

ODONATA FAUNA OF PÜLÜMÜR (TURKEY: TUNCELİ PROV.)**Ali Salur*, Özge Doğan* and Yaprak Yağız***

* Hitit University, Faculty of Arts and Sciences, Department of Biology, 19030 Çorum / TURKEY. E-mail: alisalur@hitit.edu.tr

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ABSTRACT: A total of 470 samples were collected in the Pülümür district of Tunceli province located in East Anatolia region of Turkey by area studies and then identified between July and September 2010. 24 species were stated as first records for the Pülümür district and Tunceli province. The habitats and the phenologies of these species found in the studied area were given.

KEY WORDS: Odonata, Fauna, Pülümür, Tunceli, Turkey.

In this study which is purposed that determination of distribution of Odonata species; for this purpose samples are collected from lakes, ponds, streams and woodlands for setting up fauna composition of Pülümür district of Tunceli province. According to references it is found that there is no study about Pülümür district for Odonata fauna. This study is the first for Odonata fauna of Pülümür district.

It is known that there is about 6000 species in the world and 200 species in west palearctic for Odonata (Dumont, 1991). In Turkey, it has been determined that 35 genus in 10 family, 115 species and subspecies so far (Kalkman, 2006).

Pülümür district which has several types of woodlands, but there has been no study about inventory of Odonata fauna so far. For fullfilling the empitiness, field trips are carried out about July, August and September in 2010 and 470 samples are gathered from 14 different localities. During species identification, is 24 species in 11 genus belonging to 6 family were determined. These records are new for both of Pülümür district and Tunceli province.

Pülümür district (Fig. 1) which was selected as study region has an area of around 1505 km². For setting up Odonata fauna field studies were carried out in July, August and September and samples were collected from different phenologies and habitats. After killing the samples in killing jars; samples were softened and pinned by niddles. These 470 samples are saved in Hitit University Zoology Museum (HUZM).

Family Calopterygidae***Calopteryx splendens amasina* Bartenef, 1911**

Materials: 3♂♂, 1♀, 26/07/2010, Kırmızı Köprü-Köprü Altı, 1248 m, 39° 23' 342" N 039° 49' 824"E. **Phenology and Habitat:** July. Coast of stream.

***Calopteryx virgo festiva* (Brulle, 1832)**

Materials: 5♂♂, 26/07/2010, Cumhuriyet district, 1255 m, 39° 29' 034" N 039° 54' 524"E. **Phenology and Habitat:** July. Coast of stream.

Family Euphaeidae***Epallage fatime* (Charpentier, 1840)**

Materials: 1♀, 22/07/2010, Kırmızı Köprü-Köprü Altı, 1593 m, 39° 23' 261" N 039° 49' 535"E; 3♂♂, 1♀, 26/07/2010, Kırmızı Köprü-Köprü Altı, 1248 m, 39° 23' 342" N 039° 49' 824"E. **Phenology and Habitat:** July. Coast of stream.

Family Coenagrionidae

Coenagrion puella (Linnaeus, 1758)

Materials: 4♂♂, 22/07/2010, Komlar District, 1602 m, 39° 29' 558" N 039° 54' 307"E; 5♂♂, 23/07/2010, Kırklar-Golarapiye, 2111 m, 39° 27' 562" N 040° 33' 243"E; 2♂♂, 23/07/2010, Kırklar-Golarapiye, 2093 m, 39° 27' 592" N 040° 03' 249"E; 1♂, 23/07/2010, Kırklar-Golarapiye, 2449 m, 39° 27' 682" N 040° 03' 265"E; 1♂, 23/07/2010, Kırklar-Anuh Stream, 2197 m, 39° 27' 383" N 040° 03' 678"E. **Phenology and Habitat:** July. Marsh and coast of lake, on the pragmites.

Enallagma cyathigerum (Charpentier, 1840)

Materials: 3♂♂, 1♀, 23/07/2010, Kırklar-Golarapiye, 2093 m, 39° 27' 592" N 040° 03' 249"E; 2♂♂, 23/07/2010, Kırklar-Golarapiye, 2111 m, 39° 27' 562" N 040° 33' 243"E. **Phenology and Habitat:** July. Coast of lake.

Ischnura elegans ebneri Schmidt, 1938

Materials: 6♂♂, 4♀♀, 02/09/2010, Kırklar-Kırklar Stream, 1954 m, 39° 28' 226" N 040° 02' 514"E; 1♀, 22/07/2010, Komlar District, 1602 m, 39° 29' 558" N 039° 54' 307"E. **Phenology and Habitat:** July and September. Coast of stream and marsh.

Ischnura pumilio (Charpentier, 1825)

Materials: 1♀, 22/07/2010, Kırmızı Köprü-Köprü Altı, 1593 m, 39° 23' 261" N 039° 49' 535"E; 6♂♂, 7♀♀, 19/08/2010, Mountain way, 1863 m, 39° 31' 290" N 039° 52' 662"E; 1♂, 1♀, 20/08/2010, Atatürk District, 1555 m, 39° 29' 815" N 039° 52' 690"E; 1♂, 1♀, 02/09/2010, Kırklar-Kırklar Stream, 1954 m, 39° 28' 226" N 040° 02' 514"E; 1♀, 01/09/2010, Kırklar-Ferhat Stream, 2246 m, 39° 26' 874" N 040° 05' 389"E. **Phenology and Habitat:** July to September. Coast of stream, Roadside, on the gramineous vegetation and pragmites.

Family Lestidae

Lestes barbarus (Fabricius, 1798)

Materials: 6♂♂, 5♀♀, 19/08/2010, Baş Kalecik, 1500 m, 39° 33' 479" N 039° 52' 967"E; 9♂♂, 3♀♀, 20/08/2010, Atatürk District, 1555 m, 39° 29' 815" N 039° 52' 690"E; 2♀♀, 02/09/2010, Kırklar-Kırklar Stream, 1954 m, 39° 28' 226" N 040° 02' 514"E. **Phenology and Habitat:** August and September. Coast of stream, marsh and pragmites vegetation.

Lestes dryas Kirby, 1890

Materials: 17♂♂, 3♀♀, 23/07/2010, Kırklar-Anuh Stream, 2197 m, 39° 27' 383" N 040° 03' 678"E; 3♂♂, 3♀♀, 23/07/2010, Kırklar-Golarapiye, 2111 m, 39° 27' 562" N 040° 33' 243"E; 7♂♂, 2♀♀, 23/07/2010, Kırklar-Golarapiye, 2449 m, 39° 27' 682" N 040° 03' 265"E; 6♀♀, 02/09/2010, Kırklar-Kırklar Stream, 1954 m, 39° 28' 226" N 040° 02' 514"E; 1♀, 01/09/2010, Kırklar-Ferhat Stream, 2246 m, 39° 26' 874" N 040° 05' 389"E; 5♂♂, 22/07/2010, Komlar District, 1602 m, 39° 29' 558" N 039° 54' 307"E; 1♀, 26/07/2010, Cumhuriyet district, 1255 m, 39° 29' 034" N 039° 54' 524"E. **Phenology and Habitat:** July and September. Lake, marsh and pragmites vegetation.

Lestes sponsa (Hansemann, 1823)

Materials: 6♂♂, 23/07/2010, Kırklar-Anuh Stream, 2197 m, 39° 27' 383" N 040° 03' 678"E; 48♂♂, 2♀♀, 23/07/2010, Kırklar-Golarapiye, 2111 m, 39° 27' 562" N 040° 33' 243"E; 20♂♂, 3♀♀, 23/07/2010, Kırklar-Golarapiye, 2093 m, 39° 27' 592" N 040° 03' 249"E; 1♂, 26/07/2010, Cumhuriyet district, 1251 m, 39° 29' 325" N 039° 54' 590"E; 6♂♂, 1♀, 23/07/2010, Kırklar-Golarapiye, 2449 m, 39° 27' 682" N 040° 03' 265"E; 1♂, 1♀, 22/07/2010, Komlar District, 1602 m, 39° 29' 558" N 039° 54' 307"E; 1♂, 1♀, 22/07/2010, Kırmızı Köprü-Köprü Altı, 1593 m, 39° 23' 261" N 039° 49' 535"E; 1♂, 01/09/2010, Kırklar-Ferhat Stream, 2246 m, 39° 26' 874" N 040° 05' 389"E; 1♂, 4♀♀,

02/09/2010, Kırklar-Kırklar Stream, 1954 m, 39° 28' 226" N 040° 02' 514"E. **Phenology and Habitat:** July and September. Lake, marsh and pragmites vegetation.

***Lestes virens* (Charpentier, 1825)**

Materials: 9♂♂, 6♀♀, 19/08/2010, Baş Kalecik, 1500 m, 39° 33' 479" N 039° 52' 967"E; 9♂♂, 30♀♀, 20/08/2010, Atatürk District, 1555 m, 39° 29' 815" N 039° 52' 690"E; 1♀, 23/07/2010, Kırklar-Golarapiye, 2449 m, 39° 27' 682" N 040° 03' 265"E; 4♂♂, 02/09/2010, Kırklar-Kırklar Stream, 1954 m, 39° 28' 226" N 040° 02' 514"E; 1♀, 19/08/2010, Mountain way, 1863 m, 39° 31' 290" N 039° 52' 662"E; 1♂, 23/07/2010, Kırklar-Golarapiye, 2093 m, 39° 27' 592" N 040° 03' 249"E. **Phenology and Habitat:** July to September. Lake, marsh, coast of stream and gramineous and pragmites vegetation.

***Sympecma fusca* (Vander Linden, 1820)**

Materials: 1♂, 24/08/2010, Kırklar-Çiftlik(Kirkgöze), 1861 m, 39° 27' 536" N 040° 01' 679"E; 3♂♂, 1♀, 19/08/2010, Baş Kalecik, 1500 m, 39° 33' 479" N 039° 52' 967"E. **Phenology and Habitat:** July. Marsh, Roadside, gramineous and pragmites vegetations.

Family Aeshnidae

***Aeshna affinis* Vander Linden, 1820**

Materials: 2♂♂, 1♀, 21/07/2010, Cumhuriyet district., 1603 m, 39° 29' 258" N 039° 54' 577"E; 2♂♂, 22/07/2010, Komlar District, 1602 m, 39° 29' 558" N 039° 54' 307"E; 6♂♂, 26/07/2010, Cumhuriyet district., 1251 m, 39° 29' 325" N 039° 54' 590"E. **Phenology and Habitat:** July. Marsh.

***Aeshna juncea* (Linnaeus, 1758)**

Materials: 1♂, 1♀, 23/07/2010, Kırklar-Anuh Stream, 2197 m, 39° 27' 383" N 040° 03' 678"E. **Phenology and Habitat:** July. Lake.

Family Libellulidae

***Libellula depressa* Linnaeus, 1758**

Materials: 3♂♂, 1♀, 22/07/2010, Komlar District, 1602 m, 39° 29' 558" N 039° 54' 307"E. **Phenology and Habitat:** July. Marsh.

***Orthetrum anceps* (Schneider, 1845)**

Materials: 1♂, 19/08/2010, Baş Kalecik, 1500 m, 39° 33' 479" N 039° 52' 967"E; 1♀, 23/07/2010, Kırklar-Golarapiye, 2111 m, 39° 27' 562" N 040° 03' 243"E; 6♀♀, 26/07/2010, Kırmızı Köprü-Köprü Altı, 1248 m, 39° 23' 342" N 039° 49' 824"E; 4♀♀, 22/07/2010, Kırmızı Köprü-Köprü Altı, 1593 m, 39° 23' 261" N 039° 49' 535"E. **Phenology and Habitat:** July and August. Pragmites vegetation, near the lake and stream.

***Orthetrum brunneum* (Fonscolombe, 1837)**

Materials: 2♂♂, 20/07/2010, Karagöl-Viran Şehir, 1932 m, 39° 26' 754" N 040° 09' 726"E; 3♂♂, 3♀♀, 26/07/2010, Kırmızı Köprü-Köprü Altı, 1248 m, 39° 23' 342" N 039° 49' 824"E; 1♀, 26/07/2010, Cumhuriyet district., 1255 m, 39° 29' 034" N 039° 54' 524"E; 1♂, 19/08/2010, Baş Kalecik, 1500 m, 39° 33' 479" N 039° 52' 967"E. **Phenology and Habitat:** July and August. Pragmites vegetation, near the lake, marsh and stream.

***Orthetrum cancellatum* (Linnaeus, 1758)**

Materials: 1♀, 19/08/2010, Baş Kalecik, 1500 m, 39° 33' 479" N 039° 52' 967"E. **Phenology and Habitat:** August. Roadside.

***Sympetrum flaveolum* (Linnaeus, 1758)**

Materials: 56♂♂, 5♀♀, 23/07/2010, Kırklar-Golarapiye, 2449 m, 39° 27' 682" N 040° 03' 265"E; 1♀, 20/08/2010, Atatürk District, 1555 m, 39° 29' 815" N 039° 52' 690"E; 20♂♂, 7♀♀, 23/07/2010, Kırklar-Anuh Stream, 2197 m, 39° 27' 383" N 040° 03' 678"E; 6♂♂, 2♀♀, 23/07/2010, Kırklar-Golarapiye, 2111 m, 39° 27' 562" N 040° 03' 243"E;

5♂♂, 4♀♀, 22/07/2010, Komlar District, 1602 m, 39° 29' 558" N 039° 54' 307"E; 2♀♀, 19/08/2010, Kırmeşe-Village way, 1580 m, 39° 34' 075" N 039° 50' 716"E; 3♂♂, 1♀, 21/07/2010, Cumhuriyet district, 1603 m, 39° 29' 258" N 039° 54' 577"E; 3♂♂, 21/07/2010, Cumhuriyet district, 1598 m, 39° 29' 274" N 039° 54' 575"E. **Phenology and Habitat:** July. Coast of stream, coast of lake, canalet and marsh.

***Sympetrum fonscolombi* (Sélys, 1840)**

Materials: 1♂, 22/07/2010, Kırmızı Köprü-Köprü Altı, 1593 m, 39° 23' 261" N 039° 49' 535"E. **Phenology and Habitat:** July. Coast of stream.

***Sympetrum sanguineum* (Müller, 1764)**

Materials: 3♂♂, 19/08/2010, Baş Kalecik, 1500 m, 39° 33' 479" N 039° 52' 967"E. **Phenology and Habitat:** August. Roadside, gramineous vegetation.

***Sympetrum striolatum* (Charpentier, 1840)**

Materials: 1♂, 23/08/2010, Hacılı-Çevirme, 1588 m, 39° 27' 841" N 039° 57' 579"E. **Phenology and Habitat:** August. Marsh, Pragmites vegetation.

***Sympetrum vulgatum decoloratum* (Sélys, 1884)**

Materials: 3♂♂, 23/08/2010, Hacılı-Çevirme, 1588 m, 39° 27' 841" N 039° 57' 579"E; 1♂, 1♀, 24/08/2010, Kırklar-Çiftlik(Kırkgöze), 1861 m, 39° 27' 536" N 040° 01' 679"E; 1♂, 1♀, 02/09/2010, Kırklar-Kırklar Stream, 1954 m, 39° 28' 226" N 040° 02' 514"E. **Phenology and Habitat:** August and September. Coast of stream, marsh and pragmites vegetation.

***Sympetrum meridionale* (Selys, 1841)**

Materials: 3♂♂, 23/08/2010, Hacılı-Çevirme, 1588 m, 39° 27' 841" N 039° 57' 579"E. **Phenology and Habitat:** August. Marsh and pragmites vegetation.

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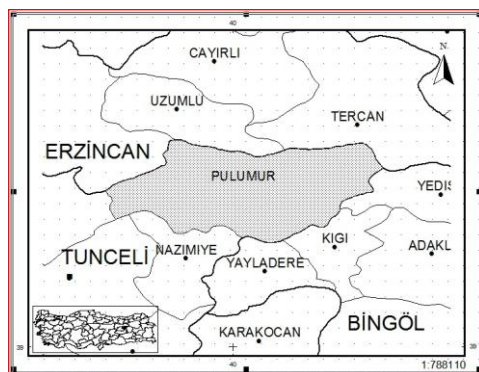


Figure 1. Pülümür and nearest districts.