. E-Mail: Kalkman@naturalis.nnn.nl

Manuskripte und Anfragen zu LIBELLULA SUPPLEMENT erbeten an: Prof. Dr. Andreas Martens, Pädagogische Hochschule Karlsruhe, Postfach 11 10 62, D-76060 Karlsruhe; E-Mail: martens@ph-karlsruhe.de

Bezug von LIBELLULA, LIBELLULA SUPPLEMENT und Adressenänderungen über: GdO, Ilona Schrimpf, Heimbühlstraße 32, D-72768 Reutlingen; E-Mail: t.schrimpf@gmx.de

Für Mitglieder der GdO ist der Bezug von Libellula Supplement im Jahresbeitrag enthalten. Dieser beträgt € 25,-; auf Antrag für Schüler, Studenten (nach drei Jahren Neuantrag!) und Rentner innerhalb der GdO € 18,-. Für Nichtmitglieder beträgt der Bezugspreis dieses Heftes € 15,-.

Den Betrag bitte auf das Konto der GdO, z.Hd. I. Schrimpf, überweisen:
Kto. Nr. 03 30 91 95 05 bei der Postbank Köln (BLZ 370 100 50).

Libellula Supplement 5: 1-2

2004

Editorial

The present Supplement of *Libellula* deals with the odonatofauna of Turkey. This country is on the verge of Europe and Asia, and is dominated by two mountain belts, that are roughly running from West to East and that are linked to the mountains in Iran. Turkey harbours a wide variety of habitats ranging from alpine meadows in the North to a zone with Mediterranean climate in the South and a rather extensive desert adjacent to Syria and Iraq. The odonatofauna of Turkey is quite diverse, and is influenced by the fauna of Europe, Africa and Asia. Some regional endemics are known to occur in Turkey as well.

During the last two decades, the knowledge of the dragonfly fauna of Turkey has increased a great deal due to quite a number of publications, yet the odonatofauna has not been reviewed like that of Greece. In the 'Arbeitsatlas' of the Odonata of Greece by LOPAU & WENDLER (1995) all available knowledge on distributional data has been summarised. This has stimulated a number of authors to do additional research and to publish their results, especially in previous volumes of the present series of Libellula Supplements.

In order to achieve the same for the fauna of Turkey a number of (mainly Dutch) odonatologists decided to combine their efforts. The overview on the Odonata of Turkey given by DUMONT (1977) and the book by DEMIRSOY (1982) provided a firm basis for further fieldwork. This, combined with the large amount of specimens from Turkey already collected by G.J. van Pelt, made a quick start easy. Among the first initiatives taken was the publication of a checklist, the organisation of a field trip to southwestern Turkey, and the creation of a database and an internetsite on (mainly) the Odonata of Turkey. The present supplement gives an overview of the results so far and presents goals for further fieldwork. We hope that it will stimulate others to visit Turkey and help us with the many puzzles still to be solved.

With this supplement a large number of new records are published, and in fact the number of published records from the territory of Turkey has more than doubled. Apart from new records, the articles also provide (some) information on phenology and habitat preferences. The notes on these subjects are an indication of the fact that our knowledge is still scanty. The closing article: "Research on dragonflies in Turkey: present status and future aims" provides an overview of (gaps in) our knowledge and is intended to stimulate further research on Odonata of Turkey.

The colour photographs that are included show that the present project on the Odonata of Turkey encompasses more than new records, maps and graphs. Some of the photographs look familiar, some look strange, but all are beautiful. Many of the depicted species have never been published as a photograph up to now. We are extremely grateful to the persons who have taken these photographs and gave us permission to include these in this publication.

The editors of this Supplement also thank Dr Nurten Hacet (Trakya University, Edirne, Turkey) for providing the summaries in the Turkish language of the articles (özetler), and the Redaktion of *Libellula* for the translations into German. We are very grateful to the Uyttenboogaart-Eliasen Stichting for the financial support that enabled us to publish the colour photographs. And finally, we are very thankful to the redaktion of *Libellula* for giving us the opportunity to publish the results of our research (in English), and Dietrich Kern for drawings of *Brachythemis fuscopallliata* and *Lindenia tetraphylla*. We hope that this Supplement of *Libellula* will stimulate many odonatologists to do further research in Turkey.

*The Editors for this issue
(in alphabetical order):*

Jean-Pierre Boudot
Vincent J. Kalkman
Arjan Kop
Gert Jan van Pelt
Marcel Wasscher

New records of dragonflies from Turkey (Odonata)

Gert Jan van Pelt

received: 16 September 2002

Summary

Material of 60 species of Odonata from numerous localities on the mainland of Turkey (collected in 1993, 1996, 1997, 1998, 1999, 2001) is reported upon. A list of taxa is provided, and a complete list of localities is presented. The material is preserved in the collection of the RMNH, Leiden, The Netherlands. Remarks on distribution and taxonomy are restricted to major issues, pending an overview of the odonatofauna of Turkey.

Zusammenfassung

Neue Libellennachweise aus der Türkei (Odonata) – Es wird über Material zu 60 Libellenarten berichtet, das von zahlreichen Fundorten auf dem türkischen Festland stammt und in den Jahren 1993, 1996, 1997, 1998, 1999 und 2001 gesammelt wurde. Eine Taxaliste sowie eine vollständige Liste der gesammelten Orte wird vorgelegt. Das Material wurde in der Sammlung des RMNH in Leiden in den Niederlanden deponiert. Anmerkungen zur Verbreitung und Taxonomie beschränken sich auf die wichtigsten Fälle, weshalb ein vollständiger Überblick über die Odonatenfauna der Türkei noch anstehend ist.

Özet

Anadolu'dan şimdije kadar 1993, 1996-1999 ve 2001 yıllarında çok sayıdaki lokaliteden 60 Odonata türü kaydedilmiştir. Kaydedilen türlere ait bir liste oluşturulmuş ve bu türlerin bulunduğu lokaliteler de ayrıca tablo halinde verilmiştir. Araştırma materyali, Hollanda-Leiden RMNH kolleksiyonunda muhafaza edilmektedir. Türlerin dağılm ve taksonomileri ile ilgili veriler şimdije kadar Türkiye Odonata faunası ile ilgili yapılan çalışmalara dayanılmıştır.

Introduction

In the past decade, field research on the genus *Cordulegaster* has been conducted in Turkey. During these collecting trips (20.vi - 19.viii.1993, 21.vi - 10.viii.1996, 8.vi - 17.viii.1997, 18.vii - 22.viii.1998, 25.vi - 1.viii.1999, and 20.vi - 11.viii.2001) material of other Odonata has been collected as well. This material has been identified and some 930 records and an additional 150 observations are here reported upon.

The main objective of the field research was to gather information on the distribution and variability of the various subspecies of *Cordulegaster insignis* in Turkey. Therefore, typical spring and autumn species are underrepresented in this study. Along the southern Mediterranean coast of Turkey only the nominate subspecies of *C. insignis* is to be found, and this region has therefore hardly been investigated. As a consequence, the Odonata species with a mainly African or Oriental distribution that are known to occur in that area are hardly represented in this study.

Due to the political situation, southeastern Turkey has not been visited at all. An overview of the complete set of localities visited is presented on Fig. 1.

List of localities

The localities are listed in chronological order, and are indicated by: 1) the name of the province; 2) the distance to the nearest locality listed in the 'RV Euro Atlas Turkey', or on the more recently published set of Roadmaps of Turkey; 3) a short description of the exact locality; 4) the altitude above sea level; 5) the UTM coordinates; 6) the date.



Fig. 1: Overview of all localities visited.

List of localities 1993

- (1) Kars: brooklet 5 km S of Sarıkamış, ca. 2000 m asl, 38TKK96, 21.vi.1993.
- (2) Erzurum: 7 km E of Şenkaya, barrage lake at 2450 m asl, 38TKK89, 25.vi.1993.
- (3) Erzurum: spring 2.5 km W of Şenkaya, 1600 m asl, 38TKK79, 30.vi.1993.
- (4) Erzurum: 11 km WNW of Şenkaya: largest pool on yayla above (200 m) and 1 km SSW of Turnalı (= Kotik), ca. 2000 m asl, 38TKK69, 1.vii.1993. (Fig. 2)
- (5) Erzurum: 11 km WNW of Şenkaya: pool 100 m S of largest pool on yayla above (200 m) and 1 km SSW of Turnalı (= Kotik), ca. 2000 m asl, 38TKK69, 1.vii.1993.
- (6) Erzurum: 11 km WNW of Şenkaya: pool 100 m W of largest pool on yayla above (200 m) and 1 km SSW of Turnalı (= Kotik), ca. 2000 m asl, 38TKK69, 1.vii.1993.



Fig. 2: Erzurum: 11 km WNW of Şenkaya: largest pool on yayla above (200 m) and 1 km SSW of Turnalı (= Kotik), ca. 2000 m asl, 38TKK69, 1.vii.1993. List of species encountered: *Lestes dryas*, *Coenagrion puella*, *Leucorrhinia pectoralis*, *Libellula depressa*, *Libellula quadrimaculata*.

- (7) Erzurum: largest source 2 km W of Şenkaya, 1600 m asl, 38TKK79, 5.vii.1993.
- (8) Erzurum: 3 km SSW of Kosor (= Akşar): pools in Luxor çayı, 1400 m asl, 38TKL70, 6.vii.1993.
- (9) Erzurum: 3 km SSW of Kosor (= Akşar): brooklet tributary to Luxor çayı, 1400 m asl, 38TKL70, 6.vii.1993.
- (10) Erzurum: 3 km SE of Kosor (= Akşar): Yelkiran çayı tributary to Penek çayı, 1450 m asl, 38TKL70, 7.vii.1993.
- (11) Erzurum: brooklet 1 km NNW of and 150 m above Kosor (= Akşar), ca. 1550 m asl, 38TKL70, 8.vii.1993.
- (12) Erzurum: brooklet 1 km NNW of and 150 m above Kosor (= Akşar), ca. 1550 m asl, 38TKL70, 10.vii.1993 (= 1993: 11).
- (13) Artvin: brooklet 1 km N of and 100 m above Yusufeli, ca. 1100 m asl, 37TGF12, 11.vii.1993.
- (14) Artvin: 12 km NW of Sarıgöl, 5 km NW of Barhal: Naznara valley, ca. 2000 m asl, 37TGF04, 13.vii.1993.
- (15) Rize: ca. 26 km S of Ardeşen and 5 km S of Çamlıhemşin: brooklet just S of Şenyuva köprülsü (Savaş Güney), 410 m asl, 37TFF63, 20.vii.1993.
- (16) Rize: ca. 26 km S of Ardeşen and 5 km S of Çamlıhemşin: brooklet just S of Şenyuva köprüsü (Savaş Güney), 410 m asl, 37TFF63, 21.vii.1993.
- (17) Rize: ca 21 km S of Ardeşen: 100 m above (NE) Çamlıhemşin, ca. 450 m asl, 37TFF63, 21.vii.1993.
- (18) Rize: brooklet ca. 8 km SSE of Kaptanpaşa near Uzundere ilkokul, ca. 7-800? m asl, 37TFF52, 23.vii.1993.
- (19) Rize: brooklet 2 km E and 150 m above İkizdere, ca. 900 m asl, 37TFF31, 26.vii.1993.
- (20) Rize: brooklet 2 km E and 150 m above İkizdere, ca. 900 m asl, 37TFF31, 27.vii.1993.
- (21) Erzurum: source 1 km W of Şenkaya, 1600 m asl, 38TKK79, 31.vii.1993.
- (22) Erzurum: source 2 km W of Şenkaya, 1600 m asl, 38TKK79, 31.vii.1993.
- (23) Erzurum: source just S of Şenkaya, 1750 m asl, 38TKK79, 31.vii.1993.
- (24) Erzurum: 7 km E of Şenkaya, barrage lake at 2450 m asl, 38TKK89, 1.viii.1993.

- (25) Erzurum: source just S of Şenkaya, 1750 m asl, 38TKK79, 2.viii.1993.
- (26) Erzurum: ca 20 km SE of Oltu: source 1 km SW of Tazeköy (40°24'N/42°15'E), 1800-2000 m asl, 38TKK68, 4.viii.1993.
- (27) Erzurum: ca 20 km SE of Oltu, brooklet 1.5 km SW of Tazeköy (40°24'N/42°15'E), 1800-2000 m asl, 38TKK68, 4.viii.1993.
- (28) Erzurum: ca 20 km SE of Oltu, brooklet 2 km SW of Tazeköy (40°24'N/42°15'E), 1800-2000 m asl, 38TKK68, 4.viii.1993.
- (29) Erzurum: ca 20 km SE of Oltu, source near brooklet 2 km SW of Tazeköy (40°24'N/42°15'E), 1800-2000 m asl, 38TKK68, 4.viii.1993.
- (30) Erzurum: ca 20 km SE of Oltu, brooklet just S and below Çatak (40°24'N/42°11'E), 1800-2000 m asl, 38TKK68, 4.viii.1993.
- (31) Erzurum: ca 20 km SE of Oltu: pond just SE and below Çatak (40°24'N/42°11'E), 1800-2000 m asl, 38TKK68, 4.viii.1993.
- (32) Erzurum: ca 20 km SE of Oltu: barrage lake just NW and above Çatak (40°24'N/42°11'E), 1800-2000 m asl, 38TKK68, 4.viii.1993.
- (33) Erzurum: 11 km WNW of Şenkaya: pond 1 km W of Turnalı (= Kotik), ca. 1800 m asl, 38TKK69, 6.viii.1993.
- (34) Erzurum: 11 km WNW of Şenkaya: lower large pool in brooklet just S and above Turnalı (= Kotik), ca. 1900 m asl, 38TKK69, 7.viii.1993.
- (35) Erzurum: 11 km WNW of Şenkaya: second large pool in brooklet just S and above Turnalı (= Kotik), ca. 1900 m asl, 38TKK69, 7.viii.1993.
- (36) Erzurum: 11 km WNW of Şenkaya: largest pool on yayla above (200 m) and 1 km SSW of Turnalı (= Kotik), ca. 2000 m asl, 38TKK69, 7.viii.1993.
- (37) Erzurum: 11 km WNW of Şenkaya: pond 1 km W of Turnalı (= Kotik), ca. 1800 m asl, 38TKK69, 7.viii.1993.
- (38) Erzurum: 11 km WNW of Şenkaya: pond 'A' 1 km W of Turnalı (= Kotik), ca. 1800 m asl, 38TKK69, 8.viii.1993.
- (39) Erzurum: 11 km WNW of Şenkaya: pond 'B' 1 km W of Turnalı (= Kotik), ca. 1800 m asl, 38TKK69, 8.viii.1993.
- (40) Erzurum: 11 km WNW of Şenkaya: ponds 1 km W of Turnalı (= Kotik), ca. 1800 m asl, 38TKK69, 8.viii.1993.
- (41) Erzurum: 11 km WNW of Şenkaya: upper pool on yayla above (200 m) and 1 km SSW of Turnalı (= Kotik), ca. 2000 m asl, 38TKK69, 9.viii.1993.

- (42) Erzurum: 11 km WNW of Şenkaya: largest pool on yayla above (200 m) and 1 km SSW of Turnalı (= Kotik), ca. 2000 m asl, 38TKK69, 9.viii.1993.
- (43) Erzurum: 11 km WNW of Şenkaya: pools on yayla above (200 m) and 1 km SSW of Turnalı (= Kotik), ca. 2000 m asl, 38TKK69, 9.viii.1993.
- (44) Erzurum: brooklet 1 km NNW and 150 m above km of Kosor (= Akşar), ca. 1550 m asl, 38TKL70, 11.viii.1993.
- (45) Erzurum: 2 km SW of Kosor (= Akşar), ponds and irrigation channel along asphalt road near bridge in road to Gaziler, 1400 m asl, 38TKL70, 13.viii.1993.
- (46) Erzurum: 2 km SW of Kosor (= Akşar), ponds just S of bridge in road to Gaziler, 1400 m asl, 38TKL70, 13.viii.1993.
- (47) Erzurum: 3 km SSW of Kosor (= Akşar), brooklet tributary to Luxor çayı, 1400 m asl, 38TKL70, 13.viii.1993.
- (48) Erzurum: 3 km SSW of Kosor (= Akşar), ponds along road to Gaziler, 1400 m asl, 38TKL70, 13.viii.1993.
- (49) Erzurum: 3 km SE of Kosor (= Akşar), Yelkiran çayı tributary to Penek çayı, 1450 m asl, 38TKL70, 14.viii.1993.
- (50) Balıkesir: ca. 10 km WNW of Edremit, spring W of falls in Kızılkeçili dere, 2 km N of Kızılkeçili köy, ca. 240 m asl, 35SMD98, 18.viii.1993.
- (51) Balıkesir: ca. 12 km WNW of Edremit and 3 km NW of Akçay, irrigation channels near Güre, 50 m asl, 35SMD98, 19.viii.1993.

List of localities 1996

- (1) Kütahya: ca 22 km NW of Tavşanlı: brooklet under Nustetler ($39^{\circ}41'N/29^{\circ}17'E$), 800-900 m asl, 35SPD99, 21.vi.1996.
- (2) Kütahya: ca. 10 km SW of Değirmisaz: forest springs and brooklets down (=N) of Kocakırdağ Tepe, ca. 5 km S of Çobanlar, 1500-1600 m asl, 35SPD86, 24.vi.1996 (Fig. 3).
- (3) Balıkesir: ca. 10 km WNW of Edremit: spring W of falls in Kızılkeçili dere, 2 km N of Kızılkeçili köy, ca. 240 m asl, 35SMD98, 26.vi.1996 (= 1993: 50).
- (4) Balıkesir: ca. 10 km WNW of Edremit: spring W of falls in Kızılkeçili dere, 2 km N of Kızılkeçili köy, ca. 240 m asl, 35SMD98, 27.vi. 1996 (= 1993: 50).

- (5) Muğla: 1 km E of Köyceğiz: brooks in *Liquidamber* forest, 5 m asl, 35SPA59, 9.vii.1996.
- (6) Muğla: 1 km E of Köyceğiz: springbrook in *Liquidamber* forest, 5 m asl, 35SPA59, 9.vii.1996.
- (7) Muğla: ca. 5 km NW of Köyceğiz: brooklet near pick-nick-site 2 km W of Toparlar, 5 m asl, 35SPA49, 9.vii.1996.



Fig. 3: Kütahya: ca. 10 km SW of Değirmisaz: forest springs and brooklets down (=N) of Kocakırdağ Tepe, ca. 5 km S of Çobanlar, 1500-1600 m asl, 35SPD86, 24.vi.1996. List of species encountered: *Calopteryx splendens amasina*, *Caliaeschna microstigma*, *Cordulegaster picta*.

- (8) Muğla: ca. 8 km W of Köyceğiz, 2 km NE of Doğuşbelen, 5 m asl, 35SPA49, 10.vii.1996.
- (9) Muğla: 1 km E of Köyceğiz, springbrook in *Liquidamber* forest, 5 m asl, 35SPA59, 10.vii.1996 (= 1996: 6).
- (10) Muğla: springs in Ağla, ca. 850 m asl, 35SPB60, 11.vii.1996.
- (11) Antalya: 10 km SW of Akçay (= Bayat): streamlets above (= NW) Gömbe, 1300-1400 m asl, 35SQA34, 13.vii.1996.
- (12) Isparta: ca. 16 km SSW of Akşehir: brooklet near road to Bağkonak on highest point in road, ca. 1600 m asl, 36SUH53, 15.vii.1996.
- (13) Isparta: ca. 16 km SSW of Akşehir: spring 1 km NW of highest point in road to Bağkonak, ca. 1800 m asl, 36SUH53, 15.vii.1996.
- (14) Konya: ca. 16 km S of Akşehir, brook near Cankurtaran, ca. 1400 m asl, 36SUH53, 15.vii.1996.
- (15) Niğde: 10 km NE of Gelveri (= Güzelyurt), lake Nargölü, ca. 1300 m asl, 36SXH24, 17.vii.1996.
- (16) Kayseri: ca. 6 km SE of Pınarbaşı: spring N of Dokuzdolanbaç geçidi between road and river, ca. 1600 m asl, 37SBC78, 19.vii.1996.
- (17) Kayseri: ca. 6 km SE of Pınarbaşı: spring N of Dokuzdolanbaç geçidi on opposite side of river, ca. 1600 m asl, 37SBC78, 19.vii.1996.
- (18) Kayseri: ca. 6 km SE of Pınarbaşı: brooklet near gardens and river N of Dokuzdolanbaç geçidi, ca. 1600 m asl, 37SBC78, 19.vii.1996.
- (19) Kayseri: ca. 6 km SE of Pınarbaşı: pool near gardens and river N of Dokuzdolanbaç geçidi, ca. 1600 m asl, 37SBC78, 19.vii.1996.
- (20) Malatya: 8 km SW of Malatya, gardens 2 km S of Gündüzbey, ca. 1100 m asl, 37SDC33, 21.vii.1996.
- (21) Malatya: 8 km S of Malatya, spring 2 km S of Konak, ca. 1100 m asl, 37SDC33, 22.vii.1996.
- (22) Malatya: 10 km S of Malatya: springs in valley 4 km S of Konak, just N of Bey dağı, ca. 1750 m asl, 37SDC33, 22.vii.1996.
- (23) Malatya: 10 km S of Malatya: brook alongside road 4 km S of Konak, 2 km NW of Bey dağı, ca. 2000 m asl, 37SDC33, 23.vii.1996.
- (24) Malatya: 10 km S of Malatya: springs in valley 4 km S of Konak, just N of Bey dağı, ca. 1750 m asl, 37SDC33, 24.vii.1996 (Fig. 4).
- (25) Malatya: 10 km S of Malatya: brook above road 4 km SW of Konak, 3 km WNW of Bey dağı, 37SDC33, ca. 2000 m asl, 25.vii.1996.

- (26) Malatya: 6 km S of Malatya: gardens in Konak, ca. 1000 m asl, 37SDC33, 25.vii.1996.
- (27) Erzurum: brooklets 6 km E of Aşkale near road to Kandili, ca. 1800 m asl, 37TFE42, 28.vii.1996.
- (28) Erzurum: brooklet 4 km NE of Aşkale, ca. 1900 m asl, 37TFE42, 28.vii.1996.



Fig. 4: Malatya: 10 km S of Malatya: springs in valley 4 km S of Konak, just N of Bey dağı, ca. 1750 m asl, 37SDC33, 24.vii.1996. List of species encountered: *Epallage fatime*, *Caliaeschna microstigma*, *Cordulegaster insignis* ssp.

- (29) Erzurum: pond 4 km NE of Aşkale, ca. 1900 m asl, 37TFE42, 28.vii.1996.
- (30) Erzurum: brook under ski-centre 5 km S of Erzurum, ca. 2300 m asl, 37TFE91, 29.vii.1996.
- (31) Erzurum: ca. 20 km WNW of Tortum: brooklets on yayla near Yukanırda Meydanlar, ca. 2800 m asl, 37TFE96, 1.viii.1996.
- (32) Erzurum: ca. 16 km NNE of Uzundere (= Azort): brooklet in Ulubağ, ca. 1000 m asl, 37TGF20, 3.viii.1996.
- (33) Erzurum: brooklet 1 km NNW and 150 m above Kosor (= Akşar), ca. 1550 m asl, 38TKL70, 4.viii.1996 (= 1993: 11).
- (34) Gümüşhane: 10 km SE of Toruł, brook ca. 2 km N of Dilekbi, ca. 1200 m asl, 37TEE38, 10.viii.1996.
- (35) Erzurum: 14 km SE of Oltu, pools W and above Turnalı (= Kotik), ca. 2000 m asl, 38TKK58, 20-30.vii.1996, leg. E. Yıldırım, Erzurum Atatürk Üniversitesi (now in RMNH).

List of localities 1997

- (1) Balikesir: ca. 10 km WNW of Edremit: spring W of falls in Kızılkeçili dere, 2 km N of Kızılkeçili köy, ca. 240 m asl, 35SMD98, 8.vi.1997 (= 1993: 50).
- (2) Balikesir: ca. 7 km NW of Edremit: Zeytinli dere, 2 km N of Zeytinli, ca. 150 m asl, 35SMD98, 9.vi.1997.
- (3) Balikesir: ca. 7 km NW of Edremit: springs near Zeytinli dere, 2-3 km N of Zeytinli, ca. 200 m asl, 35SMD98, 9.vi.1997.
- (4) Balikesir: ca. 13 km WNW of Edremit: springs near Güre dere, 3 km N of Güre, above "pinarbaşı", ca. 250 m asl, 35SMD88, 10.vi.1997.
- (5) Balikesir: ca. 13 km W of Edremit: Güre dere, 1 km N of Güre, ca. 50 m asl, 35SMD88, 11.vi.1997.
- (6) Balikesir: ca. 13 km W of Edremit: Güre dere, 1 km N of Güre, ca. 50 m asl, 35SMD88, 12.vi.1997.
- (7) Muğla: 12 km SSW of Köyceğiz: S side of Köyceğiz lake near Sultanije, 5 m asl, 35SPA59, 4.vii.1997.
- (8) Muğla: 1 km E of Köyceğiz: N side of Köyceğiz lake, 5 m asl, 35SPA59, 5.vii.1997.
- (9) Muğla: 1 km E of Köyceğiz: brooks in *Liquidamber* forest, 5 m asl, 35SPA59, 5.vii.1997 (= 1996: 5).

- (10) Muğla: 1 km E of Köyceğiz: brooklet at N side of *Liquidamber* forest, 5 m asl, 35SPA59, 5.vii.1997.
- (11) Muğla: 1 km W of Köyceğiz: ditch N of Köyceğiz lake, 5 m asl, 35SPA49, 6.vii.1997.
- (12) Muğla: ca. 8 km W of Köyceğiz: ditch, brooklet and wetlands 2 km NE of Doğuşbelen, 50 m asl, 35SPA49, 6.vii.1997 (= 1996: 8).
- (13) Bolu: 6 km S of Bolu: barrage lake S of Karacasu, ca. 800 m asl, 36TUL80, 12.vii.1997.
- (14) Bolu: 6 km S of Bolu: brooklet S of Karacasu, ca. 800 m asl, 36TUL80, 12.vii.1997.
- (15) Bolu: 14 km S of Bolu: lake Gölcük at ca. 8 km S of Karacasu, ca. 1200 m asl, 36TUL80, 13.vii.1997.
- (16) Bolu: 14 km S of Bolu: brooklet 1 km W of lake Gölcük at ca. 8 km S of Karacasu, ca. 1200 m asl, 36TUL80, 13.vii.1997.
- (17) Bolu: 14 km S of Bolu: spring 1 km W of lake Gölcük at ca. 8 km S of Karacasu, ca. 1200 m asl, 36TUL80, 13.vii.1997.
- (18) Bolu: 14 km S of Bolu: brooklet and pools 1 km W of lake Gölcük at ca. 8 km S of Karacasu, ca. 1200 m asl, 36TUL80, 13.vii.1997.
- (19) Niğde: 11 km SE of Ulukişla: spring Karapınar SW of Darboğaz, ca. 1500 m asl, 36SXG34, 15.vii.1997.
- (20) Niğde: 15 km SSE of Ulukişla: lake Karaçöl at 4 km S of Darboğaz, ca. 2500 m asl, 36SXG34, 16.vii.1997.
- (21) Niğde: 12 km SE of Ulukişla: spring Karabıklı pınar at 2 km E of Darboğaz, ca. 1600 m asl, 36SXG34, 17.vii.1997.
- (22) Malatya: 10 km S of Malatya: springs in valley 4 km S of Konak, just N of Bey dağı, ca. 1750 m asl, 37SDC33, 20.vii.1997 (= 1996: 22).
- (23) Malatya: 10 km S of Malatya: springs in valley 4 km S of Konak, just N of Bey dağı, ca. 1750 m asl, 37SDC33, 21.vii.1997 (= 1996: 22).
- (24) Malatya: 10 km S of Malatya: brook alongside road 4 km S of Konak, 2 km NW of Bey dağı, ca. 2000 m asl, 37SDC33, 21.vii.1997 (= 1996: 23).
- (25) Malatya: 8 km S of Malatya: brook 3 km SW of Konak (under large garden), 1200 m asl, 37SDC33, 22.vii.1997.
- (26) Malatya: 10 km S of Malatya: brook above road 4 km SW of Konak, 3 km WNW of Bey dağı, 37SDC33, ca. 2000 m asl, 22.vii.1997 (= 1996: 25).

- (27) Malatya: 10 km S of Malatya: brook alongside road 4 km S of Konak, 2 km NW of Bey dağı, ca. 2000 m asl, 37SDC33, 22.vii.1997.
- (28) Sivas: ca. 10 km S of Gürün: spring and brooklet tributary to Yelken çayı, just S of Gökpınar lake, ca. 1600 m asl, 37SCC57, 25.vii.1997.
- (29) Sivas: ca. 10 km S of Gürün: spring and brooklet just W of Gökpınar lake, ca. 1600 m asl, 37SCC57, 25.vii.1997.
- (30) Erzurum: ca. 16 km SW of Tortum, pool on height 1 km N of Karagöbek, ca. 2000 m asl, 37TGE50, 26.vii.1997.
- (31) Erzurum: ca. 16 km SW of Tortum: spring on height 2 km N of Karagöbek, ca. 2100 m asl, 37TGE50, 26.vii.1997.
- (32) Erzurum: ca. 20 km NE of Uzundere (= Azort): brooklet under Cevizli köy, ca. 1100 m asl, 37TGF20, 27.vii.1997.
- (33) Erzurum: ca. 20 km NE of Uzundere (= Azort): brooklet above Çagliyan, ca. 1100 m asl, 37TGF20, 27.vii.1997.
- (34) Erzurum: ca. 16 km NNE of Uzundere (= Azort): brooklet in Ulubağ, ca. 1000 m asl, 37TGF20, 29.vii.1997 (= 1996: 32).
- (35) Erzurum: ca. 18 km NE of Uzundere (= Azort): upper lake in Cevizlihan, ca. 900 m asl, 37TGF20, 29.vii.1997.
- (36) Erzurum: spring and lake 1 km N of Uzundere (= Azort); ca. 1100 m asl, 37TGE18, 30.vii.1997.
- (37) Artvin: 4 km N of Yusufeli: Barhal çayı near road to Bahceli, ca. 500 m asl, 37TGF12, 1.viii.1997.
- (38) Artvin: 2 km N of Yusufeli: streamlet along road to 'Erdemler mahalesi', ca. 600 m asl, 37TGF12, 1.viii.1997.
- (39) Artvin: 6 km SW of Yusufeli: Dört Kilise dere N of Tekkale, ca. 500 m asl, 37TGF11, 2.viii.1997.
- (40) Artvin: 6 km SW of Yusufeli: irrigation streamlet along Dört Kilise dere N of Tekkale, ca. 500 m asl, 37TGF11, 2.viii.1997.
- (41) Artvin: 6 km WSW of Yusufeli: irrigation streamlets near Kayaçıl, ca. 800 m asl, 37TGF02, 2.viii.1997.
- (42) Artvin: 5 km E of Savşat: pool S of turn off to Kocabey, ca. 1300 m asl, 38TKL87, 4.viii.1997.
- (43) Artvin: 7 km ESE of Savşat: springs, brooklets and irrigation streamlets in valley W of Çam Geçidi at ca. 1600 m asl, 38TKL86, 4.viii.1997.
- (44) Artvin: 7 km E of Savşat: spring 2 km SW of Karaköy, ca. 1900 m asl, 38TKL86, 5.viii.1997.

- (45) Artvin: 10 km WNW of Savşat: brooklet tributary to Savşat dere, ca. 800 m asl, 38TKL77, 6.viii.1997.
- (46) Artvin: ca. 15 km NE of Savşat: lake Karagöl, ca. 1500 m asl, 38TKL88, 7.viii.1997.
- (47) Artvin: ca. 16 km NE of Savşat: brooklet E of Mesele köy, ca. 1600 m asl, 38TKL88, 7.viii.1997.
- (48) Artvin: ca. 16 km NE of Savşat: lake Horetba gölu, ca. 1550 m asl, 38TKL88, 7.viii.1997.
- (49) Artvin: ca. 15 km NE of Savşat: lake Karagöl, ca. 1500 m asl, 38TKL88, 8.viii.1997 (= 1997: 46).
- (50) Artvin: ca. 16 km NE of Savşat: springs and brooklets 1 km NW of Mesele mahale, ca. 1500 m asl, 38TKL88, 8.viii.1997.
- (51) Artvin: ca. 16 km NE of Savşat: lake Horetba gölu, ca. 1550 m asl, 38TKL88, 8.viii.1997 (= 1997: 48).
- (52) Artvin: 7 km E of Savşat: spring 2 km SW of Karaköy, ca. 1900 m asl, 38TKL86, 9.viii.1997.
- (53) Artvin: 7 km E of Savşat: springs and brooklets 1 km S of Karaköy, ca. 1900 m asl, 38TKL86, 9.viii.1997.
- (54) Artvin: 7 km E of Savşat: springs and brooklets 1 km S of Karaköy, ca. 1900 m asl, 38TKL86, 10.viii.1997 (= 1997: 53).
- (55) Artvin: 7 km E of Savşat: pools on road between pick-nick site and Karaköy, ca. 1900 m asl, 38TKL86, 10.viii.1997.
- (56) Artvin: 7 km ESE of Savşat: pool in valley W of Çam Geçidi at ca. 1700 m asl, under Kocabey mesra, 38TKL86, 10.viii.1997.
- (57) Artvin: 7 km ESE of Savşat: spring above pool in valley W of Çam Geçidi at ca. 1700 m asl, under Kocabey mesra, 38TKL86, 10.viii.1997.
- (58) Erzurum: brooklet 1 km NNW and 150 m above Kosor (= Akşar), ca. 1550 m asl, 38TKL70, 12.viii.1997 (= 1993: 11).
- (59) Erzurum: 3 km SSW of Kosor (= Akşar): brooklet tributary to Luxor çayı, 1400 m asl, 38TKL70, 12.viii.1997 (= 1993: 9).
- (60) Çankırı: 5 km NNE of Kurşunlu: lake Ovacık göl at Kinan height, ca. 1500 m asl, 36TWL22, 15.viii.1997.
- (61) Çankırı: 5 km NNE of Kurşunlu: lake Kuru göl at Kinan height, ca. 1550 m asl, 36TWL22, 15.viii.1997.
- (62) Çankırı: 6 km NNE of Kurşunlu: spring and man-made lake at height Yilhanlı yayla, ca. 1450 m asl, 36TWL22, 15.viii.1997.

- (63) Bolu: 14 km S of Bolu: lake Gölcük at ca. 8 km S of Karacasu, ca. 1200 m asl, 36TUL80, 17.viii.1997 (= 1997: 15).
- (64) Bolu: 14 km S of Bolu: spring 1 km W of lake Gölcük at ca. 8 km S of Karacasu, ca. 1200 m asl, 36TUL80, 17.viii.1997 (= 1997: 17).
- (65) Bolu: 14 km S of Bolu: brooklet and pools 1 km W of lake Gölcük at ca. 8 km S of Karacasu, ca. 1200 m asl, 36TUL80, 17.viii.1997 (= 1997: 18).

List of localities 1998

- (1) Bolu: 5 km S of Bolu: brooklet in Karacasu, ca. 750 m asl, 36TUL80, 18.vii.1998.
- (2) Bolu: 6 km S of Bolu: spring NW of barrage lake Amcagöl at 1 km SW of Karacasu, ca. 800 m asl, 36TUL80, 18.vii.1998.
- (3) Bolu: 6 km S of Bolu: brooklet just SW of barrage lake Amcagöl at 1 km SW of Karacasu, ca. 800 m asl, 36TUL80, 18.vii.1998.
- (4) Bolu: 6 km S of Bolu: barrage lake Amcagöl at 1 km SW of Karacasu, ca. 800 m asl, 36TUL80, 18.vii.1998.
- (5) Bolu: 14 km S of Bolu: brooklet 1 km W of lake Gölcük at ca. 8 km S of Karacasu, ca. 1200 m asl, 36TUL80, 19.vii.1998 (= 1997: 16).
- (6) Bolu: 14 km S of Bolu: spring 1 km W of lake Gölcük at ca. 8 km S of Karacasu, ca. 1200 m asl, 36TUL80, 19.vii.1998 (= 1997: 17).
- (7) Bolu: 14 km S of Bolu: brooklet and pools 1 km W of lake Gölcük at ca. 8 km S of Karacasu, ca. 1200 m asl, 36TUL80, 19.vii.1998 (= 1997: 18).
- (8) Bolu: 14 km S of Bolu: spring 2 km W of lake Gölcük at ca. 8 km SSW of Karacasu, ca. 1300 m asl, 36TUL80, 19.vii.1998.
- (9) Bolu: 14 km S of Bolu: spring 2 km W of lake Gölcük at ca. 8 km SSW of Karacasu, ca. 1400 m asl, 36TUL80, 19.vii.1998.
- (10) Bolu: 17 km SW of Bolu: brooklet 3 km SE of Doğancı, ca. 1100 m asl, 36TUL70, 19.vii.1998.
- (11) Bolu: 14 km S of Bolu: spring 1 km W of lake Gölcük at ca. 8 km S of Karacasu, ca. 1200 m asl, 36TUL80, 20.vii.1998 (= 1997: 17).
- (12) Bolu: 14 km S of Bolu: brooklet 2 km W of lake Gölcük at ca. 8 km SSW of Karacasu, ca. 1200 m asl, 36TUL80, 20.vii.1998.
- (13) Bolu: 14 km S of Bolu: spring 2 km W of lake Gölcük at ca. 8 km SSW of Karacasu, ca. 1200 m asl, 36TUL80, 20.vii.1998.

- (14) Bolu: 14 km S of Bolu: spring 3 km W of lake Gölcük at ca. 8 km SSW of Karacasu, ca. 1300 m asl, 36TUL80, 20.vii.1998.
- (15) Bolu: 14 km S of Bolu: spring 3 km W of lake Gölcük at ca. 8 km SSW of Karacasu, ca. 1200 m asl, 36TUL80, 20.vii.1998.
- (16) Bolu: 14 km S of Bolu: brooklet 2 km W of lake Gölcük, above Sultanköy and Taşoluk yayla, ca. 1000 m asl, 36TUL80, 20.vii.1998.
- (17) Bolu: 6 km S of Bolu: brooklet just SW of barrage lake Amcagöl at 1 km SW of Karacasu, ca. 800 m asl, 36TUL80, 20.vii.1998 (= 1998: 3).
- (18) Bolu: 5 km N of Gerede: pool along forest road, ca. 1700 m asl, 36TVL32, 22.vii.1998.
- (19) Bolu: 5 km N of Gerede: spring brooklet above summer settlement, ca. 1700 m asl, 36TVL32, 22.vii.1998.
- (20) Bolu: 5 km N of Gerede: brooklet in forest, ca. 1600 m asl, 36TVL32, 22.vii.1998.
- (21) Bolu: 5 km N of Gerede: spring in forest, ca. 1700 m asl, 36TVL32, 22.vii.1998.
- (22) Bolu: 5 km N of Gerede: path near brooklet at W side of forest, ca. 1600 m asl, 36TVL32, 22.vii.1998.
- (23) Ankara: ca. 8 km WSW of Kızılcahamam: springs on valley in forest, ca. 1550 m asl, 36TVK68, 24.vii.1998.
- (24) Ankara: ca. 7 km W of Kızılcahamam: marsh near top in road, ca. 1700 m asl, 36TVK68, 24.vii.1998.
- (25) Çankırı: 6 km W of Çerkes: springs and brooklet near railway, ca. 1050 m asl, 36TVL81, 26.vii.1998.
- (26) Çankırı: 6 km W of Çerkes: spring above bridge in road, ca. 1100 m asl, 36TVL81, 26.vii.1998.
- (27) Çankırı: ca. 17 SW km of Çerkes: brooklet just N of Işıkdağı geçidi, above road, ca. 1500 m asl, 36TVL70, 27.vii.1998.
- (28) Çankırı: ca. 17 SW km of Çerkes: brooklet NNE of Işıkdağı geçidi, under road, ca. 1400 m asl, 36TVL70, 27.vii.1998.
- (29) Ankara: ca. 12 km NNE of Güvem: man-made pool SW of Işıkdağı geçidi, above road, near spring, ca. 1500 m asl, 36TVL70, 27.vii.1998.
- (30) Ordu: 7 km SE of Kabadüz: Çatak dere (tributary to Turnasuyu) above Cumhuriyet köy, S of Erenli, 800-900 m asl, 37TDF11, 30.vii.1998.
- (31) Ordu: 7 km SE of Kabadüz: pools along Turnasuyu under Gerge köy, S of Erenli, 800-900 m asl, 37TDF11, 30.vii.1998.

- (32) Ordu: ca. 30 km S of Kabadüz: spring in forest in valley under and NW of Karacataş, ca. 1500 m asl, 37TDE09, 2.viii.1998.
- (33) Ordu: ca. 30 km S of Kabadüz: spring on meadow in valley under and NW of Karacataş, W of rivulet and road, ca. 1500 m asl, 37TDE09, 2.viii.1998.
- (34) Ordu: ca. 30 km S of Kabadüz: pools on road in valley under and NW of Karacataş, E of rivulet and road, ca. 1500 m asl, 37TDE09, 2.viii.1998.
- (35) Ordu: ca. 30 km S of Kabadüz: spring on meadow in valley under and NW of Karacataş, E of rivulet and road, ca. 1500 m asl, 37TDE09, 4.viii.1998.
- (36) Ordu: ca. 30 km S of Kabadüz: pools on road in valley under and NW of Karacataş, E of rivulet and road, ca. 1500 m asl, 37TDE09, 4.vii.1998 (= 1998: 34).
- (37) Ordu: ca. 30 km SSE of Kabadüz: spring on meadow in valley SE of Turnasuyu, under road, ca. 1300 m asl, 37TDE19, 5.viii.1998.
- (38) Ordu: ca. 30 km SSE of Kabadüz: brooklet in valley NW of Turnasuyu, opposite of road, ca. 1400 m asl, 37TDE19, 5.viii.1998.
- (39) Kastamonu: ca. 23 km N of Taşköprü: spring near brooklet 1 km W of Kayadibi, ca. 1400 m asl, 36TWM91, 8.viii.1998.
- (40) Kastamonu: ca. 22 km N of Taşköprü: spring near brooklet in forest 2 km S of Kayadibi, ca. 1400 m asl, 36TWM91, 8.viii.1998.
- (41) Kastamonu: ca. 22 km N of Taşköprü: spring and brooklet on meadow in forest, 1 km E of Sarpen mahale and 1 km SW of Karaburun köy, ca. 1400 m asl, 36TWM91, 8.viii.1998.
- (42) Kastamonu: ca. 22 km N of Taşköprü: spring and brooklet on meadow in forest, 1 km E of Sarpen mahale and 1 km SW of Karaburun köy, ca. 1400 m asl, 36TWM91, 9.viii.1998 (= 1998: 41).
- (43) Kastamonu: ca. 20 km NNE of Ilgaz: brooklet 1 km SW of kayakevi in Ilgaz dağı Milli park, ca. 1700 m asl, 36TWL64, 10.viii.1998.
- (44) Kastamonu: ca. 5 km S of Küre: pool W of road S of Kayneak geçidi, ca. 1150 m asl, 36TWM52, 11.viii.1998.
- (45) Kastamonu: ca. 5 km S of Küre: spring E of road S of Kayneak geçidi, ca. 1100 m asl, 36TWM52, 11.viii.1998.
- (46) Kastamonu: ca. 10 km S of Küre: brooklet down road to Azdavay, ca. 1150 m asl, 36TWM52, 12.viii.1998.

- (47) Kastamonu: ca. 12 km S of Küre: brooklet under villages W of Kartaltepe geçidi, ca. 1100 m asl, 36TWM52, 12.viii.1998.
- (48) Kastamonu: ca. 9 km S of Küre: brooklet W of Masraf deposu, ca. 1100 m asl, 36TWM52, 12.viii.1998.
- (49) Kastamonu: ca. 4 km SW of Küre: springbrooklet on meadow above Belören köy, ca. 1100 m asl, 36TWM52, 13.viii.1998.
- (50) Kastamonu: ca. 4 km SW of Küre: brooklet in forest above Belören köy, ca. 1050 m asl, 36TWM52, 13.viii.1998.
- (51) Karabük: ca. 12 km N of Safranbolu: spring W of Sarıcıçek tepe, ca. 1400 m asl, 36TVL77, 16.viii.1998.
- (52) Karabük: ca. 6 km NNW of Safranbolu: rivulet 2 km S of Sunduk, ca. 800 m asl, 36TVL77, 16.viii.1998.



Fig. 5: Bolu: ca. 10 km NE of Mengen: lake Gölet, ca. 1200 m asl, 36TVL33, 18.viii.1998. List of species encountered: *Calopteryx splendens amasina*, *Platycnemis pennipes pennipes*, *Coenagrion puella*, *Enallagma cyathigerum cyathigerum*, *Erythromma viridulum*, *Ischnura elegans*, *Aeshna affinis*, *Aeshna isoceles* ssp., *Aeshna cyanea*, *Anax imperator imperator*, *Orthetrum cancellatum*, *Cordulia aenea*, *Crocothemis erythraea*, *Orthetrum coerulescens anceps*, *Sympetrum sanguineum sanguineum*.

- (53) Bolu: ca. 10 km NE of Mengen: lake Gölet, ca. 1200 m asl, 36TVL33, 18.viii.1998 (Fig. 5).
- (54) Bolu: ca. 10 km NE of Mengen: spring W of and above Burnuk, ca. 1150 m asl, 36TVL33, 18.viii.1998.
- (55) Bolu: ca. 10 km NE of Mengen: spring W of Burnuk (*Equisetum*), ca. 1150 m asl, 36TVL33, 18.viii.1998.
- (56) Bolu: ca. 10 km NE of Mengen: brooklet under Çırdak, ca. 1000 m asl, 36TVL33, 18.viii.1998.
- (57) Bolu: ca. 10 km ENE of Mengen: pool just E of Meshutlar, ca. 1100 m asl, 36TVL33, 19.viii.1998.
- (58) Bolu: ca. 10 km ENE of Mengen: spring 1 km S of Çırdak, ca. 1000 m asl, 36TVL33, 19.viii.1998.
- (59) Bolu: ca. 15 km NE of Gerede: spring on Gerede yayla 1 km E of Kırklar, ca. 1700 m asl, 36TVL42, 20.viii.1998.
- (60) Bolu: ca. 15 km NE of Gerede: spring on Kocumlar yayla 2 km E of Kırklar, ca. 1700 m asl, 36TVL42, 20.viii.1998.
- (61) Bolu: 14 km S of Bolu: brooklet and pools 1 kmW of lake Gölcük at ca. 8 km S of Karacasu, ca. 1200 m asl, 36TUL80, 22.viii.1998 (= 1998: 18).

List of localities 1999

- (1) Bolu: 14 km S of Bolu: lake Gölcük at ca. 8 km S of Karacasu, ca. 1200 m asl, 36TUL80, 25.vi.1999 (= 1998: 15).
- (2) Bolu: 5 km S of Bolu: brooklet above Karacasu, ca. 750 m asl, 36TUL80, 26.vi.1999.
- (3) Bolu: 6 km S of Bolu: spring NW of barrage lake Amcağöl at 1 km SW of Karacasu, ca. 800 m asl, 36TUL80, 26.vi.1999 (= 1998: 2).
- (4) Bolu: 4 km WSW of Bolu: SE outlet of barrage lake Gölköy, ca. 700 m asl, 36TUL71, 27.vi.1999.
- (5) Sakarya: ca. 4 km SSE of Taraklı: brook along asphalt road, 600-700 m asl, 36TTK87, 29.vi.1999.
- (6) Sakarya: ca. 3 km SW of Taraklı: brooklet under Çamtepe, 600-800 m asl, 36TTK87, 30.vi.1999.
- (7) Sakarya: ca. 6 km NNW of Taraklı: pools down Kazkiran geçidi, ca. 800 m asl, 36TTK77, 1.vii.1999.

- (8) Sakarya: ca. 5 km NNW of Taraklı: brooklet 1 km SE of Kazkiran geçidi, ca. 750 m asl, 36TTK77, 1.vii.1999.
- (9) Sakarya: ca. 5 km N of Taraklı: springs and brook (*Typha*) in cultivated area 2 km SE of Dumanköy, ca. 800 m asl, 36TTK96, 2.vii.1999.
- (10) Sakarya: ca. 5 km SE of Taraklı: brooklet at S side of forest, 600-650 m asl, 36TTK86, 3.vii.1999.
- (11) Bolu: ca. 15 km ENE of Göynük: lake Sünnet göl, 900-1000 m asl, 36TUK27, 6.vii.1999.
- (12) Bolu: ca. 10 km NE of Göynük: lake Çubuk göl, 900-1000 m asl, 36TUK18, 6.vii.1999.
- (13) Bolu: ca. 10 km N of Göynük: springbrooklet on Gökçesaray yaylası, 1300-1400 m asl, 36TUK08, 6.vii.1999.
- (14) Kütahya: ca. 9 km SE of Tavşanlı: Kocasu dere just down Güzelyurt regülatör göl, ca. 900 m asl, 35SQD27, 8.vii.1999.
- (15) Kütahya: ca. 9 km SE of Tavşanlı: Güzelyurt regülatör göl, ca. 900 m asl, 35SQD27, 8.vii.1999.
- (16) Kütahya: ca. 6 km NE of Domaniç: brooklet above Safa köy, 1200-1300 m asl, 35SQE21, 9.vii.1999.
- (17) Kütahya: ca. 8 km NE of Domaniç: spring on Karabatak yayla, ca. 1600 m asl, 35SQE21, 9.vii.1999.
- (18) Kütahya: ca. 7 km NNE of Domaniç: spring E of forest depot just under pass in road, ca. 1500 m asl, 35SQE21, 10.vii.1999.
- (19) Kütahya: ca. 7 km NNE of Domaniç: W branch of Safa Dere, ca. 1500 m asl, 35SQE21, 10.vii.1999.
- (20) Kütahya: ca. 8 km NE of Domaniç: spring on Karabatak yayla, ca. 1600 m asl, 35SQE21, 10.vii.1999 (= 1999: 17).
- (21) Kütahya: ca. 16 km NW of Tavşanlı: brooklet near pick-nick site 2 km NW of Merkez Yeniköy, ca. 700 m asl, 35SPD98, 11.vii.1999.
- (22) Kütahya: ca. 20 km ENE of Gediz: brook 2 km SE of Yağmurlar, ca. 1150 m asl, 35SQD22, 13.vii.1999.
- (23) Kütahya: ca. 21 km ESE of Gediz: Gölyeri deresi near path ESE and above Murat dağı village, ca. 1900 m asl, 35SQD21, 14.vii.1999.
- (24) Kütahya: ca. 21 km ESE of Gediz: Gölet on Söbalane yaylası above Murat dağı village, ca. 1600 m asl, 35SQD21, 14.vii.1999.
- (25) Kütahya: ca. 10 km NE of Gediz: springs and brooklet near road at 1 km NE of Yaylaköy, ca. 1200 m asl, 35SQD13, 15.vii.1999.

- (26) Kütahya: ca. 12 km NE of Gediz: springs and brooklet 1 km SW of Yunuslar, ca. 1250 m asl, 35SQD13, 15.vii.1999.
- (27) Kayseri: ca. 4 km S of Yahyalı: spring on height opposite of Çağlayan, ca. 1400 m asl, 36SYH01, 18.vii.1999.
- (28) Kayseri: ca. 22 km SE of Yahyalı: brook 4 km SSE of Dikme, ca. 1700 m asl, 36SYH20, 19.vii.1999.
- (29) Amasya: ca. 4 km N of Destek: spring on Calica yayla just above *Fagus* forest, ca. 1200 m asl, 37TBF62, 23.vii.1999.
- (30) Amasya: ca. 10 km WNW of Destek: brooklet N of Kılıçarslan geçidi, above road, ca. 1050 m asl, 37TBF53, 24.vii.1999.
- (31) Amasya: ca. 10 km WNW of Destek: brooklet E of Kılıçarslan geçidi, just under road, ca. 1000 m asl, 37TBF53, 24.vii.1999.
- (32) Yozgat: ca. 3 km SW of Akdağmadeni: spring and brooklet SW of Kadıpinar, ca. 1450 m asl, 36SYJ49, 26.vii.1999.
- (33) Yozgat: ca. 4 km SW of Akdağmadeni: spring and brooklet 1 km SSW of Kadıpinar, ca. 1500 m asl, 36SYJ49, 26.vii.1999.
- (34) Yozgat: ca. 5 km SW of Akdağmadeni: man-made lake in valley 2 km SW of Kadıpinar, ca. 1450 m asl, 36SYJ49, 26.vii.1999.
- (35) Yozgat: ca. 5 km SSW of Akdağmadeni: springs and brooklet in valley 2 km S of Kadıpinar, ca. 1500 m asl, 36SYJ49, 26.vii.1999.
- (36) Yozgat: ca. 5 km SSW of Akdağmadeni: spring in valley 1 km S of Kadıpinar, ca. 1400 m asl, 36SYJ49, 26.vii.1999.
- (37) Ankara: ca. 3 km NNE of Karaali: spring above village 5 km ESE of Beynam, ca. 1000 m asl, 36SVJ99, 28.vii.1999.
- (38) Ankara: ca. 3 km N of Karaali: brooklet 2 km E of Beynam geçidi, ca. 1100 m asl, 36SVJ99, 28.vii.1999.
- (39) Ankara: ca. 3 km N of Karaali: tributaries and main brooklet 2 km E of Beynam geçidi, ca. 1100 m asl, 36SVJ99, 29.vii.1999.
- (40) Ankara: ca. 3 km N of Karaali: brook 4 km SE of Beynam, E of Beynam orman, ca. 1200 m asl, 36SVJ99, 29.vii.1999.
- (41) Bolu: ca. 10 km NE of Mengen: lake Gölet, ca. 1200 m asl, 36TVL33, 31.vii.1999 (= 1998: 53).
- (42) Bolu: ca. 10 km NE of Mengen: brooklet above Kavacı, N of lake Gölet, ca. 1200 m asl, 36TVL33, 31.vii.1999.
- (43) Bolu: ca. 10 km NE of Mengen: spring W of Burnuk (*Equisetum*) ca. 1150 m asl, 36TVL33, 31.vii.1999 (= 1998: 55).

- (44) Bolu: ca. 10 km NE of Mengen: lake Gölet, ca. 1200 m asl, 36TVL33, 1.viii.1999 (= 1998: 53).
- (45) Bolu: ca. 11 km NE of Mengen: springs above brooklet above Kavacı, NE of lake Gölet, ca. 1250 m asl, 36TVL33, 1.viii.1999.

List of localities 2001

- (1) Sakarya: ca. 3 km SW of Taraklı: brooklet under Çamtepe, 600-800 m asl, 36TTK87, 20.vi.2001 (= 1999: 6).
- (2) Sakarya: ca. 4 km SSE of Taraklı: brook along asphalt road, 600-700 m asl, 36TTK87, 21.vi.2001 (= 1999: 5).
- (3) Sakarya: ca. 8 km E of Taraklı: Göynük suyu just SE of Yeniköy, ca. 550 m asl, 36TTK97, 23.vi.2001.
- (4) Sakarya: ca. 5 km S of Taraklı: Alan çayı between Akçapınar and Gökçeözü, ca. 800 m asl, 36TTK96, 24.vi.2001.
- (5) Sakarya: ca. 5 km S of Taraklı: springs and brook (*Typha*) in cultivated area 2 km SE of Dumanköy, ca. 800 m asl, 36TTK96, 24.vi.2001 (= 1999: 9).
- (6) Sakarya: ca. 12 km NE of Taraklı: brooklet at N side of yayla köy near Karağöl, 1100-1200 m asl, 36TTK98, 25.vi.2001.
- (7) Sakarya: ca. 13 km NE of Taraklı: spring near pick-nick site 1 km N of Karağöl, 1236 m asl, 36TTK98, 25.vi.2001.
- (8) Sakarya: ca. 4 km NNW of Taraklı: Aksu dere under Aksu köy, ca. 650 m asl, 36TTK87, 25.vi.2001.
- (9) Eskişehir: brooklet in valley 1 km N of Yarımca, ca. 1000-1100 m asl, 36SUK02, 27.vi.2001.
- (10) Eskişehir: spring in valley between Yarımca and Dağküplü, west of road, ca. 1000 m asl, 36SUK02, 27.vi.2001.
- (11) Eskişehir: ca. 3 km N of Yarımca: spring in valley above Dağküplü, east of road, ca. 900-1000 m asl, 36SUK02, 27.vi.2001.
- (12) Eskişehir: ca. 3 km N of Yarımca: brooklet 3 km S of Dağküplü, above 'Kozlu evleri', ca. 800-900 m asl, 36SUK02, 27.vi.2001.
- (13) Ankara: ca. 1 km SW of Gölbaşı: NE side of Moğan göl, 1000-1100 m asl, 36TVK80, 28.vi.2001.
- (14) Ankara: ca. 3 km N of Karaali: tributaries and main brooklet 2 km E of Beynam geçidi, ca. 1100 m asl, 36SVJ99, 29.vi.2001 (= 1999: 39).

- (15) Ankara: ca. 3 km N of Karaali: brook 4 km SE of Beynam, E of Beynam orman, ca. 1200 m asl, 36SVJ99, 29.vi.2001 (= 1999: 40).
- (16) Ankara: ca. 6 km N of Karaali: spring near ruin W of Beynam orman, ca. 3 km S of Beynam, 1000-1100 m asl, 36SVJ89, 29.vi.2001.
- (17) Ankara: ca. 20 km N of Beypazarı, 4 km NW of Karaşar: brooklet above pick-nick site just W of Karagöl, ca. 1500 m asl, 36TVK06, 1.vii.2001.
- (18) Ankara: ca. 20 km NNE of Beypazarı, 4 km NW of Karaşar: brooklet 1 km W of Karagöl, ca. 1500 m asl, 36TVK06, 1.vii.2001.
- (19) Afyon: ca. 24 km SW of Çay, Karamık gölü and irrigation channels 1 km E of Bulanık köy, ca 1000 m asl, 36SUH05, 4.vii.2001 (with V.J. Kalkman).
- (20) Afyon: ca. 35 km S of Çay, spring-fed lake just N of Çayıryazı, ca 1000 m asl, 36SUH05, 4.vii.2001 (with V.J. Kalkman).
- (21) Afyon: ca. 15 km SSW of Emirdağ: lake at height 10 km S of Dereköy, ca. 1500-1700 m asl, 36SUJ40, 5.vii.2001 (with V.J. Kalkman).
- (22) Ankara: ca. 15 km NE of Karaşar: brook on Eğriova yayla, ca. 1600 m asl, 36TVK27, 7.vii.2001.
- (23) Ankara: Taksir çayı 3 km S of Beypazarı, 600-700 m asl, 36TVK04, 7.vii.2001.
- (24) Ankara: ca. 15 km NE of Karaşar: brook SW of Eğriova göl, ca. 1600 m asl, 36TVK27, 8.vii.2001.
- (25) Ankara: ca. 15 km NE of Karaşar: E side of Eğriova göl, ca. 1600 m asl, 36TVK27, 8.vii.2001.
- (26) Ankara: ca. 15 km NE of Karaşar: brook on Eğriova yayla, ca. 1600 m asl, 36TVK27, 8.vii.2001 (= 2001: 22).
- (27) Ankara: ca. 20 km NNW of Çubuk, lake Karagöl, 1500 m asl, 36TVK97, 10.vii.2001.
- (28) Samsun: ca. 12 km NW of Samsun: 19 Mayıs Üniversitesi kampus, brook NW of Fen Fakültesi, ca. 250 m asl, 37TBF68, 12.vii.2001 (with S. Mennan).
- (29) Samsun: ca. 12 km NW of Samsun: 19 Mayıs Üniversitesi kampus, brook NW of Fen Fakültesi, ca. 250 m asl, 37TBF68, 13.vii.2001 (= 2001: 28) (with S. Mennan).
- (30) Samsun: ca. 12 km ENE of Bafrası: Balık göl near balıkhanе, ca. 5 m asl, 37TBG50, 13.vii.2001 (with S. Mennan).
- (31) Fatsa: ca. 12 km S of Fatsa, 2 km N of Çamas: Gaga göl, ca. 25 m asl, 37TCF73, 16.vii.2001 (with S. Mennan).

- (32) Fatsa: pond in Gölköy, ca. 800-900 m asl, 37TCF80, 16.vii.2001 (with S. Mennan).
- (33) Fatsa: ca. 12 km SSE of Fatsa: Bolaman çayı near Elmaköy, ca. 25 m asl, 37TCF73, 16.vii.2001 (with S. Mennan).
- (34) Amasya: ca. 10 km WNW of Destek: brooklet E of Kılıçarslan geçidi, just under road, ca. 1000 m asl, 37TBF53, 17.vii.2001 (= 1999: 31) (with S. Mennan).
- (35) Amasya: ca. 11 km WNW of Destek: pools at S side of Ladık göl, ca. 800 m asl, 37TBF43, 17.vii.2001 (with S. Mennan).
- (36) Samsun: ca. 12 km NW of Samsun: 19 Mayıs Üniversitesi kampus, brook NW of Fen Fakültesi, ca. 250 m asl, 37TBF68, 17.vii.2001 (= 2001: 28, 29) (with S. Mennan).
- (37) Samsun: ca. 15 SE of Çarşamba: Terme çayı at ca. 2 km S of Salıpazarı, ca. 150 m asl, 37TCF14, 18.vii.2001.
- (38) Amasya: ca. 4 km N of Destek: spring in *Fagus* forest below Calıca yayla, ca. 1150 m asl, 37TBF62, 19.vii.2001 (near 1999: 29).
- (39) Amasya: ca. 4 km N of Destek: upper course of Coba deresi, ca. 1100 m asl, 37TBF62, 19.vii.2001 (near 1999: 29).
- (40) Amasya: 1 km N of Taşova: spring in small forest near road to Alpaslan, 300-400 m asl, 37TBF71, 19.vii.2001.
- (41) Amasya: ca. 5 km N of Destek: spring near tributary of Gök dere in forest below and E of Calıca yayla, ca. 900 m asl, 37TBF62, 20.vii.2001.
- (42) Amasya: ca. 4 km N of Destek: upper course of Coba deresi, ca. 1050 m asl, 37TBF62, 20.vii.2001 (just down 2001: 38).
- (43) Amasya: ca. 4 km N of Destek: spring near pick-nick site at S side of forest, ca. 1150 m asl, 37TBF62, 20.vii.2001.
- (44) Kahramanmaraş: ca. 23 km SE of Göksun: large spring just above Döngel, ca. 1200 m asl, 37SBB99, 22.vii.2001.
- (45) Kahramanmaraş: ca. 23 km SE of Göksun: brooklet at N side of Döngel, ca. 1200 m asl, 37SBB99, 22.vii.2001.
- (46) Kahramanmaraş: ca. 10 km NNW of Göksun: pools near Terbüzek çayı 1 km N of Mehmetbey köy, ca. 1250 m asl, 37SBC71, 23.vii.2001.
- (47) Kahramanmaraş: ca. 12 km NNW of Göksun: tributary of Terbüzek çayı, 3 km N of Mehmetbey köy, ca. 1300 m asl, 37SBC72, 23.vii.2001.
- (48) Kahramanmaraş: ca. 12 km NNW of Göksun: tributary of Terbüzek çayı, 3 km NNW of Mehmetbey köy, ca. 1300 m asl, 37SBC72, 23.vii.2001.

- (49) Kahramanmaraş: ca. 13 km SW of Göksun: ca. 3 km SW of Fındıklıköy köy, Haceli pinar just W of castle ruins, ca. 1600 m asl, 37SBC70, 24.vii.2001.
- (50) Kahramanmaraş: ca. 13 km ENE of Göksun: Göksun çayı just NE of Küçüksu köy, ca. 1100 m asl, 37SBC91, 25.vii.2001.
- (51) Kahramanmaraş: ca. 23 km SE of Göksun: brooklet at N side of Döngel, ca. 1200 m asl, 37SBB99, 26.vii.2001 (= 2001: 45).
- (52) Kahramanmaraş: 2-3 km SW of Göksun: irrigation channel near road to Taşoluk, ca. 1250 m asl, 37SBC70, 26.vii.2001.
- (53) Kahramanmaraş: channel at N side of Göksun, E of main road, ca. 1250 m asl, 37SBC71, 27.vii.2001.
- (54) Kahramanmaraş: ca. 5 km SW of Göksun: Altıpinar spring W of Yiricek, ca. 1300 m asl, 37SBC70, 27.vii.2001.
- (55) Kahramanmaraş: ca. 14 km SE of Göksun: Orman çeşmesi 1 km S of tunnel in road, ca. 1300 m asl, 37SBB98, 28.vii.2001.
- (56) Kahramanmaraş: ca. 15 km SE of Göksun: spring above trout farm 1 km WNW of Yeşilöz, ca. 1250 m asl, 37SBB98, 28.vii.2001.
- (57) Kahramanmaraş: ca. 16 km SE of Göksun: lake Yeşilöz, ca. 1200 m asl, 37SBB98, 28.vii.2001.
- (58) Kayseri: ca. 18 km SSE of Pınarbaşı: spring on yayla ca. 4 km E of Kışkaçlı köy, ca. 1900 m asl, 37SBC87, 30.vii.2001.
- (59) Kayseri: ca. 18 km SSE of Pınarbaşı: spring in forest 2 km N of Kışkaçlı köy, ca. 1900 m asl, 37SBC87, 30.vii.2001.
- (60) Kayseri: ca. 17 km SSE of Pınarbaşı: spring 3 km WSW of Yedioluk, S of forested area, ca. 1900 m asl, 37SBC77, 31.vii.2001.
- (61) Kayseri: ca. 17 km SSE of Pınarbaşı: spring 1 km SW of Yedioluk, just W of trout farm, ca. 1800 m asl, 37SBC77, 31.vii.2001.
- (62) Kahramanmaraş: 2-3 km SE of Göksun: channel SW of Çiftlikköy, ca. 1250 m asl, 37SBC80, 1.viii.2001.
- (63) Kayseri: ca. 17 km SSE of Pınarbaşı: spring 1 km SW of Yedioluk, just W of trout farm, ca. 1800 m asl, 37SBC77, 2.viii.2001 (= 2001: 61).
- (64) Kayseri: ca. 17 km SSE of Pınarbaşı: spring 1 km SW of Yedioluk, just W of trout farm, ca. 1800 m asl, 37SBC77, 3.viii.2001 (= 2001: 61, 63).
- (65) Kayseri: ca. 17 km SSE of Pınarbaşı: spring 3 km WSW of Yedioluk, S of forested area, ca. 1900 m asl, 37SBC77, 3.viii.2001 (= 2001: 60).

- (66) Kayseri: ca. 17 km SSE of Pınarbaşı: spring 2 km SW of Yedioluk, ca. 1900 m asl, 37SBC77, 3.viii.2001.
- (67) Kahramanmaraş: 4 km SE of Göksun: pool 1 km W of Karaahmet, ca. 1300 m asl, 37SBC80, 4.viii.2001.
- (68) Kahramanmaraş: ca. 15 km ESE of Göksun: brooklet S of Kızılız, ca. 1500 m asl, 37SBC90, 5.viii.2001.
- (69) Kahramanmaraş: ca. 5 km SE of Göksun: spring 1 km NE of Karaahmet, ca. 1400 m asl, 37SBC80, 6.viii.2001.
- (70) Kahramanmaraş: 2-3 km NE of Göksun: channel SW of Çiftlikköy, ca. 1250 m asl, 37SBC80, 6.viii.2001 (= 2001: 62).
- (71) Bolu: ca. 10 km NE of Mengen: lake Gölet, ca. 1200 m asl, 36TVL33, 8.viii.2001 (= 1998: 53).
- (72) Bolu: ca. 10 km NE of Mengen: lake Gölet, ca. 1200 m asl, 36TVL33, 9.viii.2001 (= 1998: 53).
- (73) Bolu: ca. 11 km NE of Mengen: springs above brooklet above Kavacı, 1 km NE of lake Gölet, ca. 1250 m asl, 36TVL33, 9.viii.2001 (= 1999: 45).
- (74) Bolu: ca. 11 km NE of Mengen: brooklet above Kavacı, just NE of lake Gölet, ca. 1200 m asl, 36TVL33, 9.viii.2001.
- (75) Bolu: brook in Mengen: ca. 700 m asl, 36TVL23, 10.viii.2001.
- (76) Bolu: ca. 3 km SSE of Yeniçağa: lake near road to Dörtdivan, ca. 1300 m asl, 36TVL20, 10.viii.2001.
- (77) Bolu: ca. 8 km SSE of Yeniçağa, ca. 5 S of Dörtdivan: Körögöl deresi near Cemaler köy and tributary, ca. 1300 m asl, 36TVL20, 10.viii.2001.
- (78) Bolu: ca. 23 km S of Yeniçağa, ca. 15 S of Dörtdivan: springs on Yukarı Düğer yaylası, ca. 1400 m asl, 36TVK28, 11.viii.2001.
- (79) Bolu: ca. 33 km S of Yeniçağa, ca. 25 S of Dörtdivan: spring near upper course of Peynırlık deresi (Korukboğazi deresi), ca. 1600 m asl, 36TVK28, 11.viii.2001.
- (80) Bolu: ca. 33 km S of Yeniçağa, ca. 25 S of Dörtdivan: Peynırlık deresi above Nugören lojement, ca. 1500 m asl, 36TVK28, 11.viii.2001.
- (81) Bolu: ca. 43 km SSW of Yeniçağa, ca. 35 SSW of Dörtdivan: springs near Guldan deresi above Guldan yaylası, ca. 1750 m asl, 36TVK18, 11.viii.2001.

(82) Bolu: ca. 38 km SW of Yeniçağa, ca. 30 S of Dörtdivan: small baraj göl in Guldan deresi just above Guldan yaylası, ca. 1650 m asl, 36TVK28, 11.viii.2001.

List of taxa

In this paragraph the taxa are, within families, listed in alphabetical order. The numbers refer to the numbers in the List of localities. Taxa and locality numbers marked with an asterisk (*) refer to material of which the identification is still preliminary. In the list, *Cordulegaster insignis* ssp.* occurs more than once; these can be regarded best as intermediates between various subspecies.

Zygoptera

Calopteryx splendens amasina Bartenev

1996: 1, 7; 1997: 9, 12; 1998: 19, 25, 30; 1999: 4, 5, 6, 9, 14, 22, 25, 26, 28, 31, 38; 2001: 1, 3, 5, 8, 14, 19, 23, 34, 50, 77

Also observed at: 1996: 2, 5, 17*; 1997: 36; 1999: 41; 2001: 2, 4, 27, 28, 58

Calopteryx splendens intermedia Selys

1996: 20; 2001: 62, 70*

Calopteryx splendens ssp.*

1993: 10, 45, 49; 1996: 27

Calopteryx virgo festiva (Brullé)

1993: 15, 16; 1996: 4, 5, 7, 10; 1997: 2, 5, 10, 17; 1998: 1, 5, 13, 23, 30, 46, 52, 56; 1999: 21, 22, 28, 42; 2001: 9, 12, 29, 36, 37, 44, 68, 75, 80

Also observed at: 1997: 9; 1998: 15; 2001: 28, 45. All females collected are homeochromous

Epallage fatime (Charpentier)

1993: 13; 1996: 1, 10, 22, 23; 1997: 1, 2, 22, 24, 25, 27, 39, 45; 1998: 30; 1999: 5, 6, 10, 21, 28; 2001: 8, 9, 12, 23

Also observed at 1996: 24, 1997: 3, 23

Lestes barbarus (Fabricius)

1993: 33, 38, 39, 48; 1997: 60, 61; 1998: 25; 1999: 21; 2001: 21, 39, 46

Lestes dryas Kirby

1993: 4, 5, 24, 27, 29, 31, 35; 1997: 48, 51, 54, 61; 1998: 2, 18, 23, 24, 29, 45, 46, 48; 1999: 21, 24, 34; 2001: 5, 17, 81

New records

Lestes parvidens Artobolevski

1997: 9, 12, 48

Lestes sponsa (Hansemann)

1993: 24, 31, 32, 33, 35, 39, 46; 1996: 29; 1997: 30, 42, 51, 60, 62; 1998: 29, 44, 57; 1999: 32, 34; 2001: 17, 20

Lestes virens ssp.* (Charpentier)

1993: 33, 39; 1996: 35; 1997: 48; 1998: 45; 1999: 24

Sympetrum fusca (Vander Linden)

1993: 38; 1997: 35; 1999: 27, 28, 40

Platycnemis pennipes (Pallas)

1993: 50; 1996: 1, 5, 7; 1997: 2, 5, 7, 8, 9, 11, 12; 1998: 25; 1999: 4, 5, 8, 10, 13, 14, 15, 22, 38, 39, 44; 2001: 1, 3, 5, 14, 23, 29, 31, 33, 36, 45, 50, 52, 71, 77

Also observed at 2001: 2, 6, 17, 18, 57, 72

Cercion lindenii lindenii (Selys)

1997: 7, 8, 11, 12; 2001: 19

Coenagrion ornatum (Selys)

1993: 2, 10, 31; 1996: 1, 27; 1997: 18; 1998: 25, 47; 1999: 4, 9, 25, 35; 2001: 1, 4, 5, 9, 10, 11, 12, 14, 19, 34, 49

Also observed at 2001: 18

Coenagrion ponticum (Bartenev)

1997: 42, 46, 47, 48, 49, 51

Coenagrion puella (Linnaeus)

1993: 4, 5, 6, 8, 10, 15, 32, 34, 37, 48; 1996: 13, 16, 19, 29; 1997: 17, 30, 36, 62; 1998: 6, 7, 9, 11, 15, 29, 44, 53; 1999: 2, 3, 4, 5, 7, 11, 22, 24, 34, 41; 2001: 1, 4, 17, 21, 22, 24, 25, 27, 32, 46, 50, 53

Coenagrion pulchellum pulchellum (Vander Linden)

2001: 13

Coenagrion scitulum (Rambur)

1997: 12; 1999: 32; 2001: 19, 21, 25

Also observed at 2001: 20

Enallagma cyathigerum cyathigerum (Charpentier)
 1993: 2, 24, 26, 32, 33, 35, 37, 38, 39; 1996: 15, 29; 1997: 20, 35, 62; 1998:
 4, 53; 1999: 11, 32, 34; 2001: 24, 25, 27, 32

Erythromma viridulum (Charpentier)
 1997: 11, 12; 1999: 24; 2001: 13, 20, 21, 30, 35, 71, 72
 Also observed at 2001: 19

Ischnura elegans (Vander Linden)*
 1993: 48; 1996: 15, 27, 29; 1997: 35, 46, 48, 49, 62; 1998: 53; 1999: 1, 11,
 12, 15, 24, 34, 38, 41; 2001: 13, 21, 23, 25, 30, 31, 32, 33, 35

Ischnura pumilio (Charpentier)
 1993: 31, 35, 38, 39, 40; 1996: 1; 1997: 60, 62; 1998: 29, 57; 1999: 4, 32;
 2001: 33, 34, 46

Pyrrhosoma nymphula nymphula (Sulzer)
 1998: 11; 1999: 4

Anisoptera

Aeshna affinis Vander Linden
 1993: 33, 37, 50; 1996: 23; 1997: 4, 6, 12, 16; 1998: 2, 13, 24; 1999: 37;
 2001: 5, 15, 72
 Also observed at 1997: 36, 64, 65; 1998: 15; 2001: 14, 16

New records

31

Aeshna cyanea (Müller) (Fig. 6)
 1997: 42, 51, 55, 56; 1998: 8, 17, 20, 31 (including numerous exuviae), 47,
 61; 2001: 82

Also observed at 1997: 52, 53; 1998: 14, 43, 53; 2001: 71, 80

Aeshna isoceles ssp.* (Müller)
 1993: 6, 37; 1997: 9; 2001: 31
 Also observed at Ordu, ca. 30 km S of Kabadüz, near Çambaşı, 37TDE09,
 2.viii.1998 [locality not listed]; 1999: 41; 2001: 13, 19, 20, 71, 72

Aeshna juncea juncea (Linnaeus)
 1993: 41, 42, 43; 1997: 42, 44, 48, 50, 53, 54, 56
 Also observed at 1993: 35; 1997: 47, 51, 57.

Aeshna juncea ssp.*
 1996: 30

Aeshna mixta Latreille
 1993: 16; 1997: 19, 21; 1998: 32, 40, 42; 2001: 19 (exuviae only), 28, 42
 Also observed at 1997: 41, 43, 45

Anax ephippiger (Burmeister)
 A single female (head and abdominal segments 6-10 missing) was forwarded
 by the staff of the Karadeniz University, Trabzon during a short visit. It was
 collected in the city of Trabzon, at the Karadeniz University campus,
 37TEF63, date unknown, leg. Mahmut Erglu (now in RMNH).

Anax imperator imperator Leach
 1996: 11, 24; 1997: 11, 35, 49; 1998: 53; 1999: 41; 2001: 19, 25, 27, 32, 53,
 72
 Also observed at 1997: 15, 36, 46, 63; 2001: 2, 20, 21, 30, 31, 35, 62, 71, 76

Anax parthenope parthenope (Selys)
 1993: 43; 1996: 15, 23; 2001: 31

Brachytron pratense (Müller)
 1997: 5, 6

Caliaeschna microstigma (Schneider)
 1993: 7, 9, 11, 17, 21, 22, 25, 47; 1996: 1, 3, 4, 14, 20, 22, 23, 25, 26, 33, 34;
 1997: 2, 5, 9, 22, 23, 24, 26, 28, 32, 33, 36, 38, 40, 59; 1998: 3, 55; 1999: 5,
 6, 10, 21, 22, 30, 42, 43; 2001: 1, 24, 36, 44, 54, 68

Fig. 6: New records of *Aeshna cyanea* (black dots: records in this study; grey squares:
 all records according to VAN PEEL & KALKMAN 2003).

Also observed at 1993: 12, 13, 44; 1996: 2, 24, 32; 1997: 1, 25, 27, 58; 1998: 41, 46; 2001: 16, 18, 28, 29, 34, 45, 56, 69, 74

Gomphus schneideri Selys

2001: 3, 8

Lindenia tetraphylla (Vander Linden)

1996: 10; 1997: 8, 12

Onychogomphus forcipatus albostriatus Schmidt

1993: 10, 49; 1996: 1; 1997: 2, 5, 16; 1998: 18, 22, 25, 30; 1999: 5, 6, 10, 28, 39; 2001: 8, 22, 23, 26, 37, 77

Also observed at: 1996: 7; 2001: 45, 51

Onychogomphus lefebvrei Rambur

A single male was forwarded by R. Hayat, staff member of the Atatürk University, Erzurum. Data are as follows: Erzurum, ca. 14 km WSW of Ispir, Maden Köprübaşı, 37TFE58, 24.vii.1991, leg. R. Hayat (now in RMNH).

Cordulegaster insignis charpentieri (Kolenati)

1993: 3, 7, 9, 11, 12, 22, 23, 25, 30; 1996: 16, 17, 18, 33; 1997: 28, 31

Also observed at 1993: 35, 44; 1997: 30, 59

Cordulegaster insignis insignis Schneider

1996: 3, 4, 10; 1997: 1, 2, 3; 1999: 22, 23, 25, 26; 2001: 48, 49, 54, 68

Also observed at 1996: 11; 2001: 44, 46, 47

Cordulegaster insignis mzymtae Barteneff

1993: 14, 16, 17, 18, 19, 20; 1997: 43, 53, 54, 57; 1998: 33, 35, 37, 38

Also observed at 1998: 34

Cordulegaster insignis mzymtae X Cordulegaster insignis charpentieri

1996: 32; 1997: 34, 40, 43, 47, 53, 54

Cordulegaster insignis ssp.*

2001: 10, 11

Also observed at 2001: 12

Cordulegaster insignis ssp.*

1999: 29, 33, 35, 36; 2001: 38, 43

Also observed at 2001: 18

Cordulegaster insignis ssp.*

1996: 22, 23, 24; 1997: 22, 23; 2001: 61, 63, 64, 65

Also observed at 1997: 24, 27; 2001: 58, 59, 60

Cordulegaster insignis ssp. nov.*

1998: 8, 14, 16, 19, 21, 26, 39, 41, 42, 43, 49, 50, 51, 55, 59, 60; 1999: 17, 18, 20, 43, 45; 2001: 73, 78, 79, 81

Also observed at 1998: 13, 46, 47, 51; 2001: 7

Cordulegaster picta Selys

1996: 1, 2, 3, 6, 9; 1997: 2, 9; 1998: 10, 14, 15, 16, 20, 27, 28, 46, 55; 1999: 10, 16, 19, 21, 22; 2001: 12, 17, 18, 24, 29, 34, 80

Also observed at 1996: 4, 10; 1998: 3, 52; 2001: 42, 74

Cordulia aenea (Linnaeus)

1999: 41; 2001: 27

Somatochlora flavomaculata (Vander Linden)

1997: 5, 8, 11

Crocothemis erythraea (Brullé)

1997: 8, 11, 12, 46; 1999: 11, 15, 41; 2001: 13, 19, 30, 72

Also observed at 1997: 36, 49; 2001: 27, 31, 71

Leucorrhinia pectoralis (Charpentier)

1993: 4, 5, 6, 42; 1997: 48; 2001: 19

Libellula depressa Linnaeus

1993: 1, 4, 8, 10, 30, 32, 36; 1996: 13, 16, 19, 30; 1997: 5, 18, 29; 1998: 25, 34, 36, 47, 57; 1999: 2, 9, 11, 20, 25, 26, 35, 37; 2001: 4, 8, 12, 24, 32, 41, 43, 48, 77

Also observed at 1993: 40; 1996: 15, 28, 31; 1997: 3, 14, 30, 36, 47, 64; 1998: 2, 7, 12, 27, 28, 30, 35; 2001: 1, 6, 17, 25, 27, 39, 40, 67

Libellula fulva Müller (Fig. 7)

1997: 8, 9, 10, 11; 2001: 20, 31

Libellula pontica (Selys)

1999: 9; 2001: 5. Some 200 male specimens were observed, and a single copula.

Libellula quadrimaculata Linnaeus

1993: 4, 5, 6, 33; 1997: 48, 49; 2001: 19, 27, 71

Also observed at 1997: 46

Orthetrum albistylum (Selys)

2001: 31, 33, 35

Orthetrum brunneum brunneum (Fonscolombe)

1993: 8, 10, 11, 34, 35, 37, 45; 1996: 1, 3, 4, 12, 13, 18, 21, 28; 1997: 25, 28;
 1998: 7, 23, 35, 36, 56, 57; 1999: 5, 6, 8, 9, 10, 16, 20, 21, 25, 26, 28, 36, 39;
 2001: 1, 4, 5, 9, 12, 23, 34, 35, 45, 46, 47, 50, 51, 52, 55

Orthetrum cancellatum (Linnaeus)

1996: 7; 1997: 8; 1998: 53; 1999: 30, 39, 41, 44; 2001: 30, 71, 72

Orthetrum coerulescens anceps (Schneider)

1993: 15, 50; 1996: 5, 7; 1997: 3, 8, 9, 12, 40; 1998: 25, 47, 54, 55; 1999: 4,
 41; 2001: 5, 19, 20, 47, 49, 50, 51, 52, 71

Orthetrum sabina sabina (Drury)

1997: 11, 12

Sympetrum depressiusculum (Selys) (Fig. 8)

1998: 47, 57; 2001: 30, 51, 52, 53, 62

Sympetrum flaveolum flaveolum (Linnaeus)

1993: 5, 24, 28, 30, 31, 32, 42, 43; 1996: 11, 18, 28, 29, 31; 1997: 30, 42, 47,
 48, 51, 53, 54, 56; 1998: 7, 11, 20, 26, 47, 48; 1999: 29, 34, 35; 2001: 21, 24,
 34

Fig. 7: New records of *Libellula fulva* (black dots: records in this study; grey squares:
 all records according to VAN PEIT & KALKMAN 2003).

Sympetrum fonscolombii (Selys)

1998: 23, 44; 1999: 14; 2001: 36, 37, 50, 52, 53, 62, 81

Sympetrum haritonovi Borisov

1993: 31

Sympetrum meridionale (Selys)

1993: 33, 51; 1996: 17; 1997: 28; 1998: 13; 1999: 37, 40; 2001: 13, 15

Sympetrum pedemontanum (Allioni)

1993: 8, 45, 46, 48

Also observed at 1997: 55

Sympetrum sanguineum armeniacum (Selys)

1996: 27, 29

Sympetrum sanguineum sanguineum (Müller)

1993: 33, 43, 45, 50; 1997: 2, 16, 35, 36, 37, 45, 46, 61, 65; 1998: 5, 15, 58;
 2001: 35, 52, 72, 77

Sympetrum sanguineum ssp.*

1996: 5, 8; 1997: 8; 2001: 19, 20

Sympetrum striolatum striolatum (Charpentier)

1993: 3, 8, 15, 22, 33, 48; 1996: 20; 1997: 35, 59; 1998: 5, 9, 13, 14, 40, 42;
 1999: 4, 11, 21, 33, 40; 2001: 15, 28, 29, 36, 41, 44

Fig. 8: New records of *Sympetrum depressiusculum* (black dots: records in this study;
 grey squares: all records according to VAN PEIT & KALKMAN 2003).

Sympetrum vulgatum decoloratum (Selys)
1993: 45, 46; 1996: 11, 18, 27; 1999: 23, 27, 28; 2001: 20, 46, 52, 66

Trithemis annulata (Palisot de Beauvois)
1997: 7

Distributional remarks

According to KALKMAN et al. (2003), 96 species of Odonata are known to occur in Turkey with certainty. With 60 species reported upon, this overview is by no means representative for the odonatofauna of Turkey. An extensive comparison of the distribution of all species listed with the data from literature and other collections will be made elsewhere.

The present study shows that the odonatofauna of northern Turkey is rather similar to that of central Europe, and also species that are less-known from Turkey, such as *Pyrrhosoma nymphula nymphula*, *Aeshna cyanea* (Fig. 6), and *Cordulia aenea* occur there. Other species, like *Aeshna juncea juncea*, and *Sympetrum pedemontanum*, have mainly been found in North East Turkey, but may have a more westernly distribution in northern Turkey.

Some species appear to have a larger distributional area than previously known, e.g., various *Lestes* species, *Libellula fulva*, *Sympetrum vulgatum decoloratum*, and *Sympetrum depressiusculum* (Fig. 8). Surprisingly, *Aeshna cyanea* was recently reported from the Greek island of Ródos (LOPAU 2000), it may therefore have a wider distribution in western Turkey.

Of special interest is the discovery of a large population of *Libellula pontica* in the province of Sakarya, North West Turkey, a remarkable extension of its known range. This record and new records of *L. fulva* from central Turkey (Fig. 7) show that the distributional ranges of both *Libellula* species overlap considerably.

Taxonomical remarks

In a forthcoming overview of the odonatofauna of Turkey it will be attempted to resolve the taxonomical problems that still remain, here it is considered best to merely indicate these problems.

The exact status of the various *Calopteryx* taxa in Turkey is still unsettled. The material from North East Turkey listed here sub *C. splendens* spp.* might be referable to intermediates between *C. splendens amasina* Bartenev and *ssp. tschadifrica* Bartenev (DUMONT et al. 1987).

According to JÖDICKE (1997), it cannot be excluded that an undescribed subspecies of *Lestes virens* occurs in Turkey. The present material, as well as material from Greece, will be examined by R. Jödicke and L. Börszöny (VAN PELT 1999).

A review of the distributional ranges of the various subspecies of *Ischnura elegans* is highly desirable, and should include (at least) the populations in all of South East Europe and Turkey (VAN PELT 1999).

The taxonomic status of *Aeshna isoceles antehumeralis* (Schmidt) is under review, but whether it should be treated as a valid taxonomical entity remains unclear. In the material from SW Turkey the yellow stripe on the metepimeron is definitely larger than in that from N and NE Turkey.

The record of *Aeshna juncea* ssp.* from Erzurum is quite puzzling. The yellow markings on the thorax are very extensive, and the thorax is, in general, reminiscent to that of *A. cyanea*.

Up to recently, *Cordulegaster insignis mzymtae* Bartenev has been treated as a separate species. Specimens with abdominal markings intermediate of *C. insignis charpentieri* and *mzymtae* suggest that the two taxa interbreed. Therefore, *mzymtae* is to be regarded as a subspecies of *C. insignis*.

The material listed here as *Cordulegaster insignis* ssp. nov.* from NW Turkey pertains to a separate subspecies, and whether it is identical to ssp. *amasina* Morton is doubtful. According to the descriptions by SELYS (1887), MORTON (1916), and FRASER (1929), material from Amasya varies in many characters, and recent material from the type locality is hardly available. A review of the genus *Cordulegaster* in Turkey is in progress.

Material listed here as *Sympetrum sanguineum* ssp.* agrees well with the description given by RIS (1911) of specimens of *S. sanguineum* from SW Turkey. It is likely that an undescribed subspecies is involved, which should be described only after a careful review of the various subspecies of *S. sanguineum* in Turkey.

Acknowledgements

I wish to thank M. Wasscher (Utrecht, The Netherlands), V.J. Kalkman (Bloemendaal, The Netherlands), and A. Kop (Oegstgeest, The Netherlands), for kindly identifying some of the problematic specimens. S. Mennan (Samsun, Turkey) supported me during field work and kindly showed me the collection of the 19 May is University. I am most grateful for the financial support of this study by The Uyttenboogaart-Eliasen Stichting (Amsterdam, The Netherlands), and the Jan Joost ter

Pelkwijs fonds (Leiden, The Netherlands). Last but not least I would like to thank all the people in Turkey who helped me during my field work, especially those who collected dragonflies for me while I could enjoy their hospitality.

References

- DUMONT, H.J., A. DEMIRSOY & D. VERSCHUREN (1987): Breaking the Calopteryx-bottleneck: taxonomy and range of *Calopteryx splendens* waterstoni Schneider, 1984 and of *C. splendens tschaldirica* Bartenev, 1909 (Zygoptera: Calopterygidae). *Odonatologica* 16: 239-247
- FRASER, F.C. (1929): A revision of the Fissilabioidea (Cordulegasteridae, Petaliidae and Petaluridae) part 1: Cordulegasteridae. *Memoirs of the Indian Museum* 9: 69-167, plates IX-XII
- JÖDICK, R. (1997): *Die Binsenjungfern und Winterlibellen Europas*. Die Neue Brehm-Bücherei 631. Westarp Magdeburg
- KALKMAN V.J., WASSCHER, M. & VAN PELT, G.J. (2003): A checklist of the Odonata of Turkey. *Odonatologica* 32: 215-235
- LOPAU, W. (2000): Bisher unveröffentlichte Libellenbeobachtungen aus Griechenland II (Odonata). *Libellula Supplement* 3: 81-112
- MORTON, K.J. (1916): Some palaeartic species of Cordulegaster. *Transactions of the Royal entomological Society of London* 1915: 273-290, plates xxxiv-xxxvii (13 figs)
- RIS, F. (1909-1919): *Libellulinen monographisch bearbeitet*. Collections Zoologiques du Baron Edm. de Selys Longchamps. Catalogue systématique et descriptif. Bruxelles
- SELYS-LONGCHAMPS, E. DE (1887): Odonates de l'Asie mineure et revision de ceux des autres parties de la faune dite européenne. *Annale de la Société entomologique de Belgique* 31: 1-85
- VAN PELT, G.J. (1999): On dragonflies from Greece in the RMNH collection, Leiden. The Netherlands. *Libellula Supplement* 2: 77-90

The dragonflies of the surroundings of Lake Köyceğiz and the River Eşen, Muğla province, SW Turkey (Odonata)

Vincent Kalkman, Arjan Kop, Gert Jan van Pelt and Marcel Wasscher

received: 11 November 2002

Summary

During a field trip in the coastal area of the Muğla province, SW Turkey, 48 species of Odonata were encountered. The data are compared with those of previous publications and unpublished material in the collections of the RMNH and of J.-P. Boudot. Of the surroundings of Lake Köyceğiz 45 species are listed, seven of which had not previously been found. From the River Eşen basin 28 species are listed, of which 13 are new to the area. The total number of species known from the study area has increased to 51, more than half of the number of species known to occur in Turkey. The data on distributional patterns, habitat preferences and seasonal ecology of the taxa involved are discussed.

Zusammenfassung

Die Libellen der Region des Köyceğiz-Sees und des Flusses Eşen in der Provinz Muğla, SW-Türkei (Odonata) – Auf einer Sammlungsreise in die Küstenregion der Provinz Muğla, SW-Türkei, wurden 48 Libellenarten nachgewiesen. Die erhobenen Daten werden mit Angaben aus früheren Publikationen sowie unpubliziertem Material aus den Sammlungen des RMNH und von J.-P. Boudot verglichen. In der Umgebung des Köyceğiz-Sees wurden 45 Arten nachgewiesen, von denen sieben dort bislang nicht gefunden worden waren. Aus dem Becken des Flusses Eşen stammen Nachweise von 28 Arten, von denen 13 neu für diese Region sind. Insgesamt hat sich die Zahl der im Untersuchungsgebiet nachgewiesenen Arten auf 51, d.h. mehr als die Hälfte aller

aus der Türkei bekannten Arten erhöht. Die Daten zu Verbreitungsmustern, Habitatpräferenzen und saisonaler Ökologie der betroffenen Taxa werden diskutiert.

Özet

Türkiye'nin güneybatısında, Muğla ilinin kıyı kesimlerinde yapılan arazi çalışmalarında 48 Odonata türü tespit edilmiştir. Elde edilen veriler, daha önceki yayınlar ve RMNH ve J.-P. Boudot'un koleksiyonlarındaki yayınlanmamış material ile karşılaştırılmıştır. Köyceğiz civarından tespit edilen 45 tür liste halinde verilmiştir. Bu türlerin 7'si daha önce bulunamamıştır. Eşen nehri havzasından, bölge için 13'ü yeni olan 28 tür saptanmıştır. Çalışma Bölgesi'nden bilinen toplam tür sayısı 51'e çıkarılmıştır. Bu sayı Türkiye'den bilinen tür sayısının yarısından fazladır. Taksonların mevsimsel ekolojileri, habitat tercihleri ve dağılım şekilleri ile ilgili veriler tartışılmıştır.

Introduction

At the end of 1999, a group of Dutch odonatologists decided to combine their efforts in order to review the odonatofauna of Turkey. One of the first initiatives taken was to organize a field trip. As the species richness of the surroundings of Lake Köyceğiz (Muğla province, SW Turkey) was already evident from the literature and from results of earlier field trips (see below), including the occurrence of some interesting taxa, this area was selected as study area.

The basin of the River Eşen (Eşen çayı or Koca çayı, some 90 km SE of Lake Köyceğiz) was one of the first places in Turkey that attracted the attention of entomologists. In the summer of 1842 the dipterologist Prof. Dr. Hermann Loew visited the locality "Kelemisch", and (accompanied by two geographers) collected 17 species of Odonata (the record of *Coenagrion hastulatum* not taken into account, see below). This material was reported upon by SCHNEIDER (1845), who described four Odonata species as new to science (*Caliaeschna microstigma*, *Cordulegaster insignis*, *Onychogomphus flexuosus* and *O. assimilis*). In order to determine the type locality of these species, Erich Schmidt visited Turkey in 1953, and discovered that the locality involved was in fact referable to the village of Gelemiş, near the archeological site of Patara in the River Eşen basin (SCHMIDT 1954). No new records from the area have become available until recently, except for a single record of *Calopteryx splendens* from Ortaca (DUMONT 1977). New records published by DEMIRSOY (1982) have not been taken into account in the present study.

In the last decade three papers dealing with dragonflies from the surroundings of Lake Köyceğiz have been published, apart from the report (in the Turkish language) by KANZANCI et al. (1992). BUSSE (1993) recorded 23 species, 14 of which are documented with photographs. KOHLER (1993) published a small note on the Odonata of the River Dalaman on the basis of photographs made in May 1992, listing 18 species (6 of which not listed by Busse). A list of 27 species from the surroundings of Lake Köyceğiz was published by KAZANCI (1995), adding another 6 species.

The record of *Coenagrion hastulatum* by SCHNEIDER (1845) is now generally believed to be based on a misidentification (KALKMAN et al. 2003). Two of the species documented with photographs by BUSSE (1993) proved to be misidentified: the photograph of *Cordulegaster insignis* shows a *C. picta* (G.J. van Pelt, pers. comm.), and one of the photographed specimens originally identified as *Onychogomphus forcipatus* turned out to be *O. assimilis* (M. Wasscher, pers. comm.). Unpublished material collected by J.-P. Boudot and G. Jacquemyn (1993, 1994) and by G.J. van Pelt (1996, 1997; VAN PELT 2004) contained some interesting records and revealed the occurrence of 6 additional species: *Coenagrion scitulum*, *Erythromma viridulum*, *Aeshna affinis*, *Cordulegaster insignis*, *Selysiothemis nigra*, and *Sympetrum sanguineum* (KALKMAN et al. 2004). As a result, at the beginning of the field trip already 41 species were known from the surroundings of Lake Köyceğiz.

Description of the study area

Lake Köyceğiz is situated at the Lycian coast of the province of Muğla, SW Turkey (Fig. 1). The surroundings of Lake Köyceğiz, one of the largest coastal lakes in Turkey, are characterized by a variety of biotopes on a relatively small area. It is dominated by the large freshwater Lake Köyceğiz (5,200 ha) surrounded by reed, and the delta of the River Dalyan (= Namnam çayı), consisting of an extensive reed zone intersected by a labyrinth of channels. The lake is fed by ground water welling up and therefore the water is very clean. A few sulphuric hot springs (ca. 40 °C) are present at the lake side, and especially the spring in Sultaniye is used for mud baths that are believed to have healing capacities.

The lower part of the area is surrounded by Mediterranean maquis and pine tree forests in the drier parts, and by various wetlands and running water habitats, often fed by cold springs (especially in forests dominated by the endemic incense tree, *Liquidambar orientalis*).

The region is famous for the ancient Frygian kings graves, situated within the steep banks near the ruins of Kaunos, that marked the southern border of the kingdom Caria a long time ago. The lake just down the amphitheatre in Kaunos once was the entrance to the harbour, but the area was sealed off from the sea in ancient times already.

Although situated not far from touristic strongholds like Marmaris and Bodrum, the area is visited by relatively few foreigners, the majority of whom enjoys Turkish food and hospitality as well as tranquility and nature rather than the blessings of modern tourism. For nature lovers the region is especially attractive (to mention only its most obvious features): the large freshwater lake and the extensive reed zones are inhabited by a wide variety of birds (KILIÇ & KASparek 1989), the sandy shore between the Dalyan Delta and the Mediterranean Sea is known to be one of the most important nesting sites of the loggerhead sea turtle, *Caretta caretta*, and in the River Dalyan Delta the threatened Nile soft-shelled turtle (*Trionyx triunguis*) occurs, a more than 1 meter large freshwater turtle (KASparek 1990).

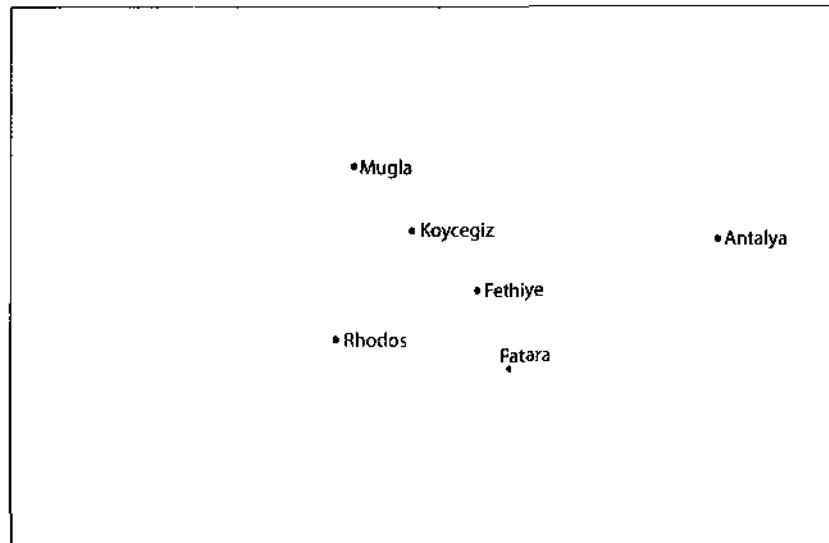


Fig. 1: Map of the study area.

towns such as Patara and Xanthos are situated in the area. The village of Gelemiş has been built just above Patara, where various pools and lakes are found between the ancient walls. Near the mouth of the river are some dead trees, remnants of a former swamp forest.

For a more extensive description of the region, see KASparek & KASparek (1990, a very useful source of information on the nature of Turkey in general), and KANZANCI et al. (1992).

Methods

The field trip lasted from 21 May until 3 June 2000, in which period the weather was excellent with noon-temperatures of over 25 °C and almost no rain. G.J. van Pelt was asked to serve as a guide because of his knowledge of the area and the Turkish language. A list of participants can be found at the end of this paper. With the town of Köyceğiz as basis, many localities in the direct vicinity of Lake Köyceğiz were visited. During a single weekend (27 and 28 May) an excursion to the River Eşen basin was organised. Each locality is briefly described and numbered, see Fig. 2 for an overview. Whenever possible, adults as well as larvae and exuviae were collected. All collected material is deposited in the collection of the National Museum of Natural History, Leiden, The Netherlands (RMNH), and has been identified by the present authors.

List of localities visited

The localities are roughly numbered from west to east and are indicated by: (a) the name of the province; (b) the distance to the nearest large town; (c) a short description of the exact locality; (d) the altitude above sea level; (e) the co-ordinates given with UTM Grid Reference; (f) the date(s). Localities visited more than once are listed as a single locality, in which case two or more dates are given.

- (1) Muğla: ca. 15 km SSW of Köyceğiz: ancient harbour of Kaunos, 1 m asl, 35SPA47, 26.v.2000 (with H.K. en B. Pfau)
- (2) Muğla: ca. 12 km SW of Köyceğiz: rivulet 1 km N of Küçükkaraağaç, 10-25 m asl, 35SPA48, 26.v.2000 (with H.K. en B. Pfau), 31.v.2000
- (3) Muğla: ca. 11 km SW of Köyceğiz: springbrooklet between pass in road and Küçükkaraağaç, ca. 50 m asl, 35SPA48, 30.v.2000



Fig 2: Map depicting the UTM co-ordinates (10 x 10 km squares) of the localities visited.

- (4) Muğla: ca. 10 km SW of Köyceğiz: rivulet between pass in road and Küçükkaraağaç, ca. 100 m asl, 35SPA48, 30.v.2000
- (5) Muğla: ca. 7 km SW of Köyceğiz: Lamnan çay, near bridge SW of Hamitköy, 5 m asl, 35SPA48, 1.vi.2000
- (6) Muğla: ca. 8 km W of Köyceğiz: ditch and wetlands 2 km NE of Doğuşbelen, 50 m asl, 35SPA49, 24.v.2000
- (7) Muğla: ca. 8 km W of Köyceğiz: brooklet N of wetlands 2 km NE of Doğuşbelen, 50 m asl, 35SPA49, 24.v.2000
- (8) Muğla: ca. 5 km W of Köyceğiz: rivulet with falls near Arboretum 2 km W of Toparlar, 50-100 m asl, 35SPA49, 24.v.2000, 29.v.2000, 3.vi.2000
- (9) Muğla: 3 km W of Köyceğiz: channel along road to Hamitköy, 5 m asl, 35SPA49, 30.v.2000
- (10) Muğla: 1-2 km W of Köyceğiz: pools/channel near road to Hamitköy, 5 m asl, 35SPA49, 22.v.2000
- (11) Muğla: 2 km W of Köyceğiz: large ditch near road to Hamitköy, 5 m asl, 35SPA49, 22.v.2000, 30.v.2000
- (12) Muğla: 1 km W of Köyceğiz: rivulet at N side of Lake Köyceğiz, 5 m asl, 35SPA49, 22.v.2000, 24.v.2000, 30.v.2000
- (13) Muğla: 1 km W of Köyceğiz: brooklet near beach and pick-nick site at N side of Lake Köyceğiz, 5 m asl, 35SPA49, 22.v.2000, 25.v.2000
- (14) Muğla: field just E of Köyceğiz, near lake, 5 m asl, 35SPA59, 22.v.2000, 24.v.2000, 30.v.2000
- (15) Muğla: 1 km E of Köyceğiz: pool on field with *Euphorbia* adjacent to *Liquidamber* forest and path along N side of Lake Köyceğiz, 5 m asl, 35SPA59, 21.v.2000, 22.v.2000, 30.v.2000, 3.vi.2000
- (16) Muğla: 1 km E of Köyceğiz: brooks in *Liquidamber* forest, 5 m asl, 35SPA59, 21.v.2000, 29.v.2000
- (17) Muğla: 1-3 km ESE of Köyceğiz: NE shore of Lake Köyceğiz, 5 m asl, 35SPA59, 2.vi.2000
- (18) Muğla: ca. 3 km SE of Köyceğiz: island with ruin in Lake Köyceğiz, 5 m asl, 35SPA58, 2.vi.2000
- (19) Muğla: ca. 5 km S of Köyceğiz: mouth of Yavurlak çay into Lake Köyceğiz, 5 m asl, 35SPA58, 2.vi.2000
- (20) Muğla: springs and brooklets just E of Ağla, ca. 850 m asl, 35SPB50, 31.v.2000, 1.vi.2000
- (21) Muğla: ca. 6 km NE of Ağla, Gökçeova gölü, ca. 1400 m asl, 35SPB50, 31.v.2000
- (22) Muğla: ca. 12 km NE of Ağla: Lake Kartal just NE of Çiçekbaba tepe, 1900 m asl, 35SPB60, 31.v.2000

- (23) Muğla: ca. 13 km NNE of Ağla: spring and brooklet along forest road, ca. 1600 m asl, 35SPB60, 31.v.2000
- (24) Muğla: ca. 14 km NE of Ağla: pools and brooklet near turn off to Lake Kartal, ca. 1600 m asl, 35SPB60, 31.v.2000
- (25) Muğla: ca. 8 km N of Ortaca, rivulet Yavurlak çay near trout farm in Beyobaşı, ca. 50 m asl, 35SPA58, 28.v.2000
- (26) Muğla: Dalaman çay at 3 km NE of Ortaca, N of old bridge, ca. 50 m asl, 35SPA58, 23.v.2000
- (27) Muğla: ca 10 km E of Köyceğiz: spring of rivulet Yavurlak çay above Beyobaşı, E of Taşdibi, ca. 100 m asl, 35SPA69, 1.vi.2000
- (28) Muğla: ca. 4 km NE of Fethiye, brooklet 3 km NE of Günlükbaşı, ca. 50 m asl, 35SPA96, 28.v.2000
- (29) Muğla: ca. 4 km ENE of Ortaca: tributary of Dalaman çay near forest road to Akyaka and asphalt road, ca. 50 m asl, 35SPA67, 23.v.2000, 25.v.2000, 30.v.2000
- (30) Muğla: ca. 13 km E of Dalaman, brooklet 4 km E of Göcek, W of pass in road, ca. 100 m asl, 35SPA76, 27.v.2000
- (31) Muğla: ca. 16 km NNW of Üzümlü, brooklet near Kırkpınar, ca. 1350 m asl, 35SPA98, 28.v.2000
- (32) Muğla: ca. 12 km NNE of Kemer, trout farm in Ören, ca. 100 m asl, 35SPA17, 28.v.2000
- (33) Muğla: ca. 10 km NNE of Kestep (=Eşen), Eşen çay near bridge E of Alaçat, 25 m asl, 35SPA14, 27.v.2000
- (34) Muğla: ca. 13 km ENE of Kestep (=Eşen), trout farm in Saklikent, 50 m asl, 35SPA13, 27.v.2000, 28.v.2000
- (35) Antalya: ca. 11 km NW of Kalkan, Eşen çay near Kinikli, 10 m asl, 35SPA02, 27.v.2000
- (36) Antalya: ca. 4 km W of Kalkan, swamp/pools/ancient harbour of Patara S of Gelemiş, 5 m asl, 35SPA01, 27.v.2000

Results

Within the families the species are listed in alphabetical order. The following abbreviations are used: m – male, f – female, x – exuviae, c – copula, t – teneral, o – oviposition, and l – larvae. Numbers without further indication refer to unspecified individuals.

Calopteryx splendens amasina (Barteney): 1 (1m); 5 (150, 1c, 1o); 6 (1x); 7 (100); 8 (25); 12 (1m); 15 (5m, 1f); 18 (1m, 1f); 19 (20); 23 (2l); 26 (3m); 29 (40m, 10f, 1x); 30 (2m, 1f); 33 (3m); 34 (10, 3m, 1f); 36 (1m).

Calopteryx virgo festiva (Brullé): 6 (6); 7 (3m); 13 (8m, 2f); 15 (4m); 16 (100, 1l, 1x); 20 (20, 1l); 23 (1m, 1l); 25 (150); 27 (25); 29 (1m); 30 (25m, 1c); 32 (50); 34 (10, 10m, 4x).

Calopteryx spec.: 27 (1x); 34 (2x).

Epallage fatime (Charpentier): 5 (15); 6 (1f); 8 (250, 2x); 20 (5, 1x); 23 (1, 2m, 1x); 24 (2f); 27 (3); 28 (8m, 2f, 2tm, 10c); 29 (60m, 40f, 4l, 88x, 5c); 30 (20m, 3t, 2l, 10c, 2o); 31 (2m, 10f); 34 (1f).

Lestes barbarus (Fabricius): 6 (1m).

Lestes dryas Kirby: 6 (1m).

Lestes parvidens Artobolevski: 2 (3m, 7f); 4 (2); 6 (50, 30t, 100x); 11 (4l); 12 (1m); 15 (100t, 8l, 7x).

Sympetrum fusca (Vander Linden): 20 (1tm, 1tf).

Platycnemis pennipes pennipes (Pallas): 2 (100); 3 (10); 4 (10); 5 (100, 1o); 6 (1x); 7 (25, 5x); 8 (10, 5c); 9 (10); 10 (30, 7x); 11 (3, 2x); 12 (20, 1x); 13 (25, 3x); 14 (20); 15 (25); 16 (10, 1x); 18 (3m, 2c); 19 (20, 2x); 23 (2l); 24 (1, 8x, 2l); 25 (20); 29 (10m, 5f, 1t, 9x, 10c, 1o); 30 (10, 5x); 32 (5); 33 (10m); 34 (100); 35 (60).

Cercion lindenii lindenii (Selys): 1 (100m); 2 (200, 1m, 1f); 4 (1m, 2f); 5 (3m, 1c); 6 (10m, 2c); 8 (100); 9 (2m, 1f); 10 (30, 1x); 12 (50, 10c); 14 (10); 16 (20); 17 (200m, 40c); 18 (100); 19 (50, 1x); 33 (3m).

Ceriagrion georgifreyi Schmidt: 11 (1m, 1f); 13 (1m); 14 (15m, 12f); 16 (5); 34 (1f).

Coenagrion ornatum (Selys): 34 (10m, 4f, 1x).

Coenagrion puella (Linnaeus): 31 (1m); 34 (2m).

Coenagrion pulchellum pulchellum (Vander Linden): 11 (4m, 1f, 1c); 14 (25, 20m, 3f, 5c); 15 (25m, 1f).

Erythromma viridulum viridulum (Charpentier): 5 (5m, 2c); 6 (1m); 9 (4m, 4f, 2c); 11 (2m, 2c); 12 (6m, 1c); 19 (5).

Ischnura elegans (Vander Linden): 1 (20); 2 (25); 5 (25, 6c); 6 (2l); 8 (1m); 11 (10); 12 (150); 14 (25); 15 (30, 10 tandem/copula); 16 (30, 3 tandem/copula); 18 (5); 19 (50); 22 (1); 24 (1m, 1o, 8l); 26 (5m); 27 (2m); 29 (2m, 1f, 1o); 33 (30); 34 (20); 35 (1m, 1f).

Ischnura pumilio (Charpentier): 14 (1f); 31 (1tm); 34 (1f).

Aeshna affinis Vander Linden: 2 (1f); 20 (1f).

Aeshna isoceles (O.F. Müller): 1 (10); 2 (250); 3 (5); 4 (3); 5 (20); 6 (5, 1x); 8 (25, 1f, 5c); 9 (2); 10 (30); 11 (10, 2x); 12 (25, 2c); 14 (5); 15 (50); 16

(30); 17 (50); 18 (150); 19 (3x); 20 (25); 26 (100); 27 (5); 29 (5); 33 (2); 34 (1).

Anax immaculifrons Rambur: 2 (2l); 8 (3m, 1f, 1l, 1xf).

Anax imperator imperator Leach: 2 (1); 5 (1m, 1o); 6 (8m, 2f, 2o); 8 (1m); 9 (1m); 12 (1m); 15 (1l); 16 (1m); 17 (2m); 18 (1m).

Anax parthenope parthenope (Selys): 1 (1m, 1f); 2 (1m); 10 (3); 12 (1); 15 (1m); 17 (10); 33 (1f); 34 (1m).

Brachytron pratense (O.F. Müller): 6 (15m).

Caliaeschna microstigma (Schneider): 2 (5, 1m); 3 (2); 4 (5); 6 (1m, 1x); 7 (1x); 8 (3m); 13 (1t, 8x); 14 (1); 16 (50, 11x); 20 (40, 40x, 1l); 23 (1l); 24 (2m, 3f, 1l); 25 (10m, 2f, 10l, 29x, 1c); 27 (75, 2x, 2c); 29 (1, 12x); 30 (1m, 1tm, 6x); 31 (5m); 32 (3m, 26x); 34 (100, 6x).

Gomphus flavipes lineatus Bartenev: 29 (1x, at Dalaman çay); 35 (3x).

Gomphus schneideri Selys: 5 (8m, 1c); 6 (2m, 3f, 11x); 8 (x); 10 (1x); 15 (15); 16 (5, 2l, 54x); 23 (1l); 29 (1m); 32 (1m, 1x); 33 (3, 5x); 35 (13x).

Onychogomphus assimilis (Schneider): 25 (3x); 32 (1m); 33 (3x).

Onychogomphus flexuosus (Schneider): 26 (2m, 4x); 33 (3c, 8x); 35 (2f, 79x).

Onychogomphus forcipatus albostibialis Schmidt: 5 (5m, 1f, 2tm, 4tf, 6x); 6 (7m, 3f, 1tm); 8 (12); 12 (2m, 1f, 41x); 13 (1tf); 17 (1tm, 1tf); 25 (1m, 2f); 28 (5m, 2f); 29 (3m, 3f, 1tm, 22l, 10x); 30 (4m); 31 (1m); 32 (1m); 33 (2m; 2x); 35 (1m, 62x).

Lindenia tetraphylla (Vander Linden): 2 (4m); 5 (2m); 18 (24x); 19 (1x).

Cordulegaster insignis insignis Schneider: 16 (1l); 20 (17m, 3o, 6l, 3x); 23 (1l); 27 (2m, 2x); 31 (2x); 32 (30); 34 (10, 15m, 2o, 17l, 1x).

Cordulegaster picta Selys: 15 (1m, 1f); 16 (4m, 2f, 1l, 6x); 20 (17m, 1l, 2x); 25 (10m); 27 (2m)

Somatochlora flavomaculata (Vander Linden): 2 (1, 3m); 8 (3); 10 (1m); 15 (3); 16 (3).

Crocothemis erythraea (Brullé): 1 (15); 2 (5); 5 (50); 6 (100); 7 (1m); 8 (10, 1f); 9 (5); 10 (10); 11 (1m, 2f, 1x); 12 (40m, 10f); 14 (25, 1c); 15 (25m, 2f); 16 (4, 3m); 17 (1m); 18 (3m, 1c); 19 (12x); 29 (1f); 33 (8m); 34 (10, 2m, 10f); 36 (11, 3t).

Diplacodes lefebvrii (Rambur): 33 (2m, 1f, 1tm); 36 (1m, 4f)

Libellula depressa Linnaeus: 20 (1m, 1f); 23 (1m, 6l); 27 (1f); 31 (2f).

Libellula fulva O.F. Müller: 1 (25); 2 (10); 3 (5); 5 (20m, 5f); 6 (200, 15x, 10tan,cop); 7 (25, 2c); 8 (1); 9 (5); 10 (50, 10c, 4x); 11 (1m, 1f, 1x); 14 (2,1x); 15 (30); 16 (80, 1tf, 1x); 18 (10m, 10x); 19 (30); 29 (1f); 33 (1m).

Orthetrum brunneum brunneum (Fonscolombe): 5 (25m, 5f, 1t); 6 (10); 12 (1m, 2l, 9x); 15 (2m); 19 (1m); 20 (4m, 1o); 23 (1m, 1f); 26 (1f); 27 (2); 29 (1l); 31 (5m, 2f, 2c); 34 (1m).

Orthetrum cancellatum (Linnaeus): 1 (10m); 6 (2m); 12 (3m).

Orthetrum chrysostigma chrysostigma (Burmeister): 2 (1f); 4 (3m); 5 (1m, 2f); 6 (25); 8 (5m, 5f); 11 (2m, 2f); 12 (30, 1t, 3l, 3x); 13 (4m, 1f); 16 (2m); 19 (1tm); 26 (3m, 10f); 28 (1m, 1f); 29 (10m, 5f, 1l); 30 (1m).

Orthetrum coerulescens anceps (Schneider): 2 (1f); 8 (3m); 12 (1tf); 14 (1m); 15 (25, 1x); 16 (25); 34 (2f, 1x).

Orthetrum sabina sabina (Drury): 1 (25); 2 (10); 5 (50, 3x); 6 (150); 8 (10); 10 (10); 11 (10, 1x); 12 (100, 3x); 13 (2); 14 (15); 15 (25); 16 (15); 18 (10); 19 (200, 8x); 26 (1m, 1c); 29 (3, 1m); 30 (1o); 36 (1).

Orthetrum taeniolatum (Schneider): 5 (20); 12 (1m, 1l, 1x); 15 (6, 1 tandem); 29 (1m).

Sympetrum fonscolombii (Selys): 21 (1m).

Sympetrum meridionale (Selys): 1 (1f); 6 (100); 20 (1f); 26 (6); 29 (1); 36 (1).

Sympetrum sanguineum (O.F. Müller) ssp.: 6 (15m); 11 (1m); 14 (1, 1tm); 15 (15); 16 (1f).

Sympetrum striolatum striolatum (Charpentier): 6 (10, 18l, 8x); 8 (1f); 11 (5, 2l); 14 (10t); 15 (100t, 18l, 19x); 16 (5); 19 (2f, 1tm, 2x); 20 (1m); 26 (1f); 29 (2).

Trithemis annulata (Palisot de Beauvois): 1 (1m); 5 (40m); 6 (40); 8 (1m); 11 (1x); 12 (30, 5f, 7x); 15 (1f); 16 (1m); 18 (2m); 19 (3m); 26 (30m); 29 (7m, 20f); 33 (2m).

Trithemis festiva (Rambur): 2 (5m, 3f); 5 (3m); 8 (15, 1pm); 26 (2); 28 (1m); 29 (15m, 2f, 1o, 1l, 6x); 30 (7m).

Discussion

A comparison of the results with previous data

During the field trip 48 Odonata species were encountered, of which 6 are new to the area (*Lestes dryas*, *Sympetrum fusca*, *Ceriagrion georgifreyi*, *Coenagrion ornatum*, *Ischnura pumilio*, and *Libellula depressa*). Only three of the previously recorded species were not found: *Coenagrion scitulum*

(VAN PELT 2003), *Selysiothemis nigra* (KALKMAN et al. 2004), and *Sympetrum flaveolum* (KAZANCI, 1992; KALKMAN et al. 2004). With these six species the total number of species known from the coastal area of the Muğla province has increased to 51. The results of the present study and the data from previous publications are summarized in Table 1.

Within the present study, all species were found in the vicinity of Lake Köyceğiz, with the exception of *Coenagrion ornatum*, *C. puella*, and *Diplacodes lefebvrei*. Of these *C. puella* has already been recorded for Lake Köyceğiz (KAZANCI 1995), while also *Coenagrion scitulum*, and *Sympetrum flaveolum* are known to occur in the area (see above). As the surroundings of Köyceğiz was investigated quite intensively, the present list of 48 species known to occur there can be considered to be fairly complete; possible further additions are discussed below.

The River Eşen basin was only visited for two days during which 28 species were encountered; many of the species present there may thus have eluded us. Therefore, a list of taxa new to the area is considered not useful. Unfortunately, the archaeological site of Patara was not accessible for an odonatological survey, and therefore it was decided to follow the suggestion of our driver to visit (34), and one day later (32), which turned out to be a piece of good fortune.

Remarks on some distributional data

Coenagrion pulchellum – This species is rare in South West Asia. It is not recorded from Iraq and Iran and is known from only one locality in Syria. The species is widespread but uncommon in Turkey with only 8 (partly unpublished) localities outside the Köyceğiz area. The species was found at three localities in the surroundings of Lake Köyceğiz.

Ceriagrion georgifreyi – The records of this species from Köyceğiz are the westernmost records from Turkey so far. The species is also known from the Greek islands of Thássos, Zákynthos and Kérkira (Corfu) (KALKMAN in press).

Anax immaculifrons – The locality near Küçükkaraağaç (2) had already been published by BUSSE (1993), the record at the Arboretum 2 km W of Topalar (8) is new. The species is often present in low numbers and therefore easily overlooked, although its rapid flight and blue-and-yellow appearance may attract attention. It is likely that more localities in the Muğla province will be found. The westernmost records of this Oriental species are

Table 1: Number of Odonata species reported from the surroundings of Lake Köyceğiz and the River Eşen basin in previous publications, unpublished records from larger collections and the present study.

Author	Köyceğiz		River Eşen basin	
	Species	New	Species	New
SCHNEIDER, 1845	-	-	17	17
SCHMIDT, 1954	-	-	5	0
BUSSE, 1993	24	24	-	-
KÖHLER, 1993	18	6	-	-
KAZANCI, 1995	27	6	-	-
unpublished (coll. Boudot)	21	2	11	7
unpublished (coll. RMNH)	23	3	-	-
This study	45	7	28	13
Total		48		37

from the Greek islands of Ródos and Kárpathos (LOPAU & WENDLER 1995), the northwesternmost is from Ikaría (VAN PELT 1999). LOPAU & ADENA (2002) showed that the species is not uncommon on Cyprus. Apart from the localities mentioned here eight other localities are known from Turkey.

Brachytron pratense – This species is known from only a few localities in Turkey. The large number of males found at (10) suggests a strong population.

Onychogomphus assimilis & *Onychogomphus flexuosus* – The distribution of these species is confined to SW Asia (DUMONT et al. 1992). The records presented in this paper are the westernmost records so far. The species were respectively found at three and four localities and both may be found even further West in Turkey.

Somatochlora flavomaculata – This species was previously reported from the study area by BUSSE (1993) and KAZANCI (1995). The species is rare in Turkey and outside the Muğla province it is known from only a few localities (see also below).

Sympetrum flaveolum – Not found during the field trip. In SW Turkey, this species has only been encountered by J.-P. Boudot and G. Jacquemin (unpubl.), apart from the record by KAZANCI et al. (1992).

The odonatofauna of the study area compared to that of Turkey

According to KALKMAN et al. (2003), 96 species of Odonata are known to occur in Turkey with certainty. The number of species presently known from the study area (51, see Table 1), is therefore more than half of the complete fauna of Turkey (Table 2). In general, the species composition of the study area appears to be comparable to that of Turkey. The majority of the species found in Turkey have a Palaearctic distribution, and in the study area this percentage is even higher, whereas the number of Palaearctic endemics is considerably lower (Table 2). When these two categories are combined, the percentage of Palaearctic species is about 65 % in both the study area as in Turkey.

Possible additions to the fauna of the province of Muğla

As the odonatofauna of SW Turkey is less known than that of the Greek island of Ródos, a comparison with the latter is at place in order to review possible further additions to the fauna of the study area. The most obvious candidate is *Anax ephippiger*, which species has repeatedly been reported from Ródos (LOPAU & WENDLER 1995; LOPAU 1999; LOPAU 2000; PETERS & GÜNTHER 2000). Being a wandering species, with Ródos situated at less than 20 km from the Turkish coast and just over 50 km from Lake Köyceğiz, it will undoubtedly be present in at least some years. Other species previously reported from Ródos are *Enallagma cyathigerum* (LOPAU 1999), *Aeshna mixta* (LOPAU 1999), and *Selysiothemis nigra* (LOPAU & WENDLER 1995; HOESS et al. 1999). Surprisingly, also *Aeshna cyanea* has recently been reported from Ródos (LOPAU, 2000), as this species is rare in Greece (LOPAU & WENDLER 1995), while in Turkey it has only been found in the northern parts (VAN PEEL 2004; KALKMAN et al. 2004).

In the River Eşen basin *Coenagrion ornatum* and *Diplacodes lefebvrei* are known to occur, so these species may very well also inhabit the surroundings of Lake Köyceğiz. Other possible additions are *Lestes macrostigma* and *L. virens*, and in the mountainous areas of the region *Libellula quadrimaculata*, *Sympetrum vulgatum decoloratum* and *S. haritonovi* might be present, the type of habitat in which these species live may be relatively difficult to find though. As the knowledge of the odonatofauna of these habitats is far from complete, a visit in July or August could be quite interesting, although the number of Odonata species might prove to be rather low.

Table 2: The species composition of the Muğla province compared to that of Turkey. The species are appointed to faunistic regions on the basis of their distributional pattern. Species endemic to the Balkans and SW Asia are appointed to a certain faunistic region on the basis of the distribution of their nearest relatives. Species distributed over more than one faunistic region and those that cannot be appointed to a single category are included in the category 'other'.

Distribution	Turkey		Study area	
	Species	%	Species	%
Palaearctic	50	52.0	30	58.8
Palaearctic (endemic)	13	13.5	3	5.8
Oriental	6	6.2	4	7.8
Oriental (endemic)	3	3.1	2	3.9
African	8	8.3	4	7.8
African (endemic)	2	2.0	1	1.9
Other	14	14.5	7	13.7
Total	96	99.6	51	99.7

The habitat preferences of some taxa

Table 3 gives an overview of the presence of the 48 recorded species in seven different types of habitat. The distinguished types of habitat are:

- small stony brooks, width less than 3 meter;
- small muddy brooks, width less than 3 meter;
- larger brooks and small rivers, width 3-8 meter;
- large rivers, width more than 8 meter;
- channels (standing or slow flowing man-made waters, depth more than 1 meter);
- lakes;
- (shallow) pools.

Ceriagrion georgifreyi & *Coenagrion pulchellum* – These two damselflies were found together in small and shallow, both standing and slowly running waters. The habitat where breeding is assumed is heavily vegetated with spike-rush (*Eleocharis*) and lesser water-parsnip (*Berula erecta*).

Anax immaculifrons – The two localities where this species was found are both stony, largely shaded, swiftly running brooks. The larva at (8) was found in a rock-pool with low current. This agrees well with habitats described for other parts of Turkey (DIJKSTRA & KALKMAN 2001), Greece (BATTIN 1990), and Cyprus (LOPAU & ADENA 2002).

Gomphus schneideri – This gomphid was found to be common, inhabiting all kind of brooks and rivers, even slowly flowing channels, but only in the lowland. Exuviae of the species were also found in small and shallow (width less than 1 meter, depth less than 10 centimeter), shaded, muddy brooks, a type of habitat not used by European members of the genus.

Onychogomphus flexuosus – *O. flexuosus* was encountered at large, unshaded, stony rivers. At some of the localities the river is very broad, containing numerous gravel islands.

Onychogomphus assimilis – This species was found at larger, partly shaded brooks and near rivers. DUMONT et al. (1992) refers to this species as an “typical inhabitant of montane rivers, preferring wooded environments”.

Lindenia tetraphylla – Exuviae (Fig. 3) were found on reed at various localities on the border of Lake Köyceğiz. The roots of the reeds form a thick dense mat at about 0.5-1.0 meter under the water level. It is assumed that these mats are the actual habitat of the larvae, which agrees with information published so far, for a review see SCHORR et al. (1999). Three reed beds were more intensely searched for exuviae. No exuviae were found in the 10 m broad reed beds east of Köyceğiz, near (15), although often visited. A few exuviae were found at the 1 km broad reed beds at the east side of the lake, near (19) (four over a length of 80 m bordering the waterside). The highest numbers were found at (18), along the southeastern shore of an island in the NE part of the lake (34 exuviae over 25 m, with a maximum of 10 on 1 m²). The reed plants stood here on solid ground.

In the western part of its range *L. tetraphylla* is mainly found in stagnant waters, but in the eastern part it is more oftenly found in running waters (SCHORR et al. 1999). Whether this is the case in Turkey as well remains unclear. The population at Lake Köyceğiz lives in stagnant water, yet the lake is continuously fed by cold spring water and can therefore be regarded as a more or less running water habitat. Specimens encountered at the channel near (6) (cf. VAN PEEL 2004, 1997: loc 12) may be referable to maturing specimens that emerged in Lake Köyceğiz. It appears safe to assume that the species may wander over a considerable distance during this period, as shown

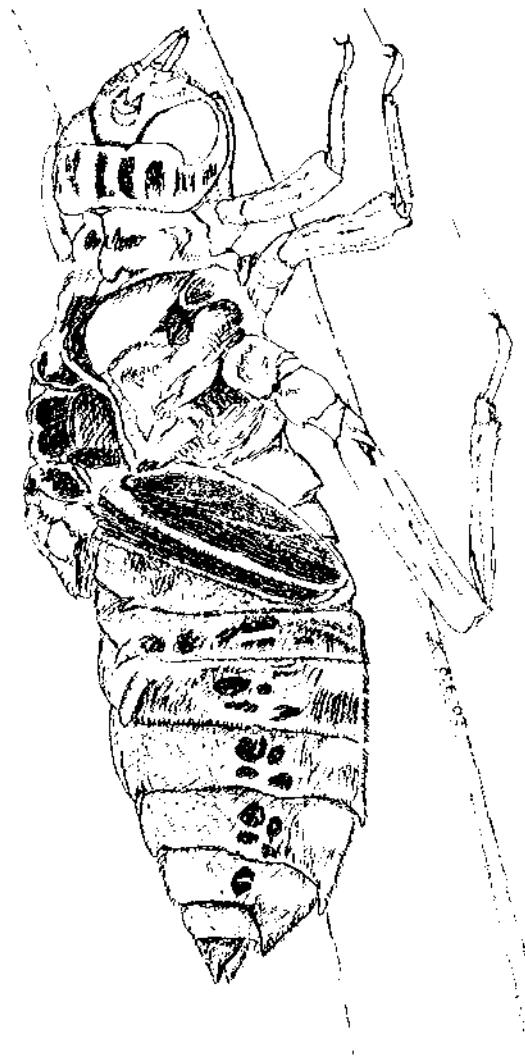


Fig. 3: Exuviae of *Lindenia tetraphylla*. Drawing by Dietrich Kern.

Table 3: Preferential habitat of the Odonata species present near Lake Köyceğiz and the River Eşen. This table is based on our field observations during our visit to the Köyceğiz-area only. A large indicate the presence of exuviae and/or freshly emerged specimens.

Species list	Stony brooks	Muddy brooks	Larger brooks	Rivers	Chan- nels	Lakes	Pools
<i>Calopteryx splendens amasina</i>	X	x	x	X		x	
<i>Calopteryx virgo festiva</i>	X	X	x				
<i>Epallage fatime</i>	X			x			
<i>Lestes barbarus</i>						X	
<i>Lestes dryas</i>						x	
<i>Lestes parvidens</i>		x	x				X
<i>Sympetrum fusca</i>		X					
<i>Platycnemis pennipes pennipes</i>	X	X	x	X	X	x	
<i>Cercion lindenii lindenii</i>				X	x	X	
<i>Ceriagrion georgifreyi</i>	x	x				x	
<i>Coenagrion ornatum</i>	x	x					
<i>Coenagrion puella</i>	x	X					
<i>Coenagrion pulchellum pulchellum</i>	x	x				x	
<i>Erythromma viridulum viridulum</i>				x	x	x	x
<i>Ischnura elegans</i>	x	x	x	x	x	x	
<i>Ischnura pumilio</i>	X					x	
<i>Aeshna affinis</i>				x		x	
<i>Aeshna isoceles antehunerialis</i>	X		x	X	x		X
<i>Anax immaculifrons</i>	X						
<i>Anax imperator imperator</i>	x			X	x	x	x
<i>Anax parthenope parthenope</i>	x			x	x	x	
<i>Brachytron pratense</i>						x	

<i>Caliaeschna microstigma</i>	X	X	X				
<i>Gomphus flavipes lineatus</i>						X	
<i>Gomphus schneideri</i>	X	X	X	X	X		
<i>Lindenia tetrapterylla</i>					x		X
<i>Onychogomphus assimilis</i>					X		
<i>Onychogomphus flexuosus</i>						X	
<i>Onychogomphus forcipatus albotibialis</i>	X	X	X	X	X	X	
<i>Cordulegaster insignis insignis</i>	X	x	X				
<i>Cordulegaster picta</i>	X	X	X				
<i>Somatochlora flavomaculata</i>	x					x	
<i>Crocothemis erythraea</i>	x	x	x	X	X	x	x
<i>Diplacodes lefebvrii</i>						x	
<i>Libellula depressa</i>	x	x					x
<i>Libellula fulva</i>	X			x	x	X	X
<i>Orthetrum brunneum brunneum</i>	x	x		X	x		x
<i>Orthetrum cancellatum</i>	x				x		x
<i>Orthetrum chrysostigma chrysostigma</i>	x				X		
<i>Orthetrum coerulescens anceps</i>	X				X	x	X
<i>Orthetrum sabina sabina</i>	x	x	x	X	X	x	x
<i>Orthetrum taeniolatum</i>	x				X		
<i>Sympetrum fonscolombii</i>						x	
<i>Sympetrum meridionale</i>	x						x
<i>Sympetrum sanguineum ssp.</i>				x			x
<i>Sympetrum striolatum striolatum</i>	x				X		X
<i>Trithemis annulata</i>	x				X	X	x
<i>Trithemis festiva</i>	X			x			

Table 4: Stages encountered in the period 21 May - 3 June.

Species	Number of localities				
	Total	Adults	Repro- duc-tion	Juveniles	Exuviae/ larvae
<i>Calopteryx splendens amasina</i>	16	14	1	-	2
<i>Calopteryx virgo festiva</i>	14	14	1	-	2
<i>Epallage fatime</i>	12	12	3	2	4
<i>Lestes barbarus</i>	1	-	-	1	-
<i>Lestes dryas</i>	1	1	-	-	-
<i>Lestes parvidens</i>	6	4	-	2	2
<i>Sympetrum fusca</i>	1	-	-	1	-
<i>Platycnemis pennipes pennipes</i>	26	24	4	1	11
<i>Ceriagrion georgifreyi</i>	5	5	-	-	-
<i>Cercion lindenii lindenii</i>	15	15	4	-	2
<i>Coenagrion ornatum</i>	1	1	-	-	1
<i>Coenagrion puella</i>	2	2	-	-	-
<i>Coenagrion pulchellum pulchellum</i>	3	3	2	-	-
<i>Erythromma viridulum viridulum</i>	6	6	4	-	-
<i>Ischnura elegans</i>	20	19	4	-	-
<i>Ischnura pumilio</i>	3	2	-	1	-
<i>Aeshna affinis</i>	2	2	-	-	-
<i>Aeshna isoceles</i>	23	22	2	-	3
<i>Anax imperialis</i>	2	1	-	-	1
<i>Anax imperator imperator</i>	10	9	2	-	-
<i>Anax parthenope parthenope</i>	8	8	-	-	-
<i>Brachytron pratense</i>	1	1	-	-	-
<i>Caliaeschna microstigma</i>	19	16	2	2	11

<i>Gomphus flavipes lineatus</i>	1	-	-	-	-	1
<i>Gomphus schneideri</i>	11	7	1	-	-	7
<i>Lindenia tetrapterylla</i>	4	2	-	-	-	2
<i>Onychogomphus assimilis</i>	3	1	-	-	-	2
<i>Onychogomphus flexuosus</i>	4	3	1	-	-	3
<i>Onychogomphus forcipatus albostriatus</i>	14	12	-	5	5	5
<i>Cordulegaster insignis insignis</i>	6	3	2	-	-	4
<i>Cordulegaster picta</i>	5	5	-	-	-	2
<i>Somatochlora flavomaculata</i>	5	5	-	-	-	-
<i>Crocothemis erythraea</i>	20	19	2	1	1	2
<i>Diplacodes lefebvrii</i>	2	2	-	1	-	-
<i>Libellula depressa</i>	4	4	-	-	-	-
<i>Libellula fulva</i>	17	17	3	2	6	6
<i>Orthetrum brunneum brunneum</i>	12	11	2	1	1	1
<i>Orthetrum cancellatum</i>	3	3	-	-	-	-
<i>Orthetrum chrysostigma chrysostigma</i>	14	13	-	2	1	1
<i>Orthetrum coerulescens anceps</i>	7	6	-	1	2	2
<i>Orthetrum sabina sabina</i>	18	18	2	-	-	4
<i>Orthetrum taeniolatum</i>	4	4	-	-	-	1
<i>Sympetrum fonscolombii</i>	1	1	-	-	-	-
<i>Sympetrum meridionale</i>	6	6	-	1	-	-
<i>Sympetrum sanguineum ssp.</i>	5	5	-	1	-	-
<i>Sympetrum striolatum striolatum</i>	10	8	-	3	3	3
<i>Trithemis annulata</i>	13	13	-	-	-	2
<i>Trithemis festiva</i>	7	7	1	-	-	1

by a specimen collected in Ağla at 850 m asl (VAN PELT 2004). A large population of this species found along the River Euphrates near Birecik (pers. comm. A. Kop) does not provide a definitive clue on the actual preferential habitat. The fact that patrolling males and various tandems were observed flying near the broad reed beds in the river strongly suggests that the species actually reproduces in this running water habitat, yet exuviae have not been found at this particular locality. Perhaps the species reproduces in the surrounding gravel pits only (J.-P. Boudot, pers. comm.).

Somatochlora flavomaculata – Of this species mainly patrolling males have been observed, behaviour associated with reproduction was not observed, and at all instances only small numbers were encountered. Both BUSSE (1993) and KAZANCI (1995) did not indicate where the species actually breeds. The fact that it was especially found at localities close to Lake Köyceğiz suggests that it may breed in shallow marshes in the direct vicinity of the lake.

Seasonal ecology of some taxa

Although the records presented here were collected in a period of only two weeks time, some conclusions can be drawn on the seasonal ecology of Odonata in southern Turkey. The large number of species encountered indicates that late May/early June is a good period for research on Odonata in the Muğla province.

Behaviour associated with reproduction was observed in 19 species (Table 3). It can be assumed that all these species had already been on the wing for more than two weeks, emergence may therefore have started at the end of April or the beginning of May. In southern Turkey imagines of some of these species (e.g. *Ischnura elegans*, *Cercion lindenii* and *Sympetrum striolatum*) are already present at the end of March (DIJKSTRA & KALKMAN 2001).

Of 17 species juveniles were found (Table 4), and juveniles of especially *Lestes parvidens*, *Sympetrum meridionale* and *S. striolatum* were encountered in large numbers. In a large part of Europe the flight season of these species starts only late in the summer. In northern Africa, however, these species begin to emerge late April and reproduce only after estivating (SAMRAOUI & CORBET 2000). The early emergence in the study area and the more or less identical climate suggests that in Turkey the same sequence occurs. The same might go for *Lestes barbarus*.

Juveniles of *Sympetrum fusca*, a species hibernating as adult, were already found on 31 May and 1 June. An early record like this one might have expected in a habitat favouring the rapid growth of the larvae (e.g. a warm shallow pool). Yet, these juveniles were found at an altitude of 850 m asl with only small rivulets, no stagnant waters.

Lindenia tetrapterylla was encountered only at the end of the field trip, and it is reasonable to assume that this period marks the very beginning of its flight season. This agrees with the conclusions drawn by SCHORR et al. (1999).

Interestingly, only one (old) individual of *S. fonscolombii* was found. This species is common around most of the Mediterranean and it is common in southern Turkey as well. The species is known to breed in temporary waters and it has two generations a year in most parts of Europe and northern Africa (STERNBERG & BUCHWALD 2000). It is assumed that the first generation had already disappeared and the summer generation had not yet started to emerge.

Acknowledgements

The following persons participated in the field trip (in alphabetical order): Etienne van Dissel, Pim Edelaar, Kees Goudsmits, Antoine van der Heijden, Marcel Hospers, Vincent Kalkman, Arjan Kop, Marcel Wasscher, Gert Jan van Pelt, Menno Reemer, and John Smit. We thank them all for keeping up the good spirit.

Thanks to the people in Köyceğiz, especially the Yıldırım family at the Oba Panşyon, who provided us with practically everything that we could possibly ask for. Special thanks to Selahî Coban, the local schoolbus driver, who also proved to be a useful source of information on localities possibly inhabited by Odonata. Finally, we much enjoyed the presence of Beate and Hans Klaus Pfau, who joined us on a boat trip over Lake Köyceğiz and gave us valuable information on various odonatological issues.

References

- BATTIN, T. (1990): Anax immaculifrons Rambur, 1842 from the island of Karpathos, Greece: an oriental representative in the European dragonfly fauna (Odonata: Aeshnidae). *Opuscula zoologica fluminensis* 47: 1-10
- BUSSE, R. (1993): Libellen von der türkischen Südküste. *Libellula* 12: 39-46
- DEMIRSOY, A. (1982): *Odonata. Turkiye Faunası*, 8 (4) 8. Ankara [Turkish]
- DIJKSTRA, K.-D.B. & V.J. KALKMAN (2001): Early spring records of dragonflies from southern Turkey, with special reference to the sympatric occurrence of *Crocothemis erythraea* (Brullé, 1832) and *C. servilia* (Drury, 1773) (Odonata: Libellulidae). *Notulae odontatologicae* 5: 85-88

- DUMONT, H.J. (1977): A review of the dragonfly fauna of Turkey and adjacent Mediterranean islands (Insecta: Odonata). *Bulletin et Annales de la Société royale entomologique de Belgique* 113: 119-171
- DUMONT, H.J., A. HARITONOV & S.N. BORISOV (1992): Larval morphology and range of three West Asiatic species of the genus *Onychogomphus* Selys, 1854 (Insecta: Odonata). *Hydrobiologia* 245: 169-177
- HOESS, R., H.-U. KOHLER, H. BERGER & G. BIERI (1999): Libellenbeobachtungen auf Rhodos, Griechenland, 1990 bis 1993. *Libellula Supplement* 2: 33-40
- KALKMAN, V.J. (in press): On the distribution of the genus *Ceriagrion* in the Balkans, with *C. georgifreyi* new for the European fauna (Odonata: Coenagrionidae). *Libellula Supplement* 6
- KALKMAN, V.J., M. WASSCHER & G.J. VAN PELT (2003): An annotated checklist of the Odonata of Turkey. *Odonatologica* 32: 215-235
- KALKMAN, V.J., W. LOPAU & G.J. VAN PELT (2004): Hitherto unpublished records of dragonflies from Turkey (Odonata). *Libellula Supplement* 5: 65-163
- KASparek, M. (1990): Zur Herpetofauna des Beckens von Köycegiz, Türkei (Dalyan-Region). *Salamandra* 26: 155-164
- KASparek, A. & M. KASparek (1990): *Reiseführer Natur Türkei*. BLV, München.
- KAZANCI, N. (1995): Odonata of the Köycegiz-Dalyan nature reserve area in southwestern Turkey, with *Lindenia tetraphylla* (Vander L.), new to the Turkish fauna (Anisoptera: Gomphidae). *Notulae odonatologicae* 4: 105-106
- KAZANCI, N., A. IZBIRAK, S.S. CAGLER & D. GÖKCE (1992): *Köycegiz Dalyan özel çevre koruma bülgesi sulu ekosisteminin hidrobiyolojik yönünden incelenmesi* (Rapor). Hacettepe Üniversitesi, Fen Fakültesi Biyoloji Bölümü, Beytepe, Ankara. ISBN 975-95644-0-8
- KILIÇ, A & M. KASparek (1989): The birds of the Köycegiz – Dalyan area. *Birds of Turkey* 1-32
- KOHLER, H.U. (1993): Libellen am Fluss Dalaman, SW-Türkei [Dragonflies on the Dalaman river, SW Turkey]. *Notulae odonatologicae* 4: 32
- LOPAU, W. (1999): Bisher unveröffentlichte Beobachtungen aus Griechenland. *Libellula Supplement* 2: 91-131
- LOPAU, W. (2000): Bisher unveröffentlichte Libellenbeobachtungen aus Griechenland II (Odonata). *Libellula Supplement* 3: 81-112
- LOPAU, W. & A. WENDLER (1995): Arbeitsatlas zur Verbreitung der Libellen in Griechenland und den umliegenden Gebieten. *Naturkundliche Reiseberichte* 5: 1-109
- LOPAU, W. & J. ADENA (2002): Die Libellenfauna von Zypern. *Naturkundliche Reiseberichte* 19: 1-73
- PETERS, G. & A. GÜNTHER (2000): Frühjahrsbeobachtungen an *Anax ephippiger* auf Rhodos nebst Anmerkungen über dem Invasionsraum der Art (Odonata: Aeshnidae). *Libellula Supplement* 3: 49-61
- SAMRAOUI, B. & P.S. CORBET (2000): The Odonata of Numidia, Northeastern Algeria, Part II: seasonal ecology. *International Journal of Odonatology* 3: 27-39
- SCHMIDT, E. (1954): Auf der Spur von Kellemisch. *Entomologische Zeitschrift* 64: 49-62, 65-72, 74-86, 92-93

- SCHNEIDER, W.G. (1845): Verzeigniss der von Herrn Prof. Dr. Loew im Sommer 1842 in der Türkei und Kleinasien gesammelten Neuropteren nebst kurzer Beschreibung der neuen Arten. *Stettiner entomologische Zeitung* 6: 110-116, 153-155
- SCHORR, M., W. SCHNEIDER & H.J. DUMONT (1999): Ecology and distribution of *Lindenia tetraphylla* (Insecta, Odonata, Gomphidae): a review. *International Journal of Odonatology* 1: 65-88
- STERNBERG, K. & R. BUCHWALD (2000): *Die Libellen Baden-Württembergs. Band 2 Großlibellen (Anisoptera)*. Ulmer, Stuttgart
- VAN PELT, G.J. (1999): On dragonflies from Greece in the RMNH collection, Leiden. The Netherlands. *Libellula Supplement* 2: 77-90
- VAN PELT, G.J. (2004): New records of dragonflies from Turkey (Odonata). *Libellula Supplement* 5: 3-38

Hitherto unpublished records of dragonflies from Turkey (Odonata)

Vincent J. Kalkman, Wolfgang Lopau and Gert Jan van Pelt

received: 19 May 2003

Summary

Over 2000 records of 84 of the 96 species of Odonata known to occur in Turkey are presented. Many of the records were gathered during the last decades by entomologists from western Europe. Records based on material present in the collections of Naturalis (formerly the Rijksmuseum voor Natuurlijke Historie), Leiden, The Netherlands (RMNH), the Zoologisch Museum Amsterdam, The Netherlands (ZMAN), and the Natural History Museum, London, UK (NHM) are also included.

Zusammenfassung

Bisher unveröffentlichte Libellennachweise aus der Türkei (Odonata) – Es werden mehr als 2000 Nachweise von 84 der insgesamt 96 Arten vorgelegt, die bislang aus der Türkei bekannt sind. Viele der Nachweise wurden in den letzten Jahrzehnten von westeuropäischen Entomologen erhoben. Daneben wurden auch alle Nachweise berücksichtigt, die auf dem Material aus den Sammlungen Naturalis (ehemaliges Rijksmuseum voor Natuurlijke Historie), Leiden, Niederlande (RMNH), des Zoologischen Museums Amsterdam, Niederlande (ZMAN), und des Natural History Museum, London, UK (NHM) basieren.

Özet

Türkiye'de olduğu bilinen 96 Odonata türünden 84'ünün 2000'in üzerinde kaydı bulunmaktadır. Kayıtların çoğu, son yıllarda Batı Avrupalı Entomologlar tarafından toplanmıştır. Kayıtlar (öncelikle, the Rijksmuseum voor Natuurlijke Historie), Leiden, The Netherlands (RMNH), the Zoologisch Museum Amsterdam, The Netherlands (ZMAN) ve the Natural History Museum

(NHM) da dahil olmak üzere Doğa Kolleksiyonlarındaki materyale dayanmaktadır.

Background of the records presented

During the last decades, Turkey has been visited by quite a number of odonatologists, yet many of the data collected have never been published. Also the lepidopterological collecting trips to Turkey by H. van Oorschot c.s. (HESSELBARTH et al. 1995) have yielded a large number of specimens, now preserved in the ZMAN. This collection, and the collection of Naturalis (formerly the Rijksmuseum voor Natuurlijke Historie, RMNH), Leiden were visited at a number of occasions by the first and the third author. In addition, the Natural History Museum (formerly the British Museum (Natural History), BM(NH)) was visited during five days in March 2001, and the examination of the material was facilitated by W. Schneider who kindly provided us with his notes made on earlier visits.

This article lists over 2000 unpublished records from Turkey, encompassing 84 of the 96 species of Odonata known to occur in Turkey with certainty (KALKMAN et al. 2003). All records presented here have not been published before, except for a small number of specimens present at the BM(NH) (MORTON 1922; LONGFIELD 1932; WATERSTON 1976; SCHNEIDER 1986). Yet, these records have been included in order to give a complete overview of the collection in the BM(NH). Many contributors from France, Germany and The Netherlands kindly forwarded data from their respective visits to Turkey to us, and they are listed below. Some of the records of J. Arlt have already been published (ARLT, 1999), be it in less detail.

Identification at the subspecific level

A number of the species present in Turkey have more than one subspecies (KALKMAN et al. 2003). The material present in the museums visited has been identified at the subspecific level as far as possible. The records forwarded by the various contributors have not been checked by the present authors, and in general, the identifications made by the contributors have been followed, with the exception of *Coenagrion syriacum*. For a number of records it remains unclear whether the material pertains indeed to that species, or to *C. puella*.

Some of the contributors have identified their material at the subspecific level, others did not. In some cases it appears to be difficult to determine whether the material was correctly identified, or whether the identification

was simply based on an assumed distributional pattern of the subspecies involved. Here follows an account on the way these problems were dealt with.

Calopteryx splendens – In Turkey a number of subspecies of *C. splendens* are to be found. Although it appears that ssp. *amasina* is present in most of western, northern and central Turkey, the present authors lack information on the characters used for identification by the various contributors. As a consequence, all records are indicated only at the specific level. An exception is made for *C. s. waterstoni*, as this subspecies with hyaline wings is easily identified.

Calopteryx virgo – As far known only subspecies *festiva* occurs in Turkey, therefore all records are listed as such.

Lestes virens – According to JÖDICKE (1997: 79), it cannot be excluded that an undescribed subspecies of *Lestes virens* occurs in Turkey.

Cercion lindenii – In Turkey two subspecies occur of which *zernyi* occurs only in a small part of southeastern Turkey. The taxonomic status of this subspecies remains unclear (KALKMAN et al. 2003). Although all of the here presented records that were checked by us pertain to the nominate subspecies, we refrain from a division at the subspecific level.

Ischnura elegans – In Turkey at least ssp. *pontica* and ssp. *ebneri* are known to occur. The exact taxonomical status and the distributional limits of both subspecies are unknown to the present authors, and therefore we refrain from any subspecific division.

Aeshna isoceles – Although it is common practice to list subspecies *antemerinalis* from Turkey, in NE Turkey specimens have been found with smaller thoracal markings, a character more typical of the nominate subspecies. As not all the material listed here has been checked, we refrain from giving the name of the subspecies mentioned by the contributors.

Gomphus flavipes lineatus – All material checked pertains to this subspecies, and the other records listed here have been forwarded under the present name. A review of the (limited amount of) material may shed light on the exact distributional ranges of the subspecies of *G. flavipes*, and on the question whether intermediates between the two have been found in Turkey.

Onychogomphus forcipatus – In Turkey only *O. f. albostriatus* is known to be present, but in parts of NW Turkey the nominate subspecies might occur

(KALKMAN et al. 2003). As the material is not checked we refrain from giving the name of the subspecies involved.

Orthetrum coerulescens – In Turkey probably only subspecies *anceps* occurs and, although the material was not checked, all records are listed here as pertaining to this subspecies.

Sympetrum sanguineum – In Turkey various subspecies of *S. sanguineum* are to be found. The records presented here involve at least the nominate subspecies and *S. s. armeniacum*. Pending a review of the records we refrain from a subspecific division of the records.

List of contributors

The following persons (in alphabetical order) forwarded records of their respective trips to Turkey:

Jörg Arlt, Hebbelweg 24, D-27755 Delmenhorst
E-Mail: manu-joerch@web.de

Frank Bos, Havenstraat 17, NL-6701 CK, Wageningen, The Netherlands,
E-Mail: frank@bos.nl

Jean-Pierre Boudot, CNRS, Limos, Université H. Poincaré, Nancy I, Faculté des Sciences, Boulevard des Aiguillettes, B.P. 239, F-54506 Vandoeuvre-lès-Nancy Cedex – France.
E-Mail: jean-pierre.boudot@limos.uhp-nancy.fr

Rolf Franke, Staatliches Museum für Naturkunde Görlitz, Am Museum 1, D-02826 Görlitz;
E-Mail: Naturmuseum.GR.@t-online.de

Kees Goudsmits, Sitiolaan 135, NL-3941 PG, Doorn
E-Mail: Kees.goud@planet.nl

Mathias Hartung, Wehnerstraße 20a, D-12277, Berlin, Germany;
E-Mail: AEH.Matthias.Hartung@t-online

Herbert Henheik, Denzenbergstraße 30, D-72074 Tübingen, Germany
Geraldo Ihssen, Timm-Kröger-Weg 6, D-22335 Hamburg, Germany
Gilles Jacquemin, Biologie des Insectes, Laboratoire de Biologie Expérimentale-Immunologie, Université H. Poincaré, Nancy I, Faculté des Sciences, Boulevard des Aiguillettes, B.P. 239, F-54506 Vandoeuvre-lès-Nancy Cedex – France.
E-Mail: gjacquem@sebiol.u-nancy.fr

Jens Kähler, Rotkehlchenweg 4, D-25712 Burg, Germany

Vincent Kalkman, National Museum of Natural History, P.O. Box 9517, NL-2300 RA Leiden, The Netherlands,
E-Mail: Kalkman@naturalis.nnn.nl

Arjan Kop, Thorbeckehof 65b, NL-2342 DP, Oegstgeest, The Netherlands,
E-Mail: koparjan@hotmail.com

Wolfgang Lopau, Kuhstedtermoor 26, D-27442 Gnarrenburg, Germany;
E-Mail: lopi-@t-online.de

Harm Niesen, Stierop 12, NL-1862 JL, Bergen, The Netherlands,
E-Mail: hhniesen@hotmail.com

Hans-Jürgen Pelny, Zieritz 2, D-29597 Stoetze, Germany
Jürgen Ruddek, Butendiek 34, D-28865 Lilienthal, Germany
E-Mail: ruddek@t-online.de

Marcel Wasscher, Minstraat 15 bis, NL-3582 CA, Utrecht, The Netherlands,
E-Mail: marcel.hilair@12move.nl

Theo Zeegers, Eikenlaan 24, NL-3768 EV, Soest, The Netherlands,
E-Mail: th.zeegers@tref.nl

The records

The records are presented in the taxonomical sequence according to KALKMAN et al. (2003). Within each species the records are listed by province in alphabetical order. Each record includes: the name of the province, a description of the locality, the altitude above sea level in meters (asl), the UTM-coordinates (normally as a 10 km² square), the date(s), the name of the observer and/or collector (leg), the person who did the original identification of the material (det), and the collection where the material is preserved (coll). In case not all of this information is known it has been left out, or noted as 'unknown'. When the UTM-coordinate is incomplete, the exact locality is un-known. In case the collector is the same as the identifier the name is given only once. Each record that does not include the name of the collection refers to an observation only.

The description of the locality is presented as given by the various contributors, and for this reason the list includes both English and German descriptions. Names of localities have sometimes been changed according to the Turkish spelling, although undoubtedly many names differ from those commonly found on maps. Directions are abbreviated: N – North, S – South, W – West, E – East. Records of the recently established provinces of Osmaniye and Düzce are listed under the provinces of Adana and Bolu, respectively.

Calopteryx splendens (Harris)

Adana: Aydinlar, 15 km W of Kadirli (37SBB33); 10.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Adana: ca. 20 km NW of Osmaniye, 2 km N of bridge across the Ceyhan (37SBB42); 11.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Adana: Cerukova delta, Tarsus, Bahsis (36SXF67); 29.04.1998; leg. Niesen, H.

Adana: Ceyhan, asl: 30 (36SYF39); 17.05.1982; leg. Oorschot, H. van & G. Hesselbart; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Adana: Demirtas, 9 km N of Yumurtalik (36SYF47); 12.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Adana: Feke, asl: 800 (36SYG58); 26.07.1983; leg. Oorschot, H. van, H. van den Brink & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Adana: Narlik, 16 km S of Ceyhan (36SYF58); 12.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Adiyaman: Fluss auf dem Weg zum Nemrut-Daghi, 6 km NE Narince (37SDB89); 13.06.1991; leg. Lopau, W.

Adiyaman: Hasancik, ca. 15 km E of Adiyaman (37SDB48); 08.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Adiyaman: Nebenfluss des Euphrat an der Straße Siverek-Kahta, 6 km E Sogütlü (37SEB07); 13.06.1991; leg. Lopau, W.

Afyon: Bach 11,5 km NW Afyon (gemessen ab Ortsschild Afyon, Richtung Kütahya) (36STH89); 12.07.1990; leg. Kählert, J.

Afyon: Karahisar Vilayet, Dinar (36STH51); leg. Burr, M.; det. Schneider, W.; coll: BM(NH)

Amasya: Amasia (36T); leg. unknown; det. Schneider, W.; coll: BM(NH)

Ankara: 95 km SW Ankara (W of Polatli) (36SVJ28); 17.06.1959-18.06.1959; leg. exp. Turkey; det. Kalkman, V.J.; coll: RMNH

Ankara: Beynam, 30 km S of Ankara, asl: 1100 (36SVJ99); 17.07.1983; leg. fam. H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Antalya: 13 km SW Antalya, asl: 5-10 (36STF88); 07.04.1959; leg. exp. Turkey; det. Kalkman, V.J.; coll: RMNH

Antalya: 6 km SW Antalya, asl: 0-10 (36STF88); 18.04.1959; leg. exp. Turkey; det. Kalkman, V.J.; coll: RMNH

Antalya: Alanya, Dimçay river (36SVF14); 15.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Antalya: Aspendos 1 (36SUF38); 23.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Antalya: Aspendos 2 (36SUF39); 27.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Antalya: Bach 62 km S Beyşehir an der Straße nach Antalya, 1100 m ü.N. (36SUG83); 24.06.1991; leg. Lopau, W.

Antalya: Basgöz river N Finike (36STF34); 12.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Antalya: Cubuk Bogazi, 40 km N of Antalya, asl: 950 (36STG71); 30.06.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Antalya: Fluss am Nordrand des Koca-Çay-Deltas (35SQA02); 18.05.1991; leg. Lopau, W.

Antalya: Fluss Dim çay in Alanya (östlicher Strand, ca. 2,2 km oberhalb der Mündung) (36SVF14); 20.07.1990; leg. Kählert, J.

Antalya: Fluss Köprüpazari çay unterhalb von Aspendos (36SUF38); 22.05.1991; leg. Lopau, W.

Antalya: Koca Çay (Esen çay) in Kinik (Xanthus) (35SQA02); 28.06.1991; leg. Lopau, W.

Antalya: Köprü Çay bei Staudamm N Tasagli ca. 15 km N der Küstenstrasse (36SUF49); 25.06.1998; leg. Arlt, J.

Antalya: Manavgat (36SUF67); 24.05.1974; leg. Vecht, J van der; det. Kalkman, V.J.; coll: RMNH

Antalya: Manavgat Çay 1 (36SUG80); 14.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Antalya: Manavgat Çay 2 (36SUF67); 14.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Antalya: Quellbereich des Flusses am Nordrand des Koca-Çay-Deltas (35SQA02); 18.05.1991 & 28.06.1991 & 29.06.1991; leg. Lopau, W.

Antalya: Termessos milli parki, river (36STF79); 17.09.1985 & 19.09.1985; leg. Prasse, R.; det. & coll: Hartung, M.

Antalya: Yayla pass, N Alanya (36SVF); leg. Seidenbusch, R.; det. & coll: Hartung, M.

Artvin: Katschgar-geb, Jussufeli-Pamukale, Yusufeli, Kackar Daglari (37TGF12); 08.07.1993-07.09.1993; leg. Louda, J.; det. & coll: Hartung, M.

Balikesir: Edremit (35SND09); 08.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Bitlis: Purhus, Ahlat (38SKJ60); 03.07.1947; leg. Kosswig; det. Schneider, W.; coll: BM(NH)

Bitlis: rivulet Karasu near Saribahce, halfway along road Tatvan-Mus (37SGC48); 21.07.2002; leg. Kop, A.; coll: RMNH

Bursa: 8 km E of Inegöl (35TQE23); 18.06.1959; leg. exp. Turkey; det. Kalkman, V.J.; coll: RMNH

Bursa: Armutlu (35TPE58); 05.06.1945; leg. Aksircy, F.; det. Schneider, W.; coll: BM(NH)

Bursa: Brusa (35TPE); 08.07.1922; leg. Graves, P.P.; coll: BM(NH)

Denizli: 65 km SE of Denizli, 25 km W of Yesilova, asl: 1200 (35SQB25); 14.07.1980; leg. Oorschot, H. van, c.s.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Denizli: Karahayit (35SPC80); 10.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Diyarbakır: Fluss Bagdere 2 km E Bagdere (37SFC52); 12.06.1991; leg. Lopau, W.

Edirne: Edirne (35TMG61); 06.08.1980; leg. Welgert, P.; det. & coll: Hartung, M.

Elazig: river Tigris, near the entrance of a tributary, 5-7 km N of Maden (37SEC55); 27.07.2002; leg. Kop, A.; coll: RMNH

Erzurum: 10 km W of Maden Koprubasi, asl: 1200 (37TFE58); 29.07.1996; leg. Prins, W.O. de, A.M.R. Olivier & D. van der Poorten; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Erzurum: 14 km E of Erzurum, asl: 1850 (37SGE02); 10.07.1986; leg. Lucas, J.A.W.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Gaziantep: Bach 30 km S Gaziantep an der Straße nach Elbeyli (37SCA68); 02.06.1991; leg. Lopau, W.

Gaziantep: Bach Erenköy 20 km NW Birecik, Fluss zum Euphrat (37SCB91); 16.06.1991; leg. Lopau, W.

Gaziantep: Kilis (37SCA27); 19.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Gaziantep: Nebenfluss des Euphrat an der Rumkale 30 km NW Birecik (37SCB92); 16.06.1991; leg. Lopau, W.

Hatay: Bach 10,5 km SW Uluçinar an der Straße nach Samandagi (36SYF52); 31.05.1991; leg. Lopau, W.

Hatay: Bach 22 km SW Antakya (1 km vor Ortsschild Samandag) (37SBA30); 15.07.1990; leg. Kähler, J.

Hatay: Bach 22 km SW Antakya (1 km vor Ortsschild Samandag), ca 2 km aufwärts (37SBA30); 15.07.1990; leg. Kähler, J.

Hatay: Bach 3 km N Hassa (auf der Westseite der Straße) (37SBA77); 17.07.1990; leg. Kähler, J.

Hatay: Bach 6 km SW Uluçinar an der Straße nach Samandagi (36SYF52); 30.05.1991; leg. Lopau, W.

Hatay: Bach 8,5 km SW Uluçinar an der Straße nach Samandagi (36SYF52); 30.05.1991; leg. Lopau, W.

Hatay: Bach an der Straße 3 km N Hassa (37SBA77); 01.06.1991; leg. Lopau, W.

Hatay: Bach ca. 12 km N Iskenderun (bei Sariseki, an der Polizeistation, direkt am Meer) (37SBA56); 14.07.1990; leg. Kähler, J.

Hatay: Fluss und Bach in Uluçinar (36SYF53); 30.05.1991; leg. Lopau, W.

Hatay: Uluçinar (36SYF53); 20.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

İçel: 36 km NE of Silifke, Limonlu stream N of Limonlu village (36SXF14); 15.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

İçel: Anamur / Silifke (36SWE09); 15.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

İçel: Anamur Çay in Anamur an der Brücke (36SVE89); 23.06.1998; leg. Arlt, J.

İçel: Bach am westlichen Ortsende von Anamur (ca. 1-2 km W Anamur) (36SVE89); 20.07.1990; leg. Kähler, J.

İçel: Bewässerungsgraben am Eukalyptuswald 5 km S Tarsus (36SXF68); 29.05.1991; leg. Lopau, W.

İçel: Bewässerungskanal 3 km W Anamur (36SVE89); 23.05.1991; leg. Lopau, W.

İçel: Fluss Göksu bei Köserli, 10 km S Mut (36SWF44); 27.05.1991; leg. Lopau, W.

İçel: Göksu-river near Degirmendere, NW of Silifke (36SWF63); 07.07.2001; leg. Kalkman, V.J.

İçel: Graben an der Straße Silifke-Mersin ca. 10 km E Silifke (36SWF92); 28.05.1991; leg. Lopau, W.

İçel: Graben im Eukalyptuswald Karabucak SW Tarsus (36SXF68); 06.05.2000; leg. Ihssen, G. & H.J. Pelny

İçel: Karstbach bei Olukbasi ca. 10 km E Silifke (36SWF92); 22.06.1998; leg. Arlt, J.

İçel: Karstbach Soguksu (5 km SW Aydıncık) (36SWE29); 19.07.1990; leg. Kähler, J.

İçel: Karstquelle bei Aydıncık (36SWE29); 23.06.1998; leg. Arlt, J.

İçel: Limonlu stream N of Limonlu village, 36 km NE of Silifke (36SXF14); 07.07.2001; leg. Kalkman, V.J.; coll: RMNH

İçel: Quellfluss Soguksu bei Yenikas, 47 km E Anamur (36SWE19); 24.05.1991; leg. Lopau, W.

İçel: Tarsus, asl: 10 (36SXF68); 10.05.1959; leg. exp. Turkey; det. Kalkman, V.J.; coll: RMNH

Isparta: 10 km NE of Gelendost, asl: 1000 (36SUH32); 16.07.1980; leg. Oorschot, H. van, c.s.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Kahramanmaraş: 12 km S of Maras, asl: 500 (37SCB15); 27.06.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Kahramanmaraş: Andırın (37SBB66); 21.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Konya: Bewässerungskanal 3 km W Ereğli (36SWG85); 23.06.1991; leg. Lopau, W.

Konya: Beyşehir Gölü (36SUG87); 06.05.1959; leg. exp. Turkey; det. Kalkman, V.J.; coll: RMNH

Konya: Krater-Gölü (Aci-Göl) 8 km E Karapinar (N der Straße) (36SWG57); 22.06.1991; leg. Lopau, W.

Kütahya: Emet Çay, between Harmancık and Dursunbey (35SPD68); 03.08.1995; leg. Boudot, J.-P.; coll: Jacquemin, G.

Malatya: Maras-Malatya, 80 km SW of Malatya (37SDC00); 25.05.1959; leg. exp. Turkey; det. Kalkman, V.J.; coll: RMNH

Manisa: Demirci, S of Simav, about asl: 1000 (35SPD42); 03.08.1931-04.08.1931; leg. Uvarov, B.P.; coll: BM(NH)

Manisa: Ortaköy, on river Menderes, E of Aydin (35SPC40); 23.07.1931; leg. Uvarov, B.P.; det. Longfield, C.; coll: BM(NH)

Muğla: Bach 23 km E Fethiye an der Kreuzung S von Kemer (35SQA15); 30.06.1991; leg. Lopau, W.

Muğla: Bach am nördl. Ortsende Tepearasi (35SPA48); 11.05.1991; leg. Lopau, W.

Muğla: Bach an der Straße Muğla-Fethiye 3 km S Karabögürten (35SPA39); 01.07.1991; leg. Lopau, W.

Muğla: Bach E Köycegiz (35SPA59); 24.05.1996; leg. Henheik, H.

Muğla: Bewässerungsgraben 2 km S Daljan (35SPA47); 13.05.1991; leg. Lopau, W.

Muğla: Hamit (35SPA48); 11.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Muğla: kanalartiger Bachunterlauf zwischen Brücke W Köycegiz und dem See (35SPA49); 22.05.1996; leg. Henheik, H.

Muğla: Letoon / Pydnai (35SQA02); 12.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Muğla: Marmaris-Cetibeli (35SPA18); 26.06.1985; leg. Brooks, S.A.; coll: BM(NH)

Muğla: Marmaris (35SPA17); 01.08.1985 & 30.08.1985; leg. Prasse, R.; det. & coll: Hartung, M.

Nevşehir: Avanos, Fluss Kızılırmak, asl: 1100 (36SXH68); 08.06.1989; leg. Welgert, P.; det. & coll: Hartung, M.

Sakarya: Arifiye (36TTL70); 24.06.1954; leg. Burr, M.; det. Schneider, W.; coll: BM(NH)

Samsun: Samsun (37TBF77); 04.07.1993; leg. Louda, J.; det. & coll: Hartung, M.

Şanlı Urfa: ca. 3 km N of Birecik (37SDA09); 06.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Sivas: Gürün (37SCC59); leg. unknown; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Sivas: Zara lake (= Tötürge Gölü?) (37SCE82); 05.07.1960; leg. Guichard & Harvey; det. Schneider, W. 1986; coll: BM(NH)

Yozgat: Dogankent, 40 km W Akdagmadeni (36SYJ09); 11.07.1992; leg. Lucas, J.A.W.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Calopteryx splendens waterstoni Schneider

Trabzon: Dereçik (37TEF50); 04.06.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Trabzon: Trabzon (37T); 18.07.1960; leg. Guichard & Harvey; det. Schneider, W. 1986; coll: BM(NH)

Calopteryx virgo festiva (Brullé)

Antalya: 3 km W of Alanya (36SVF04); 08.06.1979-20.06.1979; leg. P.J. van & W.H. Gravestein; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Antalya: Antalya Vilayet, Tahtali Dag, Kuzdere, asl: 900 (36STF74); 02.07.1949; leg. Burr, M.; det. Schneider, W.; coll: BM(NH)

Antalya: Antalya, asl: 300-600 (36STF98); 24.05.1996-30.05.1996; leg. Siniakov & Afonin; det. & coll: Hartung, M.

Antalya: Bach 62 km S Beyşehir an der Straße nach Antalya, 1100 m ü.N. (36SUG83); 24.06.1991; leg. Lopau, W.

Antalya: Bach an der Hauptstraße nahe Ulupinar SW Kemer (36STF74); 25.06.1998-27.06.1998; leg. Arlt, J.

Antalya: Bach in Cirali nahe der Küste S Kemer (36STF63); 26.06.1998-27.06.1998; leg. Arlt, J.

Antalya: Bach in Ulupinar, S der Straße Kas-Antalya (36STF73); 21.05.1991 & 25.06.1991; leg. Lopau, W.

Antalya: Bach N Ulupinar, ca. 500 m ü.N. (36STF74); 26.06.1991; leg. Lopau, W.

Antalya: Bach W Cirali, E der Straße Kas-Antalya, 70 km von Antalya (36STF63); 19.05.1991 & 25.06.1991; leg. Lopau, W.

Antalya: Basgöz river N Finike (36STF34); 12.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Antalya: Cirali (36STF73); 13.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Antalya: Gebirgsfluss unterhalb Ulupinar, S der Straße Kas-Antalya (36STF73); 21.05.1991; leg. Lopau, W.

Antalya: Quelle am Gasthaus an Hauptstraße Höhe Cirali (36STF63); 26.06.1998-27.06.1998; leg. Arlt, J.

Antalya: Ulupinar (36STF73); 13.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Antalya: Unterlauf des Flusses W Cirali, E der Straße Kas-Antalya, 70 km von Antalya (36STF63); 22.05.1991; leg. Lopau, W.

Balıkesir: Edremit (35SND09); 08.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Bingöl: 29 km NE of Bingöl, road Bingöl-Mus, asl: 1500 (37SFD50); 08.06.1986; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Burdur: Aglasun, 45 km S of Isparta, asl: 1150 (36STG87); 15.07.1980; leg. Oorschot, H. van, c.s.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Bursa: Armutlu (35TPE58); 05.06.1945; leg. Aksircy, F.; det. Schneider, W.; coll: BM(NH)
 Bursa: Armutlu (35TPE58); 28.07.1959; leg. Guichard, K.M.; det. Schneider, W.; coll: BM(NH)
 Denizli: Karahayıt (35SPC80); 10.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Hatay: Amanus mts (=Nur Daglari) (37S); leg. unknown; det. Schneider, W.; coll: BM(NH)
 İstanbul: Bebek (35TPF75); 22.07.1930; leg. Aksircy, F.; det. Schneider, W.; coll: BM(NH)
 İstanbul: Kilyos (35TPF76); 06.08.1929; leg. Aksircy, F.; det. Schneider, W.; coll: BM(NH)
 İstanbul: near Constantinopel, Mashkak [= Maslak] (35TPF65); 08.06.1922; leg. Capt. C. Dick; det. Schneider, W.; coll: BM(NH)
 İstanbul: Sile area, asl: 20 (35TQF16); 10.07.1962; leg. Guichard & Harvey; det. Schneider, W.; coll: BM(NH)
 Izmir: Unterlauf des Bakır 5 km SSE Bergama (35SND12); 06.09.1989; leg. Lopau, W.
 Muğla: Bach 23 km W Yatagan (35SNB72); 09.07.1984; leg. Kähler, J.
 Muğla: Bach am nördl. Ortsende Tepearası (35SPA48); 11.05.1991; leg. Lopau, W.
 Muğla: Bach an der Straße Muğla-Fethiye 3 km S Karabögürten (35SPA39); 01.07.1991; leg. Lopau, W.
 Muğla: Bach an der Straße Muğla-Fethiye, 23 km NW Fethiye (35SPA76); 30.06.1991; leg. Lopau, W.
 Muğla: Bergbach 7 km NW Köycegiz (35SPA49); 22.05.1996; leg. Henheik, H.
 Muğla: Fethiye / Kemer (35SQA05); 12.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Muğla: Hamit (35SPA48); 11.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Muğla: Kale (35SPB53); 11.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Muğla: Marmaris-Cetibeli (35SPA18); 25.06.1985; leg. Brooks, S.A.; coll: BM(NH)
 Muğla: W side of Ak Dag, asl: 800 (35SQA24); 04.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Zonguldak: Getik, village Zonguldak (36TVL09); 30.05.1951; leg. Croockewit, H.W.E.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Epallage fatime (Charpentier)

Adana: 31 km S of Saimbeyli, asl: 800 (37SBB47); 28.05.1986; leg. Oorschot, H. van, H. van den Brink & J. Huisenga; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Adana: Kozan, asl: 200 (36SYG44); 27.05.1986; leg. Oorschot H. van & Th. van, H. van den Brink & J. Huisenga ; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Adiyaman: 15-20 km E of Gölbasi, asl: 800 (37SCB97); 31.05.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Adiyaman: 25 km S of Gölbasi, asl: 900 (37SCB66); 30.05.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Adiyaman: Fluss auf dem Weg zum Nemrut-Daghi, 6 km NE Narince (37SDB89); 13.06.1991; leg. Lopau, W.
 Adiyaman: Nebenfluss des Euphrat an der Straße Siverek-Kahta, 6 km E Sogütlü (37SEB07); 13.06.1991; leg. Lopau, W.
 Afyon: Bach 11,5 km NW Afyon (gemessen ab Ortsschild Afyon, Richtung Kütahya) (36STH89); 12.07.1990; leg. Kähler, J.
 Ankara: 95 km SW Ankara (W of Polatlı), asl: 800 (36SVJ28); 17.06.1959-18.06.1959; leg. exp. Turkey; det. Kalkman, V.J.; coll: RMNH
 Antalya: Alanya (36SVF14); 18.06.1995 & 20.06.1995 & 16.08.1998; leg. Louda, J.; det. & coll: Hartung, M.
 Antalya: Alanya, Dimçay river (36SVF14); 15.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Antalya: Antalya, asl: 300-600 (36STF98); 24.05.1996-30.05.1996; leg. Siniav & Afonin; det. & coll: Hartung, M.
 Antalya: Bach an der Hauptstraße nahe Ulupınar SW Kemer (36STF73); 25.06.1998-27.06.1998; leg. Arlt, J.
 Antalya: Bach in Cirali nahe der Küste S Kemer (36STF63); 26.06.1998-27.06.1998; leg. Arlt, J.
 Antalya: Bach in Ulupınar, S der Straße Kas-Antalya (36STF73); 21.05.1991 & 25.06.1991; leg. Lopau, W.
 Antalya: Bach W Cirali, E der Straße Kas-Antalya, 70 km von Antalya (36STF63); 19.05.1991 & 25.06.1991; leg. Lopau, W.
 Antalya: Cirali (36STF73); 13.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Antalya: Gebirgsfluss unterhalb Ulupınar, S der Straße Kas-Antalya (36STF73); 21.05.1991; leg. Lopau, W.
 Antalya: Kemer bei Antalya (36STF85); leg. Franke; coll. Mus. Görlitz
 Antalya: Manavgat Çay 1 (36SUG80); 14.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Antalya: road between Antalya and Kas (35SQA30); 01.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Antalya: Ulupinar (36STF73); 13.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Antalya: Unterlauf des Flusses W Cirali, E der Straße Kas-Antalya, 70 km von Antalya (36STF63); 22.05.1991; leg. Lopau, W.

Artvin: Katschgar-geb, Jussufeli-Pamukale, Yusufeli, Kackar Daglari (37TGF12); 08.07.1993-07.09.1993; leg. Louda, J.; det.& coll: Hartung, M.

Balikesir: Edremit (35SND09); 08.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Bingöl: 6-10 km W of Bingöl, asl: 1200 (37SFD20); 05.06.1986; leg. Oorschot H. & Th., H. van den Brink & J. Huisenga ; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Bitlis: 30 km SW of Bitlis, Narlidere, asl: 1000 (37SGC53); 08.06.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Bitlis: river Bitlis just before entering the small city of Baykan (37SGC42); 22.07.2002; leg. Kop, A.; coll: RMNH

Bursa: Armutlu (35TPE58); 05.06.1945; leg. unknown; det. Schneider, W.; coll: BM(NH)

Denizli: Karahayit (35SPC80); 10.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Elazığ: 6 km N of Karakocan, asl: 1150 (37SED91); 03.06.1986; leg. Oorschot H. & Th., H. van den Brink & J. Huisenga ; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Elazığ: river Tigris, near the entrance of a tributary, 5-7 km N of Maden (37SEC55); 27.07.2002; leg. Kop, A.

Erzurum: 10 km W of Maden Koprubasi, asl: 1200 (37TFE58); 29.07.1996; leg. Prins, W.O. de, A.M.R. Olivier & D. van der Poorten; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Gaziantep: Bach 11 km E Kilis an der Straße nach Elbeyli (37SCA46); 02.06.1991; leg. Lopau, W.

Gaziantep: Bach Erenköy 20 km NW Birecik, Fluss zum Euphrat (37SCB91); 16.06.1991; leg. Lopau, W.

Gaziantep: Fluss 30 km W Kilis (37SCA07); 01.06.1991; leg. Lopau, W.

Gaziantep: Nebenfluss des Euphrat an der Rumkale 30 km NW Birecik (37SCB92); 16.06.1991; leg. Lopau, W.

Hatay: Amanus mts (=Nur Daglari) (37S); leg. unknown; det. Kalkman, V.J. & G.J. van Pelt; coll: BM(NH)

Hatay: Bach 10,5 km SW Uluçinar an der Straße nach Samandagi (36SYF52); 31.05.1991; leg. Lopau, W.

Hatay: Bach 32 km S Uluçinar an der Straße nach Samandagi (36SYF51); 31.05.1991; leg. Lopau, W.

Hatay: Bach 8,5 km SW Uluçinar an der Straße nach Samandagi (36SYF52); 30.05.1991; leg. Lopau, W.

Hatay: Bach an der Straße 3 km N Hassa (37SBA77); 01.06.1991; leg. Lopau, W.

Hatay: Fluss Akbez 4 km N Hassa (37SBA87); 01.06.1991; leg. Lopau, W.

Hatay: Teich 37,3 km S Uluçinar an der Straße nach Samandagi (36SYF60); 31.05.1991; leg. Lopau, W.

İçel: 17 km SW of Silifke, Bogsak (36SWF71); 15.05.1983; leg. Oorschot, H van; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

İçel: 36 km NE of Silifke, Limonlu stream N of Limonlu village (36SXF14); 15.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

İçel: Bach Kargicak in Kargicak 35 km NW Silifke (36SWF63); 27.05.1991; leg. Lopau, W.

İçel: Fluss Göksu bei Köserli, 10 km S Mut (36SWF44); 27.05.1991; leg. Lopau, W.

İçel: Göksu-river near Degirmendere, NW of Silifke (36SWF63); 07.07.2001; leg. Kalkman, V.J.

İçel: Karstquelle bei Aydıncık (36SWE29); 23.06.1998; leg. Arlt, J.

İçel: Limonlu stream N of Limonlu village, 36 km NE of Silifke (36SXF14); 07.07.2001; leg. Kalkman, V.J.; coll: RMNH

İçel: Schlucht des Göksu Nehri an der Brücke vor Eksiler (36SWF72); 22.06.1998; leg. Arlt, J.

Kahramanmaraş: 30 km N of Maras, asl: 600-800 (37SCB16); 31.05.1984; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Kahramanmaraş: hills NW of Maras, 5-10 km along road to Agabeyli, asl: 800-900 (37SCB06); 29.05.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Kars: 11 km E of Karakurt (38TLK04); 06.07.1986; leg. Lucas, J.A.W.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Konya: Beyşehir Gölü (36SUG87); 06.05.1959; leg. exp. Turkey; det. Kalkman, V.J.; coll: RMNH

Mardin: 17 km NW of Mardin, asl: 1000 (37SFB44); 07.06.1984; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Muğla: Bach an der Straße Muğla-Fethiye, 21 km NW Fethiye (35SPA86); 16.05.1991 & 30.06.1991; leg. Lopau, W.

Muğla: Bach an der Straße Muğla-Fethiye, 23 km NW Fethiye (35SPA76); 30.06.1991; leg. Lopau, W.

Muğla: Bergbach 7 km NW Köycegiz (35SPA49); 22.05.1996; leg. Henheik, H.

Muğla: Kale (35SPB53); 11.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Muğla: Marmarice (=Marmaris) (35SPA18); 31.04.1889 & 21.06.1898; leg. Mathew, G.F.; coll: BM(NH)
 Muğla: Marmaris, Cetibeli (35SPA18); 26.06.1985; leg. Brook, S. & A.; coll: BM(NH)
 Şanlı Urfa: 44 km W of Siverek, E side of Firat river, asl: 600 (37SDB97); 02.06.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Şanlı Urfa: Birecek (37SDA09); leg. Sawyer, N.; coll: BM(NH); det. Kalkman, V.J. & G.J. van Pelt

Lestes barbarus (Fabricius)

Antalya: Flussmündung am N-Ende des Koca-Çay-Deltas (35SQA02); 18.05.1991; leg. Lopau, W.
 Antalya: lake at Cevizli, 20 km N of Akseki (36SUG91); 11.07.2001; leg. Kalkman, V.J.; coll: RMNH
 Artvin: ca. 15 km NE of Savşat: shallow sedge field, 1 km SE of lake Karagöl, asl: 1450 (38TKL87); 17.08.2002; leg. Wasscher, M.
 Artvin: ca. 15 km NE of Savşat: small pond with sedges, 3 km WNW of lake Karagöl, asl: 1450 (38TKL87); 17.08.2002; leg. Wasscher, M.
 Artvin: ca. 15 km NE of Savşat: two ponds overgrown with *Lemna* and with *Phragmites* border and a small clear water corner, 3 km ENE of lake Karagöl, asl: 1450 (38TKL87); 18.08.2002; leg. Wasscher, M.
 Aydin: Tümpel an den Ruinen von Milet (35SNB25); 30.05.1996; leg. Henheik, H.
 Bitlis: rivulet Karasu near Sarıbahçe, halfway along road Tatvan-Mus (37SGC48); 21.07.2002; leg. Kop, A.; coll: RMNH
 Elazığ: brooklet crossing the road from Sivrice to Elazığ, 1.5 km N of Sivrice (37SEC25); 26.07.2002; leg. Kop, A.; coll: RMNH
 Elazığ: pool 2 km N of Sivrice, partly overgrown with *Carex* and *Juncus*, (37SEC25); 26.07.2002; leg. Kop, A.
 Elazığ: seepage-fed marshy area along road Elazığ-Sivrice, 1 km from the latter (37SEC25); 25.07.2002; leg. Kop, A.; coll: RMNH
 Erzurum: Erzurum, Horasan-Kars, km 10 (38TKK63); 14.07.1968; leg. Bakels, F.N.; det. Kalkman, V.J.; coll: RMNH
 Hakkari: 57 km NE of Hakkari, asl: 1900 (38SLG95); 17.06.1985-18.06.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 İstanbul: Erence[?], E of Bosphorus (= Erenköy?) (35TPF73); leg. Graves, P.P.; det. Schneider, W.; coll: BM(NH)
 İstanbul: Küçükcekmecı, Brachink lake (35TPF44); 31.08.1919; leg. Graves, P.P.; det. Schneider, W.; coll: BM(NH)

Istanbul: Yakuplu, 30 km W of Istanbul (35TPF43); 06.06.1979-06.06.1979; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 İzmir: Bornova near Smyrna (35SNC15); 15.07.1931; leg. Uvarov, B.P.; det. Schneider, W.; coll: BM(NH)
 Kayseri: Soysalli, 12 km W of Develi, asl: 1100 (36SYH05); 06.07.1982; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Konya: Akgöl (36SWG65); 24.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Konya: Akşehir Gölü (36SUH76); 26.07.1979; leg. Oorschot, H. van, c.s.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Konya: Halkapınar (Ivriz barajı) (36SXG04); 24.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Konya: Tümpel 7 km E Yarma an der Straße Konya-Karapınar (36SVG98); 21.06.1991; leg. Lopau, W.
 Sakarya: Jeudet bey Çiftlik, 10 km NW of Adapazari (36TTL72); 25.06.1954-26.06.1954; leg. Burr, M.; det. Schneider, W.; coll: BM(NH)
 Zonguldak: Çay cuma, village Zonguldak (36TVL28); 16.05.1951; leg. Croockewit, H.W.E.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Lestes dryas Kirby

Ankara: Elma Dagi, asl: 1500 (36SWK11); 19.06.1962; leg. Guichard & Harvey; det. Schneider, W.; coll: BM(NH)
 Artvin: ca. 15 km NE of Savşat: shallow sedge field, 1 km SE of lake Karagöl, asl: 1450 (38TKL87); 17.08.2002; leg. Wasscher, M.; coll: RMNH
 Artvin: ca. 15 km NE of Savşat: small pond with sedges, 3 km WNW of lake Karagöl, asl: 1450 (38TKL87); 17.08.2002; leg. Wasscher, M.
 Artvin: Çam Geçidi / Savşat (38TKL86); 11.08.1995 & 13.07.1997; leg. Boudot, J.-P.; coll: Jacquemin, G.
 Aydin: Brachwiese mit Pfützen E Graben von S in den Bafasee-Kanal (35SNB25); 30.05.1996; leg. Henheik, H.
 Çorum: Hacıhalil (36TXL13); 05.08.1995; leg. Boudot, J.-P.; coll: Jacquemin, G.
 İzmir: Selçuk, salt march at the coast near Efese, asl: 0 (35SNC20); 19.04.1979; leg. Wasscher, M.
 Konya: Halkapınar (Ivriz barajı) (36SXG04); 24.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Konya: Tümpel 7 km E Yarma an der Straße Konya-Karapınar (36SVG98); 21.06.1991; leg. Lopau, W.
 Muğla: Umg. Güvercinlik bei Bodrum (35SNA39); leg. Franke; coll. Mus. Görlitz

Sakarya: Jeudet bey Chiftlik, 10 km NW of Adapazarı (36TTL72); 26.06.1984; leg. Burr, M.; det. Schneider, W.; coll: BM(NH)
Sivas: Devre, asl: 1350 (37SCE91); 12.06.1962; leg. Guichard & Harvey; det. Schneider, W.; coll: BM(NH)

***Lestes macrostigma* (Eversmann)**

Antalya: Rohrkolbensumpf S Demirtas SE Alanya (36SVF13); 01.05.2001; leg. Arlt, J.
Aydin: Brachwiese mit Pfützen E Graben von S in den Bafasee-Kanal (35SNB25); 30.05.1996; leg. Henheik, H.
Aydin: strandnaher Tümpel 0,4 km WSW Usla (35SNB23); 19.05.1996 & 26.05.1996; leg. Henheik, H.
Aydin: Tümpel an den Ruinen von Milet (35SNB25); 30.05.1996; leg. Henheik, H.
İçel: Gebiet SW des Akgöl im Göksu Delta (36SWF81); 04.05.2000; leg. Ihssen, G. & H.J. Pelny
İçel: Graben S Kurtulus (36SWF92); 05.05.2000; leg. Ihssen, G. & H.J. Pelny
Istanbul: Jasi island, Sea of Marmara (35TPF); 16.06.1949; leg. Burr, M.; det. Schneider, W.; coll: BM(NH)
Konya: Düden-Gölli, Südufer (36SWJ12); 19.06.1991; leg. Lopau, W.
Konya: kleiner See am Südufer des Düden-Gölli (36SWJ12); 20.06.1991; leg. Lopau, W.
Sivas: Devre, near Sivas [= Devekese?], asl: 1350 (37SCE91); 12.06.1962; leg. Guichard & Harvey; det. Kimmins, 1963; coll: BM(NH)

***Lestes parvidens* Artobolevski**

Adana: Aydınlar, 15 km W of Kadirli (37SBB33); 10.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH
Antalya: Bach in Ulupinar, S der Straße Kas-Antalya (36STF73); 25.06.1991; leg. Lopau, W.
Antalya: mouth of river Selg, about 10 km E of Alanya (36SVF14); 13.11.2001; leg. Bos, F.; coll: RMNH
Antalya: Sagirin, along mountainroad towards Beskonak, about 50 km E of Antalya (36SUG40); 14.11.2001; leg. Bos, F.
Çanakkale: Fluss Behram bei Behramkale (Assos) (35SMD47); 09.09.1989; leg. Lopau, W.
Hatay: Bach in Uluçınar (36SYF53); 30.05.1991; leg. Lopau, W.
İçel: Wassерgraben an der Straße Silifke-Mersin 5 km E Silifke (36SWF92); 26.05.1991 & 28.05.1991; leg. Lopau, W.
İsparta: Sultan Dagları, 3 km NW of Şarkıkaraağaç, asl: 1150 (36SUH51); 23.05.1979; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Istanbul: Belgrad Ormani, asl: 150 (35TPF56); 23.09.1959; leg. Guichard, K.M.; det. Schneider, W.; coll: BM(NH)
İstanbul: Küçüksu, Asiatic side of Bosphorus (35TPF74); leg. Graves, P.P.; det. Schneider, W.; coll: BM(NH)
Mardin: 17 km NW of Mardin, asl: 1000 (37SFB44); 07.06.1984; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
Muğla: Marmaris-Cetibeli (35SPA18); 26.06.1985; leg. Brooks, S.A.; coll: BM(NH)
Van: ausgesüßte Strandlagune am Ercek Gölü, 22 km E Van, an der Straße nach Özalp (38SLH77); 11.06.1991; leg. Lopau, W.

***Lestes sponsa* (Hansemann)**

Artvin: ca. 15 km NE of Savşat: shallow sedge field, 1 km SE of lake Karagöl, asl: 1450 (38TKL87); 17.08.2002; leg. Wasscher, M.
Konya: Tümpel 7 km E Yarma an der Straße Konya-Karapınar (36SVG98); 21.06.1991; leg. Lopau, W.
Konya: Meke Gölü 5 km E Karapınar (S der Straße) (36SWG57); 22.06.1991; leg. Lopau, W.
Sivas: Devre, asl: 1350 (37SCE91); 12.06.1962; leg. Guichard & Harvey; det. Schneider, W.; coll: BM(NH)

***Lestes virens* (Charpentier)**

Afyon: Sultan Dagları, 40 km NW of Akşehir, asl: 1500-1800 (36SUH46); 17.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
Artvin: ca. 15 km NE of Savşat: shallow sedge field, 1 km SE of lake Karagöl, asl: 1450 (38TKL87); 17.08.2002; leg. Wasscher, M.; coll: RMNH
Aydin: Brachwiese mit Pfützen E Graben von S in den Bafasee-Kanal (35SNB25); 30.05.1996; leg. Henheik, H.
Aydin: Tümpel an den Ruinen von Milet (35SNB25); 30.05.1996; leg. Henheik, H.
Bitlis: near Adilcevaz, Van lake (38SLH29); 15.07.1993; leg. Louda, J.; det. & coll: Hartung, M.
Elazığ: brooklet crossing the road from Sivrice to Elazığ, 1.5 km N of Sivrice (37SEC25); 26.07.2002; leg. Kop, A.
Elazığ: pool 2 km N of Sivrice, partly overgrown with *Carex* and *Juncus*. (37SEC25); 26.07.2002; leg. Kop, A.
Elazığ: seepage-fed marshy area along road Elazığ-Sivrice, 1 km from the latter (37SEC25); 25.07.2002; leg. Kop, A.; coll: RMNH
İzmir: Selçuk, salt march at the coast near Efese, asl: 0 (35SNC20); 19.04.1979; leg. Wasscher, M.

Konya: Akgöl (36SWG65); 24.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Van: Van (38SLH); 18.07.1947-19.07.1947; leg. Kosswig; det. Schneider, W.; coll: BM(NH)

Sympetrum fusca (Vander Linden)

Adana: 1 km S of Karagöcher, ca. 40 km SW of Adana (36SXF86); 17.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH
 Ankara: Between Ankara and Keskin-Köprü on river Kizilirmak (36SWKJ38); 17.08.1931; leg. Uvarov, B.P.; det. Longfield, C.; coll: BM(NH)
 Antalya: Dim çay dal, 15 km E of Alanya, asl: 400 (36SVF24); 06.08.1981; leg. Coene, F., J.A.W. Lucas & H. van Oorschot; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Antalya: Rohrkolbensumpf S Demirtas nahe der Küste SE Alanya (36SVF23); 24.06.1998; leg. Arlt, J.
 Antalya: Rohrkolbensumpf S Demirtas SE Alanya (36SVF13); 01.05.2001; leg. Arlt, J.
 Elazig: brooklet crossing the road from Sivrice to Elazig, 1.5 km N of Sivrice (37SEC25); 26.07.2002; leg. Kop, A.; coll: RMNH
 Elazig: pool 2 km N of Sivrice, partly overgrown with *Carex* and *Juncus*. (37SEC25); 26.07.2002; leg. Kop, A.; coll: RMNH
 Hatay: Amanus mts (=Nur Daglari) (37S); leg. unknown; det. Schneider, W.; coll: BM(NH)
 Kars: 3 km E of Tuzluca, asl: 1300 (38TLK83); 13.08.1992; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Kayseri: Sultansazligi, near Yenihayat (at information centre) (36SYH03); 02.05.1998; leg. Niesen, H.; det. Niesen, H.
 Konya: Halkapinar (Ivriz barajı) (36SXG04); 24.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.
 Konya: Halkapinar (Ivriz barajı) (36SXG04); 24.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Konya: Sultan Daglari, 10 km S of Çay, asl: 1300 (36SUH26); 18.07.1980-25.07.1980; leg. Oorschot, H. van, c.s.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Niğde: Demirkazik (36SXG78); 23.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Samsun: Gileman ciftliği bij Samsun (37TBF); 24.06.1958; leg. Eyndhoven, G.I. van; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Van: Van (38SLH); 18.07.1947; leg. Kosswig; det. Schneider, W.; coll: BM(NH)

Platycnemis dealbata Selys in Selys & Hagen

Adana: Cerukova delta, Tarsus, Bahsis (36SXF67); 29.04.1998; leg. Niesen, H.
 Adana: 1 km S of Karagöcher, ca. 40 km SW of Adana (36SXF86); 17.05.2002; leg. Goudsmits, K. & V.J. Kalkman
 Adana: Aydınlar, 15 km W of Kadırli (37SBB33); 10.05.2002; leg. Goudsmits, K. & V.J. Kalkman
 Adana: Bewässerungskanal 2-3 km E der Kreuzung bei Ceyhan (Richtung Kozani/Kadırli) (36SYG40); 13.07.1990; leg. Kähler, J.
 Adana: ca. 20 km NW of Osmaniye, 1 km N of bridge across the Ceyhan (37SBB42); 11.05.2002; leg. Goudsmits, K. & V.J. Kalkman
 Adana: ca. 6 km S of Mercimek, ca 8 km NW of Ceyhan (36SYG40); 12.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH
 Adana: Demirtas, 9 km N of Yumurtalık (36SYF47); 12.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH
 Adana: Nariik, 16 km S of Ceyhan (36SYF58); 12.05.2002; leg. Goudsmits, K. & V.J. Kalkman
 Adana: river Ceyhan at bridge near Gökcce barrage 30 km from Kadırli along road Osmaniye-Kadırli (37SBB42); 17.07.2002; leg. Kop, A.; coll: RMNH
 Adana: Savrun Çay, river N of Kadırli (37SBB44); 10.05.2002; leg. Goudsmits, K. & V.J. Kalkman
 Adana: Teich an der Kreuzung bei Ceyhan (Richtung Kozani/Kadırli, direkt hinter der Müllkippe) (36SYG40); 13.07.1990; leg. Kähler, J.
 Adiyaman: Nebenfluss des Euphrat an der Straße Siverek-Kahta, 6 km E Sogütü (37SEB07); 13.06.1991; leg. Lopau, W.
 Batman: 5 km W Hasankeyf, Tigris river, asl: 500 (37SGB17); 16.06.2000; leg. Oorschot, H. van, H. van den Brink & P. Oosterbroek; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Bitlis: rivulet Karasu near Saribahce, halfway along road Tatvan-Mus (37SGC48); 21.07.2002; leg. Kop, A.; coll: RMNH
 Diyarbakır: Bach 11 km E Bagdere an der Straße Baykan-Diyarbakır (37SFC52); 12.06.1991; leg. Lopau, W.
 Diyarbakır: Diyarbakır, Tigris (37SFB89); 18.07.1993; leg. Louda, J.; det. & coll: Hartung, M.
 Diyarbakır: Fabrika Çay II, just N of Fabrikaköyü, ca. 6 km S of Diyarbakır (37SFB08); 07.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH
 Diyarbakır: Fluss Bagdere 2 km E Bagdere (37SFC52); 12.06.1991; leg. Lopau, W.
 Elazig: river Tigris, near the entrance of a tributary, 5-7 km N of Maden (37SEC55); 27.07.2002; leg. Kop, A.; coll: RMNH

- Gaziantep: Bach 11 km E Kilis an der Straße nach Elbeyli (37SCA46); 02.06.1991; leg. Lopau, W.
- Gaziantep: Bach Erenköy 20 km NW Birecik, Fluss zum Euphrat (37SCB91); 16.06.1991; leg. Lopau, W.
- Gaziantep: Fluss 30 km E Kilis an der Straße nach Elbeyli (37SCA56); 02.06.1991; leg. Lopau, W.
- Gaziantep: Fluss 30 km W Kilis (37SCA07); 01.06.1991; leg. Lopau, W.
- Gaziantep: Kilis (37SCA27); 19.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
- Gaziantep: Nebenfluss des Euphrat an der Rumkale 30 km NW Birecik (37SCB92); 16.06.1991; leg. Lopau, W.
- Gaziantep: stehendes Gewässer unterhalb der Staumauer des Tahtaköprü-Baraji 45 km W Kilis (37SBA98); 01.06.1991; leg. Lopau, W.
- Hatay: Bach 22 km SW Antakya (1 km vor Ortsschild Samandag) (37SBA30); 15.07.1990; leg. Kählert, J.
- Hatay: Bach 22 km SW Antakya (1 km vor Ortsschild Samandag), ca 2 km aufwärts (37SBA30); 15.07.1990; leg. Kählert, J.
- Hatay: Bach 31 km NNE Kirikhan (37SBA76); 16.07.1990; leg. Kählert, J.
- Hatay: Bach an der Straße 3 km N Hassa (37SBA77); 01.06.1991; leg. Lopau, W.
- Hatay: Bach ca. 12 km N Iskenderun (bei Sariseki, an der Polizeistation, direkt am Meer) (37SBA56); 14.07.1990; leg. Kählert, J.
- Hatay: Bach in Uluçinar (36SYF53); 30.05.1991; leg. Lopau, W.
- Hatay: Fluss und Bach in Uluçinar (36SYF53); 30.05.1991; leg. Lopau, W.
- Hatay: Karasu Çay 2 river and ponds (37SBA98); 19.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
- Hatay: Sariseki (37SBA56); 26.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.
- Hatay: Teknepinar (37SBA30); 20.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
- Hatay: Uluçinar (36SYF53); 20.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
- İçel: Bach E Tasucu (36SWF82); 28.05.1991; leg. Lopau, W.
- İçel: Bewässerungsgraben am Eukalyptuswald 5 km S Tarsus (36SXF68); 29.05.1991; leg. Lopau, W.
- İçel: City of Silifke, Göksu river (36SWF82); 08.07.2001; leg. Kalkman, V.J.; coll: RMNH
- İçel: Göksu-river near Degirmendere, NW of Silifke (36SWF63); 07.07.2001; leg. Kalkman, V.J.
- İçel: Graben an der Straße Silifke-Mersin ca. 10 km E Silifke (36SWF92); 28.05.1991; leg. Lopau, W.
- İçel: Karstbach bei Olukbasi ca. 10 km E Silifke (36SWF92); 22.06.1998; leg. Arlt, J.

- İçel: Limonlu stream N of Limonlu village, 36 km NE of Silifke (36SXF14); 07.07.2001; leg. Kalkman, V.J.; coll: RMNH
- İçel: small rivulets near Degirmendere, along Göksu-river, NW of Silifke (36SWF63); 07.07.2001; leg. Kalkman, V.J.; coll: RMNH
- İçel: Tece Çay in Tece ca. 15 km SW Mersin (36SXF26); 22.06.1998; leg. Arlt, J.
- İçel: Unterlauf des Tarsus 2 km vor der Mündung 16 km S Tarsus (36SXF67); 28.05.1991; leg. Lopau, W.
- Kahramanmaraş: 12 km S of Maraş, asl: 500 (37SCB15); 27.05.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
- Kahramanmaraş: Andırın (37SBB66); 21.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
- Sanlı Urfa: 44 km W of Siverek, E side of Firat river, asl: 600 (37SDB97); 02.06.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
- Siirt: Bach 12 km E Bekirhan an der Straße Diyarbakır-Bittelis (37SGC02); 04.06.1991; leg. Lopau, W.
- Platycnemis keruellei* (Martin)**
- Adiyaman: Fluss auf dem Weg zum Nemrut-Daghi, 6 km NE Narince (37SDB89); 13.06.1991; leg. Lopau, W.
- Adiyaman: Hasancık, ca. 15 km E of Adiyaman (37SDB48); 08.05.2002; leg. Goudsmits, K. & V.J. Kalkman
- Adiyaman: Nebenfluss des Euphrat an der Straße Siverek-Kahta, 6 km E Sogütlü (37SEB07); 13.06.1991; leg. Lopau, W.
- Adiyaman: S Nemrut Dagi, asl: 700-1000 (37SDC70); 01.06.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
- Diyarbakır: Bach 11 km E Bagdere an der Straße Baykan-Diyarbakır (37SFC52); 12.06.1991; leg. Lopau, W.
- Diyarbakır: Bach 15 km E Bagdere an der Straße Baykan-Diyarbakır (37SFC62); 12.06.1991; leg. Lopau, W.
- Diyarbakır: Fabrika Çay II, just N of Fabrikaköyü, ca. 6 km S of Diyarbakır (37SFB08); 07.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH
- Diyarbakır: Fluss Bagdere 2 km E Bagdere (37SFC52); 12.06.1991; leg. Lopau, W.
- Elazığ: river Tigris, near the entrance of a tributary, 5-7 km N of Maden (37SEC55); 27.07.2002; leg. Kop, A.; coll: RMNH
- Gaziantep: Bach 11 km E Kilis an der Straße nach Elbeyli (37SCA46); 02.06.1991; leg. Lopau, W.

Gaziantep: Bach 30 km S Gaziantep an der Straße nach Elbeyli (37SCA68); 02.06.1991; leg. Lopau, W.
 Gaziantep: Kilis (37SCA27); 19.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Gaziantep: Nebenfluss des Euphrat an der Rumkale 30 km NW Birecik (37SCB92); 16.06.1991; leg. Lopau, W.
 Gaziantep: stehendes Gewässer unterhalb der Staumauer des Tahtaköprü-Baraji 45 km W Kilis (37SBA98); 01.06.1991; leg. Lopau, W.
 Hatay: Bach 10,5 km SW Uluçinar an der Straße nach Samandagi (36SYF52); 31.05.1991; leg. Lopau, W.
 Hatay: Bach 22 km SW Antakya (1 km vor Ortsschild Samandag), ca 2 km aufwärts (37SBA30); 15.07.1990; leg. Kählert, J.
 Hatay: Bach 3 km N Hassa (auf der Westseite der Straße) (37SBA77); 17.07.1990; leg. Kählert, J.
 Hatay: Bach 8,5 km SW Uluçinar an der Straße nach Samandagi (36SYF52); 30.05.1991; leg. Lopau, W.
 Hatay: Nur Daglari, 5 km W of Antakya, asl: 100 (37SBA40); 04.05.1982-08.05.1982; leg. Oorschot, H. van & G. Hesselbart; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Kahramanmaraş: Andırın (37SBB66); 21.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Kahramanmaraş: Çökak (37SBB67); 21.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

***Platycnemis pennipes* (Pallas)**

Afyon: Bach 11,5 km NW Afyon (gemessen ab Ortsschild Afyon, Richtung Kütahya) (36STH89); 12.07.1990; leg. Kählert, J.
 Afyon: Dinar (36STH51); 21.07.1949; leg. Burr, M.; det. Cowley, J.; coll: BM(NH)
 Afyon: Karahisar Vilayet, Dinar (36STH51); 21.07.1949; leg. Burr, M.; det. Cowley, J.; coll: BM(NH)
 Ankara: Beynam, 30 km S of Ankara, asl: 1100 (36SVJ99); 17.07.1983; leg. Brink, H. van den; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Antalya: Aspendos 1 (36SUF38); 23.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.
 Antalya: Aspendos 2 (36SUF39); 27.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.
 Antalya: Bach 62 km S Beyşehir an der Straße nach Antalya, 1100 m ü.N. (36SUG83); 24.06.1991; leg. Lopau, W.
 Antalya: Bach in Cirali nahe der Küste S Kemer (36STF63); 26.06.1998-27.06.1998; leg. Arlt, J.
 Antalya: Bach W Cirali, E der Straße Kas-Antalya, 70 km von Antalya (36STF63); 19.05.1991 & 25.06.1991; leg. Lopau, W.

Antalya: Basgöz river N Finike (36STF34); 12.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Antalya: Cirali (36STF73); 13.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Antalya: Cubuk Bogazi, 40 km N of Antalya, asl: 950 (36STG71); 30.06.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Antalya: Entwässerungskanal in der Koca-Çay-Mündungsebene (35SQA01); 30.06.1991; leg. Lopau, W.
 Antalya: env. Sogukpinar, 24-16 km S of Guzelbag, asl: 100-300 (36SVF05); 20.04.1991; leg. Oorschot, H. van, c.s.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Antalya: Fluss am Nordrand des Koca-Çay-Deltas (35SQA02); 18.05.1991; leg. Lopau, W.
 Antalya: Fluss Dim çay in Alanya (östlicher Strand, ca. 2,2 km oberhalb der Mündung (36SVF14); 20.07.1990; leg. Kählert, J.
 Antalya: Fluss Köprüpazarı çay unterhalb von Aspendos (36SUF38); 22.05.1991; leg. Lopau, W.
 Antalya: Flussmündung am N-Ende des Koca-Çay-Deltas (35SQA02); 18.05.1991; leg. Lopau, W.
 Antalya: Kinik, Esen Çay (35SQA02); 20.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.
 Antalya: Koca Çay (Esen çay) in Kinik (Xanthus) (35SQA02); 28.06.1991; leg. Lopau, W.
 Antalya: Köprü Çay bei Staudamm N Tasagli ca. 15 km N der Küstenstrasse (36SUF49); 25.06.1998; leg. Arlt, J.
 Antalya: lake at Cevizli, 20 km N of Akseki (36SUG91); 11.07.2001; leg. Kalkman, V.J.; coll: RMNH
 Antalya: Manavgat Çay 2 (36SUF67); 14.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Antalya: Mündung des Koca Çay W von Kalkan (35SQA01); 29.06.1991; leg. Lopau, W.
 Antalya: Quellbereich des Flusses am Nordrand des Koca-Çay-Deltas (35SQA02); 28.06.1991 & 29.06.1991; leg. Lopau, W.
 Antalya: road between Antalya and Kas (35SQA30); 01.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Antalya: Termessos milli parki, river (36STF79); 19.08.1985; leg. Prasse, R.; det. & coll: Hartung, M.
 Antalya: Ulupinar (36STF73); 13.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Antalya: Unterlauf des Flusses W Cirali, E der Straße Kas-Antalya, 70 km von Antalya (36STF63); 22.05.1991; leg. Lopau, W.

Balikesir: Edremit (35SND09); 08.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Burdur: Ciglik (36STG80); 13.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Burdur: lake Burdur (36STG); 16.07.1949; leg. Burr, M.; det. Cowley, J.; coll: BM(NH)

Bursa: Armutlu (35TPE58); 02.10.1944; leg. Aksirci, F.; det. Schneider, W.; coll: BM(NH)

Çanakkale: Fluss Behram bei Behramkale (Assos) (35SMD47); 09.09.1989; leg. Lopau, W.

Çanakkale: Fluss Behram E von Ayvacik, NE der E87 (35SMD58); 20.08.1990; leg. Lopau, W.

Denizli: 65 km SE of Denizli, 25 km W of Yesilova, asl: 1200 (35SQB25); 14.07.1980; leg. Oorschot, H. van, c.s.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Denizli: Karahayit (35SPC80); 10.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Edirne: Edirne (35TMG61); 06.08.1980; leg. Welgert, P.; det. & coll: Hartung, M.

İçel: Anamur / Silifke (36SWE09); 15.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

İçel: Anamur Çay in Anamur an der Brücke (36SVE89); 23.06.1998; leg. Arlt, J.

İçel: Bach 8 km W Anamur (36SVE79); 23.05.1991; leg. Lopau, W.

İçel: Bach am westlichen Ortsende von Anamur (ca. 1-2 km W Anamur) (36SVE89); 20.07.1990; leg. Kählert, J.

İçel: Bach Kargicak in Kargicak 35 km NW Silifke (36SWF63); 27.05.1991; leg. Lopau, W.

İçel: Fluss Kutumenfez 5 km W Anamur (36SVE89); 23.05.1991; leg. Lopau, W.

İçel: Göksu Delta (36SWF81); 16.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

İçel: Karstbach Soguksu (5 km SW Aydinek) (36SWE29); 19.07.1990; leg. Kählert, J.

İçel: Karstquelle bei Aydinek (36SWE29); 23.06.1998; leg. Arlt, J.

İçel: Quellfluss Soguksu bei Yenikas, 47 km E Anamur (36SWE19); 24.05.1991; leg. Lopau, W.

İçel: small rivulets near Degirmendere, along Göksu-river, NW of Silifke (36SWF63); 07.07.2001; leg. Kalkman, V.J.; coll: RMNH

Isparta: 10 km NE of Gelendost, asl: 1000 (36SUH32); 16.07.1980; leg. Oorschot, H. van, c.s.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Istanbul: Anadolu hisar, Asiatic side of Bosphorus (35TPF75); 26.05.1948; leg. Burr, M.; det. Schneider, W.; coll: BM(NH)

Istanbul: Bebek (35TPF75); 07.06.1947; leg. Burr, M.; det. Schneider, W.; coll: BM(NH)

Istanbul: Kücüksu, Asiatic side of Bosphorus (35TPF74); 22.06.1949 & 27.06.1949; leg. Burr, M.; det. Schneider, W.; coll: BM(NH)

Istanbul: Rumelihisar, Istanbul (35TPF65); 15.06.1949; leg. Burr, M.; det. Schneider, W.; coll: BM(NH)

Izmir: Fluss Bakir 6 km E Candarli (35SMD90); 07.09.1989; leg. Lopau, W.

Izmir: Smyrna probei Mene (= Menemen) (35SNC07); 18.07.1931; leg. Uvarov, B.P.; det. Schneider, W.; coll: BM(NH)

Izmir: Unterlauf des Bakir 5 km SSE Bergama (35SND12); 06.09.1989; leg. Lopau, W.

Konya: Bewässerungskanal 3 km W Eregli (36SWG85); 23.06.1991; leg. Lopau, W.

Konya: Meke Gölü 5 km E Karapinar (S der Straße) (36SWG57); 22.06.1991; leg. Lopau, W.

Manisa: Ortakci, on river Menderes, E of Aydin (35SPC40); 31.07.1931; leg. Uvarov, B.P.; det. Schneider, W.; coll: BM(NH)

Muğla: Bach 23 km E Fethiye an der Kreuzun S von Kemer (35SQA15); 30.06.1991; leg. Lopau, W.

Muğla: Bach am nördl. Ortsende Tepearasi (35SPA48); 11.05.1991; leg. Lopau, W.

Muğla: Bach an der Straße Muğla-Fethiye, 21 km NW Fethiye (35SPA86); 16.05.1991; leg. Lopau, W.

Muğla: Bach an der Straße Muğla-Fethiye, 23 km NW Fethiye (35SPA76); 30.06.1991; leg. Lopau, W.

Muğla: Bach durch Schlammbed an der S-Spitze des Köycegiz-Sees (35SPA48); 23.05.1996; leg. Henheik, H.

Muğla: Bach 23 km W Yatagan (35SNB72); 09.07.1984; leg. Kählert, J.

Muğla: Bachmündung am Ostufer des Sütüngür-Gölü (35SPA47); 12.05.1991 & 14.05.1991; leg. Lopau, W.

Muğla: Bergbach 7 km NW Köycegiz (35SPA49); 22.05.1996; leg. Henheik, H.

Muğla: Bewässerungskanal 2 km S Daljan (35SPA47); 13.05.1991; leg. Lopau, W.

Muğla: Fethiye / Kemer (35SQA05); 12.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Muğla: Hamit (35SPA48); 11.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Muğla: Hamit (35SPA48); 21.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Muğla: Kale (35SPB53); 11.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Muğla: kanalartiger Bachunterlauf zwischen Brücke W Köycegiz und dem See (35SPA49); 22.05.1996; leg. Henheik, H.

Muğla: Koycegiz Gölü, South side of the lake (35SPA48); 11.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Muğla: Köycegiz-See (35SPA49); 23.05.1996; leg. Henheik, H.

Muğla: Köycegiz-See N Ufer E des Ortes (35SPA59); 24.05.1996; leg. Henheik, H.

Muğla: Marmaris-Cetibeli (35SPA18); 26.06.1985; leg. Brooks, S.A.; coll: BM(NH)

Muğla: Marmaris (35SPA17); 30.08.1985; leg. Prasse, R.; det.& coll: Hartung, M.

Muğla: Stumpfgebiet am Fuß der Berge am Ostufer des Sülüngür-Gölü (35SPA47); 14.05.1991 & 16.05.1991; leg. Lopau, W.

Sakarya: Arifiye (36TTL70); 24.06.1954; leg. Burr, M.; det. Schneider, W.; coll: BM(NH)

Sakarya: Serdivan, near Adapazari (36TTL71); 25.06.1954; leg. Burr, M.; det. Schneider, W.; coll: BM(NH)

Sivas: Gürün (37SCC59); leg. unknown; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Zonguldak: Gelik, vil Zonguldak (36TVL09); 30.05.1951; leg. Croockewit, H.W.E.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Cercion lindenii (Selys)

Adana: 1 km S of Karagöcher, ca. 40 km SW of Adana (36SXF86); 17.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Adana: ca. 20 km NW of Osmaniye, 1 km N of bridge across the Ceyhan (37SBB42); 11.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Adana: ca. 6 km S of Mercimek, ca 8 km NW of Ceyhan (36SYG40); 12.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Adiyaman: Nebenfluss des Euphrat an der Straße Siverek-Kahta, 6 km E Sogüttü (37SEB07); 13.06.1991; leg. Lopau, W.

Afyon: Bach 11,5 km NW Afyon (gemessen ab Ortsschild Afyon, Richtung Kütahya) (36STH89); 12.07.1990; leg. Kähler, J.

Afyon: Sultan Dagları, 40 km NW of Akşehir, asl: 1500-1800 (36SUH46); 17.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Antalya: Bewässerungskanal 3 km E Manvgat an der Straße Manavgat-Alanya (36SUF67); 24.06.1991; leg. Lopau, W.

Antalya: Entwässerungsgraben im Bereich des ehemaligen Ova-Gölü in Ovakoy (35SQA11); 28.06.1991; leg. Lopau, W.

Antalya: Entwässerungskanal in der Koca-Çay-Mündungsebene (35SQA01); 30.06.1991; leg. Lopau, W.

Antalya: Fluss am Nordrand des Koca-Çay-Deltas (35SQA02); 18.05.1991; leg. Lopau, W.

Antalya: Flussmündung am N-Ende des Koca-Çay-Deltas (35SQA02); 18.05.1991; leg. Lopau, W.

Antalya: Karpuz Çay at crossing with road to Akseki (36SUF76); 11.07.2001; leg. Kalkman, V.J.; coll: RMNH

Antalya: Kiesgrube am Karpuz Çay ca. 10 km N der Küste bei Taskesigi (36SUF76); 24.06.1998; leg. Arlt, J.

Antalya: Quellbereich des Flusses am Nordrand des Koca-Çay-Deltas (35SQA02); 18.05.1991; leg. Lopau, W.

Antalya: verlandeter Hafen des antiken Patara bei Gelemisch (35SQA01); 28.06.1991; leg. Lopau, W.

Antalya: Yesilkoy, 30 km W of Kas, asl: 150 (35SQA11); 04.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Aydin: Bafasee-Kanal Übergang zum See (35SNB25); 30.05.1996; leg. Henheik, H.

Çanakkale: Fluss Behram bei Behramkale (Assos) (35SMD47); 09.09.1989; leg. Lopau, W.

Çanakkale: Fluss Behram E von Ayvacık, NE der E87 (35SMD58); 20.08.1990; leg. Lopau, W.

Diyarbakır: Fabrika Çay II, just N of Fabrikaköyü, ca. 6 km S of Diyarbakır (37SFB08); 07.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Diyarbakır: Fluss Bagdere 2 km E Bagdere (37SFC52); 12.06.1991; leg. Lopau, W.

Gaziantep: Bach 11 km E Kilis an der Straße nach Elbeyli (37SCA46); 02.06.1991; leg. Lopau, W.

Gaziantep: Bach 30 km S Gaziantep an der Straße nach Elbeyli (37SCA68); 02.06.1991; leg. Lopau, W.

Gaziantep: Nebenfluss des Euphrat an der Rumkale 30 km NW Birecik (37SCB92); 16.06.1991; leg. Lopau, W.

Hatay: Amanus mountains (=Nur Dagları) (37S); leg. unknown; det. Schneider, W. 1986; coll: BM(NH)

İçel: Göksu Delta (36SWF81); 16.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

İçel: Graben an der Straße Silifke-Mersin ca. 10 km E Silifke (36SWF92); 28.05.1991; leg. Lopau, W.

İçel: Karstbach bei Olukbasi ca. 10 km E Silifke (36SWF92); 22.06.1998; leg. Arlt, J.

İçel: Karstquelle bei Aydıncık (36SWE29); 23.06.1998; leg. Arlt, J.

İçel: Strandlagune 5 km E Anamur (36SVE89); 24.05.1991; leg. Lopau, W.

Isparta: Egridir Gölü, at Egridir (36SUG19); 01.07.2001; leg. Kalkman, V.J.; coll: RMNH

Isparta: Kovada milli parkı (36SUG16); 01.07.2001; leg. Kalkman, V.J.

Konya: Beyşehir Gölü S (36SUG66); 25.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Manisa: Kula, 35 km NE of Alaşehir (35SPC46); 07.08.1931; leg. Uvarov, B.P.; det. Schneider, W. 1983; coll: BM(NH)

Muğla: Bach am nördl. Ortsende Tepearası (35SPA48); 11.05.1991; leg. Lopau, W.

Muğla: Bewässerungskanal 2 km S Daljan (35SPA47); 13.05.1991; leg. Lopau, W.

Muğla: Daljan-Fluss bei Kaunos/Daljan (35SPA47); 12.05.1991; leg. Lopau, W.

Muğla: Dalyan (35SPA47); 24.06.1985; leg. Brooks, S.A.; det. Kalkman, V.J.; coll: BM(NH)

Muğla: Hamit (35SPA48); 11.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Muğla: Hamit (35SPA48); 21.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Muğla: kanalartiger Bachunterlauf zwischen Brücke W Köycegiz und dem See (35SPA49); 22.05.1996; leg. Henheik, H.

Muğla: Koycegiz Gölü, Southside of the lake (35SPA48); 11.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Muğla: Köycegiz-See (35SPA49); 23.05.1996; leg. Henheik, H.

Muğla: Köycegiz-See N Ufer E des Ortes (35SPA59); 24.05.1996; leg. Henheik, H.

Muğla: N-Ufer des Köycegiz-Sees (35SPA49); 21.05.1996 & 22.05.1996; leg. Henheik, H.

Muğla: Sumpfgebiet am Fuß der Berge am Ostufer des Sülüngür-Gölü (35SPA47); 14.05.1991; leg. Lopau, W.

Muğla: Unterlauf Graben W Köycegiz (35SPA49); 22.05.1996; leg. Henheik, H.

Şanlı Urfa: Euphrat ca. 10 km NW Birecik (37SDB00); 15.06.1991; leg. Lopau, W.

Ceriagrion georgifreyi Schmidt

Antalya: 3 km W of Alanya (36SVF04); 08.06.1979-20.06.1979; leg. Bree, P.J. van & W.H. Gravestein; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Antalya: Flussmündung am N-Ende des Koca-Çay-Deltas (35SQA02); 18.05.1991; leg. Lopau, W.

Antalya: Yurikaraman river (36STF89); 24.09.1985 & 29.09.1985; leg. Prasse, R.; det.& coll: Hartung, M.

Burdur: Ciglik (36STG80); 13.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Hatay: Bach ca. 12 km N Iskenderun (bei Sariseki, an der Polizeistation, direkt am Meer) (37SBA56); 14.07.1990; leg. Kähler, J.

İçel: Bach am westlichen Ortsende von Anamur (ca. 1-2 km W Anamur) (36SVE89); 20.07.1990; leg. Kähler, J.

İçel: Bewässerungsgraben am Eukalyptuswald 5 km S Tarsus (36SXF68); 29.05.1991; leg. Lopau, W.

İçel: Fluss Kutumenfez 5 km W Anamur (36SVE89); 23.05.1991; leg. Lopau, W.

İçel: Graben an der Straße Silifke-Mersin ca. 10 km E Silifke (36SWF92); 28.05.1991; leg. Lopau, W.

Muğla: Bachmündung am Ostufer des Sülüngür-Gölü (35SPA47); 12.05.1991; leg. Lopau, W.

Muğla: Sumpfgebiet am Fuß der Berge am Ostufer des Sülüngür-Gölü (35SPA47); 14.05.1991 & 16.05.1991; leg. Lopau, W.

Coenagrion lunulatum (Charpentier)

Bitlis: Ilgöl im Nemrut-Krater (Tatvan) (38SKH57); 05.06.1991 & 07.06.1991 & 08.06.1991; leg. Lopau, W.

Bitlis: Nemrut Dagi, asl: 2300 (38SKH57); 22.06.2000; leg. Oorschot, H. van, H. van den Brink & P. Oosterbroek; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Coenagrion ornatum (Selys)

Adiyaman: S Nemrut Dagi, asl: 700-1000 (37SDC70); 01.06.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Afyon: Bach 11,5 km NW Afyon (gemessen ab Ortsschild Afyon, Richtung Kütahya) (36STH89); 12.07.1990; leg. Kähler, J.

Aksaray: From road 300 m, 3 km on side road to İhlara, asl: 1000 (36SXH13); 01.05.1998; leg. Oorschot, H. van & Koolbergen, R.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Aksaray: Sultanhanı, asl: 1050 m (36SWH43); 19.05.2002; leg. Zeegers, Th.; det. Kalkman, V.J.

Antalya: Bach 62 km S Beyşehir an der Straße nach Antalya, 1100 m ü.N. (36SUG83); 24.06.1991; leg. Lopau, W.

Bolu: Bolu (36TUL81); 11.06.1951; leg. Croockewit, H.W.E.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Burdur: Aglasun, 45 km S of Isparta, asl: 1150 (36STG87); 15.07.1980; leg. Oorschot, H. van, c.s.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Konya: Bach 51 km S Beyşehir an der Straße nach Antalya, 1200 m ü.N. (36SUG83); 24.06.1991; leg. Lopau, W.

Van: Edremit, 17 km SE of Van, asl: 1750 (38SLH45); 19.06.1985-20.06.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Van: Van (38SLH); leg. Manissadjian, J.J.; det. Morton, K.J.; coll: BM(NH)

***Coenagrion ponticum* (Bartenev)**

Artvin: ca. 15 km NE of Savşat: lake Karagöl, asl: 1500 (38TKL87); 17.08.2002 & 18.08.2002; leg. Wasscher, M.; coll: RMNH
 Artvin: Çam Geçidi / Savşat (38TKL86); 11.08.1995; leg. Boudot, J.-P.; coll: Jacquemin, G.

***Coenagrion puella* (Linnaeus)**

Aksaray: İhlara-valley, 1050 m asl (36SXH13); 15.05.2002; leg. Zeegers, Th.; det. Kalkman, V.J.
 Ankara: Beynam, 30 km S of Ankara, asl: 1100 (36SVJ99); 17.07.1983; leg. Brink, H. van den; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Antalya: lake at Cevizli, 20 km N of Akseki (36SUG91); 11.07.2001; leg. Kalkman, V.J.; coll: RMNH
 Artvin: ca. 15 km NE of Savşat: lake Karagöl, asl: 1500 (38TKL87); 14/07/1997; leg. Boudot, J.-P.
 Bingöl: road Bingöl-Karlıova, asl: 1200 (37SFD41); 02.06.1986; leg. Oorschot, H. van & J. Huisenga; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Elazığ: seepage-fed marshy area along road Elazığ-Sivrice, 1 km from the latter (37SEC25); 25.07.2002 & 26.07.2002; leg. Kop, A.; coll: RMNH
 Kahramanmaraş: Andırın (37SBB66); 21.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Zonguldak: Gelik, village Zonguldak (36TVL09); 30.05.1951; leg. Croockewit, H.W.E.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

***Coenagrion puella* (Linnaeus) / *C. syriacum* (Morton)**

Antalya: Manavgat bei Antalya (36SUF67); leg. Franke, Mus. Görlitz, leg. Sieber; det. Franke, Mus. Görlitz
 Bitlis: Strandlagune am Van Gölü, an der Straße Tatvan-Ahlat, 2 km vor Ahlat (38SKH89); 09.06.1991; leg. Lopau, W.
 İçel: Bach 8 km W Anamur (36SVE79); 23.05.1991; leg. Lopau, W.
 İçel: Bewässerungsgraben am Eukalyptuswald 5 km S Tarsus (36SXF68); 29.05.1991; leg. Lopau, W.
 İçel: Fluss Kutumenfez 5 km W Anamur (36SVE89); 23.05.1991; leg. Lopau, W.
 İçel: Graben an der Straße Silifke-Mersin ca. 10 km E Silifke (36SWF92); 28.05.1991; leg. Lopau, W.

İçel: Graben im Eukalyptuswald Karabucak SW Tarsus (36SXF68); 06.05.2000; leg. Ihssen, G. & H.J. Pelny
 Van: Mündung des Bendimaha in den Van Gölü 13 km SW Muradiye (38SLJ81); 10.06.1991; leg. Lopau, W.

***Coenagrion pulchellum* (Vander Linden)**

Antalya: Flussmündung am N-Ende des Koca-Çay-Deltas (35SQA02); 18.05.1991; leg. Lopau, W.
 Antalya: Quellbereich des Flusses am Nordrand des Koca-Çay-Deltas (35SQA02); 29.06.1991; leg. Lopau, W.
 Bolu: Abant, village Bolu (36TUK59); 10.06.1951; leg. Croockewit, H.W.E.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Bolu: Bolu (36TUL81); 11.06.1951; leg. Croockewit, H.W.E.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Muğla: Graben W Köycegiz (35SPA49); 22.05.1996; leg. Henheik, H.
 Siirt: Quelltümpel 1 km W Baykan an der Straße Baykan-Diyarbakır (37SGC42); 12.06.1991; leg. Lopau, W.
 Trabzon: Trabzon, 1 km SW of Trabzon, asl: 0 (37TEF50); 23.06.1988; leg. Oorschot, H. van, H. van den Brink & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

***Coenagrion scitulum* (Rambur)**

Afyon: Sultan Dagları, Eber Gölü, 10 km E of Çay, asl: 1000 (36SUH37); 29.05.1979; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Afyon: Sultan Dagları, Eber Gölü, 10 km E of Çay, asl: 1200-1500 (36SUH37); 16.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Antalya: Fluss Dim çay in Alanya (östlicher Strandrand, ca. 2,2 km oberhalb der Mündung (36SVF14); 20.07.1990; leg. Kähler, J.
 Antalya: lake at Cevizli, 20 km N of Akseki (36SUG91); 11.07.2001; leg. Kalkman, V.J.; coll: RMNH
 Isparta: Kovada milli parkı (36SUG16); 01.07.2001; leg. Kalkman, V.J.
 Van: ausgesüßte Strandlagune am Ercek Gölü, 22 km E Van, an der Straße nach Özalp (38SLH77); 11.06.1991; leg. Lopau, W.

***Coenagrion syriacum* (Morton)**

Adana: Aydınlar, 15 km W of Kadırılı (37SBB33); 10.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH
 Adana: ca. 20 km NW of Osmaniye, 1 km N of bridge across the Ceyhan (37SBB42); 11.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Adana: Cerukova delta, Tarsus, Bahsis (36SXF67); 29.04.1998; leg. Niesen, H.

***Enallagma cyathigerum* (Charpentier)**

Afyon: Eber Gölü, northside (36SUH48); 03.07.2001; leg. Kalkman, V.J.

Afyon: river west of Eber Gölü (bridge) (36SUH28); 03.07.2001; leg. Kalkman, V.J.

Afyon: Sultan Daglari, Eber Gölü, 10 km E of Çay, asl: 1000 (36SUH37); 29.05.1979; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Ankara: Emir Gölü (36SVK80); 20.07.1949; leg. unknown; det. Schneider, W.; coll: BM(NH)

Ankara: Mogan Gölü 17 km S Ankara (36SVK80); 19.06.1991; leg. Lopau, W.

Antalya: lake at Cevizli, 20 km N of Akseki (36SUG91); 11.07.2001; leg. Kalkman, V.J.; coll: RMNH

Artvin: ca. 15 km NE of Savşat: lake Karagöl, asl: 1500 (38TKL87); 17.08.2002 & 18.06.2002; leg. Wasscher, M.; coll: RMNH

Bitlis: Aygır Gölü, Adilcevaz, asl: 1700-1800 (38SLJ10); 06.07.1947; leg. Kosswig; det. Schneider, W.; coll: BM(NH)

Bitlis: Nazik Göl, Ahlat [=Erkizan] (38SKJ60); 30.06.1947 & 02.07.1947; leg. Kosswig; det. Schneider, W.; coll: BM(NH)

Bitlis: near Adilcevaz, Van lake (38SLH29); 15.07.1993; leg. Louda, J.; det. & coll: Hartung, M.

Bitlis: pools on sandy shore and thistle field 1 km S of Tatvan (38SKH66); 21.07.2002; leg. Kop, A.

Bitlis: Rocky shore of lake Van along the city of Tatvan (38SKH66); 21.07.2002; leg. Kop, A.; coll: RMNH

Bitlis: Strandlagune am Van Gölü an der Straße Ahlat-Aldicevaz (38SKH99); 09.06.1991; leg. Lopau, W.

Bitlis: Strandlagune am Van Gölü, an der Straße Tatvan-Ahlat, 2 km vor Ahlat (38SKH89); 09.06.1991; leg. Lopau, W.

Bitlis: Strandlagune am Van Gölü, an der Straße Tatvan-Ahlat, 26 km vor Ahlat (38SKH77); 08.06.1991; leg. Lopau, W.

Bitlis: Tatvan, asl: 1750-1800 (38SKH66); 09.08.1969; leg. Eysker; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Bolu: Abant, village Bolu (36TUK59); 10.06.1951; leg. Croockewit, H.W.E.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Burdur: 10 km W of Burdur, asl: 845 (36STG57); 14.07.1980; leg. Oorschot, H. van, e.s.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Burdur: Burdur, Vilayet, lake Burdur (36STG58); 16.07.1949; leg. Burr, M.; det. Schneider, W.; coll: BM(NH)

Elazığ: Sivrice, Hazar Göl (37SEC25); 30.07.1947; leg. Kosswig; det. Schneider, W.; coll: BM(NH)

Isparta: Egridir Gölü, at Egridir (36SUG19); 01.07.2001; leg. Kalkman, V.J. Isparta: Kovada milli parkı (36SUG16); 01.07.2001; leg. Kalkman, V.J.; coll: RMNH

Konya: Akgöl (36SWG65); 24.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Konya: Beyşehir Gölü S (36SUG66); 25.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Konya: Düden-Göl, Südufer (36SWJ12); 19.06.1991; leg. Lopau, W.

Konya: Halkapınar (Ivriç barajı) (36SXG04); 24.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Konya: kleiner See am Südufer des Düden-Göl (36SWJ12); 20.06.1991; leg. Lopau, W.

Konya: Krater-Göl (Aci-Göl) 8 km E Karapınar (N der Straße) (36SWG57); 21.06.1991 & 22.06.1991; leg. Lopau, W.

Konya: Meke Göl 5 km E Karapınar (S der Straße) (36SWG57); 21.06.1991 & 22.06.1991; leg. Lopau, W.

Konya: Sultan Daglari, Akşehir, asl: 1100 (36SUH54); 13.07.1981-20.07.1981; leg. Oorschot, H. & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Konya: Tümpel 7 km E Yarma an der Straße Konya-Karapınar (36SVG98); 21.06.1991; leg. Lopau, W.

Van: ausgesüßte Strandlagune am Ercek Gölü, 22 km E Van, an der Straße nach Özalp (38SLH77); 11.06.1991; leg. Lopau, W.

Van: Edremit, 17 km SE of Van, asl: 1750 (38SLH45); 19.06.1985-20.06.1985; leg. Oorschot, H. & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Van: Strandlagune am Ercek-Göl an der Straße Van-Özalp, 18 km E Van (38SLH67); 11.06.1991; leg. Lopau, W.

***Erythromma viridulum* (Charpentier)**

Adana: ca. 6 km S of Mercimek, ca 8 km NW of Ceyhan (36SYG40); 12.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Afyon: Eber Gölü, northside (36SUH48); 03.07.2001; leg. Kalkman, V.J.; coll: RMNH

Afyon: river west of Eber Gölü (bridge) (36SUH28); 03.07.2001; leg. Kalkman, V.J.; coll: RMNH

Afyon: Sultan Daglari, 40 km NW of Akşehir, asl: 1500-1800 (36SUH46); 17.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Ankara: Emir Gölü (36SVK80); 20.07.1949; leg. Geldiay, Remzi; det. Schneider, W.; coll: BM(NH)

Antalya: Bewässerungskanal 3 km E Manavgat an der Straße Manavgat-Alanya (36SUF67); 24.06.1991; leg. Lopau, W.

Antalya: Entwässerungsgraben im Bereich des ehemaligen Ova-Gölü in Ovakoy (35SQA11); 28.06.1991; leg. Lopau, W.

Antalya: lake at Cevizli, 20 km N of Akseki (36SUG91); 11.07.2001; leg. Kalkman, V.J.

Antalya: verlandeter Hafen des antiken Patara bei Gelemisch (35SQA01); 28.06.1991; leg. Lopau, W.

Artvin: ca. 15 km NE of Sivasat: lake Karagöl, asl: 1500 (38TKL87); 17.08.2002; leg. Wasscher, M.; coll: RMNH

Artvin: ca. 15 km NE of Sivasat: lake Karagöl, asl: 1500 (38TKL87); 18.08.2002; leg. Wasscher, M.

Çanakkale: Fluss Behram bei Behramkale (Assos) (35SMD47); 09.09.1989; leg. Lopau, W.

Elazığ: pool 2 km N of Sivrice, partly overgrown with *Carex* and *Juncus*. (37SEC25); 26.07.2002; leg. Kop, A.; coll: RMNH

Gaziantep: Euphrates just S of Birecik bridge (37SDA09); 05.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Gaziantep: Kiesgrubengelände mit 20-30 Gewässern am westl. Euphrat-Ufer bei Birecik (37SDA09); 18.07.1990; leg. Kähler, J.

Gaziantep: Kiesgruben am Westufer des Euphrat bei Birecik (37SDA09); 03.06.1991; leg. Lopau, W.

Gaziantep: wassergefüllte vulkanische Explosionskrater S der Straße Hassa-Kilis (37SBA87); 01.06.1991; leg. Lopau, W.

Hatay: Karasu Çay 2 river and ponds (37SBA98); 19.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

İçel: Anamur Çay in Anamur an der Brücke (36SVE89); 23.06.1998; leg. Arlt, J.

İçel: Graben an der Straße Silifke-Mersin ca. 10 km E Silifke (36SWF92); 28.05.1991; leg. Lopau, W.

İçel: Karstbach bei Olukbasi ca. 10 km E Silifke (36SWF92); 22.06.1998; leg. Arlt, J.

Isparta: Kovada milli parki (36SUG16); 01.07.2001; leg. Kalkman, V.J.; coll: RMNH

Izmir: Fluss Bakır 6 km E Candarli (35SMD90); 07.09.1989; leg. Lopau, W.

Kayseri: Soysalli, 12 km W of Develi, asl: 1100 (36SYH05); 06.07.1982; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Konya: Beyşehir Gölü S (36SUG66); 25.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Muğla: Hamit (35SPA48); 11.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Şanlı Urfa: ca. 3 km N of Birecik (37SDA09); 06.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Şanlı Urfa: W shore of the Euphrates, overgrown by reeds (37SDA09); 19.07.2002; leg. Kop, A.; coll: RMNH

Siirt: Quelltümper 1 km W Baykan an der Straße Baykan-Diyarbakır (37SGC42); 12.06.1991; leg. Lopau, W.

Van: Van (38SLH); 19.07.1947; leg. Kosswig; det. Schneider, W.; coll: BM(NH)

***Ischnura elegans* (Vander Linden)**

Adana: 1 km S of bridge across the Ceyhan (37SBB42); 11.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Adana: 1 km S of Karagöcer, ca. 40 km SW of Adana (36SXF86); 17.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Adana: 20 km NE of Adana, asl: 50 (36SYG10); 25.07.1983; leg. Oorschot, H. van, H. van den Brink & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Adana: Adana lake (36SYG00); 17.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Adana: Aydınlar, 15 km W of Kadırlı (37SBB33); 10.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Adana: Bewässerungskanal 2-3 km E der Kreuzung bei Ceyhan (Richtung Kozanı/Kadırlı) (36SYG40); 13.07.1990; leg. Kähler, J.

Adana: ca. 20 km NW of Osmaniye, 1 km N of bridge across the Ceyhan (37SBB42); 11.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Adana: ca. 5 km N of Karatas and 45 km S of Adana (36SYF15); 16.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Adana: ca. 6 km S of Mercimek, ca. 8 km NW of Ceyhan (36SYG40); 12.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Adana: Cerukova delta, Tarsus, Bahsis (36SXF67); 29.04.1998; leg. Niesen, H.

Adana: Demirtas, 9 km N of Yumurtalık (36SYF47); 12.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Adana: old bridge over river Seyhan in Adana (36SYF09); 29.07.2002 & 30.07.2002; leg. Kop, A.

Adana: river Ceyhan at bridge near Gökcce barrage 30 km from Kadırlı along road Osmaniye-Kadırlı (37SBB42); 17.07.2002; leg. Kop, A.; coll: RMNH

Adana: river Sayun in Kadırlı, 60 km N of Osmaniye (37SBB44); 18.07.2002; leg. Kop, A.

Adana: Savrun Çay, river N of Kadırlı (37SBB44); 10.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Adana: Teich an der Kreuzung bei Ceyhan (Richtung Kozani/Kadirli, direkt hinter der Müllkippe) (36SYG40); 13.07.1990; leg. Kählert, J.

Adana: Tuzla Gölü, ca 45 km SW of Adana (36SXF86); 17.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Adiyaman: Hasancık, ca. 15 km E of Adiyaman (37SDB48); 08.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Adiyaman: Nebenfluss des Euphrat an der Straße Siverek-Kahta, 6 km E Sogütlü (37SEB07); 13.06.1991; leg. Lopau, W.

Afyon: Bach 11,5 km NW Afyon (gemessen ab Ortsschild Afyon, Richtung Kütahya) (36STH89); 12.07.1990; leg. Kählert, J.

Afyon: Eber Gölü, northside (36SUH48); 03.07.2001; leg. Kalkman, V.J.

Afyon: river west of Eber Gölü (bridge) (36SUH28); 03.07.2001; leg. Kalkman, V.J.

Afyon: Sultan Daglari, Eber Gölü, 10 km E of Çay, asl: 1000 (36SUH37); 29.05.1979; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Ankara: Mogan Gölü 17 km S Ankara (36SVK80); 19.06.1991; leg. Lopau, W.

Antalya: 3 km W of Alanya (36SVF04); 08.06.1979-20.06.1979; leg. Bree, P.J. van & W.H. Gravestein; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Antalya: Bewässerungskanal 3 km E Manavgat an der Straße Manavgat-Alanya (36SUF67); 24.06.1991; leg. Lopau, W.

Antalya: Cirali S Kemer (36STF73); 14.03.2003; leg. Arlt, J.

Antalya: Fluss am Nordrand des Koca-Çay-Deltas (35SQA02); 18.05.1991; leg. Lopau, W.

Antalya: Fluss Dim çay in Alanya (östlicher Strandrand, ca. 2,2 km oberhalb der Mündung) (36SVF14); 20.07.1990; leg. Kählert, J.

Antalya: Fluss Köprüpazarı çay unterhalb von Aspendos (36SUF38); 22.05.1991; leg. Lopau, W.

Antalya: Flussmündung am N-Ende des Koca-Çay-Deltas (35SQA02); 18.05.1991; leg. Lopau, W.

Antalya: Flussmündung des Alakır 8 km E Finike (36STF42); 19.05.1991; leg. Lopau, W.

Antalya: Karpuz Çay at crossing with road to Akseki (36SUF76); 11.07.2001; leg. Kalkman, V.J.

Antalya: Kiesgrube am Karpuz Çay ca. 10 km N der Küste bei Taskesig (36SUF76); 24.06.1998; leg. Arlt, J.

Antalya: lake at Cevizli, 20 km N of Akseki (36SUG91); 11.07.2001; leg. Kalkman, V.J.

Antalya: Manavgat bei Antalya (36SUF67); leg. Franke; coll. Mus. Görlitz

Antalya: Quellbereich des Flusses am Nordrand des Koca-Çay-Deltas (35SQA02); 28.06.1991 & 29.06.1991; leg. Lopau, W.

Antalya: Rohrkolbensumpf S Demirtas nahe der Küste SE Alanya (36SVF23); 24.06.1998; leg. Arlt, J.

Antalya: verlandeter Hafen des antiken Patara bei Gelemisch (35SQA01); 28.06.1991; leg. Lopau, W.

Antalya: Yurikaraman river (36STF89); 22.09.1985; leg. Prasse, R.; det.& coll: Hartung, M.

Artvin: ca. 15 km NE of Savsat: lake Karagöl, asl: 1500 (38TKL87); 17.08.2002; leg. Wasscher, M.

Artvin: ca. 15 km NE of Savsat: small brooklet, 3 km WSW of lake Karagöl, asl: 1450 (38TKL87); 18.08.2002; leg. Wasscher, M.

Aydın: Bafasee-Kanal (35SNB25); 30.05.1996; leg. Henheik, H.

Aydın: Bafasee-Kanal Übergang zum See (35SNB25); 30.05.1996; leg. Henheik, H.

Aydın: Graben von S in den Bafasee-Kanal (35SNB25); 30.05.1996; leg. Henheik, H.

Aydın: Tümpel an den Ruinen von Milet (35SNB25); 30.05.1996; leg. Henheik, H.

Aydın: Viehtränken/Tümpel nahe dem Bafasee-Kanal (35SNB25); 30.05.1996; leg. Henheik, H.

Aydın: strandnaher Tümpel 0,4 km WSW Usla (35SNB23); 19.05.1996; leg. Henheik, H.

Bitlis: Aygır Gölü, Adilcevaz (38SLJ10); 06.07.1947; leg. Kosswig; det. Schneider, W.; coll: BM(NH)

Bitlis: rivulet along road Tatvan-Van, 1 km W of Kucuksu (38SKH66); 23.07.2002; leg. Kop, A.; coll: RMNH

Bitlis: Strandlagune am Van Gölü an der Straße Ahlat-Aldicevaz (38SKH99); 09.06.1991; leg. Lopau, W.

Bitlis: Strandlagune am Van Gölü, an der Straße Tatvan-Ahlat, 2 km vor Ahlat (38SKH89); 08.06.1991 & 09.06.1991; leg. Lopau, W.

Bolu: Abant, village Bolu (36TUK59); 10.06.1951; leg. Croockewit, H.W.E.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Bolu: Bolu (36TUL81); 11.06.1951; leg. Croockewit, H.W.E.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Burdur: 20 km SE of Isparta, asl: 1100 (36STG97); 15.07.1980; leg. Oorschot, H. van, c.s.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Burdur: Ciglik (36STG80); 13.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Bursa: Armutlu (35TPE58); 02.10.1944; leg. Aksircy, F.; det. Schneider, W. 1983; coll: BM(NH)

Çanakkale: Fluss Behram E von Ayvacık, NE der E87 (35SMD58); 20.08.1990; leg. Lopau, W.

Çanakkale: Fluss mündung ca. 20 km N Gülpinar (35SMD29); 10.09.1989; leg. Lopau, W.

- Diyarbakır: Bach 11 km E Bagdere an der Straße Baykan-Diyarbakır (37SFC52); 12.06.1991; leg. Lopau, W.
- Diyarbakır: Bach 15 km E Bagdere an der Straße Baykan-Diyarbakır (37SFC62); 12.06.1991; leg. Lopau, W.
- Diyarbakır: Fabrika Çay II, just N of Fabrikaköyü, ca. 6 km S of Diyarbakır (37SFB08); 07.05.2002; leg. Goudsmits, K. & V.J. Kalkman
- Diyarbakır: Fluss Bagdere 2 km E Bagdere (37SFC52); 12.06.1991; leg. Lopau, W.
- Diyarbakır: Pamuk Çay, stony river 6 km E of Bismil at railway bridge (37SFB59); 07.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH
- Diyarbakır: Tigris just E of Diyarbakır (37SFB09); 06.05.2002; leg. Goudsmits, K. & V.J. Kalkman
- Edirne: Edirne (35TMG61); 06.08.1980; leg. Welgert, P.; det.& coll: Hartung, M.
- Elazığ: brooklet crossing the road from Sivrice to Elazığ, 1.5 km N of Sivrice (37SEC25); 26.07.2002; leg. Kop, A.
- Elazığ: pool 2 km N of Sivrice, partly overgrown with *Carex* and *Juncus*. (37SEC25); 26.07.2002; leg. Kop, A.; coll: RMNH
- Elazığ: Sivrice, Hazar Göl (37SEC25); 28.07.1947 & 30.07.1991; leg. Kosswig; det. Schneider, W. 1983; coll: BM(NH)
- Elazığ: small road behind factory and marshland, 1 km N of Sivrice (37SEC25); 25.07.2002; leg. Kop, A.; coll: RMNH
- Gaziantep: Bach 11 km E Kilis an der Straße nach Elbeyli (37SCA46); 02.06.1991; leg. Lopau, W.
- Gaziantep: Bach 30 km S Gaziantep an der Straße nach Elbeyli (37SCA68); 02.06.1991; leg. Lopau, W.
- Gaziantep: Birecik, Euphrates river (37SDB00); 18.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
- Gaziantep: Euphrates just S of Birecik bridge (37SDA09); 05.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH
- Gaziantep: Kiesgruben am Westufer des Euphrat bei Birecik (37SDA09); 03.06.1991; leg. Lopau, W.
- Gaziantep: Kilis (37SCA27); 19.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
- Gaziantep: Nebenfluss des Euphrat an der Rumkale 30 km NW Birecik (37SCB92); 16.06.1991; leg. Lopau, W.
- Gaziantep: stehendes Gewässer unterhalb der Staumauer des Tahtaköprü-Barajı 45 km W Kilis (37SBA98); 01.06.1991; leg. Lopau, W.
- Gaziantep: wassergefüllte vulkanische Explosionskrater S der Straße Hassa-Kilis (37SBA87); 01.06.1991; leg. Lopau, W.
- Hatay: 10 km SE of Uluçınar (36SYF62); 16.05.1982; leg. Oorschot, H. van & G. Hesselbart; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

- Hatay: Bach 22 km SW Antakya (1 km vor Ortsschild Samandag) (37SBA30); 15.07.1990; leg. Kählert, J.
- Hatay: Bach 31 km NNE Kirikhan (37SBA76); 16.07.1990; leg. Kählert, J.
- Hatay: Bach 6 km SW Uluçınar an der Straße nach Samandagi (36SYF52); 30.05.1991; leg. Lopau, W.
- Hatay: Bach in Uluçınar (36SYF53); 30.05.1991; leg. Lopau, W.
- Hatay: Fluss und Bach in Uluçınar (36SYF53); 30.05.1991; leg. Lopau, W.
- Hatay: Karasu Çay 2 river and ponds (37SBA98); 19.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
- Hatay: Uluçınar (36SYF53); 20.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
- Içel: 36 km NE of Silifke, Limonlu stream N of Limonlu village (36SXF14); 15.05.2002; leg. Goudsmits, K. & V.J. Kalkman
- Içel: Akgöl im Göksu Delta 10 km S Silifke (36SWF81); 26.05.1991; leg. Lopau, W.
- Içel: Anamur Çay in Anamur an der Brücke (36SVE89); 23.06.1998; leg. Arlt, J.
- Içel: Bach 8 km W Anamur (36SVE79); 23.05.1991; leg. Lopau, W.
- Içel: Bach am westlichen Ortsende von Anamur (ca. 1-2 km W Anamur) (36SVE89); 20.07.1990; leg. Kählert, J.
- Içel: Bach E Tasucu (36SWF82); 28.05.1991; leg. Lopau, W.
- Içel: Fischteiche bei Kurtulus (36SWF92); 04.05.2000; leg. Ihssen, G. & H.J. Pelny
- Içel: Fluss Kutumenfez 5 km W Anamur (36SVE89); 23.05.1991; leg. Lopau, W.
- Içel: Göksu Delta (36SWF81); 16.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
- Içel: Göksu Delta, System von Be- und Entwässerungskanälen (36SWF82); 25.05.1991; leg. Lopau, W.
- Içel: Göksu Delta nahe Kurtulus (36SWF92); 04.05.2000; leg. Ihssen, G. & H.J. Pelny
- Içel: Göksu Delta SE Akgöl-Lagune E Tasucu (36SWF81); 22.06.1998-23.06.1998; leg. Arlt, J.
- Içel: Göksu-river near Degirmendere, NW of Silifke (36SWF63); 07.07.2001; leg. Kalkman, V.J.
- Içel: Graben an der Straße Silifke-Mersin ca. 10 km E Silifke (36SWF92); 28.05.1991; leg. Lopau, W.
- Içel: Graben S Kurtulus (36SWF92); 05.05.2000; leg. Ihssen, G. & H.J. Pelny
- Içel: Limonlu stream N of Limonlu village, 36 km NE of Silifke (36SXF14); 07.07.2001; leg. Kalkman, V.J.; coll: RMNH
- Içel: Quellfluss Soguksu bei Yenikas, 47 km E Anamur (36SWE19); 24.05.1991; leg. Lopau, W.

İçel: small rivulets near Degirmendere, along Göksu-river, NW of Silifke (36SWF63); 07.07.2001; leg. Kalkman, V.J.
 İçel: Strandlagune 5 km E Anamur (36SVE99); 24.05.1991; leg. Lopau, W.
 İçel: Tece Çay in Tece ca. 15 km SW Mersin (36SXF26); 22.06.1998; leg. Arlt, J.
 İçel: Unterlauf des Tarsus 2 km vor der Mündung 16 km S Tarsus (36SXF67); 28.05.1991; leg. Lopau, W.
 İçel: Wassergraben an der Straße Silifke-Mersin 5 km E Silifke (36SWF92); 26.05.1991; leg. Lopau, W.
 İçel: western side of Akgöl near Denizkent, 8 km S of Silifke, Göksu Delta (36SWF81); 09.07.2001; leg. Kalkman, V.J.
 Isparta: Egridir Gölü, at Egridir (36SUG19); 01.07.2001; leg. Kalkman, V.J.
 Isparta: Egridir, asl: 950 (36SUG19); 16.07.1980; leg. Oorschot, H. van, c.s.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Isparta: Kovada milli parki (36SUG16); 01.07.2001; leg. Kalkman, V.J.
 İstanbul: park pond at Dolmabahçe, asl: 0 (35TPF64); 30.08.2002; leg. Wasscher, M.
 İzmir: Fluss Bakır 6 km E Candarli (35SMD90); 07.09.1989; leg. Lopau, W.
 Izmir: Izmir, zoo (35SNC15); 12.08.1980; leg. Prasse, R.; det.& coll: Hartung, M.
 Izmir: Kiesgrube am Fluss Bakır 6 km E Candarli (35SMD90); 07.09.1989; leg. Lopau, W.
 Kayseri: Soysalli, 12 km W of Develi, asl: 1100 (36SYH05); 06.07.1982; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Kayseri: Sultansazligi, near Yenihayat (at information centre) (36SYH03); 02.05.1998; leg. Niesen, H.; det. Niesen, N.
 Konya: Akşehir Gölü (36SUH76); 26.07.1979; leg. Oorschot, H. van, c.s.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Konya: Bach 51 km S Beyşehir an der Straße nach Antalya, 1200 m ü.N. (36SUG83); 24.06.1991; leg. Lopau, W.
 Konya: Bewässerungskanal 3 km W Eregli (36SWG85); 23.06.1991; leg. Lopau, W.
 Konya: Beyşehir Gölü S (36SUG66); 25.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Konya: Düden-Gölü, Südufer (36SWJ12); 19.06.1991; leg. Lopau, W.
 Konya: Eregli-Sümpfe (Akgöl) 16 km W Eregli (36SWG65); 22.06.1991; leg. Lopau, W.
 Konya: Halkapınar (Ivriç barajı) (36SXG04); 24.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Konya: kleiner See am Südufer des Düden-Gölü (36SWJ12); 20.06.1991; leg. Lopau, W.

Konya: Krater-Gölü (Aci-Göl) 8 km E Karapınar (N der Straße) (36SWG57); 22.06.1991; leg. Lopau, W.
 Konya: Meke Gölü 5 km E Karapınar (S der Straße) (36SWG57); 21.06.1991 & 22.06.1991; leg. Lopau, W.
 Konya: NE-side of Akşehir Gölü, asl: 1000 (36SUH77); 21.05.1979-26.05.1979; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Konya: Tümpel 7 km E Yarma an der Straße Konya-Karapınar (36SVG98); 21.06.1991; leg. Lopau, W.
 Muğla: Ausgrabungsstätte Letoon W von Kalkan (35SQA02); 17.05.1991; leg. Lopau, W.
 Muğla: Bachmündung am Ostufer des Sülüngür-Gölü (35SPA47); 14.05.1991; leg. Lopau, W.
 Muğla: Bewässerungskanal 2 km S Daljan (35SPA47); 13.05.1991; leg. Lopau, W.
 Muğla: Daljan-Fluss bei Kaunos/Daljan (35SPA47); 12.05.1991; leg. Lopau, W.
 Muğla: Feuchtwiese W Köycegiz (35SPA49); 13.05.1991; leg. Lopau, W.
 Muğla: Graben W Köycegiz (35SPA49); 22.05.1996; leg. Henheik, H.
 Muğla: Hamit (35SPA48); 11.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Muğla: Köycegiz-See N Ufer E des Ortes (35SPA59); 24.05.1996; leg. Henheik, H.
 Muğla: Marmaris (35SPA17); 01.08.1985; leg. Prasse, R.; det.& coll: Hartung, M.
 Muğla: Sumpfgebiet am Fuß der Berge am Ostufer des Sülüngür-Gölü (35SPA47); 14.05.1991 & 16.05.1991; leg. Lopau, W.
 Muğla: Tümpel W kanalartiger Bachunterlauf zwischen Brücke W Köycegiz und dem See (35SPA49); 22.05.1996; leg. Henheik, H.
 Muğla: Unterlauf Graben W Köycegiz (35SPA49); 22.05.1996; leg. Henheik, H.
 Şanlı Urfa: ca. 3 km N of Birecik (37SDA09); 06.05.2002; leg. Goudsmits, K. & V.J. Kalkman
 Şanlı Urfa: Euphrat ca. 10 km NW Birecik (37SDB00); 15.06.1991; leg. Lopau, W.
 Şanlı Urfa: small stretch of reeds on the E shore of the Euphrates, S side of Birecik (37SDA09); 19.07.2002; leg. Kop, A.
 Siirt: Bach 12 km E Bekirhan an der Straße Diyarbakır-Bitlis (37SGC02); 04.06.1991; leg. Lopau, W.
 Siirt: Quelltümpel 1 km W Baykan an der Straße Baykan-Diyarbakır (37SGC42); 12.06.1991; leg. Lopau, W.
 Van: ausgesüßte Strandlagune am Ercek Gölü, 22 km E Van, an der Straße nach Özalp (38SLH77); 11.06.1991; leg. Lopau, W.

- Van: Mündung des Bendimaha in den Van Gölü 13 km SW Muradiye (38SLJ81); 10.06.1991; leg. Lopau, W.
 Van: Strandlagune am Ercek-Göl an der Straße Van-Özalp, 18 km E Van (38LH67); 11.06.1991; leg. Lopau, W.

Ischnura fountaineae Morton

- Gaziantep: Kiesgrubengelände mit 20-30 Gewässern am westl. Euphrat-Ufer bei Birecik (37SDA09); 18.07.1990; leg. Kähler, J.
 Şanlı Urfa: ca. 3 km N of Birecik (37SDA09); 05.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Ischnura pumilio (Charpentier)

- Adana: Feke, asl: 800 (36SYG58); 26.07.1983; leg. Oorschot, H. van, H. van den Brink & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Antalya: lake at Cevizli, 20 km N of Akseki (36SUG91); 11.07.2001; leg. Kalkman, V.J.; coll: RMNH
 Artvin: ca. 15 km NE of Savşat: lake Karagöl, asl: 1500 (38TKL87); 17.08.2002; leg. Wasscher, M.
 Bitlis: pools on sandy shore and thistle field 1 km S of Tatvan (38SKH66); 21.07.2002; leg. Kop, A.; coll: RMNH
 Bolu: Abant, village Bolu (36TUK59); 10.06.1951; leg. Croockewit, H.W.E.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Burdur: 10 km E of Yesilova, 55 SW km of Burdur, asl: 1250 (35SQB55); 14.07.1980; leg. Oorschot, H. van, c.s.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Elazığ: Sivrice, Hazar Göl (37SEC25); 30.07.1947; leg. Kosswig; det. Cowley, J.; coll: BM(NH)
 Elazığ: small road behind factory and marshland, 1 km N of Sivrice (37SEC25); 25.07.2002; leg. Kop, A.; coll: RMNH
 Izmir: Selçuk, salt march at the coast near Efese, asl: 0 (35SNC20); 19.04.1979; leg. Wasscher, M.
 Konya: Beyşehir Gölü N (36SUH50); 25.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Konya: Halkapınar (Ivriç barajı) (36SXG04); 24.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Malatya: 53-46 km W of Malatya, asl: 1500 (37SCC94); 01.06.1986; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Manisa: Kuña, 35 km NE of Alaşehir (35SPC46); 07.08.1931-07.08.1931; leg. Uvarov, BEIP.; det. Schneider, W. 1983; coll: BM(NH)
 Van: Van (38LH); leg. Manissadjian, J.J.; det. Schneider, W. 1983; coll: BM(NH)

Aeshna affinis Vander Linden

- Artvin: ca. 15 km NE of Savşat: shallow sedge field, 1 km SE of lake Karagöl, asl: 1450 (38TKL87); 17.08.2002; leg. Wasscher, M.
 Elazığ: small road behind factory and marshland, 1 km N of Sivrice (37SEC25); 25.07.2002; leg. Kop, A.; coll: RMNH
 Kahramanmaraş: hills NW of Maraş, 5-10 km along road to Agabeyli, asl: 800-900 (37SCB06); 29.05.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Konya: Akşehir, Sultan Dagları, asl: 1100 (36SUH54); 13.07.1981-20.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Konya: Bach 51 km S Beyşehir an der Straße nach Antalya, 1200 m ü.N. (36SUG83); 24.06.1991; leg. Lopau, W.
 Konya: Kiefernwäldchen in der Nähe des Tahliye Kanali 55 km N Konya, Straße Kony-Ankara (36SVH73); 21.06.1991; leg. Lopau, W.
 Manisa: Kassaba [= Turgutlu] (35SNC66); 01.08.1931; leg. Uvarov, B.P.; det. Longfield, C.; coll: BM(NH)
 Muğla: Bach durch Schlammbad an der S-Spitze des Köycegiz-Sees (35SPA48); 23.05.1996; leg. Henheik, H.
 Sakarya: 10 km NW of Adapazarı, Jeudet Bey Ciftlik (36TTL72); 25.06.1954; leg. unknown; det. Schneider, W. 1983; coll: BM(NH)

Aeshna cyanea (O.F. Müller)

- Artvin: Barhal (=Altiparmak), brook, where road leaves brook, 7 km N of junction in village, asl: 1400 (37TGF03); 21.08.2002; leg. Wasscher, M.
 Artvin: ca. 15 km NE of Savşat: lake Karagöl, asl: 1500 (38TKL87); 17.08.2002; leg. Wasscher, M.
 Artvin: ca. 15 km NE of Savşat: shallow sedge field, 1 km SE of lake Karagöl, asl: 1450 (38TKL87); 17.08.2002; leg. Wasscher, M.
 Artvin: ca. 15 km NE of Savşat: small brooklet, 3 km WSW of lake Karagöl, asl: 1450 (38TKL87); 18.08.2002; leg. Wasscher, M.
 Artvin: ca. 15 km NE of Savşat: small pond with sedges, 3 km WNW of lake Karagöl, asl: 1450 (38TKL87); 17.08.2002; leg. Wasscher, M.

Aeshna isoceles (O.F. Müller)

- Adana: Aydınlar, 15 km W of Kadırli (37SBB33); 10.05.2002; leg. Smits, K. & V.J. Kalkman
 Afyon: 10 km S of Çay, Sultan Dagları, asl: 1300 (36SUH26); 03.06.1979; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Antalya: Flussmündung am N-Ende des Koca-Çay-Deltas (35SQA02); 18.05.1991; leg. Lopau, W.

Antalya: Quellbereich des Flusses am Nordrand des Koca-Çay-Deltas (35SQA02); 18.05.1991 & 29.06.1991; leg. Lopau, W.

Aydin: Viehtränken/Tümpel nahe dem Bafasee-Kanal (35SNB25); 30.05.1996; leg. Henheik, H.

Bursa: Gemlik (35TPE87); 21.06.1959; leg. exp. Turkey; det. Kalkman, V.J.; coll: RMNH

Hatay: Sariseki (37SBA56); 26.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

İçel: Göksu Delta SE Akgöl-Lagune E Tasucu (36SWF81); 22.06.1998-23.06.1998; leg. Arlt, J.

Isparta: Kovada milli parki (36SUG16); 01.07.2001; leg. Kalkman, V.J.; coll: RMNH

Kahramanmaraş: 12 km S of Maraş, asl: 500 (37SCB15); 27.05.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Konya: Bewässerungskanal 3 km W Eregli (36SWG85); 23.06.1991; leg. Lopau, W.

Muğla: Bach durch Schlammbad an der S-Spitze des Köycegiz-Sees (35SPA48); 23.05.1996; leg. Henheik, H.

Muğla: Bachmündung am Ostufer des Sülüngür-Gölü (35SPA47); 12.05.1991 & 14.05.1991; leg. Lopau, W.

Muğla: Graben W Köycegiz (35SPA49); 22.05.1996; leg. Henheik, H.

Muğla: Hamit (35SPA48); 11.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Muğla: Hamit (35SPA48); 21.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Muğla: Koycegiz Gölü, South side of the lake (35SPA48); 11.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Muğla: Köycegiz-See (35SPA49); 23.05.1996; leg. Henheik, H.

Muğla: Köycegiz-See N Ufer E des Ortes (35SPA59); 24.05.1996; leg. Henheik, H.

Muğla: Sumpfgebiet am Fuß der Berge am Ostufer des Sülüngür-Gölü (35SPA47); 14.05.1991 & 16.05.1991; leg. Lopau, W.

Aeshna juncea (Linnaeus)

Artvin: Çam Geçidi / Savsat (38TKL86); 11.08.1995; leg. Boudot, J.-P.; coll: Jacquemin, G.

Erzurum: valley South of Boyaz near Palandöken, south of Erzurum, asl: 2700 (37SGE0); 25.08.2002; leg. Wasscher, M.; coll: RMNH

Aeshna mixta Latreille

Antalya: Alanya (36SVF14); 12.11.2001; leg. Bos, F.; det. Bos, F.

Antalya: mouth of river Selg, about 10 km E of Alanya (36SVF14); 13.11.2001; leg. Bos, F.; det. Bos, F.

Antalya: Rohrkolbensumpf S Demirtas nahe der Küste SE Alanya (36SVF23); 24.06.1998; leg. Arlt, J.

Artvin: Barhal (=Altiparmak), brook, where road leaves brook, 7 km N of junction in village, asl: 1400 (37TGF03); 21.08.2002; leg. Wasscher, M.

Artvin: Barhal (=Altiparmak), river and brooklet, S-side of road, 2 km W of junction in village, asl: 1300 (37TGF03); 22.08.2002; leg. Wasscher, M.

İçel: 36 km NE of Silifke, Limonlu stream N of Limonlu village (36SXF14); 15.05.2002; leg. Goudsmits, K. & V.J. Kalkman; det. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Anax ephippiger (Burmeister)

Antalya: Caraburan, Alanya (36SVF14); 17.04.1992-21.04.1992; leg. Salk, P.; det.& coll: Hartung, M.

Antalya: Hafen von Alanya (36SVF74); 21.02.2003; leg. G. Ihssen, G. & Pelny, H.

Artvin: Artvin city, Artvin busstation, no fresh water present, asl: 600 (37TGF36); 19.08.2002; leg. Wasscher, M.

Artvin: Barhal (=Altiparmak), alpine pasture, 1 km NW above junction in village, asl: 1400 (37TGF03); 21.08.2002; leg. Wasscher, M.

Belek: Beach, 35 km E Antalya (36SUF78); 01.01.2004 & 05.01.2004; leg. Ruddekk, J.

Elazig: pool 2 km N of Sivrice, partly overgrown with *Carex* and *Juncus*. (37SEC25); 26.07.2002; leg. Kop, A.

Gaziantep: Kiesgruben am Westufer des Euphrat bei Birecik (37SDA09); 03.06.1991; leg. Lopau, W.

İçel: Gebiet SW des Akgöl im Göksu Delta (36SWF81); 04.05.2000; leg. Ihssen, G. & H.J. Pelny

İçel: Mamure Kalesi, 8 km SE Anamur (36SVE89); 20.02.2003; leg. Ihssen, G. & Pelny, H.

Istanbul: park near Blue Mosque, no fresh water present, sea level, asl: 0 (35TPF64); 28.08.2002; leg. Wasscher, M.

Sinop: Sinop, beach at Sinop, W side of village, asl: 0 (36TXM75); 13.08.2002; leg. Wasscher, M.

Anax immaculifrons Rambur

Antalya: Bach W Cirali, E der Straße Kas-Antalya, 70 km von Antalya (36STF63); 25.06.1991; leg. Lopau, W.

Antalya: Cirali (36STF73); 13.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Antalya: Termessos milli parki, river (36STF79); 16.09.1985; leg. Prasse, R.; det.& coll: Hartung, M.

Hatay: Teknepinar (37SBA30); 20.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Içel: Karstbach Soguksu (5 km SW Aydincik) (36SWE29); 19.07.1990; leg. Kähler, J.
 Içel: Karstquelle bei Aydincik (36SWE29); 23.06.1998; leg. Arlt, J.
 Içel: Limonlu stream N of Limonlu village, 36 km NE of Silifke (36SXF14); 07.07.2001; leg. Kalkman, V.J.; coll: RMNH
 Içel: Tarsus river, 35 km NW Tarsus (36SXG61); 16.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Içel: small rivulets near Degirmendere, along Göksu-river, NW of Silifke (36SWF63); 07.07.2001; leg. Kalkman, V.J.

***Anax imperator* Leach**

Adana: Aydinlar, 15 km W of Kadirlı (37SBB33); 10.05.2002; leg. Goudsmits, K. & V.J. Kalkman
 Adana: ca. 20 km NW of Osmaniye, 1 km N of bridge across the Ceyhan (37SBB42); 11.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH
 Adana: ca. 5 km N of Karatas and 45 km S of Adana (36SYF15); 16.05.2002; leg. Goudsmits, K. & V.J. Kalkman
 Adana: Cerukova delta, Tarsus, Bahsis (36SXF67); 29.04.1998; leg. Niesen, H.
 Afyon: 10 km E of Çay, Eber göl, asl: 1000 (36SUH37); 29.05.1979; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Afyon: 10 km S of Çay, Sultan Daglari, asl: 1200-1500 (36SUH26); 16.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Afyon: 10 km S of Çay, Sultan Daglari, asl: 1300 (36SUH26); 03.06.1979; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Afyon: 10 km S of Çay, Sultan Daglari, asl: 1300 (36SUH26); 18.07.1980-25.07.1980; leg. Oorschot, H. van; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Afyon: Derecine, asl: 1000 (36SUH46); 03.06.1979; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Afyon: Eber Gölü, northside (36SUH48); 03.07.2001; leg. Kalkman, V.J.
 Afyon: river west of Eber Gölü (bridge) (36SUH28); 03.07.2001; leg. Kalkman, V.J.
 Ankara: Mogan Gölü 17 km S Ankara (36SVK80); 19.06.1991; leg. Lopau, W.
 Antalya: Entwässerungsgraben im Bereich des ehemaligen Ova-Gölü in Ovakoy (35SQA11); 28.06.1991; leg. Lopau, W.

Antalya: Entwässerungskanal in der Koca-Çay-Mündungsebene (35SQA01); 30.06.1991; leg. Lopau, W.
 Antalya: Fluss Dim çay in Alanya (östlicher Strand, ca. 2,2 km oberhalb der Mündung (36SVF14); 20.07.1990; leg. Kähler, J.
 Antalya: Kiesgrube am Karpuz Çay ca. 10 km N der Küste bei Taskesigi (36SUF76); 24.06.1998; leg. Arlt, J.
 Antalya: lake at Cevizli, 20 km N of Akseki (36SUG91); 11.07.2001; leg. Kalkman, V.J.
 Antalya: Rohrkolbensumpf S Demirtas nahe der Küste SE Alanya (36SVF23); 24.06.1998; leg. Arlt, J.
 Artvin: ca. 15 km NE of Savşat: lake Karagöl, asl: 1500 (38TKL87); 17.08.2002 & 18.08.2002; leg. Wasscher, M.
 Aydin: Graben von S in den Bafasee-Kanal (35SNB25); 30.05.1996; leg. Henheik, H.
 Aydin: Tümpel an den Ruinen von Milet (35SNB25); 30.05.1996; leg. Henheik, H.
 Bitlis: Ilgöl im Nemrut-Krater (Tatvan) (38SKH57); 07.06.1991 & 08.06.1991; leg. Lopau, W.
 Bitlis: Strandlagune am Van Gölü an der Straße Ahlat-Aldicevaz (38SKH99); 09.06.1991; leg. Lopau, W.
 Burdur: Ciglik (36STG80); 13.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Bursa: Armutlu (35TPE58); 05.06.1945; leg. Kosswig; det. Schneider, W. 1983; coll: BM(NH)
 Gaziantep: wassergefüllte vulkanische Explosionskrater S der Straße Hassa-Kilis (37SBA87); 01.06.1991; leg. Lopau, W.
 Hatay: 10 km SE of Uluçınar (36SYF62); 16.05.1982; leg. Oorschot, H. van & G. Hesselbart; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Hatay: near Uluçınar (36STF73); 14.05.1982-16.05.1982; leg. Oorschot, H. van & G. Hesselbart; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Içel: 45-50 km SW of Adana, Yaramis at N side of Seyhan, asl: 20 (36SXF87); 06.10.1991; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Içel: Bach E Tasucu (36SWF82); 28.05.1991; leg. Lopau, W.
 Içel: Göksu Delta (36SWF81); 16.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Içel: Göksu Delta SE Akgöl-Lagune E Tasucu (36SWF81); 22.06.1998-23.06.1998; leg. Arlt, J.
 Içel: Graben an der Straße Silifke-Mersin ca. 10 km E Silifke (36SWF92); 28.05.1991; leg. Lopau, W.
 Içel: Graben S Kurtulus (36SWF92); 05.05.2000; leg. Ihssen, G. & H.J. Pelny
 Içel: Karstquelle bei Aydincik (36SWE29); 23.06.1998; leg. Arlt, J.

İçel: Quellfluss Soguksu bei Yenikas, 47 km E Anamur (36SWE19); 24.05.1991; leg. Lopau, W.

İçel: Wassergraben an der Straße Silifke-Mersin 5 km E Silifke (36SWF92); 26.05.1991; leg. Lopau, W.

Isparta: Egridir Gölü, at Egridir (36SUG19); 01.07.2001; leg. Kalkman, V.J.

Isparta: Kovada milli parkı (36SUG16); 01.07.2001; leg. Kalkman, V.J.

Kahramanmaraş: Andırın (37SBB66); 21.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Konya: Akşehir, Sultan Dagları, asl: 1100 (36SUH54); 13.07.1981-20.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Konya: Bewässerungskanal 3 km W Ereğli (36SWG85); 23.06.1991; leg. Lopau, W.

Konya: Beyşehir Gölü S (36SUG66); 25.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Konya: Düden-Gölü, Südufer (36SWJ12); 19.06.1991; leg. Lopau, W.

Konya: Halkapınar (Ivriç barajı) (36SXG04); 24.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Konya: kleiner See am Südufer des Düden-Gölü (36SWJ12); 20.06.1991; leg. Lopau, W.

Konya: Krater-Gölü (Açı-Göl) 8 km E Karapınar (N der Straße) (36SWG57); 21.06.1991; leg. Lopau, W.

Konya: Meke Gölü 5 km E Karapınar (S der Straße) (36SWG57); 22.06.1991; leg. Lopau, W.

Konya: Tümpel 7 km E Yarma an der Straße Konya-Karapınar (36SVG98); 21.06.1991; leg. Lopau, W.

Muğla: Hamit (35SPA48); 11.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Muğla: Unterlauf Graben W Köycegiz (35SPA49); 22.05.1996; leg. Henheik, H.

Van: ausgesüßte Strandlagune am Ercek Gölü, 22 km E Van, an der Straße nach Özalp (38SLH77); 11.06.1991; leg. Lopau, W.

Anax parthenope (Selys)

Adana: ca. 20 km NW of Osmaniye, 2 km N of bridge across the Ceyhan (37SBB42); 11.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Adana: ca. 5 km N of Karatas and 45 km S of Adana (36SYF15); 16.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Adana: ca. 6 km S of Mercimek, ca 8 km NW of Ceyhan (36SYG40); 12.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Adana: Tuzla Gölü, ca 45 km SW of Adana (36SXF86); 17.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Adiyaman: Euphrat-Stausee (Atatürk-Barajı) an der Fährstelle Straße Siverek-Kahta, W-Seite (37SDB87); 13.06.1991; leg. Lopau, W.

Afyon: 40 km NW of Akşehir, Sultan Dagları, asl: 1500-1800 (36SUH46); 17.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Afyon: Eber Gölü, northside (36SUH48); 03.07.2001; leg. Kalkman, V.J.

Ankara: Mogan Gölü 17 km S Ankara (36SVK80); 19.06.1991; leg. Lopau, W.

Antalya: Entwässerungsgraben im Bereich des ehemaligen Ova-Gölü in Ovaköy (35SQA11); 28.06.1991; leg. Lopau, W.

Antalya: Fluss am Nordrand des Koca-Çay-Deltas (35SQA02); 18.05.1991; leg. Lopau, W.

Antalya: Rohrkolbensumpf S Demirtas nahe der Küste SE Alanya (36SVF23); 24.06.1998; leg. Arlt, J.

Antalya: verlandeter Hafen des antiken Patara bei Gelemisch (35SQA01); 28.06.1991; leg. Lopau, W.

Aydın: Bafasee-Kanal Übergang zum See (35SNB25); 30.05.1996; leg. Henheik, H.

Bitlis: Bgöl im Nemrut-Krater (Tatvan) (38SKH57); 05.06.1991 & 07.06.1991 & 08.06.1991; leg. Lopau, W.

Bitlis: Strandlagune am Van Gölü, an der Straße Tatvan-Ahlat, 2 km vor Ahlat (38SKH89); 09.06.1991; leg. Lopau, W.

Bursa: Armutlu (35TPE58); 05.06.1945; leg. Aksircı, F.; det. Schneider, W. 1983; coll: BM(NH)

Çanakkale: Fluss Behram bei Behramkale (Assos) (35SMD47); 09.09.1989; leg. Lopau, W.

Çanakkale: Fluss Behram E von Ayvacık, NE der E87 (35SMD58); 20.08.1990; leg. Lopau, W.

Elazığ: pool 2 km N of Sivrice, partly overgrown with *Carex* and *Juncus*. (37SEC25); 26.07.2002; leg. Kop, A.; coll: RMNH

Gaziantep: Euphrates just S of Birecik bridge (37SDA09); 05.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Gaziantep: Kiesgrubengelände mit 20-30 Gewässern am westl. Euphrat-Ufer bei Birecik (37SDA09); 18.07.1990; leg. Kählert, J.

Gaziantep: Kiesgruben am Westufer des Euphrat bei Birecik (37SDA09); 03.06.1991; leg. Lopau, W.

Gaziantep: Nebenfluss des Euphrat an der Rumkale 30 km NW Birecik (37SCB92); 16.06.1991; leg. Lopau, W.

Gaziantep: wassergefüllte vulkanische Explosionskrater S der Straße Hassa-Kilis (37SBA87); 01.06.1991; leg. Lopau, W.

Hatay: Karasu Çay 2 river and ponds (37SBA98); 19.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Hatay: Uluçinar (36SYF53); 20.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

İçel: Gebiet SW des Akgöl im Göksu Delta (36SWF81); 04.05.2000; leg. Ihssen, G. & H.J. Pelny

İçel: Göksu Delta (36SWF81); 16.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

İçel: Göksu Delta SE Akgöl-Lagune E Tasucu (36SWF81); 22.06.1998-23.06.1998; leg. Arlt, J.

İçel: Karstbach Soguksu (5 km SW Aydıncık) (36SWE29); 19.07.1990; leg. Kähler, J.

İçel: Limonlu stream N of Limonlu village, 36 km NE of Silifke (36SXF14); 07.07.2001; leg. Kalkman, V.J.

İçel: western side of Akgöl near Denizkent, 8 km S of Silifke, Göksu Delta (36SWF81); 09.07.2001; leg. Kalkman, V.J.; coll: RMNH

Isparta: Kovada milli parki (36SUG16); 01.07.2001; leg. Kalkman, V.J.

Konya: Akgöl W Eregli (36SWG65); 01.05.2000; leg. Ihssen, G. & H.J. Pelny

Konya: Akşehir, NE side of Akşehir göl, asl: 1000 (36SUH77); 21.05.1979-25.05.1979; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Konya: Akşehir, Sultan Dagları, asl: 1100 (36SUH54); leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Konya: Akşehir, Sultan Dagları, asl: 1100 (36SUH54); 13.07.1981-20.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Konya: Beyşehir Gölü S (36SUG66); 25.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Konya: Bolluk Gölü (Bulak Gölü) S Cihanbeyli (36SVH96); 30.04.2000; leg. Ihssen, G. & H.J. Pelny

Konya: Düden-Gölü, Südufer (36SWJ12); 19.06.1991; leg. Lopau, W.

Konya: Engilli (36SUH63); 25.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Konya: Eregli-Sümpfe (Akgöl) 16 km W Eregli (36SWG65); 22.06.1991; leg. Lopau, W.

Konya: Halkapınar (Ivriç barajı) (36SXG04); 24.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Konya: kleiner See am Südufer des Düden-Gölü (36SWJ12); 20.06.1991; leg. Lopau, W.

Konya: Meke Gölü E Karapınar (36SWG57); 01.05.2000; leg. Ihssen, G. & H.J. Pelny

Muğla: Köycegiz-See N Ufer E des Ortes (35SPA59); 24.05.1996; leg. Henheik, H.

Niğde: Kızılıca, 20 km W of Bor (36SXG29); 02.05.1998; leg. Niesen, H.; det. Niesen, N.

Şanlı Urfa: ca. 3 km N of Birecik (37SDA09); 05.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Şanlı Urfa: river Euphrates (Fırat Nehri) next to open sewage canal in Birecik (37SDA09); 18.07.2002; leg. Kop, A.; coll: RMNH

Şanlı Urfa: small stretch of reeds on the E shore of the Euphrates, S side of Birecik (37SDA09); 19.07.2002; leg. Kop, A.

Şanlı Urfa: W shore of the Euphrates, overgrown by reeds (37SDA09); 19.07.2002; leg. Kop, A.

Brachytron pratense (O.F. Müller)

Afyon: 10 km S of Çay, Sultan Dagları, asl: 1300-1600 (36SUH26); 24.05.1979-27.05.1979; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Muğla: Sumpfgebiet am Fuß der Berge am Ostufer des Sülüngür-Gölü (35SPA47); 14.05.1991 & 16.05.1991; leg. Lopau, W.

Muğla: Bachmündung am Ostufer des Sülüngür-Gölü (35SPA47); 12.05.1991; leg. Lopau, W.

Muğla: Bewässerungskanal 2 km S Daljan (35SPA47); 13.05.1991; leg. Lopau, W.

Caliaeschna microstigma (Schneider)

Adana: Kozan, asl: 200 (36SYG44); 27.05.1986; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Ankara: Beynam, asl: 1000 (36SVJ99); 26.06.1962; leg. Guichard & Harvey; coll: BM(NH)

Antalya: 3 km W of Alanya (36SVF04); 08.06.1979-20.06.1979; leg. Bree, P.J. van & W.H. Gravestein; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Antalya: Aspendos 2 (36SUF39); 27.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Antalya: Bach an der Hauptstraße nahe Ulupinar SW Kemer (36STF74); 25.06.1998-27.06.1998; leg. Arlt, J.

Antalya: Bach in Cirali nahe der Küste S Kemer (36STF63); 26.06.1998-27.06.1998; leg. Arlt, J.

Antalya: Bach in Ulupinar, S der Straße Kas-Antalya (36STF73); 25.06.1991; leg. Lopau, W.

Antalya: Bach N Ulupinar, ca. 500 m ü.N. (36STF74); 26.06.1991; leg. Lopau, W.

Antalya: Bach W Cirali, E der Straße Kas-Antalya, 70 km von Antalya (36STF63); 25.06.1991; leg. Lopau, W.

Antalya: Basgöz river N Finike (36STF34); 12.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Antalya: Cirali (36STF73); 13.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Antalya: Köprü Çay bei Staudamm N Tasagli ca. 15 km N der Küstenstrasse (36SUF49); 25.06.1998; leg. Arlt, J.

Antalya: Quelle am Gasthaus an Hauptstraße Höhe Cirali (36STF63); 26.06.1998-27.06.1998; leg. Arlt, J.

Artvin: Katschgar-geb, Jussufeli-Pamukale, Yusufeli, Kackar Daglari (37TGF12); 08.07.1993-07.09.1993; leg. Louda, J.; det.& coll: Hartung, M.

Balikesir: Edremit (35SND09); 08.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Bingöl: 28 km NE of Bingöl, asl: 1600 (37SFD50); 07.06.1986; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Denizli: Karahayıt (35SPC80); 10.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Elazığ: 2-10 km N of Maden, asl: 1100-1200 (37SEC55); 04.06.1986; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Giresun: Tirebolu (37TDF83); 10.06.1959; leg. Mavromoustakis, G.A.; det. Kalkman, V.J.; coll: RMNH

Hakkari: 20-25 km E of Uludere, asl: 1500-1800 (38SLG25); 13.06.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Hakkari: 45 km NE of Hakkari, 5-6 on road to Yuksekova, asl: 1800 (38SMG27); 17.06.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

İçel: Limonlu stream N of Limonlu village, 36 km NE of Silifke (36SXF14); 07.07.2001; leg. Kalkman, V.J.; coll: RMNH

İçel: small rivulets near Degirmendere, along Göksu-river, NW of Silifke (36SWF63); 07.07.2001; leg. Kalkman, V.J.; coll: RMNH

Malatya: 3 km SE of Kubbe Gecidi, asl: 1700 (37SDC53); 25.05.1999; leg. Oorschot, H. van, H. van den Brink & Koolbergen, R.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Malatya: Malatya (37SDC34); leg. unknown; coll: BM(NH)

Muğla: Fethiye / Kemer (35SQA05); 12.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Siirt: Birinitepe gec., 24 km NW of Sırnak, asl: 1600 (38SKG67); 09.06.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Gomphus davidi Selys

Adana: 1 km S of bridge across the Ceyhan (37SBB42); 11.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Adana: Aydınlar, 15 km W of Kadırlı (37SBB33); 10.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Adana: ca. 20 km NW of Osmaniye, 1 km N of bridge across the Ceyhan (37SBB42); 11.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Adana: ca. 6 km S of Mercimek, ca 8 km NW of Ceyhan (36SYG40); 12.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Adana: Hemite Kale, Ceyhan Nehri (37SBB41); 25.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Adana: river Ceyhan, ca. 20 km NW of Osmaniye 1 km S of bridge across the Ceyhan (37SBB42); 11.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Gaziantep: Bach 11 km E Kilis an der Straße nach Elbeyli (37SCA46); 02.06.1991; leg. Lopau, W.

Gaziantep: stehendes Gewässer unterhalb der Staumauer des Tahtaköprü-Barajı 45 km W Kilis (37SBA98); 01.06.1991; leg. Lopau, W.

Hayat: Karasu Çay 1, basin in river bed (37SBA98); 27.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

İçel: Erdemlı (36SXF15); 30.05.1960; leg. Guichard & Harvey; det. Schneider, W. 1986; coll: BM(NH)

Kahramanmaraş: Maraş, 500 ft, asl: 150 (37SBB64); 17.06.1960; leg. Guichard & Harvey; det. Schneider, W. 1986; coll: BM(NH)

Gomphus flavipes lineatus Bartenev

Adana: Cihan near Misis [=Ceyhan river] (36SYF39); 20.06.1952; leg. Schmidt, Er.; det. Kalkman, V.J.; coll: RMNH

Adana: Kozan, asl: 200 (36SYG44); 27.05.1986; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Ankara: 95 km SW Ankara (W of Polatlı), asl: 800 (36SVJ28); 17.06.1959-18.06.1959; leg. exp. Turkey; det. Kalkman, V.J.; coll: RMNH

Antalya: Mündung des Koca Çay W von Kalkan (35SQA01); 17.05.1991 & 29.06.1991; leg. Lopau, W.

İçel: Fluss Göksu bei Köserli, 10 km S Mut (36SWF44); 27.05.1991; leg. Lopau, W.

Kahramanmaraş: 12 km S of Maras, asl: 500 (37SCB15); 27.05.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Kütahya: Emet Çay, between Harmancık and Dursunbey (35SPD68); 03.08.1995; leg. Boudot, J.-P.; coll: Jacquemin, G.

***Gomphus schneideri* Selys**

- Adana: 18 km N Saimbeyli, asl: 1600 (37SBC41); 05.06.1999; leg. Oorschot, H. van, H. van den Brink & Koolbergen, R.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
- Adana: Aydinlar, 15 km W of Kadirlı (37SBB33); 10.05.2002; leg. Goudsnuits, K. & V.J. Kalkman; coll: RMNH
- Afyon: Bach 11,5 km NW Afyon (gemessen ab Ortsschild Afyon, Richtung Kütahya) (36STH89); 12.07.1990; leg. Kähler, J.
- Amasya: Amasia (36T); leg. Staudinger; coll: BM(NH)
- Ankara: 95 km SW Ankara (W of Polatlı), asl: 800 (36SVJ28); 17.06.1959-18.06.1959; leg. exp. Turkey; det. Kalkman, V.J.; coll: RMNH
- Antalya: Aspendos 1 (36SUF38); 23.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.
- Antalya: Aspendos 2 (36SUF39); 27.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.
- Antalya: Köprü Çay bei Staudamm N Tasagli ca. 15 km N der Küstenstrasse (36SUF49); 25.06.1998; leg. Arlt, J.
- Antalya: Manavgat bei Antalya (36SUF67); leg. Franke; coll. Mus. Görlitz
- Hatay: Sariseki (37SBA56); 12.06.1960; leg. Guichard, K.M.; det. Schneider, W. 1986; coll: BM(NH)
- Hatay: Sariseki (37SBA56); 26.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.
- İçel: 36 km NE of Silifke, Limonlu stream N of Limonlu village (36SXF14); 15.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH
- İçel: Erdemli (36SXF15); 30.05.1960; leg. Guichard & Harvey; det. Schneider, W. 1986; coll: BM(NH)
- Kahramanmaraş: Andırın (37SBB66); 21.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
- Kahramanmaraş: Çökak (37SBB67); 21.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
- Muğla: Bach am nördl. Ortsende Tepearası (35SPA48); 11.05.1991; leg. Lopau, W.
- Muğla: Bewässerungskanal 2 km S Daljan (35SPA47); 13.05.1991; leg. Lopau, W.
- Muğla: Cetibeli (35SPA18); leg. Swire, P.; coll: BM(NH)
- Muğla: Hamit (35SPA48); 21.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.
- Lindenia tetraphylla* (Vander Linden)**
- Muğla: Hamit (35SPA48); 11.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
- Muğla: Koycegiz Gölü, South side of the lake (35SPA48); 11.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Şanlı Urfa: small stretch of reeds on the E shore of the Euphrates, S side of Birecik (37SDA09); 19.07.2002; leg. Kop, A.; coll: RMNH

Şanlı Urfa: W shore of the Euphrates, overgrown by reeds (37SDA09); 19.07.2002; leg. Kop, A.

***Onychogomphus assimilis* (Schneider)**

- Antalya: Antalya, asl: 300-600 (36STF98); 24.05.1996-30.05.1996; leg. Sinaev & Afonin; det.& coll: Hartung, M.
- Antalya: Aspendos (36SUF38); 03.05.2001; leg. Arlt, J.
- Antalya: Aspendos 1 (36SUF38); 23.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.
- Antalya: Aspendos 2 (36SUF39); 27.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.
- Antalya: Köprü Çay bei Staudamm N Tasagli ca. 15 km N der Küstenstrasse (36SUF49); 25.06.1998; leg. Arlt, J.
- Antalya: Yayla pass, N Alanya (36SVF); leg. Seidenbusch, R.; det.& coll: Hartung, M.
- Erzurum: Ovit gec., S side, asl: 1400-1500 (37TFE68); 18.07.1989; leg. Lucas, J.A.W.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
- Hakkari: Zab valley NE of Hakkari, 15 km NE of Hakkari, asl: 1300 (38SLG85); 17.06.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
- İçel: Limonlu stream N of Limonlu village, 36 km NE of Silifke (36SXF14); 07.07.2001; leg. Kalkman, V.J.; coll: RMNH
- Kahramanmaraş: hills NW of Maraş, 5-10 km along road to Agabeyli, asl: 800-900 (37SCB06); 29.05.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
- Muğla: Kemer Çay (35SQA16); 11.07.1949; leg. Burr, M.; det. Schneider, W. 1986; coll: BM(NH)

***Onychogomphus flexuosus* (Schneider)**

- Amasya: Amasia (36T); leg. Staudinger; det. Schneider, W. 1983; coll: BM(NH)
- Antalya: Mündung des Koca Çay W von Kalkan (35SQA01); 17.05.1991; leg. Lopau, W.
- Muğla: road between Esen and Kemer, asl: 100 (35SQA03); 04.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
- Unknown (prob. Hatay): Calidagi, 100 ft, asl: 30 (Unknown); 27.05.1960; leg. Guichard & Harvey; det. Schneider, W. 1986; coll: BM(NH)

Onychogomphus forcipatus (Linnaeus)

Adana: Hemite Kale, Ceyhan Nehri (37SBB41); 25.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.
 Afyon: Bach 11,5 km NW Afyon (gemessen ab Ortsschild Afyon, Richtung Kütahya) (36STH89); 12.07.1990; leg. Kähler, J.
 Antalya: Alanya, Dimçay river (36SVF14); 15.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Antalya: Antalya, asl: 300-600 (36STF98); 24.05.1996-30.05.1996; leg. Siniav & Afonin; det. & coll: Hartung, M.
 Antalya: Aspendos 1 (36SUF38); 23.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.
 Antalya: Aspendos 2 (36SUF39); 27.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.
 Antalya: Bach an der Hauptstraße nahe Ulupinar SW Kenner (36STF74); 25.06.1998-27.06.1998; leg. Arlt, J.
 Antalya: Bach in Cirali nahe der Küste S Kemer (36STF63); 26.06.1998-27.06.1998; leg. Arlt, J.
 Antalya: Bach in Ulupinar, S der Straße Kas-Antalya (36STF64); 25.06.1991; leg. Lopau, W.
 Antalya: Bach W Cirali, E der Straße Kas-Antalya, 70 km von Antalya (36STF63); 19.06.1991 & 25.06.1991; leg. Lopau, W.
 Antalya: Basgöz river N Finike (36STF34); 12.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Antalya: Cirali (36STF73); 13.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Antalya: Fluss Dim çay in Alanya (östlicher Strandrand, ca. 2,2 km oberhalb der Mündung) (36SVF14); 20.07.1990; leg. Kähler, J.
 Antalya: Gebirgsfluss unterhalb Ulupinar, S der Straße Kas-Antalya (36STF73); 21.05.1991; leg. Lopau, W.
 Antalya: Kemer bei Antalya (36STF85); leg. Franke; coll. Mus. Görlitz
 Antalya: Kinik, Esen Çay (35SQA02); 20.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.
 Antalya: Ulupinar (36STF73); 13.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Antalya: Unterlauf des Flusses W Cirali, E der Straße Kas-Antalya, 70 km von Antalya (36STF63); 22.05.1991; leg. Lopau, W.
 Antalya: Yaila pass, N Alanya (36SVF); leg. Seidenbusch, R.; det. & coll: Hartung, M.
 Balikesir: Edremit (35SND09); 08.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Burdur: 10 km E of Burdur, asl: 900 (36STG67); 22.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Bursa: Armutlu (35TPE58); 10.06.1941; leg. Kosswig; det. Schneider, W. 1986; coll: BM(NH)
 Çanakkale: Fluss Behram E von Ayvacik, NE der E87 (35SMD58); 20.08.1990; leg. Lopau, W.
 Denizli: Karahayıt (35SPC80); 10.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Elazığ: Sivrice, Hazar Göl (37SEC25); 16.07.1947-16.07.1947; leg. Kosswig; coll: BM(NH)
 Elazığ: W-shore of lake Hazar. Sandy beach with pebbles E of Sivrice, 25 km S of Elazığ (37SEC25); 25.07.2002; leg. Kop, A.; coll: RMNH
 Hatay: Karasu Çay 1, basin in river bed (37SBA98); 27.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.
 İçel: Bach 8 km W Anamur (36SVE79); 23.05.1991; leg. Lopau, W.
 İçel: Bach Kargıcak in Kargıcak 35 km NW Silifke (36SWF63); 27.05.1991; leg. Lopau, W.
 İçel: Karstquelle bei Aydıncık (36SWE29); 23.06.1998; leg. Arlt, J.
 İçel: Tece Çay in Tece ca. 23 km SW Mersin (36SXF26); 22.06.1998; leg. Arlt, J.
 Isparta: Eğirdir Gölü, at Eğirdir (36SUG19); 01.07.2001; leg. Kalkman, V.J.
 Isparta: Kovada milli parki (36SUG16); 01.07.2001; leg. Kalkman, V.J.
 İstanbul: Baltaliman (European side) (35TPF); 20.06.1946; leg. Burr, M.; coll: BM(NH)
 İstanbul: Küçüksu (35TPF74); 27.06.1946; leg. Burr, M.; coll: BM(NH)
 İstanbul: Rumelihisar (35TPF65); 15.06.1949; leg. Burr, M.; coll: BM(NH)
 Kahramanmaraş: Andırın (37SBB66); 21.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Kütahya: Nr Gediz (35SQD02); 01.08.1962; leg. Guichard & Harvey; coll: BM(NH)
 Manisa: Demirci, S of Simav (35SPD42); 03.08.1931-04.08.1931; leg. Uvarov, B.P.; det. Longfield, C.; coll: BM(NH)
 Muğla: Bach 23 km E Fethiye an der Kreuzun S von Kemer (35SQA15); 30.06.1991; leg. Lopau, W.
 Muğla: Bach 23 km W Yatağan (35SNB72); 09.07.1984; leg. Kähler, J.
 Muğla: Bach an der Straße Muğla-Fethiye 3 km S Karabögürtlen (35SPA39); 01.07.1991; leg. Lopau, W.
 Muğla: Bach an der Straße Muğla-Fethiye, 23 km NW Fethiye (35SPA76); 30.06.1991; leg. Lopau, W.
 Muğla: Bergbach 7 km NW Köycegiz (35SPA49); 22.05.1996; leg. Henheik, H.
 Muğla: Fethiye / Kemer (35SQA05); 12.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Muğla: Hamit (35SPA48); 11.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Muğla: Hamit (35SPA48); 21.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.
 Muğla: Marmaris (35SPA17); 30.08.1985; leg. Prasse, R.; det.& coll: Hartung, M.
 Muğla: Marmaris, Cetibeli (35SPA18); 26.06.1985; leg. Brooks, S.A.; det. Schneider, W. 1997; coll: BM(NH)
 Muğla: W side of Ak Dag, asl: 800 (35SQA24); 04.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Samsun: Samsun (37TBF77); 07.04.1993; leg. Louda, J.; det.& coll: Hartung, M.
 Trabzon: Derecik (37TEF50); 04.06.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Onychogomphus lefebvrei (Rambur)

Adana: Hemite Kale, Ceyhan Nehri (37SBB41); 25.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.
 Adiyaman: Bach auf dem Weg zum Nemrut-Daghi, 5 km S der Chabinas Brücke (37SDB69); 13.06.1991; leg. Lopau, W.
 Adiyaman: Fluss auf dem Weg zum Nemrut-Daghi, 6 km NE Narince (37SDB89); 13.06.1991; leg. Lopau, W.
 Adiyaman: small river ca. 5 km W of Kahta, running parallel with the road (37SDB57); 08.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH
 Diyarbakır: 39 km E of Diyarbakır, asl: 650 (37SFC41); 04.06.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Diyarbakır: Bach 11 km E Bagdere an der Straße Baykan-Diyarbakır (37SFC52); 12.06.1991; leg. Lopau, W.
 Diyarbakır: Fluss Bagdere 2 km E Bagdere (37SFC52); 12.06.1991; leg. Lopau, W.
 Elazığ: river Tigris, near the entrance of a tributary, 5-7 km N of Maden (37SEC55); 27.07.2002; leg. Kop, A.; coll: RMNH
 Elazığ: E side Hazargöl, asl: 1300 (37SEC46); 10.06.1986-13.06.1986; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Hatay: Bach 3 km N Hassa (auf der Westseite der Straße) (37SBA77); 17.07.1990; leg. Kählert, J.
 Hatay: Bach in Uluçınar (36SYF53); 30.05.1991; leg. Lopau, W.; det. Lopau, W.
 Hatay: Teknepinar (37SBA30); 20.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Kahramanmaraş: Andırin (37SBB66); 21.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Siirt: 5 km W of Baykan, asl: 800 (37SGC42); 08.06.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Onychogomphus macrodon (Selys)

Adana: Hemite Kale, Ceyhan Nehri (37SBB41); 25.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Paragomphus lineatus (Selys)

Adana: Hemite Kale, Ceyhan Nehri (37SBB41); 25.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Adana: 1-6 km E of Keypak, 25 km NE of Osmaniye, asl: 600 (37SBB81); 28.05.1984; leg. Oorschot, H. van & Brink, vd; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Hatay: Bach 22 km SW Antakya (1 km vor Ortsschild Samandag) (37SBA30); 15.07.1990; leg. Kählert, J.

Hatay: Bach 3 km N Hassa (auf der Westseite der Straße) (37SBA77); 17.07.1990; leg. Kählert, J.

Hatay: Bach 31 km NNE Kirikhan (37SBA76); 16.07.1990; leg. Kählert, J.

Hatay: Karasu Çay 2 river and ponds (37SBA98); 19.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Cordulegaster insignis insignis Schneider

Antalya: Akseki (Umg. des Dorfes, Friedhof etc.) (36SUG90); 24.06.1998-25.06.1998; leg. Arlt, J.

Antalya: Bach an der Hauptstraße nahe Ulupinar SW Kemer (36STF74); 25.06.1998-27.06.1998; leg. Arlt, J.

Antalya: Bach in Ulupinar, S der Straße Kas-Antalya (36STF73); 25.06.1991; leg. Lopau, W.

Antalya: Bach N Ulupinar, ca. 500 m ü.N. (36STF74); 26.06.1991; leg. Lopau, W.

Antalya: Cukur Yayla, Tahtali Dag, asl: 1600 (36STF64); 10.07.1949; leg. Burr, M.; coll: BM(NH)

Antalya: Gündogmus, oozing and ditch near road SE of Gündogmus, asl: 1420 (36SVF27); 19.08.1995; leg. Boudot, J.-P.; coll: Jacquemin, G.

Antalya: lake at Cevizli, 20 km N of Akseki (36SUG91); 11.07.2001; leg. Kalkman, V.J.

Antalya: Quelle am Gasthaus an Hauptstraße Höhe Cirali (36STF63); 26.06.1998-27.06.1998; leg. Arlt, J.

Antalya: Ulupinar (36STF73); 13.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Muğla: Ağla (35SPB50); 25.07.1947; leg. Burr, M.; coll: BM(NH)

Muğla: Sandras dag (35SPB60); 22.07.1947; leg. Burr, M.; det. Waterston, 1975; coll: BM(NH)

Cordulegaster insignis mzymtae X *charpentieri*

Artvin: Savşat (38TKL86); 10.08.1995; leg., Boudot J.-P.; coll: Jacquemin, G.
Artvin: Savşat (38TKL86); 13.07.1997; leg., Boudot J.-P.; coll: Jacquemin, G.

Cordulegaster insignis ssp.

Amasya: Amasia (36T); leg. Staudinger; coll: BM(NH)

Ankara: Beynam, asl: 1000 (36SVJ99); 26.06.1962; leg. Guichard & Harvey; coll: BM(NH)

Cordulegaster picta Selys

Bursa: Armutlu (35TPE58); 10.06.1941; leg. unknown det. Waterston, 1975; coll: BM(NH)

Bursa: Kesis dag (35T); leg. unknown; det. Waterston, 1975; coll: BM(NH)

Bursa: Brusa (35TPE); 06.07.1922; leg. Graves, P.P.; det. Waterston, 1975; coll: BM(NH)

Istanbul: Belgrad (35TPF56); 18.07.1929; leg. unknown det. Waterston, 1975; coll: BM(NH)

Istanbul: Kilyos (35TPF76); 06.08.1929; leg. unknown det. Waterston, 1975; coll: BM(NH)

Cordulia aenea (Linnaeus)

Ankara: Karagöl, asl: 1200 (36TVK97); 22.06.1962; leg. Guichard & Harvey; coll: BM(NH)

Somatochlora flavomaculata (Vander Linden)

Istanbul: Prince's islands, Halkı [= Heybeli] (35TPF72); 10.06.1920; leg. Graves, P.P.; coll: BM(NH)

Muğla: Bach durch Schlammbed an der S-Spitze des Köycegiz-Sees (35SPA48); 23.05.1996; leg. Henheik, H.

Muğla: Hamit (35SPA48); 11.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Muğla: Koycegiz Gölü, South side of the lake (35SPA48); 11.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Somatochlora meridionalis Nielsen

Istanbul: Belgrade forest (35TPF56); 02.06.1919; leg. Graves, P.P.; coll: BM(NH)

Brachythemis fuscopalliata (Selys)

Adana: 1 km S of Karagöçer, ca. 40 km SW of Adana (36SXF86); 17.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Adana: Adana lake (36SYG00); 17.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Adana: Bewässerungskanal 2-3 km E der Kreuzung bei Ceyhan (Richtung Kozani/Kadirli) (36SYG40); 13.07.1990; leg. Kähler, J.

Adana: ca. 20 km NW of Osmaniye, 2 km N of bridge across the Ceyhan (37SBB42); 11.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Adana: ca. 5 km N of Karatas and 45 km S of Adana (36SYF15); 16.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Adana: ca. 6 km S of Mercimek, ca 8 km NW of Ceyhan (36SYG40); 12.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Adana: old bridge over river Seyhan in Adana (36SYF09); 30.07.2002; leg. Kop, A.; det. Kop, A.;

Adana: Teich an der Kreuzung bei Ceyhan (Richtung Kozani/Kadirli, direkt hinter der Müllkippe) (36SYG40); 13.07.1990; leg. Kähler, J.

Adiyaman: Nebenfluss des Euphrat an der Straße Siverek-Kahta, 6 km E Sogütlü (37SEB07); 13.06.1991; leg. Lopau, W.

Antalya: Karpuz Çay at crossing with road to Akseki (36SUF76); 11.07.2001; leg. Kalkman, V.J.

Elazığ: pool 2 km N of Sivrice, partly overgrown with *Carex* and *Juncus*. (37SEC25); 26.07.2002; leg. Kop, A.

Elazığ: W-shore of lake Hazar. Sandy beach with pebbles E of Sivrice, 25 km S of Elazığ (37SEC25); 25.07.2002; leg. Kop, A.

Gaziantep: Birecik, Euphrates river (37SDB00); 18.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Gaziantep: Euphrates just S of Birecik bridge (37SDA09); 05.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Gaziantep: Kiesgrubengelände mit 20-30 Gewässern am westl. Euphrat-Ufer bei Birecik (37SDA09); 18.07.1990; leg. Kähler, J.

Gaziantep: Kiesgruben am Westufer des Euphrat bei Birecik (37SDA09); 03.06.1991; leg. Lopau, W.

İçel: Gebiet SW des Akgöl im Göksu Delta (36SWF81); 04.05.2000; leg. Ihssen, G. & H.J. Pelny

İçel: Göksu Delta SE Akgöl-Lagune E Tasucu (36SWF81); 22.06.1998-23.06.1998; leg. Arlt, J.

İçel: western side of Akgöl near Denizkent, 8 km S of Silifke, Göksu Delta (36SWF81); 09.07.2001; leg. Kalkman, V.J.; coll: RMNH

Şanlı Urfa: river Euphrates (Firat Nehri) next to open sewage canal in Birecik (37SDA09); 18.07.2002; leg. Kop, A.; coll: RMNH

Şanlı Urfa: small stretch of reeds on the E shore of the Euphrates, S side of Birecik (37SDA09); 19.07.2002; leg. Kop, A.
Şanlı Urfa: W shore of the Euphrates, overgrown by reeds (37SDA09); 19.07.2002; leg. Kop, A.; coll: RMNH

Brachythemis leucosticta (Burmeister)

Adana: Akyayan Gölü, 6 km E of Karatas (36SYF15); 03.05.2002; leg. Th. Zeegers

Crocothemis erythraea (Brullé)

Adana: 1 km S of Karagöcher, ca. 40 km SW of Adana (36SXF86); 17.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Adana: 5 km N of Karatas, asl: 30 (36SYF15); 26.09.1991; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Adana: Adana lake (36SYG00); 24.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Adana: ca. 20 km NW of Osmaniye, 1 km N of bridge across the Ceyhan (37SBB42); 11.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Adana: ca. 5 km N of Karatas and 45 km S of Adana (36SYF15); 16.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Adana: ca. 6 km S of Mercimek, ca 8 km NW of Ceyhan (36SYG40); 12.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Adana: Cevdetiye (37SBB51); 24.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Adana: Hemite Kale, Ceyhan Nehri (37SBB41); 25.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Adana: Tuzla Gölü, ca 45 km SW of Adana (36SXF86); 17.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Adiyaman: Euphrat-Stausee (Atatürk-Barajı) an der Fährstelle Straße Siverek-Kahta, W-Seite (37SDB87); 13.06.1991; leg. Lopau, W.

Adiyaman: Nebenfluss des Euphrat an der Straße Siverek-Kahta, 6 km E Sogülü (37SEB07); 13.06.1991; leg. Lopau, W.

Adiyaman: Nemrut Dagi, S side, asl: 700-1000 (37SDC70); 01.06.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Afyon: 40 km NW of Akşehir, Sultan Dagları, asl: 1500-1800 (36SUH46); 17.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Afyon: Bach 11,5 km NW Afyon (gemessen ab Ortsschild Afyon, Richtung Kütahya) (36STH89); 12.07.1990; leg. Kählert, J.

Afyon: Eber Gölü, northside (36SUH48); 03.07.2001; leg. Kalkman, V.J.

Afyon: river west of Eber Gölü (bridge) (36SUH28); 03.07.2001; leg. Kalkman, V.J.

Ankara: Emir Gölü (36SVK80); 20.07.1949; leg. Geldiay, Remzi; det. Cowley, J.; coll: BM(NH)

Ankara: Mogan Gölü 17 km S Ankara (36SVK80); 19.06.1991; leg. Lopau, W.

Antalya: Alanya (36SVF14); leg. Oorschot, H. van, H. van den Brink & P. Oosterbroek; det. Kalkman, V.J. & G.J. van Peit; coll: ZMAN

Antalya: Antalya (36STF); leg. Eresh, S.; coll: BM(NH)

Antalya: Bewässerungskanal 3 km E Manvgat an der Straße Manavgat-Alanya (36SUF67); 24.06.1991; leg. Lopau, W.

Antalya: Entwässerungsgraben im Bereich des ehemaligen Ova-Gölü in Ovakoy (35SQA11); 28.06.1991; leg. Lopau, W.

Antalya: Entwässerungskanal in der Koca-Çay-Mündungsebene (35SQA01); 30.06.1991; leg. Lopau, W.

Antalya: Fluss am Nordrand des Koca-Çay-Deltas (35SQA02); 18.05.1991; leg. Lopau, W.

Antalya: Fluss Dim çay in Alanya (östlicher Strand, ca. 2,2 km oberhalb der Mündung (36SVF14); 20.07.1990; leg. Kählert, J.

Antalya: Kiesgrube am Karpuz Çay ca. 10 km N der Küste bei Taskesigi (36SUF76); 24.06.1998; leg. Arlt, J.

Antalya: lake at Cevizli, 20 km N of Akseki (36SUG91); 11.07.2001; leg. Kalkman, V.J.

Antalya: Quellbereich des Flusses am Nordrand des Koca-Çay-Deltas (35SQA02); 28.06.1991; leg. Lopau, W.

Antalya: Rohrkolbensumpf S Demirtas nahe der Küste SE Alanya (36SVF23); 24.06.1998; leg. Arlt, J.

Artvin: ca. 15 km NE of Savşat: lake Karagöl, asl: 1500 (38TKL87); 18.08.2002; leg. Wasscher, M.

Aydin: Brachwiese mit Pfützen E Graben von S in den Bafasee-Kanal (35SNB25); 30.05.1996; leg. Henheik, H.

Aydin: Tümpel an den Ruinen von Milet (35SNB25); 30.05.1996; leg. Henheik, H.

Aydin: strandnaher Tümpel 0,4 km WSW Usla (35SNB23); 19.05.1996; leg. Henheik, H.

Burdur: Ciglik (36STG80); 13.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Bursa: Iznik Gölü, 40 km NE of Bursa, asl: 80 (35TQE37); 22.06.1959; leg. exp. Turkey; det. Kalkman, V.J.; coll: RMNH

Çanakkale: Fluss Behram bei Behramkale (Assos) (35SMD47); 09.09.1989; leg. Lopau, W.

Çanakkale: Fluss Behram E von Ayvacık, NE der E87 (35SMD58); 20.08.1990; leg. Lopau, W.

Çanakkale: Fluss mündung ca. 20 km N Gülpinar (35SMD29); 10.09.1989; leg. Lopau, W.

Diyarbakır: Bach 11 km E Bagdere an der Straße Baykan-Diyarbakır (37SFC52); 12.06.1991; leg. Lopau, W.

Diyarbakır: Bach 15 km E Bagdere an der Straße Baykan-Diyarbakır (37SFC62); 12.06.1991; leg. Lopau, W.

Diyarbakır: Fabrika Çay II, just N of Fabrikaköy, ca. 6 km S of Diyarbakır (37SFB08); 07.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Diyarbakır: Fluss Bagdere 2 km E Bagdere (37SFC52); 12.06.1991; leg. Lopau, W.

Elazığ: 20 km S of Karakocan, asl: 1150 (37SEC89); 03.06.1986; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Elazığ: seepage-fed marshy area along road Elazığ-Sivrice, 1 km from the latter (37SEC25); 26.07.2002; leg. Kop, A.

Gaziantep: Birecik, Euphrates river (37SDB00); 18.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Gaziantep: Fluss 30 km E Kilis an der Straße nach Elbeyli (37SCA56); 02.06.1991; leg. Lopau, W.

Gaziantep: Kiesgruben am Westufer des Euphrat bei Birecik (37SDA09); 03.06.1991; leg. Lopau, W.

Gaziantep: Kilis (37SCA27); 19.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Gaziantep: Nebenfluss des Euphrat an der Rumkale 30 km NW Birecik (37SCB92); 16.06.1991; leg. Lopau, W.

Gaziantep: stehendes Gewässer unterhalb der Staumauer des Tahtaköprü-Baraji 45 km W Kilis (37SBA98); 01.06.1991; leg. Lopau, W.

Gaziantep: wassergefüllte vulkanische Explosionskrater S der Straße Hassa-Kilis (37SBA87); 01.06.1991; leg. Lopau, W.

Hakkari: 35 km W of Hakkari, Zab river near road to Cukurca, asl: 950-1100 (38SLG64); 15.06.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Hatay: Bach 22 km SW Antakya (1 km vor Ortsschild Samandag) (37SBA30); 15.07.1990; leg. Kähler, J.

Hatay: Bach 31 km NNE Kirikhan (37SBA76); 16.07.1990; leg. Kähler, J.

Hatay: Bach ca. 12 km N Iskenderun (bei Sariseki, an der Polizeistation, direkt am Meer) (37SBA56); 14.07.1990; leg. Kähler, J.

Hatay: Karasu Çay 2 river and ponds (37SBA98); 19.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Hatay: Sariseki (37SBA56); 26.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Hatay: sumpfiger Straßengraben 36 km S Uluçınar an der Straße nach Samandagi (36SYF60); 31.05.1991; leg. Lopau, W.

İçel: 35 km SW of Adana, Coplu near Seyhan, asl: 20 (36SXF87); 06.10.1991; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

İçel: 36 km NE of Silifke, Limonlu stream N of Limonlu village (36SXF14); 15.05.2002; leg. Goudsmits, K. & V.J. Kalkman

İçel: Anamur Çay in Anamur an der Brücke (36SVE89); 23.06.1998; leg. Arlt, J.

İçel: Bach 8 km W Anamur (36SVE79); 23.05.1991; leg. Lopau, W.

İçel: Fischteiche bei Kurtulus (36SWF92); 04.05.2000; leg. Ihssen, G. & H.J. Pelny

İçel: Fluss Kutumenfez 5 km W Anamur (36SVE89); 23.05.1991; leg. Lopau, W.

İçel: Göksu Delta (36SWF81); 16.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

İçel: Göksu Delta, System von Be- und Entwässerungskanälen (36SWF82); 25.05.1991; leg. Lopau, W.

İçel: Göksu Delta SE Akgöl-Lagune E Tasucu (36SWF81); 22.06.1998-23.06.1998; leg. Arlt, J.; det. Arlt, J.

İçel: Graben an der Straße Silifke-Mersin ca. 10 km E Silifke (36SWF92); 28.05.1991; leg. Lopau, W.

İçel: Graben im Eukalyptuswald Karabucak SW Tarsus (36SXF68); 06.05.2000; leg. Ihssen, G. & H.J. Pelny

İçel: Graben S Kurtulus (36SWF92); 05.05.2000; leg. Ihssen, G. & H.J. Pelny

İçel: Karstbach bei Olukbasi ca. 10 km E Silifke (36SWF92); 22.06.1998; leg. Arlt, J.

İçel: Tece Çay in Tece ca. 23 km SW Mersin (36SXF26); 22.06.1998; leg. Arlt, J.

İçel: Wassergraben an der Straße Silifke-Mersin 5 km E Silifke (36SWF92); 26.05.1991 & 28.05.1991; leg. Lopau, W.

İçel: western side of Akgöl near Denizkent, 8 km S of Silifke, Göksu Delta (36SWF81); 09.07.2001; leg. Kalkman, V.J.; coll: RMNH

Isparta: Egridir Gölü, asl: 950 (36SUG19); 16.07.1980; leg. Oorschot, H. van, c.s.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Isparta: Kovada milli parki (36SUG16); 01.07.2001; leg. Kalkman, V.J.

Izmir: Kiesgrube am Fluss Bakır 6 km E Candarli (35SMD90); 07.09.1989; leg. Lopau, W.

Konya: Bewässerungskanal 3 km W Eregli (36SWG85); 23.06.1991; leg. Lopau, W.

Konya: Beyşehir Gölü S (36SUG66); 25.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Konya: Eregli-Sümpfe (Akgöl) 16 km W Eregli (36SWG65); 22.06.1991; leg. Lopau, W.

Konya: Halkapinar (Ivritz baraji) (36SXG04); 24.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Konya: Halkapinar (Ivritz baraji) (36SXG04); 24.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Konya: Krater-Gölü (Aci-Göl) 8 km E Karapınar (N der Straße) (36SWG57); 21.06.1991; leg. Lopau, W.

Konya: Meke Gölü 5 km E Karapınar (S der Straße) (36SWG57); 22.06.1991; leg. Lopau, W.

Konya: Tümpel 7 km E Yarma an der Straße Konya-Karapınar (36SVG98); 21.06.1991; leg. Lopau, W.

Muğla: Bach 23 km W Yatagan (35SNB72); 09.07.1984; leg. Kähler, J.

Muğla: Bachmündung am Ostufer des Sülüngür-Gölü (35SPA47); 12.05.1991 & 14.05.1991; leg. Lopau, W.

Muğla: Graben W Köycegiz (35SPA49); 22.05.1996; leg. Henheik, H.

Muğla: Hamit (35SPA48); 11.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Muğla: kanalartiger Bachunterlauf zwischen Brücke W Köycegiz und dem See (35SPA49); 22.05.1996; leg. Henheik, H.

Muğla: Köycegiz-See N Ufer E des Ortes (35SPA59); 24.05.1996; leg. Henheik, H.

Muğla: Letoon / Pydnai (35SQA02); 12.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Muğla: Sumpfgebiet am Fuß der Berge am Ostufer des Sülüngür-Gölü (35SPA47); 14.05.1991; leg. Lopau, W.

Ordu: Unye (37TCF55); 11.06.1959; leg. Vader, W.J.M.; det. Kalkman, V.J.; coll: RMNH

Samsun: Samsun (37TBF77); 24.06.1958-29.06.1958; leg. Eyndhoven, G.J. van; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Şanlı Urfa: 44 km W of Siverek, E side of Firat river, asl: 600 (37SDB97); 02.06.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Şanlı Urfa: Euphrat ca. 10 km NW Birecik (37SDB00); 15.06.1991; leg. Lopau, W.

Şanlı Urfa: W shore of the Euphrates, overgrown by reeds (37SDA09); 19.07.2002; leg. Kop, A.; coll: RMNH

Siirt: Bach 12 km E Bekirhan an der Straße Diyarbakır-Bitlis (37SGC02); 04.06.1991; leg. Lopau, W.

Siirt: Quelltümpel 1 km W Baykan an der Straße Baykan-Diyarbakır (37SGC42); 12.06.1991; leg. Lopau, W.

Trabzon: 1 km SW of Trabzon, asl: 0 (37TEF63); 23.06.1988; leg. Oorschot, H. van, H. van den Brink & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Trabzon: 30 km E of Trabzon, asl: 0 (37TEF93); 23.06.1988-24.06.1988; leg. Oorschot, H. van, H. van den Brink & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

***Crocothemis servilia* (Drury)**

İçel: western side of Akgöl near Denizkent, 8 km S of Silifke, Göksu Delta (36SWF81); 09.07.2001; leg. Kalkman, V.J.; coll: RMNH

***Diplacodes lefebvrei* (Rambur)**

Adana: 1 km S of Karagöçer, ca. 40 km SW of Adana (36SXF86); 17.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Adana: ca. 6 km S of Mercimek, ca 8 km NW of Ceyhan (36SYG40); 12.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Adana: Cevdetiye (37SBB51); 24.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Adana: old bridge over river Seyhan in Adana (36SYF09); 30.07.2002; leg. Kop, A.

Adana: Tuzla Gölü, ca 45 km SW of Adana (36SXF86); 17.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Antalya: Antalya (36STF); leg. Eresh, S.; coll: BM(NH)

Antalya: Bewässerungskanal 3 km E Manvgat an der Straße Manavgat-Alanya (36SUF67); 24.06.1991; leg. Lopau, W.

Antalya: Kiesgrube am Karpuz Çay ca. 10 km N der Küste bei Taskesig (36SUF76); 24.06.1998; leg. Arlt, J.

Antalya: Manavgat bei Antalya (36SUF67); leg. Franke; coll. Mus. Görlitz

Antalya: Payallar, at road to mountains about 20 km W of Alanya (36SUF95); 12.11.2001; leg. Bos, F.

Antalya: Sagirin, along mountainroad towards Beskenak, about 50 km E of Antalya (36SUG40); 14.11.2001; leg. Bos, F.; coll: RMNH

Aydın: Weg durch Olivenhain direkt S Yeni Akalan (35SNB23); 26.05.1996; leg. Henheik, H.

Hatay: Bach 6 km SW Uluçınar an der Straße nach Samandagi (36SYF52); 30.05.1991; leg. Lopau, W.

Hatay: Bach ca. 12 km N İskenderun (bei Sariseki, an der Polizeistation, direkt am Meer) (37SBA56); 14.07.1990; leg. Kähler, J.

Hatay: Bach in Uluçınar (36SYF53); 30.05.1991; leg. Lopau, W.

Hatay: sumpfiger Straßengraben 36 km S Uluçınar an der Straße nach Samandagi (36SYF60); 31.05.1991; leg. Lopau, W.

Hatay: Teich 37,3 km S Uluçınar an der Straße nach Samandagi (36SYF60); 31.05.1991; leg. Lopau, W.

- İçel: 36 km NE of Silifke, Limonlu stream N of Limonlu village (36SXF14); 15.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH
- İçel: Akgöl im Göksu Delta 10 km S Silifke (36SWF81); 26.05.1991; leg. Lopau, W.
- İçel: Göksu Delta, System von Be- und Entwässerungskanälen (36SWF82); 25.05.1991; leg. Lopau, W.
- İçel: Göksu Delta SE Akgöl-Lagune E Tasucu (36SWF81); 22.06.1998-23.06.1998; leg. Arlt, J.
- İçel: Graben an der Straße Silifke-Mersin ca. 10 km E Silifke (36SWF92); 28.05.1991; leg. Lopau, W.
- İçel: Karstbach bei Olukbasi ca. 10 km E Silifke (36SWF92); 22.06.1998; leg. Arlt, J.
- İçel: Quellfluss Soguksu bei Yenikas, 47 km E Anamur (36SWE19); 24.05.1991; leg. Lopau, W.
- İçel: Strandlagune 5 km E Anamur (36SVE99); 24.05.1991; leg. Lopau, W.
- İçel: Tece Çay in Tece ca. 15 km SW Mersin (36SXF26); 22.06.1998; leg. Arlt, J.
- İçel: Wassergraben an der Straße Silifke-Mersin 5 km E Silifke (36SWF92); 26.05.1991 & 28.05.1991; leg. Lopau, W.
- Şanlı Urfa: W shore of the Euphrates, overgrown by reeds (37SDA09); 19.07.2002; leg. Kop, A.; coll: RMNH

***Leucorrhinia pectoralis* (Charpentier)**

- Afyon: 10 km E of Çay, Eber göl, asl: 1000 (36SUH37); 29.05.1979; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

***Libellula depressa* Linnaeus**

- Adiyaman: Nemrut Dagi, asl: 1950-2100 (37SDC70); 01.06.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
- Antalya: Akseki (Umg. des Dorfes, Friedhof etc.) (36SUG90); 24.06.1998-25.06.1998; leg. Arlt, J.
- Antalya: Alanya (36SVF14); 18.06.1995; leg. Louda, J.; det.& coll: Hartung, M.
- Antalya: Bach 62 km S Beyşehir an der Straße nach Antalya, 1100 m ü.N. (36SUG83); 24.06.1991; leg. Lopau, W.
- Antalya: lake at Cevizli, 20 km N of Akseki (36SUG91); 11.07.2001; leg. Kalkman, V.J.; coll: RMNH
- Bingöl: 29 km NE of Bingöl, road Bingöl-Mus, asl: 1500 (37SFD50); 08.06.1986; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

- Bingöl: 3 km S of Genc, asl: 1200 (37SFC38); 06.06.1986; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
- Bitlis: 30 km SW of Bitlis, Narlidere, asl: 1000 (37SGC53); 08.06.1985; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
- Bitlis: 65 km E of Tatvan, Kuzgunkiran gec., asl: 1900-2300 (38SLH04); 05.06.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
- Bitlis: Kuzgunkiran Gecidi, asl: 2100 (38SLH04); 21.06.2000; leg. Oorschot, H. van, H. van den Brink & P. Oosterbroek; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
- Bitlis: pools on sandy shore and thistle field 1 km S of Tatvan(38SKH66); 21.07.2002; leg. Kop, A.; coll: RMNH
- Bitlis: Strandlagune am Van Gölü, an der Straße Tatvan-Ahlat, 2 km vor Ahlat (38SKH89); 09.06.1991; leg. Lopau, W.
- Çorum: Çorum, 10 km NE (36TXK79); 13.06.1959; leg. exp. Turkey; det. Kalkman, V.J.; coll: RMNH
- Elazığ: 20-24 km S of Elazığ, asl: 1100 (37SEC27); 02.06.1986; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
- Erzurum: valley South of Boyaz near Palandöken, south of Erzurum, asl: 2700 (37SGE0); 25.08.2002; leg. Wasscher, M.
- Istanbul: 30 km W of Istanbul, Yakuplu (35TPF43); 06.06.1979; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
- Istanbul: Kücüksu (35TPF74); 22.06.1949; leg. Burr, M.; det. Cowley, J.; coll: BM(NH)
- Kahramanmaraş: Andırın (37SBB66); 21.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
- Konya: 20 km SE of Eregli, env. İvriz, asl: 1200 (36SXG04); 21.07.1985; leg. Oorschot, H. van & W.O. de Prins; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
- Konya: 8 km NE of Beyşehir, asl: 1100 (36SUG97); 30.05.1979; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
- Sivas: Çamlıbel gec., asl: 1650 (37TBE82); 10.07.1986-11.07.1986; leg. Oorschot, H. van, et al; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
- Trabzon: 30 km E of Trabzon, asl: 0 (37TEF93); 23.06.1988-24.06.1988; leg. Oorschot, H. van, H. van den Brink & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
- Van: ausgesüßte Strandlagune am Ercek Gölü, 22 km E Van, an der Straße nach Ozalp (38SLH77); 11.06.1991; leg. Lopau, W.

Van: Mündung des Bendimaha in den Van Gölü 13 km SW Muradiye (38SLJ81); 10.06.1991; leg. Lopau, W.

***Libellula fulva* O.F. Müller**

Aksaray: Sultanhani, Esmekaya, 1050 m asl (36SWH43); 18.05.2002; leg. Zeegers, Th.; det. Kalkman, V.J.

Antalya: Entwässerungsgraben im Bereich des ehemaligen Ova-Gölü in Ovakoy (35SQA11); 28.06.1991; leg. Lopau, W.

Antalya: Fluss am Nordrand des Koca-Çay-Deltas (35SQA02); 18.05.1991; leg. Lopau, W.

Antalya: Flussmündung am N-Ende des Koca-Çay-Deltas (35SQA02); 18.05.1991; leg. Lopau, W.

Antalya: Quellbereich des Flusses am Nordrand des Koca-Çay-Deltas (35SQA02); 18.05.1991 & 28.06.1991 & 29.06.1991; leg. Lopau, W.

Burdur: Ciglik (36STG80); 13.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

İçel: Bach 8 km W Anamur (36SVE79); 23.05.1991; leg. Lopau, W.

İçel: Fluss Kutumenfez 5 km W Anamur (36SVE89); 23.05.1991; leg. Lopau, W.

Konya: Bewässerungskanal 3 km W Eregli (36SWG85); 23.06.1991; leg. Lopau, W.

Muğla: Bach durch Schlammbad an der S-Spitze des Köycegiz-Sees (35SPA48); 23.05.1996; leg. Henheik, H.

Muğla: Bachmündung am Ostufer des Sültünür-Gölü (35SPA47); 12.05.1991; leg. Lopau, W.

Muğla: Bewässerungskanal 2 km S Daljan (35SPA47); 13.05.1991; leg. Lopau, W.

Muğla: Graben W Köycegiz (35SPA49); 22.05.1996; leg. Henheik, H.

Muğla: Hamit (35SPA48); 21.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Muğla: kanalartiger Bachunterlauf zwischen Brücke W Köycegiz und dem See (35SPA49); 22.05.1996; leg. Henheik, H.

Muğla: Köycegiz-See N Ufer E des Ortes (35SPA59); 24.05.1996; leg. Henheik, H.

Muğla: Sumpfgebiet am Fuß der Berge am Ostufer des Sültünür-Gölü (35SPA47); 14.05.1991 & 16.05.1991; leg. Lopau, W.

***Libellula pontica* Selys**

Adana: Aydınlar, 15 km W of Kadırlı (37SBB33); 10.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Adana: ca. 20 km NW of Osmaniye, 1 km N of bridge across the Ceyhan (37SBB42); 11.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Elazığ: Palu, hills south of village with small brooks and pools, asl: 1000 (37SEC88); 06.05.1979; leg. Wasscher, M.

Hatay: Bach ca. 12 km N İskenderun (bei Sariseki, an der Polizeistation, direkt am Meer) (37SBA56); 14.07.1990; leg. Kählert, J.

Hatay: Sariseki (37SBA56); 26.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

İçel: Bewässerungsgraben am Eukalyptuswald 5 km S Tarsus (36SXF68); 29.05.1991; leg. Lopau, W.

Malatya: Maras-Malatya, 80 km S of Malatya (37SDC00); 25.05.1959; leg. exp. Turkey; det. Kalkman, V.J.; coll: RMNH

***Libellula quadrimaculata* Linnaeus**

Bitlis: İlgöl im Nemrut-Krater (Tatvan) (38SKH57); 07.06.1991 & 08.06.1991; leg. Lopau, W.

Bolu: Abant, village Bolu (36TUK59); 10.06.1951; leg. Croockewit, H.W.E.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Kayseri: Sultan Sazlığı (36SXH/YH); leg. Sawyer, N.; coll: BM(NH)

Konya: Bach 51 km S Beyşehir an der Straße nach Antalya, 1200 m ü.N. (36SUG83); 24.06.1991; leg. Lopau, W.

Konya: Halkapınar (Ivriç barajı) (36SXC04); 24.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Konya: Meke Gölü 5 km E Karapınar (S der Straße) (36SWG57); 22.06.1991; leg. Lopau, W.

Van: ausgesüßte Strandlagune am Ercek Gölü, 22 km E Van, an der Straße nach Özalp (38SLH77); 11.06.1991; leg. Lopau, W.

***Orthetrum albistylum* (Selys)**

Konya: Bewässerungskanal 3 km W Eregli (36SWG85); 23.06.1991; leg. Lopau, W.

Samsun: Samsun (37TBF77); 07.04.1993; leg. Louda, J.; det. & coll: Hartung, M.

Siirt: Bach 12 km E Bekirhan an der Straße Diyarbakır-Bitlis (37SGC02); 04.06.1991; leg. Lopau, W.

***Orthetrum brunneum* (Fonscolombe)**

Adana: Kadirli, spring of a brook north of the city, asl: 150 (37SBB44); 02.05.1979; leg. Wasscher, M.

Adiyaman: 25 km S of Gölbasi, asl: 900 (37SCB66); 30.05.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Antalya: Antalya, asl: 300-600 (36STF98); 24.05.1996-30.05.1996; leg. Siniav & Afonin; det. & coll: Hartung, M.

Antalya: Bach in Ulupinar, S der Straße Kas-Antalya (36STF73); 25.06.1991; leg. Lopau, W.

Antalya: Bach W Cirali, E der Straße Kas-Antalya, 70 km von Antalya (36STF63); 19.05.1991 & 25.06.1991; leg. Lopau, W.

Antalya: Entwässerungsgraben im Bereich des ehemaligen Ova-Gölü in Ovakoy (35SQA11); 28.06.1991; leg. Lopau, W.

Antalya: road between Antalya and Kas (35SQA30); 01.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Antalya: Rohrkolbensumpf S Demirtas nahe der Küste SE Alanya (36SVF23); 24.06.1998; leg. Arlt, J.

Artvin: Barhal (=Altiparmak), shallow seepage/spring near brook, E-side of road, 3 km N of junction in village, asl: 1300 (37TGF03); 21.08.2002; leg. Wasscher, M.

Artvin: Katschgar-geb, Jussufeli-Pamukale, Yusufeli, Kackar Daglari (37TGF12); 08.07.1993-07.09.1993; leg. Louda, J.; det.& coll: Hartung, M.

Aydin: strandnaher Tümpel 0,4 km WSW Usla (35SNB23); 26.05.1996; leg. Henheik, H.

Aydin: Tümpel in kl. Kuhle 0,7 km SW Usla (35SNB23); 16.05.1996; leg. Henheik, H.

Bitlis: pools on sandy shore and thistle field 1 km S of Tatvan(38SKH66); 21.07.2002; leg. Kop, A.

Bitlis: river Bitlis in Bitlis (38SKH45); 22.07.2002; leg. Kop, A.

Bitlis: river Bitlis just before entering the small city of Baykan (37SGC42); 22.07.2002; leg. Kop, A.

Bitlis: rivulet Karasu near Saribahee, halfway along road Tatvan-Mus (37SGC48); 21.07.2002; leg. Kop, A.

Burdur: 20 km SE of Isparta, Sultan Daglari, asl: 1100 (36STG97); 15.07.1980; leg. Oorschot fam. van.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Burdur: Burdur, asl: 1100 (36STG57); 15.07.1980; leg. Oorschot, H. van, c.s.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Bursa: Armutlu (35TPE58); leg. Aksircay, F.; coll: BM(NH)

Çanakkale: Fluss Behram bei Behramkale (Assos) (35SMD47); 09.09.1989; leg. Lopau, W.

Çanakkale: Fluss mündung ca. 20 km N Gülpinar (35SMD29); 10.09.1989; leg. Lopau, W.

Denizli: 65 km SE of Denizil, 25 km W of Yesilova, asl: 1200 (35SQB25); 14.07.1980; leg. Oorschot, H. van, c.s.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Denizli: Karahayıt (35SPC80); 10.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Denizli: Pamukkale (35SPB89); 10.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Diyarbakır: Bach 11 km E Bagdere an der Straße Baykan-Diyarbakır (37SFC52); 12.06.1991; leg. Lopau, W.

Diyarbakır: Bach 15 km E Bagdere an der Straße Baykan-Diyarbakır (37SFC62); 12.06.1991; leg. Lopau, W.

Diyarbakır: Diyarbakır, Tigris (37SFB89); 18.07.1993; leg. Louda, J.; det.& coll: Hartung, M.

Diyarbakır: Fabrika Çay II, just N of Fabrikaköyü, ca. 6 km S of Diyarbakır (37SFB08); 07.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Diyarbakır: Fluss Bagdere 2 km E Bagdere (37SFC52); 12.06.1991; leg. Lopau, W.

Diyarbakır: Pamuk Çay, stony river 6 km E of Bismil at railway bridge (37SFB59); 07.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Elazığ: brooklet crossing the road from Sivrice to Elazig, 1.5 km N of Sivrice (37SEC25); 26.07.2002; leg. Kop, A.

Elazığ: Sivrice, Hazar Göl (37SEC25); 28.07.1947 & 30.07.1947; leg. Kosswig; coll: BM(NH)

Elazığ: small road behind factory and marshland, 1 km N of Sivrice (37SEC25); 25.07.2002; leg. Kop, A.; coll: RMNH

Elazığ: W-shore of lake Hazar. Sandy beach with pebbles E of Sivrice, 25 km S of Elazığ (37SEC25); 25.07.2002; leg. Kop, A.

Gaziantep: Bach 11 km E Kilis an der Straße nach Elbeyli (37SCA46); 02.06.1991; leg. Lopau, W.

Gaziantep: Birecik, at Eufrat (37SDA09); 06.05.1998; leg. Niesen, H.; det. Niesen, N.

Gaziantep: Kilis (37SCA27); 19.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Gaziantep: Nebenfluss des Euphrat an der Rumkale 30 km NW Birecik (37SCB92); 16.06.1991; leg. Lopau, W.

Giresun: Tirebolu (37TDF83); 10.06.1959; leg. exp. Turkey; det. Kalkman, V.J.; coll: RMNH

Hatay: Fluss und Bach in Uluçınar (36SYF53); 30.05.1991; leg. Lopau, W.

İçel: Anamur Çay in Anamur an der Brücke (36SVE89); 23.06.1998; leg. Arlt, J.

İçel: Bach 8 km W Anamur (36SVE79); 23.05.1991; leg. Lopau, W.

İçel: Bach Kargicak in Kargicak 35 km NW Silifke (36SWF63); 27.05.1991; leg. Lopau, W.

İçel: Fluss Kutumenfez 5 km W Anamur (36SVE89); 23.05.1991; leg. Lopau, W.

İçel: Graben an der Straße Silifke-Mersin ca. 10 km E Silifke (36SWF92); 28.05.1991; leg. Lopau, W.

İçel: Rinsal ca. 30 km W Anamur an der Küstenstraße (36SVE69); 23.06.1998; leg. Arlt, J.

Isparta: Kovada milli parki (36SUG16); 01.07.2001; leg. Kalkman, V.J.

Istanbul: Baltaliman (35TPF); 20.06.1946; leg. Burr, M.; coll: BM(NH)

Istanbul: Bebek (35TPF75); 07.06.1947; leg. Burr, M.; coll: BM(NH)

Istanbul: Kücüksu (35TPF74); 27.06.1946; leg. Burr, M.; coll: BM(NH)

Kahramanmaraş: Andırın (37SBB66); 21.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Kars: Ararat Mount, Saz Gölü (38SMJ19); 12.07.1993; leg. Louda, J.; det. & coll: Hartung, M.

Kırşehir: Çiçekdagi geç., asl: 1300 (36SXJ18); 08.07.1986; leg. Oorschot, B. van; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Konya: Bewässerungskanal 3 km W Eregli (36SWG85); 23.06.1991; leg. Lopau, W.

Konya: Halkapınar (Ivriz barajı) (36SXG04); 24.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Malatya: Maras-Malatya, 80 km SW of Malatya (37SDC00); leg. exp. Turkey; det. Kalkman, V.J.; coll: RMNH

Muğla: Bach 23 km W Yatagan (35SNB72); 09.07.1984; leg. Kähler, J.

Muğla: Bach an der Straße Muğla-Fethiye 3 km S Karabögürtlen (35SPA39); 01.07.1991; leg. Lopau, W.

Muğla: Bach durch Schlammibad an der S-Spitze des Köycegiz-Sees (35SPA48); 23.05.1996; leg. Henheik, H.

Muğla: Bachmündung am Ostufer des Sülüngür-Gölü (35SPA47); 12.05.1991; leg. Lopau, W.

Muğla: Strandlagune ca. 10 km S Daljan (35SPA47); 10.05.1991 & 11.05.1991 & 14.05.1991; leg. Lopau, W.

Muğla: W side of Ak Dag, Arsada, asl: 1000 (35SQA24); 05.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Ordu: 15-35 km S of Unye, road Unye-Akkus, asl: 500-800 (37TCF33); 05.06.1988; leg. Oorschot, H. van, c.s.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Şanlı Urfa: Euphrat ca. 10 km NW Birecik (37SDB00); 15.06.1991; leg. Lopau, W.

Siirt: Bach 12 km E Bekirhan an der Straße Diyarbakır-Bitlis (37SGC02); 04.06.1991; leg. Lopau, W.

Siirt: Quelltümpel 1 km W Baykan an der Straße Baykan-Diyarbakır (37SGC42); 12.06.1991; leg. Lopau, W.

Zonguldak: Zonguldak (36TUL98); 03.06.1951; leg. Croockewit, H.W.E.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Orthetrum cancellatum (Linnaeus)

Adana: Adana lake (36SYG00); 17.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Adiyaman: 10 km NW Celikhan, asl: 1500 (37SDC21); 10.06.1999; leg. Oorschot, H. van, H. van den Brink & Koolbergen, R.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Adiyaman: Euphrat-Stausee (Atatürk-Barajı) an der Fährstelle Straße Siverek-Kahta, W-Seite (37SDB87); 13.06.1991; leg. Lopau, W.

Afyon: Karahisar Vilayet, Dinar (36STH51); 21.07.1949; leg. Burr, M.; det. Cowley, J.; coll: BM(NH)

Ankara: Mogan Gölü 17 km S Ankara (36SVK80); 19.06.1991; leg. Lopau, W.

Antalya: lake at Cevizli, 20 km N of Akseki (36SUG91); 11.07.2001; leg. Kalkman, V.J.; coll: RMNH

Antalya: verlandeter Hafen des antiken Patara bei Gelemisch (35SQA01); 28.06.1991; leg. Lopau, W.

Artvin: ca. 15 km NE of Savşat: lake Karagöl, asl: 1500 (38TKL87); 17.08.2002; leg. Wasscher, M.

Artvin: ca. 15 km NE of Savşat: small brooklet, 3 km WSW of lake Karagöl, asl: 1450 (38TKL87); 18.08.2002; leg. Wasscher, M.

Aydın: Bafasee-Kanal (35SNB25); 30.05.1996; leg. Henheik, H.

Aydın: Bafasee-Kanal Übergang zum See (35SNB25); 30.05.1996; leg. Henheik, H.

Aydın: Graben von S in den Bafasee-Kanal (35SNB25); 30.05.1996; leg. Henheik, H.

Aydın: strandnaher Tümpel 0,4 km WSW Uslu (35SNB23); 19.05.1996; leg. Henheik, H.

Bitlis: Ilgöl im Nemrut-Krater (Tatvan) (38SKH57); 07.06.1991 & 08.06.1991; leg. Lopau, W.

Bitlis: Nemrut Dagi, asl: 2300 (38SKH57); 22.06.2000; leg. Oorschot, H. van, H. van den Brink & P. Oosterbroek; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Bitlis: Strandlagune am Van Gölü an der Straße Ahlat-Aldicevaz (38SKH99); 09.06.1991; leg. Lopau, W.

Bitlis: Strandlagune am Van Gölü, an der Straße Tatvan-Ahlat, 2 km vor Ahlat (38SKH89); 09.06.1991; leg. Lopau, W.

Bitlis: Strandlagune am Van Gölü, an der Straße Tatvan-Ahlat, 26 km vor Ahlat (38SKH77); 08.06.1991; leg. Lopau, W.

Burdur: lake Burdur, nr Burdur, asl: 845 (36STG58); 16.07.1949; leg. Burr, M.; det. Cowley, J.; coll: BM(NH)

Elazığ: W-shore of lake Hazar. Sandy beach with pebbles E of Sivrice, 25 km S of Elazığ (37SEC25); 25.07.2002; leg. Kop, A.

Hatay: Karasu Çay 1, basin in river bed (37SBA98); 27.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Isparta: Egridir Gölü, at Egridir (36SUG19); 01.07.2001; leg. Kalkman, V.J.

Isparta: Kovada milli parkı (36SUG16); 01.07.2001; leg. Kalkman, V.J.; coll: RMNH

Izmir: Stausee bei Bergama (35SND12); 08.09.1989; leg. Lopau, W.

Konya: Akgöl (36SWG65); 24.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Konya: Bewässerungskanal 3 km W Eregli (36SWG85); 23.06.1991; leg. Lopau, W.

Konya: Beyşehir Gölü S (36SUG66); 25.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Konya: Düden-Gölü, Südufer (36SWJ12); 19.06.1991; leg. Lopau, W.

Konya: Eregli-Sümpfe (Akgöl) 16 km W Eregli (36SWG65); 22.06.1991; leg. Lopau, W.

Konya: Halkapınar (Ivriz barajı) (36SXG04); 24.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Konya: kleiner See am Südufer des Düden-Gölü (36SWJ12); 20.06.1991; leg. Lopau, W.

Konya: Krater-Gölü (Aci-Göl) 8 km E Karapınar (N der Straße) (36SWG57); 21.06.1991 & 22.06.1991; leg. Lopau, W.

Konya: Meke Gölü 5 km E Karapınar (S der Straße) (36SWG57); 21.06.1991 & 22.06.1991; leg. Lopau, W.

Konya: NE-side of Akşehir Gölü (36SUH77); 21.05.1979-25.05.1979; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Konya: Tümpel 7 km E Yarma an der Straße Konya-Karapınar (36SVG98); 21.06.1991; leg. Lopau, W.

Muğla: Hamit (35SPA48); 11.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Muğla: Köycegiz-See (35SPA49); 23.05.1996; leg. Henheik, H.

Muğla: Köycegiz-See N Ufer E des Ortes (35SPA59); 24.05.1996; leg. Henheik, H.

Muğla: Strandlagune ca. 10 km S Daljan (35SPA47); 10.05.1991 & 14.05.1991; leg. Lopau, W.

Muğla: Unterlauf Graben W Köycegiz (35SPA49); 22.05.1996; leg. Henheik, H.

Van: ausgesüßte Strandlagune am Ercek Gölü, 22 km E Van, an der Straße nach Özalp (38SLH77); 11.06.1991; leg. Lopau, W.

Van: Strandlagune am Ercek-Gölü an der Straße Van-Özalp, 18 km E Van (38SLH67); 11.06.1991; leg. Lopau, W.

Orthetrum chrysostigma (Burmeister)

Adana: Demirtas, 9 km N of Yumurtalık (36SYF47); 12.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Adana: old bridge over river Seyhan in Adana (36SYF09); 30.07.2002; leg. Kop, A.

Antalya: 3 km W of Alanya (36SVF04); 08.06.1979-20.06.1979; leg. P.J. van & W.H. Gravestein; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Antalya: Alanya (36SVF14); 16.06.1991 & 20.06.1995; leg. Louda, J.; det. & coll: Hartung, M.

Antalya: Antalya, asl: 300-600 (36STF98); 24.05.1996-30.05.1996; leg. Sintaev & Afonin; det. & coll: Hartung, M.

Antalya: Fluss Dim çay in Alanya (östlicher Strandrand, ca. 2,2 km oberhalb der Mündung (36SVF14); 20.07.1990; leg. Kähler, J.

Gaziantep: Nebenfluss des Euphrat an der Rumkale 30 km NW Birecik (37SCB92); 16.06.1991; leg. Lopau, W.

Hatay: Bach 22 km SW Antakya (1 km vor Ortsschild Samandag) (37SBA30); 15.07.1990; leg. Kähler, J.

Hatay: Bach 34 km S Uluçinar an der Straße nach Samandagi (36SYF60); 31.05.1991; leg. Lopau, W.

Hatay: Bach 35,1 km S Uluçinar an der Straße nach Samandagi (36SYF60); 31.05.1991; leg. Lopau, W.

Hatay: Bach an der Straße 3 km N Hassa (37SBA77); 01.06.1991; leg. Lopau, W.

Hatay: Fluss Akbez 4 km N Hassa (37SBA87); 01.06.1991; leg. Lopau, W.

Hatay: Teich 37,3 km S Uluçinar an der Straße nach Samandagi (36SYF60); 31.05.1991; leg. Lopau, W.

İçel: 36 km NE of Silifke, Limonlu stream N of Limonlu village (36SXF14); 15.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

İçel: Karstquelle bei Aydıncık (36SWE29); 23.06.1998; leg. Arlt, J.

İçel: Tece Çay in Tece ca. 15 km SW Mersin (36SXF26); 22.06.1998; leg. Arlt, J.

İçel: Wasserbecken in Gözsütice (36SWF10); 23.06.1998; leg. Arlt, J.

Yozgat: Tipearesi (36SYK02); leg. unknown; coll: BM(NH)

Orthetrum coerulescens anceps (Schneider)

Adana: env. Feke, asl: 300 (36SYG58); 26.07.1983; leg. Oorschot, H. van, H. van den Brink & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Adiyaman: Fluss auf dem Weg zum Nemrut-Daghi, 6 km NE Narince (37SDB89); 13.06.1991; leg. Lopau, W.

Adiyaman: Nebenfluss des Euphrat an der Straße Siverek-Kahta, 6 km E Sogütlü (37SEB07); 13.06.1991; leg. Lopau, W.

Afyon: 10 km SW of Dazkiri, Acigöl, asl: 900 (35SQB49); 27.07.1980; leg. Oorschot, H. van, c.s.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Afyon: Bach 11,5 km NW Afyon (gemessen ab Ortsschild Afyon, Richtung Kütahya) (36STH89); 12.07.1990; leg. Kähler, J.

Antalya: 3 km W of Alanya (36SVF04); 08.06.1979-20.06.1979; leg. Bree, P.J. van & W.H. Gravesteen; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Antalya: Alanya (36SVF14); 20.06.1995 & 16.08.1998; leg. Louda, J.; det. & coll: Hartung, M.

Antalya: Antalya, asl: 300-600 (36STF98); 24.05.1996-30.05.1996; leg. Siniacov & Afonin; det. & coll: Hartung, M.

Antalya: Bach W Cirali, E der Straße Kas-Antalya, 70 km von Antalya (36STF63); 19.05.1991; leg. Lopau, W.

Antalya: Basgöz river N Finike (36STF34); 12.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Antalya: Entwässerungsgraben im Bereich des ehemaligen Ova-Gölü in Ovakoy (35SQA11); 28.06.1991; leg. Lopau, W.

Antalya: Flussmündung am N-Ende des Koca-Çay-Deltas (35SQA02); 18.05.1991; leg. Lopau, W.

Antalya: Quellbereich des Flusses am Nordrand des Koca-Çay-Deltas (35SQA02); 28.06.1991 & 29.06.1991; leg. Lopau, W.

Antalya: Sagirin, along mountainroad towards Beskonak, about 50 km E of Antalya (36SUG40); 14.11.2001; leg. Bos, F.

Antalya: Ulupinar (36STF73); 13.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Antalya: Unterlauf des Flusses W Cirali, E der Straße Kas-Antalya, 70 km von Antalya (36STF63); 22.05.1991; leg. Lopau, W.

Antalya: Yurikaraman river (36STF89); 22.09.1985; leg. Prasse, R.; det. & coll: Hartung, M.

Artvin: Barhal (=Altiparmak), shallow seepage/spring near brook, E-side of road, 3 km N of junction in village, asl: 1300 (37TGF03); 21.08.2002; leg. Wasscher, M.

Bitlis: Ahlat [=Erkizan] (38SKH89); 30.06.1947; leg. Kosswig; coll: BM(NH)

Burdur: Ciglik (36STG80); 13.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Bursa: Armutlu (35TPE58); 02.10.1944; leg. Aksircy, F.; coll: BM(NH)

Denizli: Pamukkale (35SPB89); 10.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Diyarbakır: Bach 15 km E Bagdere an der Straße Baykan-Diyarbakır (37SFC62); 12.06.1991; leg. Lopau, W.

Elazığ: Sivrice, Hazar Göl (37SEC25); 28.07.1947 & 30.07.1947; leg. Kosswig; coll: BM(NH)

Gaziantep: Bach 11 km E Kilis an der Straße nach Elbeyli (37SCA46); 02.06.1991; leg. Lopau, W.

Gaziantep: Fluss 30 km W Kilis (37SCA07); 01.06.1991; leg. Lopau, W.

Gaziantep: Kilis (37SCA27); 19.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Hatay: Bach 29,5 km S Uluçınar an der Straße nach Samandagi (36SYF51); 31.05.1991; leg. Lopau, W.

Hatay: Bach 6 km SW Uluçınar an der Straße nach Samandagi (36SYF52); 30.05.1991; leg. Lopau, W.

Hatay: Bach in Uluçınar (36SYF53); 30.05.1991; leg. Lopau, W.

Hatay: Fluss und Bach in Uluçınar (36SYF53); 30.05.1991; leg. Lopau, W.

Hatay: sumpfiger Straßengraben 36 km S Uluçınar an der Straße nach Samandagi (36SYF60); 31.05.1991; leg. Lopau, W.

Hatay: Teich 37,3 km S Uluçınar an der Straße nach Samandagi (36SYF60); 31.05.1991; leg. Lopau, W.

Içel: 36 km NE of Silifke, Limonlu stream N of Limonlu village (36SXF14); 15.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Içel: 36 km NE of Silifke, Limonlu stream N of Limonlu village (36SXF14); 15.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Içel: Anamur Çay in Anamur an der Brücke (36SVE89); 23.06.1998; leg. Arlt, J.

Içel: Bach an der westlichen Ortsende von Anamur (ca. 1-2 km W Anamur) (36SVE89); 20.07.1990; leg. Kähler, J.

Içel: Fluss Kutumenfez 5 km W Anamur (36SVE89); 23.05.1991; leg. Lopau, W.

Içel: Göksu-river near Degirmendere, NW of Silifke (36SWF63); 07.07.2001; leg. Kalkman, V.J.

Içel: Limonlu stream N of Limonlu village, 36 km NE of Silifke (36SXF14); 07.07.2001; leg. Kalkman, V.J.; coll: RMNH

Içel: small rivulets near Degirmendere, along Göksu-river, NW of Silifke (36SWF63); 07.07.2001; leg. Kalkman, V.J.; coll: RMNH

Içel: Wasserbecken in Gözsütze (36SWF10); 23.06.1998; leg. Arlt, J.

Isparta: Egridir Gölü, asl: 950 (36SUG19); 16.07.1980; leg. Oorschot, H. van, c.s.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Isparta: Egridir, asl: 950 (36SUG19); 16.07.1980; leg. Oorschot, H. van, c.s.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Kahramanmaraş: Andırın (37SBB66); 21.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Konya: Akgöl (36SWG65); 24.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Konya: near Beyşehir Gölü (36SUG87); 06.05.1959; leg. exp. Turkey; det. Kalkman, V.J.; coll: RMNH

- Konya: Bewässerungskanal 3 km W Eregli (36SWG85); 23.06.1991; leg. Lopau, W.
- Konya: Engilli (36SUH63); 25.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
- Konya: Halkapinar (Ivritz baraji) (36SXG04); 24.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
- Muğla: Bach an der Straße Muğla-Fethiye 3 km S Karabögürtlen (35SPA39); 01.07.1991; leg. Lopau, W.
- Muğla: Bergbach 7 km NW Köycegiz (35SPA49); 22.05.1996; leg. Henheik, H.
- Muğla: Bach 23 km W Yatagan (35SNB72); 09.07.1984; leg. Kählert, J.
- Muğla: Bewässerungskanal 2 km S Daljan (35SPA47); 13.05.1991; leg. Lopau, W.
- Muğla: Fethiye / Kemer (35SQA05); 12.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
- Muğla: Letoon / Pydnai (35SQA02); 12.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
- Muğla: Marmaris-Cetibeli (35SPA18); 26.06.1985; leg. Brooks, S.A.; coll: BM(NH)
- Muğla: road between Esen and Kemer, asl: 100 (35SQA03); 04.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
- Muğla: Strandlagune ca. 10 km S Daljan (35SPA47); 10.05.1991 & 11.05.1991 & 14.05.1991; leg. Lopau, W.
- Siirt: Quelltümpel 1 km W Baykan an der Straße Baykan-Diyarbakir (37SGC42); 12.06.1991; leg. Lopau, W.
- Trabzon: 1 km SW of Trabzon, asl: 0 (37TEF63); 23.06.1988; leg. Oorschot, H. van, c.s.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Orthetrum sabina (Drury)

- Adana: 1 km S of Karagöçer, ca. 40 km SW of Adana (36SXF86); 17.05.2002; leg. Goudsmits, K. & V.J. Kalkman
- Adana: 5 km N of Karatas, asl: 30 (36SYF15); 26.09.1991; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
- Adana: Adana lake (36SYG00); 24.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.
- Adana: Aydınlar, 15 km W of Kadirli (37SBB33); 10.05.2002; leg. Goudsmits, K. & V.J. Kalkman
- Adana: Bewässerungskanal 2-3 km E der Kreuzung bei Ceyhan (Richtung Kozani/Kadirli) (36SYG40); 13.07.1990; leg. Kählert, J.
- Adana: ca. 20 km NW of Osmaniye, 1 km N of bridge across the Ceyhan (37SBB42); 11.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

- Adana: ca. 5 km N of Karatas and 45 km S of Adana (36SYF15); 16.05.2002; leg. Goudsmits, K. & V.J. Kalkman
- Adana: ca. 6 km S of Mercimek, ca. 8 km NW of Ceyhan (36SYG40); 12.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH
- Adana: ca. 6 km S of Mercimek, ca. 8 km NW of Ceyhan (36SYG40); 12.05.2002; leg. Goudsmits, K. & V.J. Kalkman
- Adana: Cerukova delta, Tarsus, Bahsis (36SXF67); 29.04.1998; leg. Niesen, H.
- Adana: Demirtas, 9 km N of Yumurtalik (36SYF47); 12.05.2002; leg. Goudsmits, K. & V.J. Kalkman
- Adana: Hemite Kale, Ceyhan Nehri (37SBB41); 25.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.
- Adana: old bridge over river Seyhan in Adana (36SYF09); 30.07.2002; leg. Kop, A.
- Adana: river Ceyhan at bridge near Gökcce barrage 30 km from Kadırlı along road Osmaniye-Kadırlı (37SBB42); 17.07.2002; leg. Kop, A.
- Adana: Teich an der Kreuzung bei Ceyhan (Richtung Kozani/Kadirli, direkt hinter der Müllkippe) (36SYG40); 13.07.1990; leg. Kählert, J.
- Adana: Tuzla Gölü, ca. 45 km SW of Adana (36SXF86); 17.05.2002; leg. Goudsmits, K. & V.J. Kalkman
- Adiyaman: Euphrat-Stausee (Atatürk-Baraji) an der Fährstelle Straße Siverek-Kahta, W-Seite (37SDB87); 13.06.1991; leg. Lopau, W.
- Antalya: Aspendos 1 (36SUF38); 23.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.
- Antalya: Fluss am Nordrand des Koca-Çay-Deltas (35SQA02); 18.05.1991; leg. Lopau, W.
- Antalya: Flussmündung am N-Ende des Koca-Çay-Deltas (35SQA02); 18.05.1991; leg. Lopau, W.
- Antalya: Kiesgrube am Karpuz Çay ca. 10 km N der Küste bei Taskesig (36SUF76); 24.06.1998; leg. Arlt, J.
- Antalya: Rohrkolbensumpf S Demirtas nahe der Küste SE Alanya (36SVF23); 24.06.1998; leg. Arlt, J.
- Antalya: verlandeter Hafen des antiken Patara bei Gelemisch (35SQA01); 28.06.1991; leg. Lopau, W.
- Aydın: Bafasee-Kanal (35SNB25); 30.05.1996; leg. Henheik, H.
- Aydın: Bafasee-Kanal Übergang zum See (35SNB25); 30.05.1996; leg. Henheik, H.
- Aydın: Graben von S in den Bafasee-Kanal (35SNB25); 30.05.1996; leg. Henheik, H.
- Aydın: Tümpel an den Ruinen von Milet (35SNB25); 30.05.1996; leg. Henheik, H.
- Aydın: Viehtränken/Tümpel nahe dem Bafasee-Kanal (35SNB25); 30.05.1996; leg. Henheik, H.

Aydin: strandnaher Tümpel 0,4 km WSW Usla (35SNB23); 26.05.1996; leg. Henheik, H.

Gaziantep: Birecik, Euphrates river (37SDB00); 18.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Gaziantep: Euphrates just S of Birecik bridge (37SDA09); 05.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Gaziantep: Kiesgrubengelände mit 20-30 Gewässern am westl. Euphrat-Ufer bei Birecik (37SDA09); 18.07.1990; leg. Kähler, J.

Gaziantep: Kiesgruben am Westufer des Euphrat bei Birecik (37SDA09); 03.06.1991; leg. Lopau, W.

Gaziantep: wassergefüllte vulkanische Explosionskrater S der Straße Hassa-Kilis (37SBA87); 01.06.1991; leg. Lopau, W.

Hatay: 15 km SW of Iskenderun, asl: 800 (37SBA34); 02.10.1991-04.10.1991; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Hatay: Bach 31 km NNE Kirikhan (37SBA76); 16.07.1990; leg. Kähler, J.

Hatay: Bach ca. 12 km N Iskenderun (bei Sariseki, an der Polizeistation, direkt am Meer) (37SBA56); 14.07.1990; leg. Kähler, J.

Hatay: Karasu Çay 1, basin in river bed (37SBA98); 27.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Hatay: Sariseki (37SBA56); 26.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Hatay: Teich 37,3 km S Uluçinar an der Straße nach Samandagi (36SYF60); 31.05.1991; leg. Lopau, W.

İçel: 35 km SW of Adana, asl: 20 (36SXF87); 06.10.1991; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

İçel: 36 km NE of Silifke, Limonlu stream N of Limonlu village (36SXF14); 15.05.2002; leg. Goudsmits, K. & V.J. Kalkman

İçel: Akgöl im Göksu Delta 10 km S Silifke (36SWF81); 26.05.1991; leg. Lopau, W.

İçel: Bach E Tasucu (36SWF82); 28.05.1991; leg. Lopau, W.

İçel: Fischteiche bei Kurtuluş (36SWF92); 04.05.2000; leg. Ihssen, G. & H.J. Pelny

İçel: Gebiet SW des Akgöl im Göksu Delta (36SWF81); 04.05.2000; leg. Ihssen, G. & H.J. Pelny

İçel: Göksu Delta (36SWF81); 16.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

İçel: Göksu Delta, System von Be- und Entwässerungskanälen (36SWF82); 25.05.1991; leg. Lopau, W.

İçel: Göksu Delta SE Akgöl-Lagune E Tasucu (36SWF81); 22.06.1998-23.06.1998; leg. Arlt, J.

İçel: Graben an der Straße Silifke-Mersin ca. 10 km E Silifke (36SWF92); 28.05.1991; leg. Lopau, W.

İçel: Strandlagune 5 km E Anamur (36SVE89); 24.05.1991; leg. Lopau, W.

İçel: Wassergraben an der Straße Silifke-Mersin 5 km E Silifke (36SWF92); 26.05.1991; leg. Lopau, W.

İçel: western side of Akgöl near Denizkent, 8 km S of Silifke, Göksu Delta (36SWF81); 09.07.2001; leg. Kalkman, V.J.

Muğla: Bewässerungskanal 2 km S Daljan (35SPA47); 13.05.1991; leg. Lopau, W.

Muğla: Hamit (35SPA48); 11.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Muğla: Hamit (35SPA48); 21.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Muğla: kanalartiger Bachunterlauf zwischen Brücke W Köycegiz und dem See (35SPA49); 22.05.1996; leg. Henheik, H.

Muğla: Koycegiz Gölü, South side of the lake (35SPA48); 11.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Muğla: Koycegiz Gölü, South side of the lake (35SPA48); 22.09.1985; leg. Prasse, R.; det.& coll: Hartung, M.

Muğla: Köycegiz-See N Ufer E des Ortes (35SPA59); 24.05.1996; leg. Henheik, H.

Muğla: Letoon / Pydnai (35SQA02); 12.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Muğla: Strandlagune ca. 10 km S Daljan (35SPA47); 14.05.1991; leg. Lopau, W.

Muğla: Sümpfgebiet am Fuß der Berge am Ostufer des Sülüngür-Gölü (35SPA47); 14.05.1991 & 16.05.1991; leg. Lopau, W.

Muğla: Unterlauf Graben W Köycegiz (35SPA49); 22.05.1996; leg. Henheik, H.

Şanlı Urfa: small stretch of reeds on the E shore of the Euphrates, S side of Birecik (37SDA09); 19.07.2002; leg. Kop, A.; coll: RMNH

Şanlı Urfa: small stretch of reeds on the E shore of the Euphrates, S side of Birecik (37SDA09); 19.07.2002; leg. Kop, A.

Şanlı Urfa: W shore of the Euphrates, overgrown by reeds (37SDA09); 19.07.2002; leg. Kop, A.

Orthetrum taeniolatum (Schneider)

Adana: Aydinlar, 15 km W of Kadirli (37SBB33); 10.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Adana: ca. 20 km NW of Osmaniye, 2 km N of bridge across the Ceyhan (37SBB42); 11.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Adana: ca. 5 km N of Karatas and 45 km S of Adana (36SYF15); 16.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Adana: Savrun Çay, river N of Kadirli (37SBB44); 10.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Antalya: Alanya, Dimçay river (36SUF14); 15.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Antalya: Bach an der Hauptstraße nahe Ulupinar SW Kemer (36STF74); 25.06.1998-27.06.1998; leg. Arlt, J.

Antalya: Bach in Cirali nahe der Küste S Kemer (36STF63); 26.06.1998-27.06.1998; leg. Arlt, J.

Antalya: Karpuz Çay at crossing with road to Akseki (36SUF76); 11.07.2001; leg. Kalkman, V.J.; coll: RMNH

Antalya: Kinik, Esen Çay (35SQA02); 12.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Denizli: Pamukkale (35SPB89); 10.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Gaziantep: Kiesgrubengelände mit 20-30 Gewässern am westl. Euphrat-Ufer bei Birecik (37SDA09); 18.07.1990; leg. Kählert, J.

Hatay: Bach 22 km SW Antakya (1 km vor Ortsschild Samandag) (37SBA30); 15.07.1990; leg. Kählert, J.

Hatay: Bach 3 km N Hassa (auf der Westseite der Straße) (37SBA77); 17.07.1990; leg. Kählert, J.

Hatay: Bach 31 km NNE Kirikhan (37SBA76); 16.07.1990; leg. Kählert, J.

Hatay: Sariseki (37SBA56); 26.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Hatay: Teknepinar (37SBA30); 20.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

İçel: 36 km NE of Silifke, Limonlu stream N of Limonlu village (36SXF14); 15.05.2002; leg. Goudsmits, K. & V.J. Kalkman

İçel: Karstbach Soguksu (5 km SW Aydıncık) (36SWE29); 19.07.1990; leg. Kählert, J.

İçel: Tece Çay in Tece ca. 15 km SW Mersin (36SXF26); 22.06.1998; leg. Arlt, J.

İçel: Wasserbecken in Gözsütce (36SWF10); 23.06.1998; leg. Arlt, J.

Izmir: Bornova (35SNC15); 31.07.1931; leg. Uvarov, B.P.; det. Longfield, C.; coll: BM(NH)

Muğla: Bach durch Schlammbad an der S-Spitze des Köycegiz-Sees (35SPA48); 23.05.1996; leg. Henheik, H.

Muğla: Hamit (35SPA48); 11.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Muğla: Hamit (35SPA48); 21.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Muğla: Köycegiz (35SPA48); leg. Aksircı, F.; det. Schneider, W. 1983; coll: BM(NH)

Muğla: Marmaris (35SPA17); 30.08.1985; leg. Prasse, R.; det. & coll: Hartung, M.

Selysiothemis nigra (Vander Linden)

Antalya: Kinik, Esen Çay (35SQA02); 12.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Edirne: Evros, at the border about 3 km N of the sea (35TMF20); 06.08.2002; leg. Mostert, K.; det. Mostert, K.

Gaziantep: Birecik, Euphrates river (37SDB00); 18.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Gaziantep: Kiesgrubengelände mit 20-30 Gewässern am westl. Euphrat-Ufer bei Birecik (37SDA09); 18.07.1990; leg. Kählert, J.

Gaziantep: Kiesgruben am Westufer des Euphrat bei Birecik (37SDA09); 03.06.1991; leg. Lopau, W.

Gaziantep: wassergefüllte vulkanische Explosionskrater S der Straße Hassa-Kilis (37SBA87); 01.06.1991; leg. Lopau, W.

İçel: Göksu Delta (36SWF81); 16.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

İçel: Göksu Delta SE Akgöl-Lagune E Tasucu (36SWF81); 22.06.1998-23.06.1998; leg. Arlt, J.

İçel: Schlucht des Göksu Nehri an der Brücke vor Eksiler (36SWF72); 22.06.1998; leg. Arlt, J.

İçel: western side of Akgöl near Denizkent, 8 km S of Silifke, Göksu Delta (36SWF81); 09.07.2001; leg. Kalkman, V.J.; coll: RMNH

Şanlı Urfa: W shore of the Euphrates, overgrown by reeds (37SDA09); 19.07.2002; leg. Kop, A.; coll: RMNH

Sympetrum arenicolor Jödicke

Elazig: River Tigris, near the entrance of a tributary, 5-7 km N of Maden (37SEC55); 27.07.2002; leg. Kop, A.; coll: RMNH

Sympetrum depressiusculum (Selys)

Çorum: Hacıhalil (36TXL13); 05.08.1995; leg. Boudot, J.-P.; coll: Jacquemin, G.

Konya: Halkapınar (Ivriç barajı) (36SXG04); 24.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Sympetrum flaveolum (Linnaeus)

Afyon: 10 km S of Çay, Sultan Dagları, asl: 1200-1500 (36SUH26); 16.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Artvin: ca. 15 km NE of Savşat: shallow sedge field, 1 km SE of lake Karagöl, asl: 1450 (38TKL87); 17.08.2002; leg. Wasscher, M.; coll: RMNH

- Artvin: ca. 15 km NE of Savşat: two ponds overgrown with *Lemna* and with *Phragmites* border and a small clear water corner, 3 km ENE of lake Karagöl, asl: 1450 (38TKL87); 18.08.2002; leg. Wasscher, M.
- Artvin: Çam Geçidi / Savşat (38TKL86); 11.08.1995 & 13.07.1997; leg. Boudot, J.-P.; coll: Jacquemin, G.
- Çorum: Hacihalil (36TXL13); 05.08.1995; leg. Boudot, J.-P.; coll: Jacquemin, G.
- Hakkari: 16 km N of Bagisli, near bridge, asl: 2000 (38SMG18); 06.08.1992; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
- Konya: Halkapinar (Ivriz barajı) (36SXG04); 24.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
- Muğla: Hamit (35SPA48); 11.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
- Sivas: env. Bedirli (37SBD98); 13.07.1985-14.07.1985; leg. Oorschot, H. van, c.s.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Sympetrum fonscolombii (Selys)

- Adana: Aydinlar, 15 km W of Kadırlı (37SBB33); 10.05.2002; leg. Goudsmits, K. & V.J. Kalkman
- Adana: Cerukova delta, Tarsus, Bahsis (36SXF67); 29.04.1998; leg. Niesen, H.
- Adana: Tuzla Gölü, ca 45 km SW of Adana (36SXF86); 17.05.2002; leg. Goudsmits, K. & V.J. Kalkman
- Adana: W of Karatas, asl: 20 (36SYF14); 26.09.1991; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
- Adiyaman: Euphrat-Stausee (Atatürk-Barajı) an der Fährstelle Straße Siverek-Kahta, W-Seite (37SDB87); 13.06.1991; leg. Lopau, W.
- Adiyaman: Hasancık, ca. 15 km E of Adiyaman (37SDB48); 08.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH
- Adiyaman: Kahta, Nemrut-Dagi, Euphrat (37SDB79); 17.07.1993; leg. Louda, J.; det.& coll: Hartung, M.
- Antalya: Alanya (36SVF14); 12.11.2001; leg. Bos, F.
- Antalya: Çamyuva, asl: 50 (36STF84); 24.11.1995; leg. Dils, J.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
- Antalya: Demirtas, SE Alanya (36SVF23); leg. Seidenbusch, R.; det.& coll: Hartung, M.
- Antalya: lake at Cevizli, 20 km N of Akseki (36SUG91); 11.07.2001; leg. Kalkman, V.J.; coll: RMNH
- Antalya: mouth of river Selg, about 10 km E of Alanya (36SVF14); 13.11.2001; leg. Bos, F.
- Antalya: Payallar, at road to mountains about 20 km W of Alanya (36SUF95); 12.11.2001; leg. Bos, F.

- Antalya: S of Guzelbag, env of Sogukpinar (st. 654), asl: 100-300 (36SVF05); 20.04.1991; leg. Oorschot, H van; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
- Antalya: Sagirin, along mountainroad towards Beskonak, about 50 km E of Antalya (36SUG40); 14.11.2001; leg. Bos, F.
- Aydın: Brachwiese mit Pfützen E Graben von S in den Bafasee-Kanal (35SNB25); 30.05.1996; leg. Henheik, H.
- Aydın: Tümpel an den Ruinen von Milet (35SNB25); 30.05.1996; leg. Henheik, H.
- Aydın: Viehtränken/Tümpel nahe dem Bafasee-Kanal (35SNB25); 30.05.1996; leg. Henheik, H.
- Balikesir: Fluss NE von Burhaniye (35SND07); 20.08.1990; leg. Lopau, W.
- Bitlis: pools on sandy shore and thistle field 1 km S of Tatvan(38SKH66); 21.07.2002; leg. Kop, A.; coll: RMNH
- Bitlis: rivulet Karasu near Saribahce, halfway along road Tatvan-Mus (37SGC48); 21.07.2002; leg. Kop, A.; coll: RMNH
- Bitlis: Strandlagune am Van Gölü, an der Straße Tatvan-Ahlat, 2 km vor Ahlat (38SKH89); 09.06.1991; leg. Lopau, W.
- Bitlis: W of Ahlat, asl: 1750 (38SKH79); 06.07.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
- Çanakkale: Fluss Behram bei Behramkale (Assos) (35SMD47); 09.09.1989; leg. Lopau, W.
- Çanakkale: Fluss Behram E von Ayvacık, NE der E87 (35SMD58); 20.08.1990; leg. Lopau, W.
- Çanakkale: Fluss mündung ca. 20 km N Gülpınar (35SMD29); 10.09.1989; leg. Lopau, W.
- Diyarbakır: Pamuk Çay, stony river 6 km E of Bismil at railway bridge (37SFB59); 07.05.2002; leg. Goudsmits, K. & V.J. Kalkman
- Elazığ: pool 2 km N of Sivrice, partly overgrown with *Carex* and *Juncus*. (37SEC25); 26.07.2002; leg. Kop, A.; coll: RMNH
- Elazığ: Sivrice, Hazar Göl (37SEC25); 30.07.1947; leg. Kosswig; det. Schneider, W. 1983; coll: BM(NH)
- Gaziantep: Birecik, at Eufrat (37SDA09); 06.05.1998; leg. Niesen, H.; det. Niesen, N.
- Gaziantep: Durnalik, ca. 25 km NW of Gaziantep (37SCB31); 13.05.2002; leg. Goudsmits, K. & V.J. Kalkman
- Gaziantep: Kiesgrubengelände mit 20-30 Gewässern am westl. Euphrat-Ufer bei Birecik (37SDA09); 18.07.1990; leg. Kähler, J.
- Gaziantep: wassergefüllte vulkanische Explosionskrater S der Straße Hassa-Kilis (37SBA87); 01.06.1991; leg. Lopau, W.
- Hakkari: 16 km N of Bagisli, near bridge, asl: 2000 (38SMG18); 06.08.1992; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Hakkari: 35 km W of Hakkari, Zab river near road to Cukurca, asl: 950-1100 (38SLG64); 15.06.1985-16.06.1985; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Hatay: Bach 3 km N Hassa (auf der Westseite der Straße) (37SBA77); 17.07.1990; leg. Kähler, J.

Hatay: Bach 31 km NNE Kirikhan (37SBA76); 16.07.1990; leg. Kähler, J.

Hatay: Karasu Çay 2 river and ponds (37SBA98); 19.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

İçel: 10-15 km SW of Aydıncık, asl: 175 (36SWE29); 22.04.1991; leg. Oorschot, H. van; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

İçel: 35 km SW of Adana, Coplu near Seyhan, asl: 20 (36SXF87); 06.10.1991; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

İçel: Akgöl im Göksu Delta 10 km S Silifke (36SWF81); 26.05.1991; leg. Lopau, W.

İçel: Gebiet SW des Akgöl im Göksu Delta (36SWF81); 04.05.2000; leg. Ihssen, G. & H.J. Pelny

İçel: Tarsus river, 35 km NW Tarsus (36SXG61); 16.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Izmir: Bach 5 km E Bergama (35SND12); 06.09.1989; leg. Lopau, W.

Izmir: Ephese (35SNB29); 11.10.1990; leg. Lucas, J.A.W.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Izmir: Fluss Bakir 6 km E Candarli (35SMD90); 07.09.1989; leg. Lopau, W.

Izmir: Kiesgrube am Fluss Bakir 6 km E Candarli (35SMD90); 07.09.1989; leg. Lopau, W.

Izmir: Stauese bei Bergama (35SND12); 08.09.1989; leg. Lopau, W.

Konya: Akgöl (36SWG65); 24.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Konya: Halkapınar (Ivriz barajı) (36SXG04); 24.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Konya: Halkapınar (Ivriz barajı) (36SXG04); 24.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Konya: kleiner See am Südufer des Düden-Gölü (36SWJ12); 20.06.1991; leg. Lopau, W.

Konya: Meke Gölü E Karapınar (36SWG57); 01.05.2000; leg. Ihssen, G. & H.J. Pelny

Muğla: Köycegiz-See N Ufer E des Ortes (35SPA59); 24.05.1996; leg. Henheik, H.

Muğla: Strandlagune ca. 10 km S Daljan (35SPA47); 11.05.1991; leg. Lopau, W.

Niğde: Kızılıca, 20 km W of Bor (36SXG29); 02.05.1998; leg. Niesen, H.; det. Niesen, N.

Siirt: Bach 12 km E Bekirhan an der Straße Diyarbakır-Bitlis (37SGC02); 04.06.1991; leg. Lopau, W.

Sinop: Sinop, beach at Sinop, W side of village, asl: 0 (36TXM75); 13.08.2002; leg. Wasscher, M.

Van: ausgesüßte Strandlagune am Ercek Gölü, 22 km E Van, an der Straße nach Özalp (38SLH77); 11.06.1991; leg. Lopau, W.

Van: Mündung des Bendimaha in den Van Gölü 13 km SW Muradiye (38SLJ81); 10.06.1991; leg. Lopau, W.

Van: Strandlagune am Ercek-Gölü an der Straße Van-Özalp, 18 km E Van (38SLH67); 11.06.1991; leg. Lopau, W.

Sympetrum meridionale (Selys)

Adana: 8 km W of Osmaniye, asl: 100 (37SBB40); 28.05.1984; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Adana: Kozan, asl: 200 (36SYG44); 27.05.1986; leg. Oorschot, H. van, H. van den Brink & J. Huisenga; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Afyon: 10 km S of Çay, Sultan Dagları, asl: 1300 (36SUH26); 18.07.1980-25.07.1980; leg. Oorschot, fam. van; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Afyon: 15 km SE of Çay, Sultan Dagları, asl: 1400-1800 (36SUH37); 14.07.1981-18.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Afyon: Karahisar Vilayet, Dinar (36STH51); 04.07.1949-05.07.1949; leg. Burr, M.; coll: BM(NH)

Ankara: Haci Kadin Deresi (36SVK92); 16.08.1947; leg. Burr, M.; coll: BM(NH)

Antalya: 50 km N of Kas, Sinekcibeli Gecidi, asl: 1500 (35SQA34); 02.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Antalya: Çamyuva, asl: 50 (36STF84); 24.11.1995; leg. Dils, J.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Burdur: 20 km N of Aglasun, Koruglubeli, asl: 950 (36STG97); 22.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Burdur: 20 km SE of Isparta, Sultan Dagları, asl: 1100 (36STG97); 15.07.1980; leg. Oorschot, fam. van; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Hatay: Amanus mountains (=Nur Dagları) (37S); leg. unknown; coll: BM(NH)

Istanbul: 30 km W of Istanbul, Yakuplu (35TPF43); 06.06.1979; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Istanbul: Bebek (35TPF75); 05.10.1953; leg. Burr, M.; coll: BM(NH)
 Istanbul: Belgrade forest (35TPF56); 07.09.1946; leg. Burr, M.; det. Cowley, J.; coll: BM(NH)
 Izmir: Ephese (35SNB29); 11.10.1990; leg. Lucas, J.A.W.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Kayseri: 12 W of Develi, Soysalti, asl: 1100 (36SYH05); 06.07.1982; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Konya: Akşehir, Sultan Dagları, asl: 1100 (36SUH54); 13.07.1981-20.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Muğla: Esen-Kemer, nr road, asl: 100 (35SQA03); 04.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Muğla: W side of Ak Dag, asl: 900 (35SQA24); 04.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Sakarya: 10 km NW of Adapazarı, Jeudet Bey Çiftlik (36TTL72); 25.06.1954; leg. Burr, M.; det. Schneider, W. 1983; coll: BM(NH)
 Zonguldak: Zonguldak (36TUL98); 21.08.1947; leg. Burr, M.; coll: BM(NH)

Sympetrum pedemontanum (Allioni)

Artvin: Barhal (=Altıparmak), shallow seepage/spring near brook, E-side of road, 3 km N of junction in village, asl: 1300 (37TGF03); 21.08.2002; leg. Wasscher, M.
 Bursa: Gemlik (35TPE87); 21.06.1959; leg. exp. Turkey; det. Kalkman, V.J.; coll: RMNH

Sympetrum sanguineum (O.F. Müller)

Adana: Adana lake (36SYG00); 17.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Afyon: 40 km NW of Akşehir, Sultan Dagları, asl: 1500-1800 (36SUH46); 17.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Afyon: Karahisar Vilayet, Dinar (36STH51); 21.07.1949; leg. Burr, M.; det. Cowley, J.; coll: BM(NH)
 Artvin: ca. 15 km NE of Savşat: shallow sedge field, 1 km SE of lake Karagöl, asl: 1450 (38TKL87); 17.08.2002; leg. Wasscher, M.; coll: RMNH

Artvin: ca. 15 km NE of Savşat: small pond with sedges, 3 km WNW of lake Karagöl, asl: 1450 (38TKL87); 17.08.2002; leg. Wasscher, M.
 Bitlis: Nazik Göl, Ahlat [=Erkizan] (38SKJ60); 02.07.1947; leg. Kosswig; det. Cowley, J.; coll: BM(NH)
 Bitlis: rivulet Karasu near Saribahce, halfway along road Tatvan-Mus (37SGC48); 21.07.2002; leg. Kop, A.; coll: RMNH
 Bitlis: Tatvan (38SKH66); 27.06.1947; leg. Kosswig; det. Cowley, J.; coll: BM(NH)
 Burdur: Ciglik (36STG80); 13.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Denizli: 20 km SE of Denizli, Kazikbeli Gecidi, asl: 1250 (35SPB97); 13.07.1980; leg. Oorschot, H. van, c.s.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Edirne: Edime (35TMG61); 06.08.1980; leg. Welgert, P.; det.& coll: Hartung, M.
 Elazığ: pool 2 km N of Sivrice, partly overgrown with *Carex* and *Juncus*. (37SEC25); 26.07.2002; leg. Kop, A.; coll: RMNH
 Elazığ: seepage-fed marshy area along road Elazığ-Sivrice, 1 km from the latter (37SEC25); 26.07.2002; leg. Kop, A.; coll: RMNH
 Elazığ: Sivrice, Hazar Göl (37SEC25); 26.07.1947 & 28.07.1947 & 30.07.1947; leg. Kosswig; det. Cowley, J.; coll: BM(NH)
 Elazığ: small road behind factory and marshland, 1 km N of Sivrice (37SEC25); 25.07.2002; leg. Kop, A.; coll: RMNH
 Erzurum: Horasan-Kars, km 10 (38TKK63); 14.07.1968; leg. Bakels, F.N.; det. Kalkman, V.J.; coll: RMNH
 İstanbul: Belgrade forest (35TPF56); 07.09.1946; leg. Burr, M.; det. Cowley, J.; coll: BM(NH)
 Konya: Akşehir, Sultan Dagları, asl: 1100 (36SUH54); 13.07.1981-20.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 Konya: Beyşehir Gölü S (36SUG66); 25.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Konya: Tümpel 7 km E Yarma an der Straße Konya-Karapınar (36SVG98); 21.06.1991; leg. Lopau, W.
 Muğla: Bach an der Straße Muğla-Fethiye 3 km S Karabögürtlen (35SPA39); 01.07.1991; leg. Lopau, W.
 Muğla: Bach an der Straße Muğla-Fethiye, 21 km NW Fethiye (35SPA76); 30.06.1991; leg. Lopau, W.
 Muğla: Bach an der Straße Muğla-Fethiye, 23 km NW Fethiye (35SPA76); 30.06.1991; leg. Lopau, W.
 Muğla: Hamit (35SPA48); 11.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Sakarya: Arifiye (36TTL70); 24.06.1954; leg. Burr, M.; coll: BM(NH)

Samsun: Gileman ciftligi near Samsun (37TBF); 24.06.1958; leg. Eyndhoven, G.J. van; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
Unknown (prob. Istanbul): Buyukdere Bentlerde (Unknown); 17.09.1943; leg. Aksircy, F.; coll: BM(NH)

***Sympetrum striolatum* (Charpentier)**

Adana: 5 km SW of Pozanti, asl: 1300-1500 (36SXG64); 03.08.1994; leg. Oorschot, H. van, et al; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
Adana: 1 km S of Karagöcher, ca. 40 km SW of Adana (36SXF86); 17.05.2002; leg. Goudsmits, K. & V.J. Kalkman
Adana: Aydinlar, 15 km W of Kadirlı (37SBB33); 10.05.2002; leg. Goudsmits, K. & V.J. Kalkman
Adana: ca. 5 km N of Karatas and 45 km S of Adana (36SYF15); 16.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH
Antalya: Akseki (Umg. des Dorfes, Friedhof etc.) (36SUG90); 24.06.1998-25.06.1998; leg. Arlt, J.
Antalya: Çamyuva, asl: 50 (36STF84); 24.11.1995; leg. Dils, J.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
Antalya: Mündung des Koca Çay W von Kalkan (35SQA01); 17.05.1991; leg. Lopau, W.
Antalya: Termessos milli parki, river (36STF79); 16.09.1985; leg. Prasse, R.; det. & coll: Hartung, M.
Antalya: verlandeter Hafen des antiken Patara bei Gelemisch (35SQA01); 28.06.1991; leg. Lopau, W.
Artvin: ca. 15 km NE of Savsat: lake Karagöl, asl: 1500 (38TKL87); 17.08.2002; leg. Wasscher, M.; coll: RMNH
Aydin: Tümpel an den Ruinen von Milet (35SNB25); 30.05.1996; leg. Henheik, H.
Bitlis: near Adilcevaz, Van lake (38SLH29); 15.07.1993; leg. Louda, J.; det. & coll: Hartung, M.
Gaziantep: Fluss 30 km E Kilis an der Straße nach Elbeyli (37SCA56); 02.06.1991; leg. Lopau, W.
Hatay: 15 km SW of Iskenderun, asl: 800 (37SBA34); 02.10.1991-04.10.1991; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
Hatay: Bach ca. 12 km N Iskenderun (bei Sariseki, an der Polizeistation, direkt am Meer) (37SBA56); 14.07.1990; leg. Kähler, J.
Hatay: Guzelyayla, 15 km SW Iskenderun, asl: 800 (37SBA34); 02.10.1991-04.10.1991; leg. Oorschot, H. van, H. van den Brink & P. Oosterbroek; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
İçel: Çamlıyayla (36SXG41); 16.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

İçel: Wassergraben an der Straße Silifke-Mersin 5 km E Silifke (36SWF92); 26.05.1991 & 28.05.1991; leg. Lopau, W.
İstanbul: Bebek (35TPF75); 14.06.1953 & 26.10.1953; leg. Burr, M.; coll: BM(NH)
Konya: Meke Gölü 5 km E Karapınar (S der Straße) (36SWG57); 22.06.1991; leg. Lopau, W.
Muğla: Feuchtwiese W Köycegiz (35SPA49); 13.05.1991; leg. Lopau, W.
Muğla: Köycegiz (35SPA48); leg. Aksircy, F.; coll: BM(NH)
Muğla: Sumpfgebiet am Fuß der Berge am Ostufer des Sülüngür-Gölü (35SPA47); 14.05.1991 & 16.05.1991; leg. Lopau, W.
Samsun: Gileman ciftligi near Samsun (37TBF); 24.06.1958; leg. Eyndhoven, G.J. van; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

***Sympetrum vulgatum decoloratum* (Selys)**

Antalya: 12 km of Akseki, İrmasan gec., asl: 1500-1900 (36SUG90); 24.07.1981-27.07.1981; leg. Lucas, J.A.W.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
Antalya: Entwässerungskanal in der Koca-Çay-Mündungsebene (35SQA01); 30.06.1991; leg. Lopau, W.
Artvin: ca. 15 km NE of Savsat: lake Karagöl, asl: 1500 (38TKL87); 17.08.2002 & 18.08.2002; leg. Wasscher, M.; coll: RMNH
Bitlis: Adilcevaz (prob. Aygır Gölü) (38SLJ10); 08.07.1947; leg. Kosswig; det. Cowley, J.; coll: BM(NH)
Bitlis: Adilcevaz (prob. Aygır Gölü), asl: 1700-1800 (38SLJ10); 07.07.1947; leg. Kosswig; det. Cowley, J.; coll: BM(NH)
Bitlis: Tatvan (38SKH66); 27.06.1947; leg. Kosswig; det. Schneider, W.; coll: BM(NH)
Konya: Engilli (36SUH63); 25.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
Konya: Halkapınar (Ivriz barajı) (36SXG04); 24.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
Konya: Sultan Dagları, Akşehir (36SUH64); 17.07.1980-26.07.1980; leg. Oorschot, H. van, c.s.; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

***Trithemis annulata* (Palisot de Beauvois)**

Adana: 1 km S of Karagöcher, ca. 40 km SW of Adana (36SXF86); 17.05.2002; leg. Goudsmits, K. & V.J. Kalkman
Adana: 8-15 km N of Adana, road to Catalan, asl: 50 (36SYG00); 24.09.1991; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
Adana: Adana lake (Seyhan baraj) (36SYG00); 17.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Adana: Aydinlar, 15 km W of Kadirti (37SBB33); 10.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Adana: ca. 20 km NW of Osmaniye, 1 km N of bridge across the Ceyhan (37SBB42); 11.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Adana: ca. 5 km N of Karatas and 45 km S of Adana (36SYF15); 16.05.2002; leg. Goudsmits, K. & V.J. Kalkman; coll: RMNH

Adana: ca. 6 km S of Mercimek, ca 8 km NW of Ceyhan (36SYG40); 12.05.2002; leg. Goudsmits, K. & V.J. Kalkman

Adana: Cerukova delta, Tarsus, Bahsis (36SXF67); 29.04.1998; leg. Niesen, H.

Adana: Hemite Kale, Ceyhan Nehri (37SBB41); 25.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Adana: old bridge over river Seyhan in Adana (36SYF09); 30.07.2002; leg. Kop, A.; coll: RMNH

Adana: river Ceyhan at bridge near Gökcce barrage 30 km from Kadirlı along road Osmaniye-Kadirlı (37SBB42); 17.07.2002; leg. Kop, A.; coll: RMNH

Adana: river Sayun in Kadirlı, 60 km N of Osmaniye (37SBB44); 18.07.2002; leg. Kop, A.; coll: RMNH

Adana: W of Karatas, asl: 20 (36SYF04); 26.09.1991; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Adiyaman: Nebenfluss des Euphrat an der Straße Siverek-Kahta, 6 km E Sogütlü (37SEB07); 13.06.1991; leg. Lopau, W.

Antalya: Alanya (36SVF14); leg. Eresh, S.; det. Kalkman, V.J. 2002; coll: BM(NH)

Antalya: Alanya (36SVF14); 16.08.1998; leg. Louda, J.; det. & coll: Hartung, M.

Antalya: Antalya, asl: 300-600 (36STF98); 24.05.1996-30.05.1996; leg. Siniaev & Afonin; det. & coll: Hartung, M.

Antalya: Aspendos 1 (36SUF38); 23.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Antalya: Aspendos 2 (36SUF39); 27.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Antalya: Bach W Cirali, E der Straße Kas-Antalya, 70 km von Antalya (36STF63); 19.05.1991 & 25.06.1991; leg. Lopau, W.

Antalya: Bewässerungskanal 3 km E Manavgat an der Straße Manavgat-Alanya (36SUF67); 24.06.1991; leg. Lopau, W.

Antalya: Entwässerungsgraben im Bereich des ehemaligen Ova-Gölü in Ovakoy (35SQA11); 28.06.1991; leg. Lopau, W.

Antalya: Entwässerungskanal in der Koca-Çay-Mündungsebene (35SQA01); 30.06.1991; leg. Lopau, W.

Antalya: Fluss Dim çay in Alanya (östlicher Stadtrand, ca. 2,2 km oberhalb der Mündung) (36SVF14); 20.07.1990; leg. Kähler, J.

Antalya: Flussmündung am N-Ende des Koca-Çay-Deltas (35SQA02); 18.05.1991; leg. Lopau, W.

Antalya: Karpuz Çay at crossing with road to Akseki (36SUF76); 11.07.2001; leg. Kalkman, V.J.; coll: RMNH

Antalya: Kiesgrube am Karpuz Çay ca. 10 km N der Küste bei Taskesigi (36SUF76); 24.06.1998; leg. Arlt, J.

Antalya: Kinik, Esen Çay (35SQA02); 20.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.

Antalya: Köprü Çay bei Staudamm N Tasagli ca. 15 km N der Küstenstrasse (36SUF49); 25.06.1998; leg. Arlt, J.

Antalya: lake at Cevizli, 20 km N of Akseki (36SUG91); 11.07.2001; leg. Kalkman, V.J.

Antalya: Mündung des Koca Çay W von Kalkan (35SQA01); 29.06.1991; leg. Lopau, W.

Antalya: Quellbereich des Flusses am Nordrand des Koca-Çay-Deltas (35SQA02); 28.06.1991 & 29.06.1991; leg. Lopau, W.

Antalya: verlandeter Hafen des antiken Patara bei Gelemisch (35SQA01); 28.06.1991; leg. Lopau, W.

Aydın: Bafasee-Kanal (35SNB25); 30.05.1996; leg. Henheik, H.

Burdur: Ciglik (36STG80); 13.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.

Gaziantep: Kiesgrubengelände mit 20-30 Gewässern am westl. Euphrat-Ufer bei Birecik (37SDA09); 18.07.1990; leg. Kähler, J.

Gaziantep: Kiesgruben am Westufer des Euphrat bei Birecik (37SDA09); 03.06.1991; leg. Lopau, W.

Gaziantep: Nebenfluss des Euphrat an der Rumkale 30 km NW Birecik (37SCB92); 16.06.1991; leg. Lopau, W.

Gaziantep: stehendes Gewässer unterhalb der Staumauer des Tahtaköprü-Baraji 45 km W Kilis (37SBA98); 01.06.1991; leg. Lopau, W.

Hakkari: 16 km N of Bagisli, near bridge, asl: 2000 (38SMG18); 06.08.1992; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

Hatay: Bach 22 km SW Antakya (1 km vor Ortsschild Samandag) (37SBA30); 15.07.1990; leg. Kähler, J.

Hatay: Bach 3 km N Hassa (auf der Westseite der Straße) (37SBA77); 17.07.1990; leg. Kähler, J.

Hatay: Bach 6 km SW Uluçinar an der Straße nach Samandagi (36SYF52); 30.05.1991; leg. Lopau, W.

Hatay: Bach ca. 12 km N Iskenderun (bei Sariseki, an der Polizeistation, direkt am Meer) (37SBA56); 14.07.1990; leg. Kähler, J.

Hatay: Fluss und Bach in Uluçinar (36SYF53); 30.05.1991; leg. Lopau, W.

- Hatay: Karasu Çay 1, basin in river bed (37SBA98); 27.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.
- Hatay: Sariseki (37SBA56); 26.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.
- Hatay: Teich 37,3 km S Uluçinar an der Straße nach Samandagi (36SYF60); 31.05.1991; leg. Lopau, W.
- Hatay: Teknepinar (37SBA30); 20.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
- Hatay: Uluçinar (36SYF53); 20.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
- Içel: 10 km WNW of Kulak, road Adanalloglu-Kulak, asl: 20 (36SXF67); 15.10.1991; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
- Içel: 35 km SW of Adana, Coplu near Seyhan, asl: 20 (36SXF87); 06.10.1991; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
- Içel: Anamur Çay in Anamur an der Brücke (36SVE89); 23.06.1998; leg. Arlt, J.
- Içel: Bach 8 km W Anamur (36SVE79); 23.05.1991; leg. Lopau, W.
- Içel: Bach am westlichen Ortsende von Anamur (ca. 1-2 km W Anamur) (36SVE89); 20.07.1990; leg. Kähler, J.
- Içel: City of Silifke, Göksu river (36SWF82); 08.07.2001; leg. Kalkman, V.J.; coll: RMNH
- Içel: Fluss Kutumenfez 5 km W Anamur (36SVE89); 23.05.1991; leg. Lopau, W.
- Içel: Göksu Delta, System von Be- und Entwässerungskanälen (36SWF82); 25.05.1991; leg. Lopau, W.
- Içel: Göksu-river near Degirmendere, NW of Silifke (36SWF63); 07.07.2001; leg. Kalkman, V.J.
- Içel: Graben an der Straße Silifke-Mersin ca. 10 km E Silifke (36SWF92); 28.05.1991; leg. Lopau, W.
- Içel: Karstbach bei Olukbasi ca. 10 km E Silifke (36SWF92); 22.06.1998; leg. Arlt, J.
- Içel: Karstquelle bei Aydincik (36SWE29); 23.06.1998; leg. Arlt, J.
- Içel: Limonlu stream N of Limonlu village, 36 km NE of Silifke (36SXF14); 07.07.2001; leg. Kalkman, V.J.
- Içel: Tarsus river, 35 km NW Tarsus (36SXG61); 16.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
- Içel: Quellfluss Soguksu bei Yenikas, 47 km E Anamur (36SWE19); 24.05.1991; leg. Lopau, W.
- Içel: small rivulets near Degirmendere, along Göksu-river, NW of Silifke (36SWF63); 07.07.2001; leg. Kalkman, V.J.

- Içel: Tece Çay in Tece ca. 26 km SW Mersin (36SXF26); 22.06.1998; leg. Arlt, J.
- Içel: Wassergraben an der Straße Silifke-Mersin 5 km E Silifke (36SWF92); 26.05.1991 & 28.05.1991; leg. Lopau, W.
- Kahramanmaraş: 7 km S of Maraş, asl: 550 (37SCB15); 02.10.1991; leg. Oorschot, H. van & H. Wiering; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
- Muğla: Ausgrabungsstätte Letoon W von Kalkan (35SQA02); 17.05.1991; leg. Lopau, W.
- Muğla: Bachmündung am Ostufer des Sültüngür-Gölü (35SPA47); 14.05.1991; leg. Lopau, W.
- Muğla: Bewässerungskanal 2 km S Daljan (35SPA47); 13.05.1991; leg. Lopau, W.
- Muğla: Hamit (35SPA48); 11.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
- Muğla: Hamit (35SPA48); 21.05.1994; leg. Boudot, J.-P.; coll: Jacquemin, G.
- Muğla: Koycegiz Gölü (35SPA48); 22.09.1985; leg. Prasse, R.; det.& coll: Hartung, M.
- Muğla: Koycegiz-See N Ufer E des Ortes (35SPA59); 24.05.1996; leg. Henheik, H.
- Muğla: Strandlagune ca. 10 km S Daljan (35SPA47); 10.05.1991 & 11.05.1991 & 14.05.1991; leg. Lopau, W.
- Muğla: Unterlauf Graben W Koycegiz (35SPA49); 22.05.1996; leg. Henheik, H.
- Şanlı Urfa: Euphrat ca. 10 km NW Birecik (37SDB00); 15.06.1991; leg. Lopau, W.
- Şanlı Urfa: small stretch of reeds on the E shore of the Euphrates, S side of Birecik (37SDA09); 19.07.2002; leg. Kop, A.; coll: RMNH
- Şanlı Urfa: Stretch of reeds and shrubs S of 19VII2002A (37SDA09); 19.07.2002; leg. Kop, A.
- Şanlı Urfa: W shore of the Euphrates, overgrown by reeds (37SDA09); 19.07.2002; leg. Kop, A.; coll: RMNH
- Trithemis arteriosa* (Burmeister)**
- Hatay: Bach 29,5 km S Uluçinar an der Straße nach Samandagi (36SYF51); 31.05.1991; leg. Lopau, W.
- Hatay: Bach 32 km S Uluçinar an der Straße nach Samandagi (36SYF51); 31.05.1991; leg. Lopau, W.
- Hatay: Bach 34 km S Uluçinar an der Straße nach Samandagi (36SYF60); 31.05.1991; leg. Lopau, W.
- Hatay: Bach 35,1 km S Uluçinar an der Straße nach Samandagi (36SYF60); 31.05.1991; leg. Lopau, W.

- Hatay: Fluss und Bach in Uluçinar (36SYF53); 30.05.1991; leg. Lopau, W.
 Hatay: sumpfiger Straßengraben 36 km S Uluçinar an der Straße nach Samandagi (36SYF60); 31.05.1991; leg. Lopau, W.
 Hatay: Teich 37,3 km S Uluçinar an der Straße nach Samandagi (36SYF60); 31.05.1991; leg. Lopau, W.
 İçel: Limonlu stream N of Limonlu village, 36 km NE of Silifke (36SXF14); 07.07.2001; leg. Kalkman, V.J.; coll: RMNH
 İçel: Rinnsal ca. 30 km W Anamur an der Küstenstraße (36SVE69); 23.06.1998; leg. Arlt, J.
 İçel: Wasserbecken in Gözsütce (36SWF10); 23.06.1998; leg. Arlt, J.

***Trithemis festiva* (Rambur)**

- Antalya: Alanya (36SVF14); 20.06.1995; leg. Louda, J.; det.& coll: Hartung, M.
 Antalya: Alanya, Dimçay river (36SVF14); 15.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Antalya: Antalya, asl: 300-600 (36STF98); 24.05.1996-30.05.1996; leg. Siniav & Afonin; det.& coll: Hartung, M.
 Antalya: Bach in Ulupinar, S der Straße Kas-Antalya (36STF73); 25.06.1991; leg. Lopau, W.
 Antalya: Bach W Cirali, E der Straße Kas-Antalya, 70 km von Antalya (36STF63); 19.05.1991 & 25.06.1991; leg. Lopau, W.
 Antalya: Cirali (36STF73); 13.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 Antalya: Fluss Dim çay in Alanya (östlicher Stadtrand, ca. 2,2 km oberhalb der Mündung (36SVF14); 20.07.1990; leg. Kähler, J.
 Antalya: Gebirgsfluss unterhalb Ulupinar, S der Straße Kas-Antalya (36STF73); 21.05.1991; leg. Lopau, W.
 Antalya: Karpuz Çay at crossing with road to Akseki (36SUF76); 11.07.2001; leg. Kalkman, V.J.; coll: RMNH
 Antalya: Kemer bei Antalya (36STF85); leg. Franke; coll. Mus. Görlitz
 Antalya: Unterlauf des Flusses W Cirali, E der Straße Kas-Antalya, 70 km von Antalya (36STF63); 22.05.1991; leg. Lopau, W.
 Hatay: Teknepinar (37SBA30); 20.07.1993; leg. Boudot, J.-P. & G. Jacquemin; coll: Jacquemin, G.
 İçel: 10-15 km SW of Aydıncık, asl: 175 (36SWL29); 22.04.1991; leg. Oorschot, H van; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN
 İçel: Gebiet SW des Akgöl im Göksu Delta (36SWF81); 04.05.2000; leg. Ihssen, G. & H.J. Pelny
 İçel: Göksu-river near Degirmendere, NW of Silifke (36SWF63); 07.07.2001; leg. Kalkman, V.J.
 İçel: Karstquelle bei Aydıncık (36SWE29); 23.06.1998; leg. Arlt, J.

- İçel: Limonlu stream N of Limonlu village, 36 km NE of Silifke (36SXF14); 07.07.2001; leg. Kalkman, V.J.; coll: RMNH
 İçel: small rivulets near Degirmendere, along Göksu-river, NW of Silifke (36SWF63); 07.07.2001; leg. Kalkman, V.J.
 Muğla: Bach 23 km E Fethiye an der Kreuzun S von Kemer (35SQA15); 30.06.1991; leg. Lopau, W.
 Muğla: Bach an der Straße Muğla-Fethiye, 21 km NW Fethiye (35SPA76); 30.06.1991; leg. Lopau, W.
 Muğla: Bach an der Straße Muğla-Fethiye, 21 km NW Fethiye (35SPA86); 16.05.1991; leg. Lopau, W.
 Muğla: Bach an der Straße Muğla-Fethiye, 23 km NW Fethiye (35SPA76); 30.06.1991; leg. Lopau, W.
 Muğla: Bergbach 7 km NW Köycegiz (35SPA49); 22.05.1996; leg. Henheik, H.
 Muğla: Marmaris (35SPA17); 30.08.1985; leg. Prasse, R.; det.& coll: Hartung, M.
 Muğla: road between Esen and Kemer, asl: 100 (35SQA03); 04.07.1981; leg. Oorschot, H. van & H. van den Brink; det. Kalkman, V.J. & G.J. van Pelt; coll: ZMAN

***Pantala flavescens* (Fabricius)**

- İçel: Göksu Delta SE Akgöl-Lagune E Tasucu (36SWF81); 22.06.1998-23.06.1998; leg. Arlt, J.
 İçel: Wasserbecken in Gözsütce (36SWF10); 23.06.1998; leg. Arlt, J.

Acknowledgements

All contributors are gratefully acknowledged and also H. van Oorschot for his numerous records and specimens. We wish to thank B. Brugge (ZMAN, Amsterdam, The Netherlands), W. Beij and J. van Tol (Naturalis, Leiden, The Netherlands) and D. Goodger (NHM, London, England) for their helpfullness during our examination of the respective collections, and W. Schneider for kindly providing us with his notes made on earlier visits of the NHM. We are most grateful for the financial support given by The Uyttenboogaart-Eliasen Stichting (Amsterdam, The Netherlands) enabling us to visit the NHM.

Abbreviations: NHM: Natural History Museum, formerly British Museum (Natural History), (BM(NH)), London, United Kingdom; RMNH: Naturalis, formerly Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands; ZMAN: Zoologisch Museum Amsterdam, The Netherlands.

References

- ARLT, J. (1999): Entwicklungsnachweis von *Pantala flavescens* (Fabricius) in der Türkei (Anisoptera: Libellulidae). *Libellula* 18: 95-96

- HESSELBARTH G., von OORSCHOT, H. & WAGENER S. (1995): Die Tagfalter der Türkei. Sigbert Wagener, Bocholt, Germany
- KALKMAN, V.J., WASSCHER, M. & G.J. VAN PELET. (2003): An annotated checklist of the Odonata of Turkey. *Odonatologica* 32: 215-235
- LONGFIELD, C. (1932): List of Odonata from Asia Minor collected by Mr. B.P. Uvarov (July-August 1931). *Boletin de la Real Sociedad española de Historia natural, Madrid* 32: 159-160
- MORTON, K.J. (1922): Further notes on the Odonata of Constantinople and adjacent parts of Asia Minor. *The Entomologist* 55: 80-82
- SCHNEIDER, W. (1986): Erstnachweis von *Cordulia aenea* (Linnaeus, 1758) für die Türkei (Odonata: Anisoptera: Corduliidae). *Entomologische Zeitschrift* 96: 92-93
- WATERSTON, A.R. (1976): On the genus *Cordulegaster* Leach, 1815 (Odonata), with special reference to the Sicilian species. *Transactions of the Royal Society of Edinburgh* 69, 19: 457-466

Research on dragonflies in Turkey: present status and future aims (Odonata)

Gert Jan van Pelt and Vincent J. Kalkman

received: 26 May 2003

Summary

An overview is given of our present knowledge on the dragonfly fauna of Turkey. A database has been created in order to file all published and unpublished records, and to generate distribution maps and histograms of flight periods. A summary of the taxonomical problems that remain is given, and a list of taxa of which the larvae and exuviae are insufficiently known is included. The gaps in our present knowledge are discussed, and ideas for further research and future aims are presented.

Zusammenfassung

Libellenforschung in der Türkei: Stand der Dinge und zukünftige Aufgaben (Odonata) – Es wird ein Überblick über den gegenwärtigen Kenntnisstand zur Libellenfauna der Türkei präsentiert. Eine Datenbank wurde eingerichtet, um möglichst alle publizierten und unpublizierten Nachweise zu sammeln und auf dieser Basis Verbreitungskarten sowie Histogramme der Flugzeiten zu erstellen. Eine Zusammenfassung der verbleibenden taxonomischen Probleme wie auch eine Liste der Taxa, deren Larven bzw. Exuvien nur unzulänglich bekannt sind, wird vorgelegt. Die Lücken im derzeitigen Kenntnisstand werden diskutiert und Anregungen zu weiteren Forschungsarbeiten sowie zukünftigen Zielen gegeben.

Özet

Bu makale, Türkiye Odonata Faunası hakkındaki genel bilgileri vermektedir. Büttün yayınlanmış ve yayınlanmamış kayıtları biraraya getirmek, ayrıca dağılım haritaları ve uçuş periyotlarını gösteren histogramları oluşturmak için bir veritabanı geliştirilmiştir. Mevcut taksonomik problemlerin bir özeti de verilmiştir, ayrıca larva ve exuviaları iyi bilinmeyen grupların bir listesi de eklenmiştir. Bilgimiz dahilindeki farklılıklar tartışılmıştır, yine ilerde bu konuda yapılabilecek araştırma ve amaçlar sunulmuştur.

Introduction

At the end of 1999, a group of Dutch odonatologists decided to combine their efforts in order to review the odonatofauna of Turkey. It was decided: *i*) to compile a checklist of the Odonata of Turkey; *ii*) to create a data file in order to list all records known; and *iii*) to organize a field trip to the surroundings of Lake Köyceğiz (Muğla province, SW Turkey). Now that the checklist has been published (KALKMAN et al. 2003a), the data file temporarily locked after the insertion of numerous records, and the results of the field trip ready for publication, it appears appropriate to give an overview on the present status of the project and to discuss further research items and future aims.

Material and methods

This section focuses on the way the information on the Odonata of Turkey has been stored in the data file in order to have it available for future applications.

Database structure

The structure of the database has mainly been based on the experience present at the European Invertebrate Survey (EIS) office, Leiden, The Netherlands. Anyone who is interested in the structure of the data file is invited to contact the authors.

Records containing information that is considered doubtful (e.g. a possibly incorrect identification; a locality that cannot be traced with certainty) are coded so as to be excluded from further applications.

Various stages of a single taxon reported from a single date and locality are inserted as separate records, the same goes for mature males and females. In this manner it is possible to generate an overview of all records pertaining to a single stage, e.g., teneral specimens as an indication of the period of emergence of a species.

Review of scientific literature

All available information on the odonatofauna of Turkey and adjacent areas published in scientific articles and other publications after the overview article by DUMONT (1977) is included in the data file, and these are referred to in Appendix 1. All records published and referred to by DUMONT (1977) are also included. The data file contains a field for the original identification

in each publication; the original identification is generally accepted in case no error is to be expected. The data published by DEMIRSOY (1982) have also been included, but we have not been able to verify the original identifications; many of these have been interpreted according to KALKMAN et al. (2003a).

Unpublished records

Material present in the collections of the RMNH, the ZMAN, and the BM (NH) has been checked by either one of the present authors and is included in the data file. In addition, a number of contributors provided us with odonatological records from their trips to Turkey made in the past (KALKMAN et al. 2003c). All these records have been included in the data file.

Distribution maps and histograms of flight periods

It was decided to add the 10 x 10 km square according to the Universal Transverse Mercator grid (UTM) to each locality. These UTM coordinates are unique and enable us to generate distribution maps electronically. All UTM codes for the territory of Turkey start with a code 35T-38T/35S-38S. A certain detailed code, code, e.g. 35SPA47 for Dalyan, Muğla province, refers to this locality in the 100 x 100 km square 35SPA, the first numeral (4) stands for the fifth square on the horizontal axis (0-4 = from left to right on a scale of 0-9) within this 10,000 km² square, the second numeral (7) stands for the eighth square on the vertical axis (0-7 = from below to above on a scale from 0-9), 35SPA47 is therefore situated in the middle upper part of the 35SPA square. All localities have been checked with the appropriate Tactical Pilotage Chart (TPC, 1: 500.000).

Distribution maps are created with Dmap, a programme especially designed for mapping distributional data (<http://www.dmap.co.uk>). The histograms of flight periods are based on so-called 'unique' records (a species at a certain locality on a certain date).

Preliminary results and future research

At the moment the data file on the Odonata of Turkey contains some 6150 unique records. An overview of the number of records from various sources is given in Table 1, whereas Fig. 1 represents the number of unique records per decade over the last century. It is apparent that the number of records has increased enormously after the publication of the overview article by DUMONT (1977).

Tab. 1: Overview of the number of Odonata records from various sources.

Record source	Number of records
Published prior to DUMONT (1977)	370
Records published by DUMONT (1977)	550
Published after 1977 (incl. DEMIRSOY 1982)	1510
Published by VAN PELT (2004)	1080
Published by KALKMAN et al. (2004a)	580
Published by KALKMAN et al. (2004b), including:	2060
collection ZMAN	250
collection RMNH	100
collection BM(NH)	170
Total records available	6150

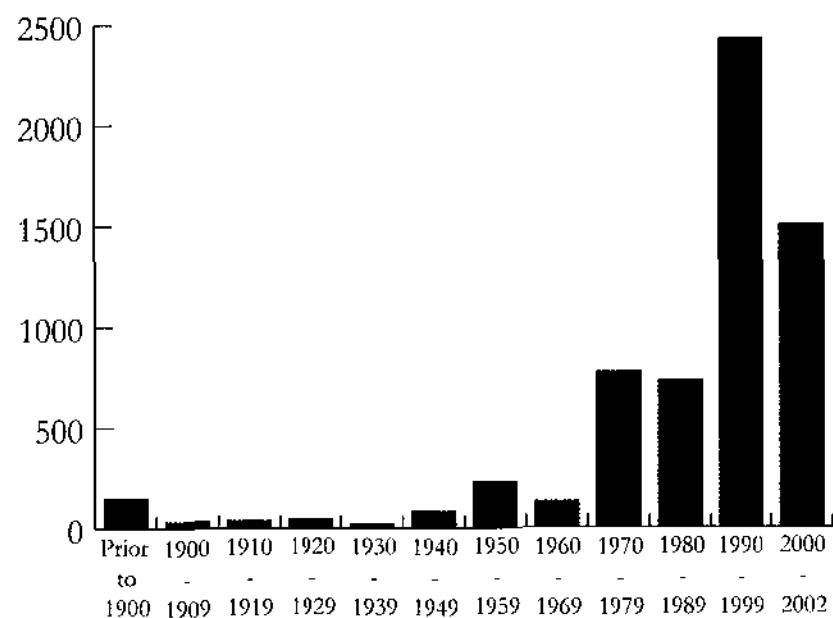


Fig. 1: Number of records of Odonata from Turkey per decade.

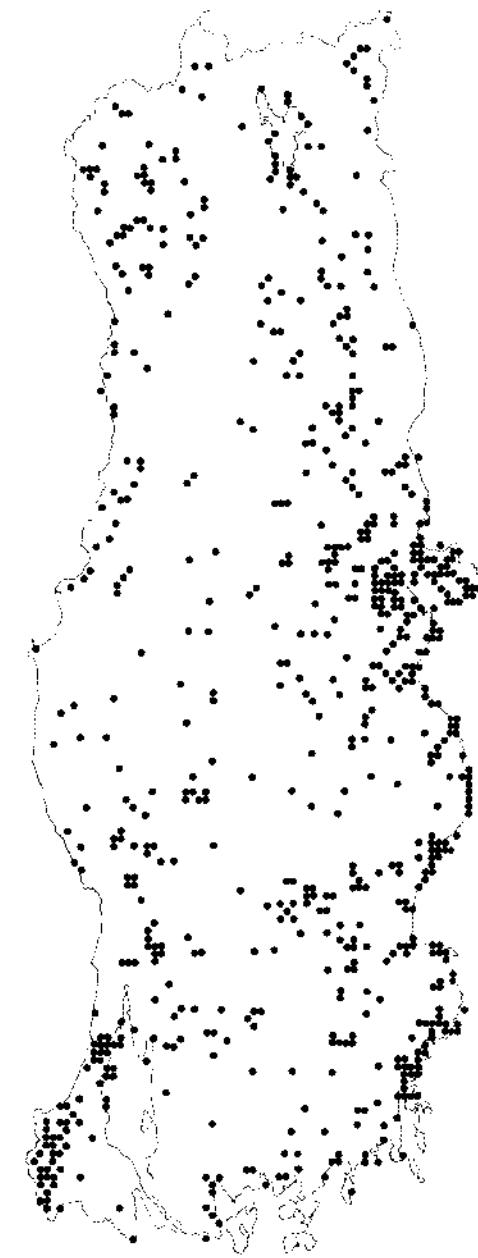


Fig. 2: Localities present in the data file.

As is evident from Fig. 2, there are records available from almost any part of Turkey. Areas from which only few records are available are the mountainous area roughly between and south of Sivas-Erzurum, and the central plateau south of Ankara. The latter area encompasses only a few interesting habitats for Odonata and is therefore often neglected. Surprisingly, also the area south of the Sea of Marmara is rather 'empty'.

According to KALKMAN et al. (2003), in the southeastern part of Turkey further fieldwork may yield some additions to the odonatofauna of Turkey. In this region *Coenagrion persicum* and *Gomphus kinzelbachi* may be present. In addition, also *Coenagrion australocaspicum* might be present in eastern Turkey. Sadly enough, the area has been less explored in the last decade due to the political situation.

Various additions to the fauna of Turkey could be found in Thrace (KALKMAN et al. 2003). Of these, *Somatochlora borisi* would be the most interesting.

In order to be able to give a certain level of priority to further research items, the gaps in our present knowledge are discussed below more in detail.

Review of scientific literature

All the material present in the RMNH, ZMAN and BM(NH), as well as all records forwarded by various contributors have been published either by VAN PELT (2004) or are included in KALKMAN et al. (2004b). The material from Cyprus present in the RMNH, ZMAN and BM(NH) has been published by LOPAU & ADENA (2002).

A review of all scientific publications on the odonatofauna of Turkey published prior to DUMONT (1977) is preferable but falls outside the scope of this project. One is invited to contact the authors in case particular data or publications have been overlooked, and any "forgotten" record will be included in the data file.

Taxonomical research

The taxonomy of the Odonata occurring in Turkey is largely known. KALKMAN et al. (2003) presented an overview of the present knowledge, and no new information has become available since. The largest taxonomical problems regarding the Odonata of Turkey are met within the genera *Calopteryx* and *Cordulegaster*.

The genus Calopteryx

Various articles dealing with the genus *Calopteryx* in South West Asia have been published (DUMONT et al. 1987; DUMONT et al. 1997; HEIDARI & DUMONT 2002), solving parts of the taxonomic puzzle this genus comprises. Yet, the exact taxonomic status, recognition and the distribution of the various (sub)species of *Calopteryx* in Turkey still remain unsettled, and it appears unlikely that more material alone will solve these problems, especially in eastern Turkey. Some of the taxonomic problems involve taxa of which the original description is too poor to clarify the distinguishing characteristics.

Records of *C. splendens* from western, northern and central Turkey (except Thracia) all pertain to subspecies *amasina*, the remainder have not been identified at the subspecific level as yet.

An investigation of the various taxa in the Middle East on the basis of DNA sequences is in progress, but results on the question whether *C. splendens intermedia* should be treated as a separate species (SCHNEIDER 1986a) are not yet available (Dumont, in lit.). More material from the area in which both taxa occur, and observations on their ecology and interactions may clarify whether *intermedia* is indeed a separate species.

The genus Cordulegaster

On the genus *Cordulegaster*, a lot of fieldwork has been executed during the last decade, and the results will be published in a forthcoming revision of the genus in Turkey. It will focus on the characteristics useful for the identification of the various subspecies of *C. insignis* in Turkey.

Up to recently, *Cordulegaster insignis mzymtae* Bartenev has been treated as a separate species. Specimens with abdominal markings intermediate of *C. insignis charpentieri* and *mzymtae* suggest that the two taxa interbreed. Therefore, *mzymtae* is to be regarded as a subspecies of *C. insignis* (VAN PELT 2004). Although there is a structural difference in the shape of the occipital triangle of these two taxa, this is apparently not sufficient to prohibit intersubspecific copulation. A detailed study on the exact nature of the tandem-linkage, and a phylogenetic study on the basis of DNA sequences may shed more light on the exact taxonomic status of the taxa involved.

Of special interest is the taxonomic status of *C. 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 subspe-

cies, but contrary to this, LOHMANN (1993) gave it full specific status. According to the descriptions by SELYS (1887), MORTON (1916), and FRASER (1929), material from Amasya 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.

Other genera

For the remainder of the taxa known to occur in Turkey, Table 2 gives an overview of (sub)species with an unsettled taxonomic status. The only taxon of which the specific status is considered doubtful is *Coenagrion vanbrinkae*, because the original description is rather poor and the differences with *C. ornatum* are possibly of only minor importance. According to J.-P. Boudot (in lit.), also *C. persicum* may not be a valid entity but conspecific with *C. pulchellum*. At present, there is not sufficient material to either verify or falsify this idea.

The distribution and taxonomic status of the subspecies of *Lestes virens*, *Cercion lindenii*, *Onychogomphus forcipatus*, *Aeshna isoceles*, and *Sympetrum sanguineum* in Turkey should be reviewed. According to H.J. Dumont (in lit.), material of *Lestes virens* from Turkey is referable to spp. *marikovskii* Belyshev, 1961.

A review of the distributional ranges of the various subspecies of *Ischnura elegans* is highly desirable, and should include (at least) the populations in all of South East Europe and Turkey (VAN PELT 1999).

The record of a male of *Aeshna juncea* ssp. from Erzurum by VAN PELT (2004) with extensive yellow markings on the thorax (reminiscent to that of *A. cyanea*) is quite puzzling, and more material of this taxon is needed in order to evaluate its taxonomic status. A photograph of a second male specimen can be found on <http://www.libellen.org/epallage>.

Identification of larvae and exuviae

Although most of the larvae and exuviae of the species known to occur in Turkey have been described, a number of these cannot be identified at the (sub)specific level. At present the amount of material available for examination is rather limited.

Tab. 2: Odonate taxa with an unsettled taxonomical status (taxonomic) and species of which the larvae and exuviae have been insufficiently described.

Taxon	taxonomic	larvae/exuvial
<i>Calopteryx splendens</i> ssp.	+	
<i>Lestes virens</i> ssp.	+	
<i>Cercion lindenii</i> ssp.	+	
<i>Coenagrion pulchellum</i> ssp.	+	
<i>Coenagrion ponticum</i> (Bartenev, 1929)		+
<i>Coenagrion vanbrinkae</i> Lohmann, 1993	+	+
<i>Ischnura fontaineae</i> Morton, 1905		+
<i>Ischnura intermedia</i> Dumont, 1974		+
<i>Pseudagrion syriacum</i> (Selys, 1887)		+
<i>Aeshna isoceles</i> ssp.	+	
<i>Cordulegaster insignis</i> ssp.	+	
<i>Orthetrum ransonnetti</i> (Brauer, 1865)		+
<i>Sympetrum sanguineum</i> spp.	+	

During the last decade, R. Seidenbusch (for an overview, see Appendix 1) published descriptions of the larvae and exuviae of quite a number of taxa from SW Asia. Unfortunately, the majority of these descriptions have been published privately, which makes these less accessible to international science; a review of these descriptions is highly desirable.

Table 2 lists the species of which the immature stages are still not or insufficiently described. As can be expected, most of these are uncommon damselflies of which the exuviae are difficult to find.

In order to (re)describe the immature stages of the taxa listed in Table 2 new material is needed, preferably collected together with some adult (teneral) specimens. In the forthcoming years it is our aim to visit certain localities where some of these taxa are known to occur. The results will most probably be published in a forthcoming Supplement of the present journal. A key to the exuviae of the species of the genus *Orthetrum* is in progress.

Remarks on the distributional data of some taxa

In Fig. 2 an overview is given of all the verified localities present in the data file. It shows that there are records available from almost any part of Turkey. Yet, interesting discoveries can be made in almost any part of the country. This is well illustrated by the present known distribution of especially *Libellula pontica* and *Sympetrum haritonovi* (Fig. 3). A few distribution maps have been published by VAN PELT (2004), preliminary maps of all species can be found on <http://www.libellen.org/epallage>.

Both *Leucorrhina pectoralis* and *Libellula quadrimaculata* have mainly been found in North East Turkey and in western Turkey near the great lakes, but records from the area in between are lacking. In general, the distributional patterns found so far lack information on the presence of species on the East Anatolian plateau.

Various species with a mainly Oriental or African distribution appear to be limited to the southern Mediterranean coast of Turkey. The northwestern-most distributional limit is situated in the province of Izmir and on the Greek island of Sámos (e.g. *Orthetrum sabina* and *O. taeniolatum*).

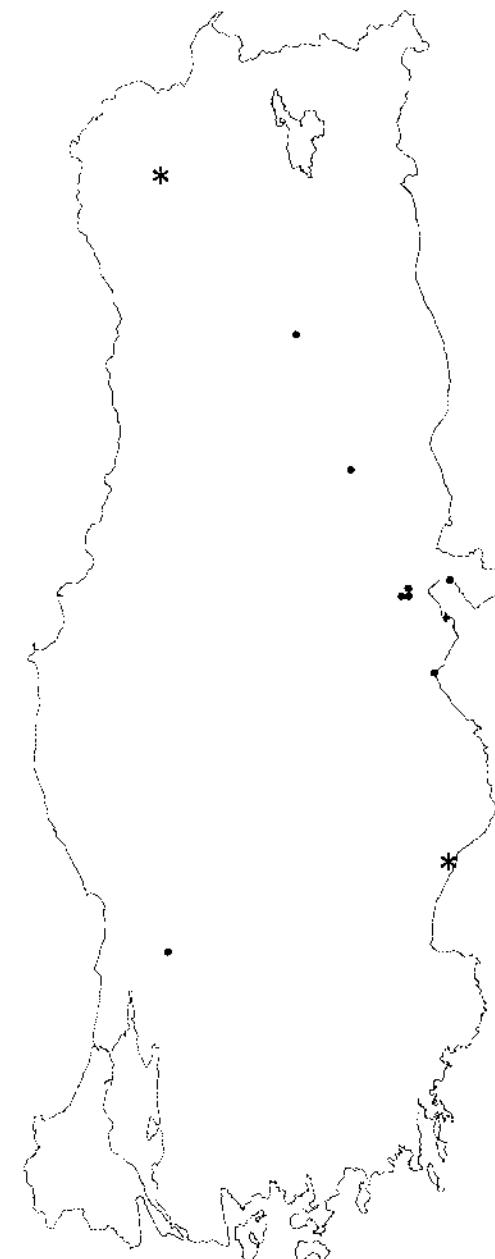


Fig. 3: The present known records of *Libellula pontica* (black dots) and *Sympetrum haritonovi* (asterisks) in Turkey.

For a number of species, especially those mainly occurring in spring, it is important to keep in mind that many localities have only been visited during the summer. Data on species active as an adult only early in the season are rather scarce, especially from North and East Turkey. Good examples are *Pyrrhosoma nymphula*, *Brachytron pratense*, and *Gomphus schneideri*: so far no records of these species are available from the eastern part of Turkey, but as these have been reported from Iran (HEIDARI & DUMONT 2002) it is likely that these are far more widespread in Turkey than the distribution map would suggest.

Nearly all the records of *Cercion lindenii* are from the southern half of Turkey (apart from Thracia), and it remains unclear why it has not been found in northern Turkey. More data may also shed some light on the exact distribution of the subspecies of *C. lindenii*, as well as on the exact taxonomic status of the two.

According to LOPAU & WENDLER (1995), no records are available of *Aeshna affinis* from western Turkey. However, the authors did overlook a record by LONGFIELD (1932) from the Manisa province (see also DUMONT 1977; KALKMAN et al. 2004). The species is widespread in Turkey and also in the western part it has been found at various localities.

Aeshna cyanea has been reported from Ródos (LOPAU 2000), and it would be interesting if its occurrence there could be confirmed by new observations. If so, the species may have a much wider distribution in Turkey than reported by VAN PELT (2004), and it could be encountered on many localities in especially western Turkey.

Also *Anax immaculifrons* may very well have a wider distribution as this species has been observed on the Greek island of Ikaria (VAN PELT 1999).

Cordulegaster picta has mainly been found in northern and western Turkey, yet the species also occurs in the Caucasus. As it has also been collected in the southeastern province of Hakkari (a single male in the HUA, Van Pelt, unpubl.), it remains unclear why so few records from eastern Turkey are available.

Seasonal ecology: lack of data

The seasonal ecology of Odonata in Turkey is poorly known, and limited to a few notes in a small number of scientific publications. Although the data file contains valuable information on the flight period of the species occurring in Turkey, one has to be cautious not to jump to conclusions. Fig. 4

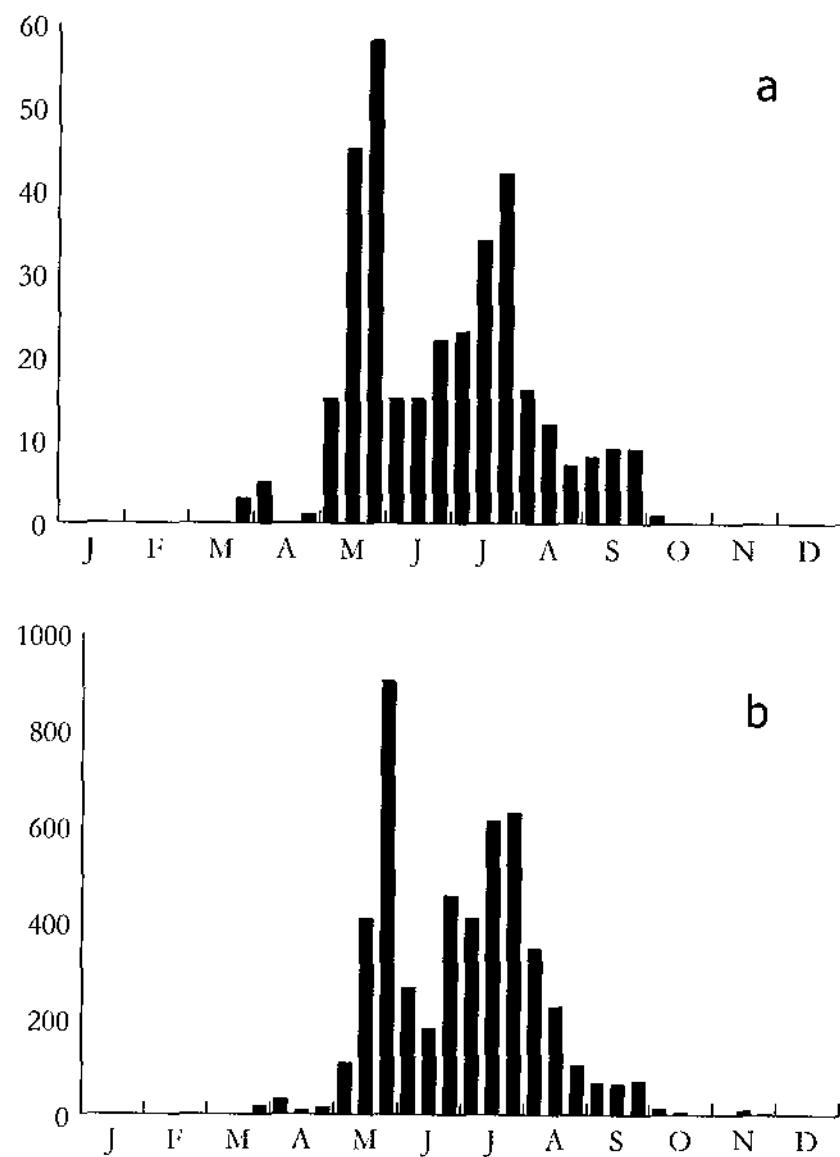


Fig. 4: Histogram of the flight period of *Ischnura elegans* (a) compared with the histogram of all records (b) present in the database.

shows the histogram of the flight period of *Ischnura elegans* (a) compared with the histogram of all records (b) present in the data file. Without this comparison it would appear that *I. elegans* has two generations in Turkey, the histogram is however strongly influenced by the low number of records from June.

Due to the research on the genus *Cordulegaster* by the senior author, the northern parts of Turkey have mainly been visited during the summer season, and a visit during spring or autumn may therefore prove to be interesting. In general, there is a lack of data on the presence of Odonata in the period from late autumn until early spring.

Flight periods

Many of the species occurring both in Turkey and in Europe probably have a similar flight period, although the generally higher temperature in Turkey may result in an earlier start of the flight period and in an increase in the number of generations per year.

In northern Africa various Palaearctic species are known to emerge in the early spring, then remain inactive during the summer and start to reproduce only as late as the autumn (SAMRAOUI & CORBET 2000). This strategy allows these species to survive the dry summer period during which most stagnant waters fall dry. The emergence in early spring of species like *Lestes parvidens* and *Sympetrum striolatum* in the warmer southern parts of Turkey (KALKMAN et al. 2003b) strongly suggest that the same strategy is followed there, although evidence for this is lacking. The presence of *Lestes barbarus* in May, September and October on Cyprus (LOPAU & ADENA 2002) is very indicative in this respect, however.

At least in South Turkey it can be expected that various species will be present as adults in winter. On Cyprus, *Sympetrum striolatum* appears to be present as adult during the winter period (LOPAU & ADENA 2002).

Be it that the number of records is limited, the histogram of the flight period of *Anax ephippiger* (Fig. 5) suggests that the species is present in two generations. This coincides well with the conclusions drawn by PETERS & GÜNTHER (2000), that the species invades Turkey during the spring and develops a second summer generation there.

It can be expected that the number of records per month will change significantly in the forthcoming years. As to the question how many generations a certain species produces per year, data on the period(s) of emergence

(presence of exuviae and teneral specimens) is essential, and the data file alone is an insufficient tool in this respect, although it gives a good impression of the presence of species throughout the year. The easiest way to gain insight in the seasonal ecology of Odonata is to visit a single region in various seasons. The region of Köyceğiz, Muğla province, appears to be a good locality for such an effort, because of the detailed information already available and the large number of species present in the area (KALKMAN et al. 2004a).

Rare or threatened species

It appears justifiable to focus further fieldwork on those species for which Turkey is important in a global context. Table 3 lists all species from the area that either: i) were included on the IUCN Red List of Threatened Animals by MOORE (1997); ii) roughly have more than 10 or 25 percent of their distributional range within the boundaries of Turkey; and iii) have a limited distributional range (endemics). Although *Calopteryx syriaca* is also mentioned on the IUCN Red List for Turkey, it is hardly likely that the species occurs in Turkey (KALKMAN et al. 2003), and therefore it is not included in the table. Both *Sympetrum arenicolor* and *S. haritonovi* are included in the list because it appears likely that these species are more widespread in Turkey than known so far, yet only a few records from Turkey are known up to now.

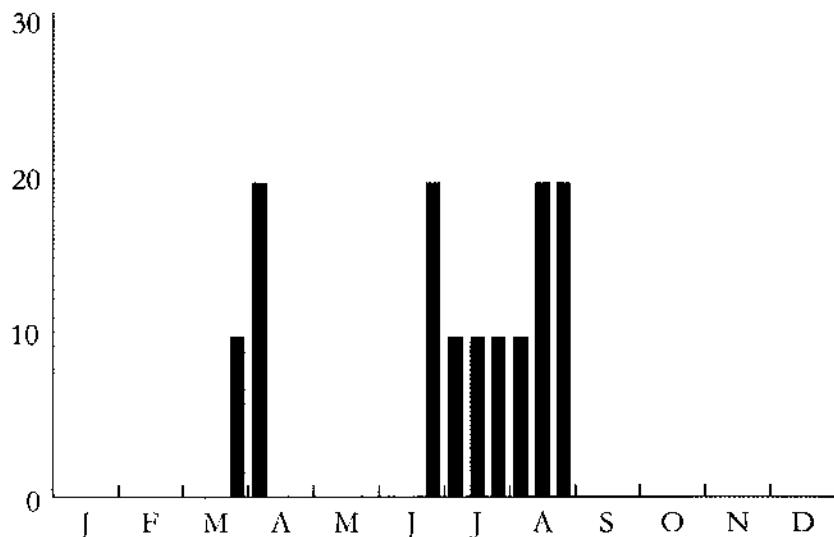


Fig. 5: Histogram of the flight period of *Anax ephippiger*.

Tab. 3: Species for which Turkey is of major importance. The second column gives the reason for inclusion in this table for each species. Abbreviations: IUCN: present on the Red List of Threatened Animals (Moore, 1997); 10/25%: roughly 10/25 percent or more of the distribution lies within Turkish boundaries; LR = Limited range (endemic); NA = not applicable. The third column indicates the distributional range of each species, based on TSUDA (2000) and more recent information (see Appendix 1); the abbreviations are according to TSUDA (2000): AFG = Afghanistan, BGR = Bulgaria, CYP = Cyprus, GRC = Greece, HUN = Hungary, IND = India, IRN = Iran, IRQ = Iraq, ISR = Israel, JOR = Jordan, KGS = Kirghizistan, LBN = Lebanon, MKD = Macedonia, PAK = Pakistan, RUM = Rumania, RUS = former USSR, SYR = Syria, TUR = Turkey, TKA = Trans Kaukasus, TRM = Turkmenistan, TJS = Tajikistan, UZB = Uzbekistan. The forth column indicates the status of the present knowledge of the global distribution of the species, the fifth column indicates the status of the present knowledge on the habitat preference.

Species	Reason for inclusion	Known distribution	Knowledge on distribution	Knowledge on habitat preference
<i>Epallage fatime</i> (Charpentier, 1840)	10%	AFG, BGR, CYP, GRC, HUN, IRN, ISR, JOR, MKD, PAK, TKA, TRM, TUR	good	good
<i>Platycnemis dealbata</i> Selys in Selys & Hagen, 1850	10%	AFG, IND, IRN, IRQ, ISR, JOR, LBN, SYR, TKA, TUR	good	fair
<i>Platycnemis keruellei</i> (Martin, 1909)	25%	IRQ, ISR, LBN, SYR, TUR	good	fair
<i>Ceriagrion georgifreyi</i> Schmidt, 1953	25%, LR	GRC, SYR, TUR	good	poor
<i>Coenagrion persicum</i> Lohmann, 1993 ¹⁾	LR	IRN	very poor	very poor
<i>Coenagrion ponticum</i> (Bartenev, 1929)	25%, LR	TUR, TKA	fair	fair
<i>Coenagrion syriaca</i> (Morton, 1924)	25%, LR	ISR, LBN, SYR, TUR	fair	fair
<i>Coenagrion vanbrinkae</i> Lohmann, 1993 ²⁾	25%, LR	IRN, TUR	poor	very poor
<i>Ischnura intermedia</i> Dumont, 1974	10%	IRN, SYR, TUR, TRM	fair	poor

<i>Caliaeschna microstigma</i> (Schneider, 1845)	10%	ALB, BGR, CYP, GRC, IRN, IRQ, ISR, MKD, RUS, TUR	good	good
<i>Gomphus davidi</i> Selys, 1887	25%, LR	ISR, JOR, LBN, SYR, TUR	good	fair
<i>Gomphus kinzelbachi</i> Schneider, 1984 ¹⁾	LR	IRN, IRQ	poor	very poor
<i>Gomphus schneideri</i> Selys, 1850	10%	GRC, IRN, IRQ, TKA, TUR	fair	fair
<i>Onychogomphus assimilis</i> (Schneider, 1845)	IUCN, 25%	TKA, TUR, TRM	fair	fair
<i>Onychogomphus flexuosus</i> (Schneider, 1845)	25%	AFG, IRN, IRQ, ISR, RUS, SYR, TUR	fair	fair
<i>Onychogomphus lefebvrei</i> (Rambur, 1842)	25%	IRN, IRQ, ISR, LBN, SYR, TUR, TRM, TJS, UZB	fair	good
<i>Onychogomphus macrodon</i> (Selys, 1887)	IUCN, LR, 25%	IRN, ISR, JOR, LBN, SYR, TUR	fair	poor
<i>Cordulegaster insignis</i> Schneider, 1845	25%	GRC, BGR, RUM, TUR, TKA, IRN	good	good
<i>Cordulegaster mzymtae</i> ³⁾	IUCN, 50%		good	good
<i>Cordulegaster picta</i> (Selys, 1854)	25%	GRC, BGR, TUR, TKA	good	good
<i>Brachythenis fuscopallitata</i> (Selys, 1887)	IUCN	IRN, IRQ, ISR, SYR, TUR	good	fair
<i>Libellula pontica</i> Selys, 1887	25%	IRN, IRQ, ISR, TKA, SYR, TUR	fair	fair
<i>Sympetrum arenicolor</i> Jödicke, 1994	NA	IRN, IRQ, KGS, SYR, TJS, TUR, TRM, UBS	poor	very poor
<i>Sympetrum haritonovi</i> Borisov, 1983	NA	TJS, UZB, KGS, AFG, TUR	poor	fair

¹⁾ Both *Coenagrion persicum* and *Gomphus kinzelbachi* have not yet been found in Turkey but are expected to occur.

²⁾ The specific status of *Coenagrion vanbrinkae* is considered doubtful here.

³⁾ *Cordulegaster mzymtae* is here considered to be a subspecies of *C. insignis*.

Species with a limited distributional range occur in three separate areas of endemism (Fig. 6), two of which have been investigated rather thoroughly. The endemics from eastern Turkey and western Iran are poorly known. Both *Coenagrion persicum* and *Gomphus kinzelbachi* have not yet been reported from Turkey. The specific status of *Coenagrion vanbrinkae* is considered doubtful here. More information on the odonatofauna of this region and the occurrence of these poorly known taxa is highly desirable.

The area alongside the northeastern Black Sea coast of Turkey (Pontic Alps) is densely forested and many springs, spring-fed lakes, brooks and rivers are present. The area is only extensively used by humans and it is in fact a National Park (Milli Park). It is therefore unlikely that the endemics present there are under direct threat. Most vulnerable of these is *Calopteryx splendens waterstoni*: this taxon lives in brooks that are more prone to pollution than the other habitats used by the endemics of the Black Sea region, whereas its distributional range almost completely falls within the boundaries of Turkey.

A completely different situation is met in the area alongside the north-eastern Mediterranean coast of southern Turkey. In this more industrial area the intensive use of water (also for agricultural and touristic purposes) holds a threat for all dragonflies. With regards to the endemics in the region, especially *Onychogomphus macrodon* is threatened. The species is confined to a very limited distributional area, roughly from northern Israel to Adana, and has in Turkey only been found in the provinces of Hatay, Adana, and Kahramanmaraş. Its preferential habitat, larger rivers, is heavily influenced by especially sand and gravel mining and the creation of barrage lakes. According to SCHNEIDER (1987), the record from Iran by BLOM (1982) of *O. macrodon* refers to *O. forcipatus*, and worldwide only 15 records of *O. macrodon* are known. More recently this species was found at only a few localities at the river Ceyhan (SEIDENBUSCH 2001; KALKMAN et al. 2004), and the paucity of recent records suggests that the species has declined both in numbers and localities. Research on its distribution and its habitat requirements is therefore much needed.

Epilogue: future aims

In order to stimulate future research on the Odonata of the East Mediterranean region it was decided to create an internetsite (<http://www.libellen.org/epallage>). The site is largely (but by no means completely) dedicated to the odonatofauna of Turkey, and includes a checklist, photographs, articles

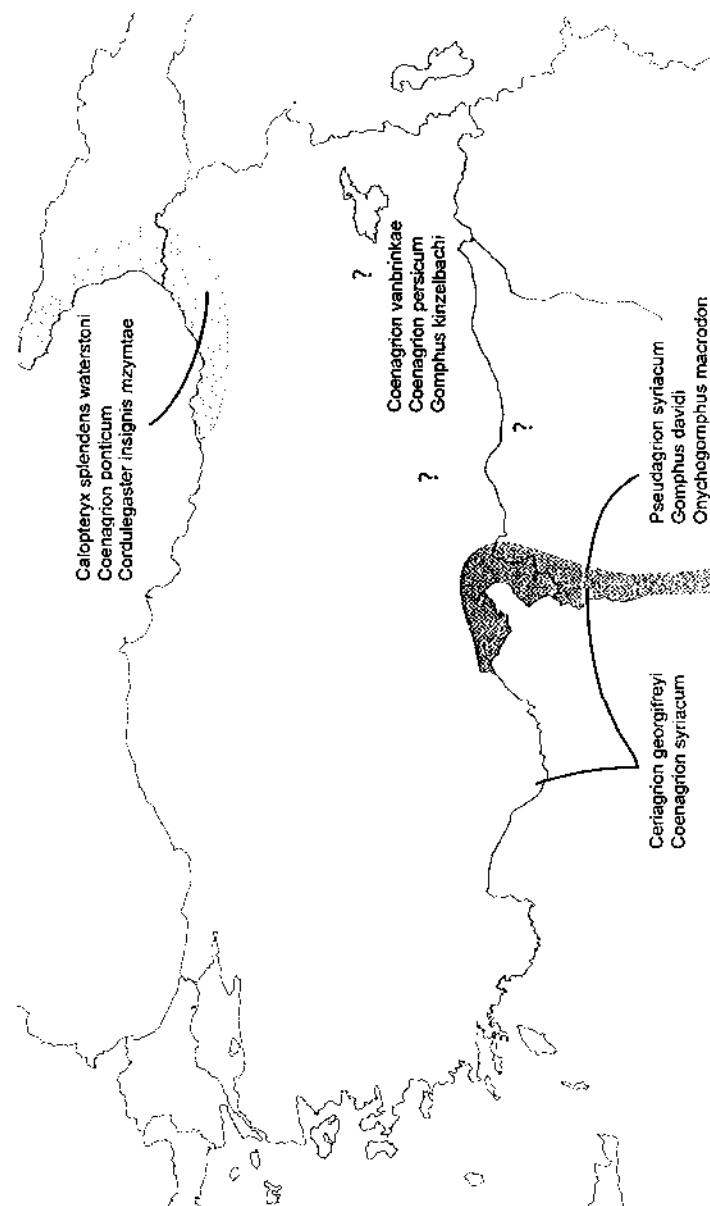


Fig. 6: Areas important for taxa with a restricted distributional range. *Ceriagrion georgifreyi* is also known from three Greek isles. Both *Coenagrion persicum* and *Gomphus kinzelbachi* have not yet been found in Turkey but are likely to be present.

and a list of persons interested in the area. It is regularly updated whenever new information has become available. The information in the data file is available for anyone who is planning a trip to Turkey, and an overview of records of e.g. a certain province is easily made. Persons who are interested in participating in the project are invited to contact the authors.

It is our aim to co-operate with as many people as possible, especially with scientists working on Odonata in Turkey itself. The results of the research items discussed above will probably be published in a forthcoming Supplement of the present journal, together with manuscripts yet to be written by any participant. A key to the Odonata of Turkey is in progress, and a key to the larvae and exuviae is being compiled, although further off.

Our final goal is to publish an Atlas of the Odonata of Turkey, including a key to the taxa and accounts of all taxa encompassing a description, figures, a distribution map and information on seasonal ecology and habitat preference.

Finally, we hope that this project will be a solid basis for further research on the odonatofauna of the eastern Mediterranean, and especially of the Caucasus and Iran; a website on the Odonata of Armenia has already been created by M. Tailly & V. Ananian: <http://users.pandora.be/tailly/armenodon/armeniadragonflies.htm>.

Acknowledgements and abbreviations

All participants as listed in KALKMAN et al. (2003c) are gratefully acknowledged, without their aid this project would be much more limited both in size and scope. We thank J.-P. Boudot, H.J. Dumont and W. Schneider for their useful comments on an earlier version of this paper.

Abbreviations: HUA: Hacettepe University Ankara, Turkey; NHM: Natural History Museum, formerly British Museum (Natural History) (BM(NH)), London, United Kingdom; RMNH: Naturalis, formerly Rijksmuseum van Natuurlijke Historie, Leiden; The Netherlands; ZMAN: Zoologisch Museum Amsterdam, The Netherlands.

References

- BLOM, W.L. (1982): List of Odonata collected during various lepidopterological trips in Iran (1971-1974). *Notulae odonatologicae* 1: 150-151
- DEMIRSOY, A. (1982): *Odonata. Turkiye Faunası*, 8 (4) 8. Ankara [Turkish]
- DUMONT, H.J. (1977): A review of the dragonfly fauna of Turkey and adjacent Mediterranean islands (Insecta: Odonata). *Bulletin et Annales de la Société royale entomologique de Belgique* 113: 119-171
- DUMONT, H.J., A. DEMIRSOY & D. VERSCHUREN (1987): Breaking the Calopteryx-bottleneck: taxonomy and range of *Calopteryx splendens* waterstoni Schneider, 1984 and of *C. splendens tschaldirica* Bartenev, 1909 (Zygoptera: Calopterygidae). *Odonatologica* 16: 239-247
- DUMONT, H.J., H. HEIDARI & K.I. ATAMURADOV (1997): Hybridisation in *Calopteryx orientalis* (Selys) east of the shores of the south Caspian lake (Zygoptera: Calopterygidae). *Odonatologica* 26: 205-213
- FRASER, F.C. (1929): A revision of the Fissilabioidea (Cordulegasteridae, Petaluridae and Petaluridae), part I: Cordulegasteridae. *Memoirs of the Indian Museum* 9: 69-167, plates IX-XII
- HEIDARI, H. & H.J. DUMONT (2002): An annotated check-list of the Odonata of Iran. *Zoology of the Middle East* 26: 133-150
- KALKMAN, V.J., M. WASSCHER & G.J. VAN PELT (2003): An annotated checklist of the Odonata of Turkey. *Odonatologica* 32: 215-235
- KALKMAN, V.J., A. KOP, G.J. VAN PELT & M. WASSCHER (2004a): The dragonflies of the surroundings of Lake Köyceğiz and the River Eşen, Muğla province, SW Turkey (Odonata). *Libellula Supplement* 5: 39-63
- KALKMAN, V.J., W. LOPAU & G.J. VAN PELT (2004b): Hitherto unpublished records of dragonflies from Turkey (Odonata). *Libellula Supplement* 5: 65-166
- LOHMANN, H. (1993): Revision der Cordulegastridae. 2. Beschreibung neuer Arten in den Gattungen *Cordulegaster*, *Anotogaster*, *Nealogaster* und *Sonjagaster* (Anisoptera). *Odonatologica* 22: 273-294
- LONGFIELD, C. (1932): List of Odonata from Asia Minor collected by Mr. B.P. Uvarov (July-August 1931). *Boletin de la Sociedad española de Historia natural, Madrid* 32: 159-160
- LOPAU, W. (2000): Bisher unveröffentlichte Libellenbeobachtungen aus Griechenland II (Odonata). *Libellula Supplement* 3: 81-112
- LOPAU, W. & J. ADENA (2002): Die Libellenfauna von Cypern. *Naturkundliche Reiseberichte* 19: 1-73
- LOPAU, W. & A. WENDLER (1995): Arbeitsatlas zur Verbreitung der Libellen in Griechenland und den umliegenden Gebieten. *Naturkundliche Reiseberichte* 5: 1-109
- MOORE, N.W. (1997): *Dragonflies – Status Survey and Conservation Action Plan*. IUCN/SSC Odonata Specialist Group, IUCN, Gland, Switzerland and Cambridge, UK
- MORTON, K.J. (1916): Some palaearctic species of *Cordulegaster*. *Transactions of the Entomological Society of London* 1915: 273-290, plates xxxiv-xxxvii (13 figs)
- PETERS, G. & A. GÜNTHER (2000): Frühjahrsbeobachtungen an *Anax ephippiger* auf Rhodos nebst Anmerkungen über den Invasionsraum der Art (Odonata: Aeshnidae). *Libellula Supplement* 3: 49-61
- SAMRAOUI, B. & P.S. CORBET (2000): The Odonata of Numidia, Northeastern Algeria, Part II: seasonal ecology. *International Journal of Odonatology* 3: 27-39
- SCHNEIDER, W. (1986a): *Systematik und Zoogeographie der Odonata der Levante unter besonderer Berücksichtigung der Zygoptera*. Dissertation, Gutenberg-Universität, Mainz
- SCHNEIDER, W. (1987): Die Verbreitung von *Onychogomphus macrodon* Selys, 1887, mit der Beschreibung des bisher unbekannten Weibchens und einer Wieder-

- beschreibung des Männchens (Odonata: Gomphidae). *Opuscula zoologica fluminensis* 13: 1-12
- SEIDENBUSCH R. (2001): List of species/habitats, Southern Turkey 12.05.-3.06.2000/ 4.05.-28.05.2001. *Sulzbach - Rosenberger Libellenrundbriefe* 12: 60
- SELYS-LONGCHAMPS, E. DE (1887): Odonates de l'Asie mineure et revision de ceux des autres parties de la faune dite européenne. *Annales de la Société entomologique Belge* 31: 1-85
- TSUDA, S. (2000): *A distributional list of world Odonata*. Private publication, Osaka
- VAN PEHLT, G.J. (1999): On dragonflies from Greece in the RMNH collection, Leiden. The Netherlands. *Libellula Supplement* 2: 77-90
- VAN PEHLT, G.J. (2004): New records of dragonflies from Turkey (Odonata). *Libellula Supplement* 5: 3-38

Appendix 1: Literature on the Odonata of Turkey from 1977 onwards

This list forms, in combination with the literature referred to by DUMONT (1977), an almost complete bibliography of the Odonata of Turkey, apart from the articles published in the present Supplement.

- ARDIÇ, A. & N. UYGUN (1996): *Doğu Akdeniz bölgesi Odonata faunasının saptanması* [Determination of Odonata fauna in East Mediterranean region]. Türkiye 3. Entomoloji Kongresi, 24-28 Eylül 1996, Ankara: 415-422 [Turkish with English summary]
- ARLT, J. (1999): Entwicklungsnachweis von *Pantala flavescens* (Fabricius) in der Türkei (Anisoptera: Libellulidae). *Libellula* 18: 95-96
- BATTIN, T.J. (1993): Revision of the puella group of the genus *Coenagrion* Kirby, 1890 (Odonata, Zygoptera), with emphasis on morphologies contributing to reproductive isolation. *Hydrobiologia* 262: 13-29
- BOUDOT, J.-P., G. JACQUEMIN & H.J. DUMONT (1990): Revision of the subspecies of *Onychogomphus forcipatus* (Linnaeus, 1758) in Europe and Asia Minor, and the true distribution of *Onychogomphus forcipatus unguiculatus* (Vander Linden, 1823) (Odonata, Gomphidae). *Bulletin et Annales de la Société royale d'entomologie de Belgique* 126: 95-111
- BÖRZSÖNY, L. (1996): Erstnachweis von *Anormogomphus kiritshenkoi* für die Türkei (Anisoptera: Gomphidae). *Libellula* 15: 185-190
- BUSSE, R. (1993): Libellen von der türkischen Südküste. *Libellula* 12: 39-46
- DEMIRSOY, A. (1982): *Odonata. Türkiye faunası*. 8(4) 8. Ankara [Turkish]
- DIJKSTRA, K.-D.B. & V.J. KALKMAN (2001): Early spring records of dragonflies from southern Turkey, with special reference to the sympatric occurrence of *Crocothemis erythraea* (Brullé, 1832) and *C. servilia* (Drury, 1773) (Odonata: Libellulidae). *Notulae odonatologicae* 5: 85-88
- DUMONT, H.J. (1991): *Odonata of the Levant. Fauna Palaestina. Insecta V*. Israel Academy of Sciences and Humanities, Jerusalem

- DUMONT, H.J., A. DEMIRSOY & J. MERTENS (1988): Odonata from South-East Anatolia (Turkey) collected in spring 1988. *Notulae odonatologicae* 3: 17-36.
- DUMONT, H.J., A. DEMIRSOY & D. VERSCHUREN (1987): Breaking the Calopteryx bottleneck: taxonomy and range of *Calopteryx splendens waterstoni* Schneider, 1984 and of *C. splendens tschaldirica* Bartenev, 1909 (Zygoptera: Calopterygidae). *Odonatologica* 16: 239-247
- DUMONT, H.J., W. SCHNEIDER, D. VERSCHUREN & M. PAVESI (1995): *Coenagrion lindenii zernyi* (Schmidt): an east Mediterranean taxon threatened with extinction by introgression from the west (Zygoptera: Coenagrionidae). *Odonatologica* 24: 451-459.
- DUMONT, H.J., S.N. BORISOV & R. SEIDENBUSCH (1995): Redescription and geographic range of *Sympetrum haritonovi* Borisov, 1983 (Odonata, Libellulidae) with notes on its habitat and ecology. *Bulletin et Annales de la Société royale entomologie de Belgique* 131: 65-74
- HACET, N. & N. AKTAÇ (1994): *Trakya bölgesinde Odonata faunasına yeni kayıtlar* [New records belong to Odonata fauna of Thrace region]. XII. Ulusal Biyoloji Kongresi 1994, Edirne: 202-209 [Turkish, with English summary]
- HACET, N. & N. AKTAÇ (1997): Istranca Dağları Odonata Faunası [Odonata Fauna of Istranca Mountains]. *Turkish Journal of Zoology* 21: 275-289 [Turkish, with English summary]
- HAVZA, E. & N. AKTAÇ (1987): *Edirne yöresi Odonata faunası üzerinde sistematischer Untersuchungen über die Odonatenfauna von Edirne*. Türkiye I. Entomoloji Kongresi 1987, Izmir: 743-752 [Turkish, with German summary]
- JÖDICKE, R. (1994): Subspecific division of *Sympetrum sinaiticum* Dumont, 1977, and the identity of *S. vulgatum decoloratum* (Selys, 1884) (Anisoptera: Libellulidae). *Odonatologica* 23: 239-253
- JÖDICKE, R. (1997): *Die Binsenjungfern und Winterlibellen Europas*. Neue Brehm-Bücherei 631. Westarp, Magdeburg
- JÖDICKE, R. (1998): Autumnal dragonfly records from the Alanya region, Turkey. *Notulae odonatologicae* 5: 10-11
- JÖDICKE, R., S.N. BORISOV, A.Y. HARITONOV & O. POPOVA (2000): Additions to the knowledge of *Sympetrum sinaiticum* Dumont (Odonata: Libellulidae). *International Journal of Odonatology* 3: 131-140
- KATBEH-BADER, A., Z. AMR & W. SCHNEIDER (2002): Odonata of Jordan. *Fragmenta entomologica, Roma*, 34: 147-170
- KAZANCI, N., A. İZBİRAK, S.S. CAGLER & D. GÖKCE (1992): *Köyceğiz Dalyan özel cevrekoruma bölgesi sulul ekosistemin hidrobiyolojik yönünden incelenmesi (Rapor)*. [Turkish]. Hacettepe Üniversitesi, Fen Fakültesi Biyoloji Bölümü, Beytepe, Ankara. ISBN 975-95644-0-8
- KAZANCI, N. (1995): Odonata of the Köyceğiz-Dalyan nature reserve area in southwestern Turkey, with *Lindenia tetraphylla* (Vander L.), new to the Turkish fauna (Anisoptera: Gomphidae). *Notulae odonatologicae* 4: 105-106
- KOHLER, H.U. (1993): Libellen am Fluss Dalaman, SW-Türkei [Dragonflies on the Dalaman River, SW Turkey]. *Notulae odonatologicae* 4: 32

- LOHMANN, H. (1993): Coenagrion vanbrinki spec. nov. und C. persicum spec. nov. aus Vorderasien (Zygoptera: Coenagrionidae). *Odonatologica* 22: 203-211
- LOHMANN, H. (1993): Revision der Cordulegastridae. 2. Beschreibung neuer Arten in den Gattungen Cordulegaster, Anotogaster, Neallogaster und Sonjagaster (Anisoptera). *Odonatologica* 22: 273-294
- MARTENS, A. (1996): *Die Federlibellen Europas: Platycnemididae*. Die Neue Brehm-Bücherei 626. Westarp, Magdeburg, Spektrum, Heidelberg
- OLSVIK, H. (1997): Among Epallage fatime Charp. in Turkey, and *Lestes macrostigma* Eversm. in Greece. *Newsletter Nordic odonatological society* 3: 21-22
- SALUR, A. & S. KIYAK (2000a): On the systematic and faunistic studies of Anisoptera species (Insecta: Odonata) of Kızılırmak River basin (Kayseri Province). *Journal of the Institute of Science and Technology of Gazi University* 13: 829-840
- SALUR, A. & S. KIYAK (2000b): On the systematic and faunistic studies of Zygoptera species (Insecta: Odonata) of Kızılırmak River basin (Kayseri Province). *Journal of the Institute of Science and Technology of Gazi University* 13: 843-854
- SCHNAPAUFF, I., P. SCHRIDDE, F. SUHLING & K. ULLMANN (1996): Libellenbeobachtungen in Nordost-Griechenland. *Libellula* 15: 169-183
- SCHNEIDER, W. (1981): On a dragonfly collection from Syria. *Odonatologica* 10: 131-145
- SCHNEIDER, W. (1984): Description of *Calopteryx waterstoni* spec. nov. from north-eastern Turkey (Zygoptera: Calopterygidae). *Odonatologica* 13: 281-286
- SCHNEIDER, W. (1985a): Dragonfly records from SE-Turkey (Insecta: Odonata). *Senckenbergiana biologica* 66: 67-78
- SCHNEIDER, W. (1985b): Die Gattung *Crocothemis* Brauer 1868 im Nahen Osten (Insecta: Odonata: Libellulidae). *Senckenbergiana biologica* 66: 79-88
- SCHNEIDER, W. (1985c): Wiederbeschreibung von *Erythromma viridulum orientale* Schmidt 1960 aus dem östlichen Mittelmeerraum (Insecta: Odonata: Coenagrionidae). *Senckenbergiana biologica* 66: 89-95
- SCHNEIDER, W. (1985d): The types of *Orthetrum anceps* (Schneider 1845) and the taxonomic status of *Orthetrum ramburii* (Selys 1848). *Senckenbergiana biologica* 66: 97-104
- SCHNEIDER, W. (1986a): *Systematik und Zoogeographie der Odonata der Levante unter besonderer Berücksichtigung der Zygoptera*. Dissertation. Gutenberg-Universität, Mainz
- SCHNEIDER, W. (1986b): Designation des Lectotypus von *Somatochlora meridionalis* Nielsen 1935 (Odonata: Anisoptera: Corduliidae). *Entomologische Zeitschrift* 96: 73-78
- SCHNEIDER, W. (1986c): Erstnachweis von *Cordulia aenea* (Linnaeus, 1758) für die Türkei (Odonata: Anisoptera: Corduliidae). *Entomologische Zeitschrift* 96: 92-93
- SCHNEIDER, W. (1987): Die Verbreitung von *Onychogomphus macrodon* Selys, 1887, mit der Beschreibung des bisher unbekannten Weibchens und einer Wiederbeschreibung des Männchens (Odonata: Gomphidae). *Opuscula zoologica fluminensis* 13: 1-12

- SCHNEIDER, W. (1995): Die Verbreitung von *Pseudagrion syriacum* Selys 1887 und Erstnachweis der Art für die Türkei (Odonata: Zygoptera: Coenagrionidae). *Entomologische Zeitschrift* 105: 161-166
- SCHNEIDER, W. & F. KRUPP (1996): A possible natural hybrid between *Ischnura elegans ebneri* Schmidt, 1939 and *Ischnura fountainei* Morton, 1905 (Odonata: Coenagrionidae). *Zoology of the Middle East* 12: 75-81
- SCHNEIDER, W. & Z. MOUBAYED (1985): Beitrag zur Kenntnis der Odonata des Libanon. *Entomologische Zeitschrift* 95: 183-192
- SCHORR, M., W. SCHNEIDER & H.J. DUMONT (1998): Ecology and distribution of *Lindenia tetraphylla* (Insecta, Odonata, Gomphidae): a review. *International Journal of Odonatology* 1: 65-88
- SEIDENBUSCH, R. (1994): Odonatenfauna des Gökböl-Hochplateaus im mittleren Taurus bei Alanya, Türkei. *Notulae odonatologicae* 4: 73-74
- SEIDENBUSCH, R. (1995a): Description of the last instar larva of *Sonjagaster insignis* Schneider 1845 (Odonata: Cordulegastridae). *Sulzbach-Rosenberger Libellenrundbriefe* 1: 3 pp.
- SEIDENBUSCH, R. (1995b): Description of the last instar larvae of *Orthetrum taeniolum* Schneider 1845 and *Orthetrum sabina* Drury 1770 (Anisoptera: Libellulidae). *Sulzbach-Rosenberger Libellenrundbriefe* 1: 3 pp.
- SEIDENBUSCH, R. (1995c): Diskrimination der Exuviae bei *Onychogomphus forcipatus forcipatus* Linnaeus 1758 und seinen subspecies *O. f. unguiculatus* Vander Linden 1823 und *O. f. albottibialis* Schmidt 1954. *Sulzbach-Rosenberger Libellenrundbriefe* 1: 2 pp.
- SEIDENBUSCH, R. (1995d): Description of the last instar larva of *Diplacodes lefebvrei Rambur* 1842 (Anisoptera: Libellulidae). *Sulzbach-Rosenberger Libellenrundbriefe* 1: 2 pp.
- SEIDENBUSCH, R. (1995e): Libellen in der Region Alanya, Türkei. *Notulae odonatologicae* 4: 85-88
- SEIDENBUSCH, R. (1995f): Comparisation of the last instar larvae of *Stylurus flavipes flavipes* Charpentier 1825, *Stylurus flavipes lineatus* Bartenev 1929, *Anormogomphus kiritchenkoi* Bartenev 1913, *Gomphus davidi* Selys 1887 (Anisoptera: Gomphidae). *Sulzbach-Rosenberger Libellenrundbriefe* 2: 4 pp.
- SEIDENBUSCH, R. (1995g): Comparisation of the last instar larvae of *Gomphus vulgatissimus* Linnaeus 1758, *Gomphus schneideri* Selys 1850, *Gomphus epophthalmus* Selys 1872 (Anisoptera: Gomphidae). *Sulzbach-Rosenberger Libellenrundbriefe* 2: 3 pp.
- SEIDENBUSCH, R. (1995h): Comparison of the last instar larvae of *Onychogomphus flexuosus* Schneider 1845, *Onychogomphus forcipatus albottibialis* Schmidt 1954 (Anisoptera: Gomphidae). *Sulzbach-Rosenberger Libellenrundbriefe* 2: 2 pp.
- SEIDENBUSCH, R. (1996): Suchstrategien für wenig verbreite Exuviae des europäischen und mediterranen Raumes. *Sulzbach-Rosenberger Libellenrundbriefe* 3: 4 pp.
- SEIDENBUSCH, R. (1997a): Wingspot variability of *Calopteryx splendens intermedia* Selys 1890 in hybrid populations in south Turkey. *Sulzbach-Rosenberger Libellenrundbriefe* 4: 3 pp.

- SEIDENBUSCH, R. (1997b): Comparison of wingfeatures in selected European and Mediterranean specimen out of the species *Calopteryx virgo* Linnaeus 1758. *Sulzbach-Rosenberger Libellenrundbriefe* 4: 6 pp.
- SEIDENBUSCH, R. (1997c): Comparison: structural-imaginal features for discrimination in *Gomphus vulgatissimus* Linnaeus, 1758 and *Gomphus schneideri* Selys, 1850. *Sulzbach-Rosenberger Libellenrundbriefe* 5: 4 pp.
- SEIDENBUSCH, R. (1997d): *Gomphus amseli* Schmidt, 1961 versus *Gomphus schneideri amseli* Schmidt, 1961 *Gomphus schneideri transcaspicus* ssp. nov. New results from the south-east Caspian territory. *Sulzbach-Rosenberger Libellenrundbriefe* 5: 8 pp.
- SEIDENBUSCH, R. (1997e): Variability in the structure of the lamina anteriores in *Orthetrum coerulescens* Fabrizius 1798 and *Orthetrum coer. anceps* Schneider 1845. *Sulzbach-Rosenberger Libellenrundbriefe* 6: 3 pp.
- SEIDENBUSCH, R. (1999): Description of three last instar larvae of the south Turkish area; *Brachythemis fuscopaliata* Selys, 1887 (Anisoptera: Libellulidae), *Sympetrum haritonovi* Borisov, 1983 (Anisoptera: Libellulidae); *Onychogomphus assimilis* Schneider, 1845 (Anisoptera: Gomphidae). *Sulzbach-Rosenberger Libellenrundbriefe* 10: 11 pp.:
- SEIDENBUSCH, R. (2001): Special issue on Turkey. *Sulzbach-Rosenberger Libellenrundbriefe* 12: 60 pp.
- SÜHLING, F. & O. MÜLLER (1996): *Die Fließjungfern Europas*. Die Neue Brehm-Bücherei 628. Westarp, Magdeburg, Spektrum, Heidelberg
- YAZICIOGLU, T. (1982): Dragonflies from the Ergene river basin, Thrace, Turkey. *Notulae odonatologicae* 1: 148-150



Fig. 1: *Calopteryx splendens waterstoni* – Males have hyaline wings. Occurs in NE Turkey along the Black Sea coast. A second taxon with hyaline wings (*C. s. hyalina*) occurs just south of Turkey in Syria (Photo: Jean-Pierre Boudot).



Fig. 2: *Platycnemis kervillei* – The only *Platycnemis* in the region in which the legs are not expanded and in which the abdomen, head, thorax and legs turn blue with pruinosity when mature. It occurs in SE Turkey where it can be confused with the rare *Pseudagrion syriacum* (Photo: Jean-Pierre Boudot).



Fig. 3: *Cordulegaster insignis insignis* – The nominate subspecies of *C. insignis* is widely distributed in the South and West of Turkey. It is distinguishable from *C. picta* by the bluish instead of greenish eyes. Identification of the other subspecies of *C. insignis* is tricky and material from those regions is highly desirable for further examination (Photo: Jean-Pierre Boudot).



Fig. 4: *Cordulegaster insignis mzymtae* – The darkest (sub)species of *Cordulegaster* in Turkey. The green eyes distinguish it from *C. i. insignis*. Occurs at brooks and brooklets in peat bogs in mountainous areas in the NE of Turkey, along the Black Sea coast (Photo: Jean-Pierre Boudot).



Fig. 5: *Gomphus davidi* – Distinguishable from *G. schneideri* by the uninterrupted yellow line on the mid-dorsal region of abdominal segments 8 and 9. In *G. flavipes* the antehumeral stripe runs down to the leg without being interrupted by a black line. In Turkey it occurs only in the surroundings of Adana where it is normally found in stagnant waters, but also along large rivers (Photo: Jean-Pierre Boudot).



Fig. 6: *Gomphus flavipes lineatus* – This subspecies has the abdominal segments 7, 8 and 9 more broadened and with more yellow. The differences with the nominate subspecies should be described in more detail when more material is available. This subspecies is uncommon in the whole of Turkey whereas *G. f. flavipes* might occur in Thrace (Photo: Jean-Pierre Boudot).



Fig. 7: *Onychogomphus lefebvrei* – Is largely identical to *O. forcipatus* and at a time considered as a subspecies. Distinguished from *forcipatus* by the shape of the lower appendages. Occurs in SE Turkey in stony brooks and rivers (Photo: Jean-Pierre Boudot).



Fig. 8: *Onychogomphus forcipatus albottibialis* – Largely identical to the nominate subspecies, with normally less extensive black markings on the abdomen and thorax, but it can only be reliably identified by the shape of the lower appendages. Another distinguishing character might be the colouration of the eyes: more greenish eyes in the nominate subspecies and blue in ssp. *albottibialis*. The nominate subspecies probably occurs in Thrace; the exact distributional ranges of the two subspecies have yet to be established (Photo: Antoine van der Heijden).



Fig. 9: *Onychogomphus assimilis* – A large *Onychogomphus* with extensive black markings: it has thick black lines on the thorax with the second and third often connected at three places. The largely black abdominal segment 2 distinguishes it from other *Onychogomphus* species. Occurs at larger, often wooded, rivers (Photo: Hans-Ulrich Kohler).



Fig. 10: *Onychogomphus flexuosus* – This is a slender *Onychogomphus* having a largely yellow and warm-brownish abdomen, of which the last three segments hardly show any black. The lower appendages of the male are characteristically curved. Occurs at larger, often stony, rivers (Photo: Antoine van der Heijden).



Fig. 11: *Libellula pontica* – The species is structurally identical to *L. fulva*. Mature males can be easily distinguished from *fulva* by the brick-red abdomen without any blue pruinosity. The species is found in well-vegetated habitats in SE Turkey and on a single locality in NW Turkey. So far never found to co-occur with *fulva* although their ranges overlap considerably (Photo: Jean-Pierre Boudot).



Fig. 12: *Sympetrum sanguineum* ssp. – In a rather restricted part of SW Turkey the majority of the females of this taxon have extensive yellow patches in the wings. It resembles *S. s. obsoletum* from southern Russia, but it is unlikely that this subspecies is involved (Photo: Antoine van der Heijden).



Fig. 13: *Sympetrum vulgatum decoloratum* – Structurally identical to the nominate subspecies, but differs by the lack of black on the abdomen, thorax and head. Can be confused with other pale species of *Sympetrum*. The larva and exuviae are not yet known (Photo: Jean-Pierre Boudot).



Fig. 14: *Sympetrum haritonovi* – One of the smallest species of *Sympetrum*, with an abdomen under 20 mm length. It is easily identified by its size, and lacks black on the abdomen, thorax and head; the eyes have a peculiar greenish tinge. The species appears to be rare and lives in spring-fed marshes at high altitude (over 1750 m asl) (Photo: Jean-Pierre Boudot).



Fig. 15: *Diplacodes lefebrii* – A small species in which the males become black with age. In Turkey it only occurs in the South, mainly along the Mediterranean coast where mature males can be confused with *Selysiothemis nigra* and the slightly larger *Trithemis festiva*. Males are distinguishable from *S. nigra* by the mostly (not in this photograph) pale appendages (see text under *S. nigra*) and the black wing venation (Photo: Hans-Ulrich Kohler).



Fig. 16: *Selysiothemis nigra* – Again, a small species in which males become black with age. In Turkey it only occurs in the South, mainly along the Mediterranean coast where mature males can be confused especially with *Diplacodes lefebrii*, and also with *Trithemis festiva*. Males are distinguishable from the former by the largely pale wing venation and pterostigma. The wings possess relatively few veins (Photo: Jean-Pierre Boudot).

Hinweise für Autoren

LIBELLULA SUPPLEMENT ist eine an die Zeitschrift **LIBELLULA** angegliederte Sonderband-Serie. Sie dient der Publikation von Sammelbänden zu speziellen Themen oder von Monographien. Die Erscheinungsfolge ist nicht festgelegt.

Themenbände, die mehrere Beiträge umfassen, werden von Arbeitsgruppen der GdO initiiert. Arbeitsgruppen können entweder ihre Ergebnisse in einem Themenband zusammenfassend darstellen oder per Aufruf Beiträge zu bestimmten Sachgebieten oder Regionen sammeln und herausgeben. Die Redaktion von Libellula Supplement wird im Einvernehmen mit dem Vorstand der GdO für jede Ausgabe neu zusammengesetzt.

Manuskripte zu Monographien sollten erst nach vorheriger Absprache bei der Schriftleitung von Libellula eingereicht werden.

Für alle Beiträge gelten die Manuskript-Richtlinien von Libellula.

Autoren erhalten von ihrem Beitrag 30 Sonderdrucke.

Zur Dokumentation wird die Zeitschrift an referierende Organe gesandt.

Studien zur Libellenfauna der Türkei

Im Februar 2000 wurde in den „Libellennachrichten“ dazu aufgerufen, Beobachtungsmaterial aus der Türkei bei der GdO-Redaktion einzureichen. Dieser Aufruf hatte das Ziel, ein besonderes Forum für Beiträge zur Libellenfauna der Türkei zu schaffen.

Eine aktuelle Übersicht aus diesem beliebten Reiseland mit interessantem Artenvorkommen fehlte bisher. Es bildete sich eine Arbeitsgruppe, die u.a. viele neue bisher unveröffentlichte Daten zusammengetragen und ausgewertet hat.

Die Reihe Libellula Supplement soll fortgesetzt werden. Es wird empfohlen, sich bei Manuskripten zu diesem Sachgebiet am Stil der Beiträge des vorliegenden Supplement-Bandes zu orientieren. Neben deutschen sind englischsprachige Beiträge willkommen.