

New Ephemeroptera (Insecta) Records from Turkey*

by

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Thirty-five species of Ephemeroptera are recorded from Anatolia, Turkey. Twenty-four of these species are recorded from Turkey for the first time.

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Our knowledge of the Ephemeroptera fauna of Turkey is rather deficient. According to Puthz (1978), seventeen species of mayflies have so far been recorded from Turkey.

Many more species do in fact occur in Turkey. Thirty five Turkish species are recorded in the present paper, twenty-four of them for the first time. During the present investigation, specimens have mainly been collected in Middle and Eastern Anatolia. However, some species not previously recorded from Southern and Northern Anatolia are also included.

Most of the new records in this paper are of species known from areas surrounding or close to Turkey, mainly the Balkan Peninsula. In a few cases, namely *Baetis gemellus*, *B. vernus*, *Centroptilum luteolum*, *Cloeon simile*, *Ephoron virgo*, the present records from Turkey fill a gap in the known distribution, because these species had before been reported from the Balkan Peninsula on the one hand, and from the Caucasus on the other. These records are therefore not unexpected.

There are also some species now taken in Turkey that had not been known from near Turkey before. They are *Baetis pentaplebedes* which was known from Central and Northern Europe, *B. sinicus* from the western Mediterranean Region and from Central Europe, *Centroptilum nanum* from Northern Europe, and *C. pulchrum* from the Western Mediterranean Region, Middle and Northern Europe. A probable explanation for their presence in Turkey is the following. After the start of the glacial period during the Pleistocene, faunal elements from Northern and Middle Europe descended to the south and settled in refugia (one in Western, the other in Eastern Anatolia), together with Siberian elements. Many of these species re-occupied Europe during the postglacial period and are now widespread.

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In the lists of material, numbers in parentheses refer to localities shown on the map and listed in its legend. Taxonomical and faunistical papers used in this study are listed, without individual references in the text.

Family Baetidae

Genus *Baetis*

B. alpinus Pict.

New for Turkey!: (14), 21.7.1978, 3♂; (10a), 4.5.1979, 1♂; (13), 25.5.1979, 1♂; (24), 11.5.1980, 5♂; (36a), 11.5.1980, 5♂; (35), 24.7.1981, 5♂; (36b), 26.7.1981, 6♂; (46a), 27.7.1981, 2♂; (47a), 27.7.1981, 13♂; (48a), 27.7.1981, 2♂; (38), 10.8.1981, 1♂; (27), 14.5.1982, 1♂; (26), 14.5.1982, 22♂.

B. buceratus Etn.

New for Turkey!: (10a), 4.5.1979, 1♂; (8), 27.5.1979, 2♂; (57), 13.5.1979, 3♂; (24), 10.5.1980, 1♂; (25), 10.5.1980, 2♂; (4a), 20.6.1980, 1♂; (4b), 20.6.1980, 8♂; (4a), 4.7.1980, 4♂; (2a), 4.7.1980, 1♂; (4a), 26.6.1981, 4♂; (47a), 27.7.1981, 3♂; (46b), 28.7.1981, 14♂; (48a), 28.7.1981, 1♂; (38), 10.8.1981, 3♂; (39), 10.8.1981, 8♂; (53), 25.8.1981, 6♂; (26), 14.5.1982, 1♂; (44), 23.7.1982, 1♂; (55), 25.7.1982, 2♂; (52), 28.7.1982, 11♂; (44), 29.7.1982, 12♂; (45), 29.7.1982, 2♂; (43a), 1.8.1982, 8♂; (11), 13.8.1982, 1♂.

B. digitatus Bgtss.

New for Turkey!: (4a), 4.7.1980, 1♂; (43b), 1.8.1982, 1♂; (53), 25.8.1981, 4♂.

B. fuscatus L.

(10a), 4.5.1979, 1♂; (10a), 11.5.1979, 15♂; (10b), 18.7.1979, 1♂; (12b), 30.5.1980, 1♂; (34a), 24.7.1981, 1♂; (34b), 24.7.1981, 11♂; (34c), 21.7.1981, 1♂; (46b), 28.7.1981, 1♂; (47a), 27.7.1981, 6♂; (38), 10.8.1981, 1♂; (44), 29.7.1981, 3♂; (43c), 30.7.1982, 10♂.

B. gemellus Etn.

New for Turkey!: (46a), 27.7.1981, 1♂; (44), 29.7.1982, 1♂.

B. lutheri M.-L.

New for Turkey!: (43d), 1.8.1982, 3♂.

B. meridionalis Ik.

New for Turkey!: (10a), 4.5.1979, 1♂; (54), 25.7.1982, 1♂; (43a), 1.8.1982, 1♂; (43b), 1.8.1982, 5♂.

B. muticus L.

New for Turkey!: (40a), 13.8.1981, 1♂; (44), 29.7.1982, 1♂.

B. niger L.

New for Turkey!: (28), 20.7.1981, 1♂.

B. pentaplebodes Ujh.

New for Turkey!: (37), 26.7.1981, 1♂; (46b), 27.8.1981, 4♂.

B. rhodani Pict.

(15), 5.4.1979, 4♂; (9), 16.7.1980, 1♂; (10), 16.7.1980, 1♂; (34a), 24.7.1981, 1♂; (46a), 27.7.1981, 1♂; (46b), 28.7.1981, 47♂; (47a), 27.7.1981, 5♂; (36b), 26.7.1981, 1♂; (39), 12.8.1981, 2♂; (40b), 13.8.1981, 1♂; (42), 25.8.1981, 5♂; (48c), 28.7.1981, 2♂; (41), 14.8.1981, 1♂; (44), 29.7.1982, 4♂; (43d), 1.8.1982, 10♂; (43b), 1.8.1982, 11♂; (43a), 1.8.1982, 1♂; (43e), 1.8.1982, 2♂; (1), 25.8.1982, 1♂.

B. scambus Etn.

New for Turkey!: (7), 9.6.1978, 1♂.

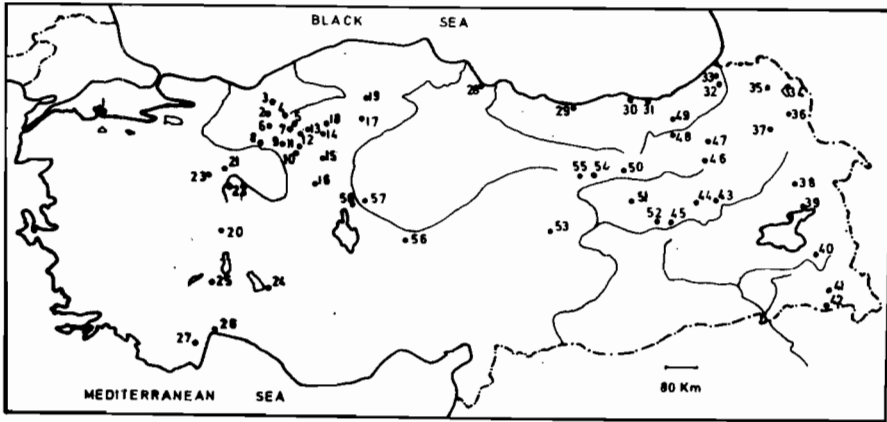


Fig. 1: The distribution of localities

1- Balıkesir: Erdek; Şahinburgaz Village. 2- Bolu; a- Çatakören Village; b- Abant. 3- Bolu: Yedigöller. 4- Bolu: Gerede; a- Gerede Stream; b- Kurugöl. 5- Bolu-Ankara Road; a- Akyarma Pass; b- Yünlü high plateau. 6- Bolu; a- Seben; b- Kıbrısçık; c- Karagöl. 7- Ankara: Çamkoru. 8- Ankara: Nallıhan: Elmaçay Stream. 9- Ankara: Beypazarı. 10- Ankara: Ayaş; a- Kirmir Stream; b- Kumkaya; c- Siveriç Stream. 11- Ankara: Gündül: İlhan Stream. 12- Ankara: Kızılcahamam; a- Soğuksu; b- Pazar. 13- Ankara: Çeltikçi. 14- Ankara: Çubuk: Karagöl; a- Çubuk-Karagöl Road; b- Yukarı Kışlacık Village. 15- Ankara. 16- Ankara: Haymana. 17- Çankırı: Ilgaz: Derbent. 18- Çankırı: Güvem. 19- Çankırı: Ilgaz: Soğuksu. 20- Afyon: Çay: Karamık Lake. 21- Eskişehir: Eminekin Village. 22- Eskişehir: Seyitgazi. 23- Eskişehir-Kütahya Road. 24- Konya-Beyşehir Road, Yunuslar Village. 25- Isparta: Gelendost. 26- Antalya: Kepezbaşı. 27- Antalya: Elmalı. 28- Samsun. 29- Giresun. 30- Trabzon. 31- Trabzon: Yomra Stream. 32- Artvin. 33- Artvin: Borçka. 34- Kars: Çıldır; a- Karaçay; b- Doğruyol; c- Kurtkale. 35- Kars: Ardahan. 36- Kars: Sarıkamış; a- Çatak Village; b- Karakurt Village. 37- Kars: Selim. 38- Ağrı-Van Road. 39- Van: Erciş. 40- Van-Hakkâri Road; a- Zerneç; b- Güzeldere. 41- Hakkâri; a- Otluca; b- Centrum of Hakkâri. 42- Hakkâri: Çukurca: Cevizli Village. 43- Muş: Varto; a- Üçbulak Village; b- Onpınar Village; c- Alabalık Village; d- Çaldıre Village; e- Güzeldere Village. 44- Bingöl: Karhova. 45- Bingöl: Ilıcalar. 46- Erzurum; a- Palandöken; b- Ilıca. 47- Erzurum-Tortum Road; a- Yeşildere; b- Dumlu. 48- Gümüşhane: Bayburt; a- Bayburt; b- Maden; c- Kop Village. 49- Gümüşhane: Bayburt: Yoncalı Village. 50- Erzincan: Kızıldağ. 51- Tunceli: Ovacık. 52- Elazığ: Karakoçan. 53- Sivas: Gürün. 54- Sivas: İmranlı. 55- Sivas: Hafik. 56- Nevşehir: Hacıbektaş: Kızılağul Village. 57- Kırşehir: Kaman. 58- Kırşehir: Hirfanlı.

B. sinaicus Bog.

New for Turkey!: (5a), 20.6.1980, 1♂.

B. vernus Curt.

New for Turkey!: (14b), 29.5.1981, 1♂; (50), 25.7.1982, 8♂.

Genus *Centroptilum*

C. luteolum Müll.

New for Turkey!: (11), 25.5.1979, 2♂.

C. nanum Bog.

New for Turkey!: (38), 10.8.1981, 1♂.

C. pennulatum Etn.

New for Turkey!: (10b), 18.7.1979, 1♂; (47a), 27.7.1981, 1♂; (38), 10.8.1981, 1♂.

C. pulchrum Ent.

New for Turkey!: (35), 24.7.1981, 10♂; (44), 29.7.1982, 2♂.

Genus *Cloeon**C. dipterum* L.

(15), 19.7.1978, 1♂; (20), 20.6.1981, 6♂ (Leg. KURU); (35), 24.7.1981, 6♂; (47a), 27.7.1981, 1♂; (56), 25.8.1981, 5♂; (16), 15.8.1982, 32♂.

C. simile Etn.

New for Turkey!: (58), 13.5.1979, 10♂; (7), 26.6.1981, 1♂; (50), 25.7.1982, 1♂.

Genus *Procloeon**P. bifidum* Bgtss.

New for Turkey!: (21), 6.7.1980, 3♂.

Family Heptageniidae

Genus *Epeiron**E. znojkoii* Tshern.

(41a), 17.7.1979, 6♂ (Leg. DEMIRSOY); (48c), 22.7.1981, 2♂; (35), 23.7.1981, 1♂; (49), 3.8.1981, 3♂; (41b), 41.8.1981, 4♂; (42), 25.8.1981, 4♂.

Genus *Rhithrogena**R. loyolea* Nav.

New for Turkey!: (32), 22.7.1981, 1♂.

R. semicolorata Curt.

New for Turkey!: (49), 30.7.1981, 1♂; (17), 19.6.1982, 1♂.

Genus *Ecdyonurus**E. lateralis* Etn.

New for Turkey!: (14a), 29.5.1981, 1♂.

Family Ephemerellidae

Genus *Ephemerella**E. ignita* Poda

(10c), 22.5.1979, 1♂; (12b), 25.5.1979, 1♂; (6a), 30.6.1979, 1♂; (2a), 4.7.1980, 1♂; (4a), 4.7.1980, 10♂; (5b), 4.7.1980, 2♂; (4a), 20.6.1980, 1♂; (35), 23.7.1981, 7♂; (34b), 24.7.1981, 2♂; (36a), 26.7.1981, 2♂; (46b), 27.8.1981, 2♂; (47b), 27.8.1981, 2♂; (40a), 13.8.1981, 1♂; (13), 7.7.1982, 2♂; (44), 23.7.1982, 38♂; (54), 25.7.1982, 3♂; (50), 25.7.1982, 3♂; (51), 27.7.1982, 10♂; (43c), 30.7.1982, 2♂; (43b), 1.8.1982, 1♂.

E. major Klap.

New for Turkey!: (5b), 4.7.1980, 1♂; (13), 7.7.1982, 1♂; (50), 25.7.1982, 3♂.

Family Leptophlebiidae

Genus *Choroterpes**C. picteti* Etn.

(44), 29.7.1982, 1♂; (11), 13.8.1982, 3♂.

Genus Habroleptoides*H. modesta* Hag.

New for Turkey!: (2b), 29.5.1981, 3♂; (19), 19.6.1982, 9♂; (17), 19.6.1982, 2♂; (3), 29.10.1982, 1♂.

Genus Habrophlebia*H. fusca* Curt.

(33), 22.7.1981, 1♂; (52), 28.7.1982, 4♂.

H. lauta Etn.

(6b), 30.6.1979, 2♂; (30), 21.7.1981, 6♂; (31), 21.7.1981, 1♂; (29), 22.7.1981, 1♂; (12a), 7.7.1982, 1♂.

Family Polymitarcidae**Genus Ephoron***E. virgo* Ol.

New for Turkey!: (45), 3.8.1982, 1♂.

Family Ephemeridae**Genus Ephemera***E. danica* Müll.

(6c), 30.6.1979, 1♂.

E. vulgata L.

(22), 22.7.1979, 1♂; (4a), 20.6.1980, 2♂; (23), 6.7.1980, 2♂.

Family Potamanthidae**Genus Potamanthus***P. luteus* L.

(18), 28.7.1978, 2♂; (10a), 10.5.1979, 3♂; (10a), 30.5.1979, 1♂; (4a), 20.6.1980, 2♂; (4a), 4.7.1980, 6♂; (5b), 4.7.1980, 1♂; (10b), 18.7.1979, 1♂.

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