Dragonfly

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http://dragonflyforall.narod.ru/

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Website «Dragonflies of Ukraine»

A new website **«Dragonflies of Ukraine»** http://dragonflyforall.narod.ru/ was created in early 2007 within the framework of the project «Guardians of the watershed: Identifying Important Dragonfly Areas in Southwest Ukraine».

The aim of the site is to unite specialists and amateurs for the popularization of odonatological observations and investigations in Ukraine.

The website provides help to amateurs and students working in different regions of Ukraine.

The following categories are presented on the website: «Odonatologists of Ukraine (specialists and amateurs)», «History of Ukrainian odonatology», «Biology of Odonata», «Study Methods», «Conservation», «Museum collections». The website is updated with new material several times each week.

The most frequently-visited categories of the website are dedicated to special odonatological literature, news and current information on expeditions, conferences and workshops.

The «Photo album» has caused great interest amongst visitors, with unique photos by different authors. The «Dragonflies of Ukraine» website encouraged amateur **Rostislaw Lezhoev** from Kiev, Ukraine to create his own page with many photos of Ukrainian odonates (http://www.odonata.ho.com.ua/).

Fruitful contact between specialists and amateurs has helped us to identify interesting regions with high Odonate diversity, including rare species; to check identifications; and to organize expeditions and excursions in the countryside.

Calopteryx splendens

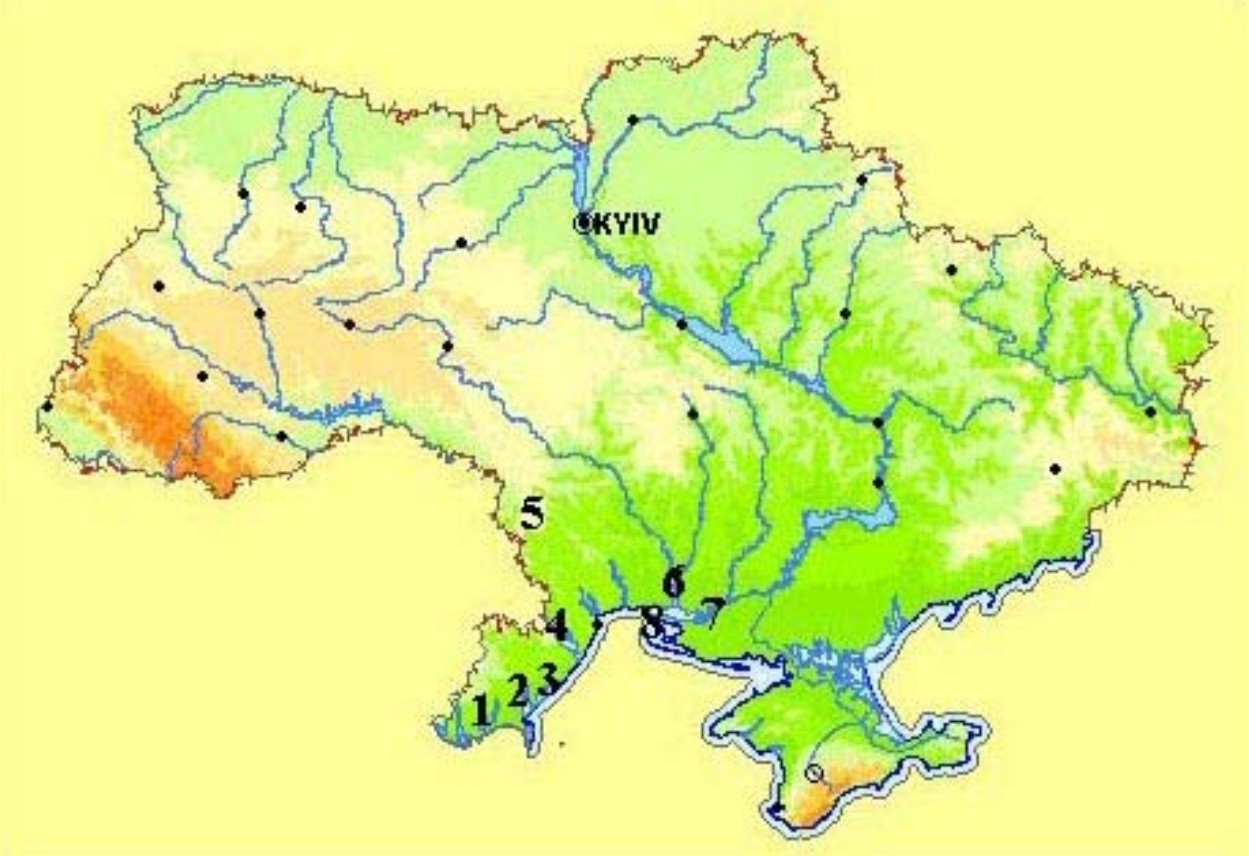
Photo by Rostislaw Lezhoev from his own Odonata website http://www.odonata.ho.com.ua/

Routes of expeditions in the 2007 field season

Within the project, zoological investigations in Southwestern Ukraine have been conducted in the deltas of big rivers with the aim of studying the most famous and important wetlands, mostly from the Ramsar list.

Some sites remain unstudied and deserve increased attention from odonatologists. It is likely that small rivers and lakes, reservoirs and ponds provide optimal conditions for dragonfly larvae in our region.

Analysis of the odonatological records database «Dragonflies of Ukraine», built into the framework of the «Guardians of the watershed: Identifying Important Dragonfly Areas in Southwest Ukraine» project, showed areas of the region where studies have not yet been conducted, or for which data on dragonflies are very limited.



Territories in the Southwestern Ukraine which are the focus of future odonatological investigations

(site numbers are explained in the table below)

The most poorly-known region in Southwestern Ukraine is the **North part of Odessa province**. The main focus for Odonata observations is probably in Baltsky, Kodymsky and Savransky districts – **Kodyma and Savranka rivers** (tributaries of South Bug river). In these areas the discovery of

northern species is quite likely (Artobolevsky, 1927).

In the Predanube region the least studied areas are **Katlabukh lake**, **Sasyk lake** (Ramsar site) and the small steep rivers which feed these lakes.

Shagany-Alibei-Burnas Lakes System (Ramsar site) has not attracted much attention yet, probably because a high level of salinity is characteristic of these lakes and the conditions are unlikely to be suitable for larval development. Nevertheless, investigations of small rivers which feed these lakes could bring interesting results.

Dniestr-Turunchuk Crossrivers Area; Northern part of the Dniestr Liman (Ramsar sites). Dragonfly studies here are still important, as previous investigations were carried out only in summer, with no coverage of spring species (Dyatlova, 2005).

Investigations in **Dnipro River Delta** (Ramsar site) and **South Bug river** were previously provided by A.A. Brauner (1902); P.N. Sheshurak (2001), E.S. Dyatlova (2006) and other authors, but these data are fragmentary and do not show the complete picture of the dragonfly fauna of Dnipro River Delta.

Plan for expeditions within the framework of the «Guardians of the watershed: Identifying Important Dragonfly Areas in Southwest Ukraine» project (2007 field season)

Dates	Regions for expeditions
15-22 May	Dniestr-Turunchuk Crossrivers Area; Northern part of the Dniestr Liman (4) (Odessa province)
May-June	Baltsky, Kodymsky and Savransky districts – Kodyma and Savranka rivers (tributaries of South Bug river) (5) (North part of Odessa province)
June-July	Katlabukh lake (1), Sasyk lake (2), small rivers which feed these lakes (South part of Odessa province)
June-July	Shagany-Alibei-Burnas Lakes System (3) (South part of Odessa province)
(To be decided)	South Bug river (6) (Nikolaev province)
(To be decided)	Dnipro River Delta (7) (South part of Kherson province)
(To be decided)	Kinburn peninsula (8) (South part of Nikolaev province)

The Kinburn peninsula on the Black Sea (south part of Nikolaev province) is completely unknown from the odonatological point of view. It is over 40 km long and 8-10 km wide, with numerous freshwater and saline lakes. The eastern part of the Kinburn peninsula is swampy. Until now, published data on Odonata from this territory were totally absent. In 2002 Dr. V.M. Tytar (Schmalhausen Institute of Zoology, Ukraine) discovered a new species for the Ukrainian dragonfly fauna: ***Selysiothemis nigra*** (Vander Linden, 1825) (Tytar, in press). The occurrence of this rare southern species shows the importance of future investigations of this peninsula.

Selysiothemis nigra – a new species of dragonflies for the fauna of Ukraine

***Selysiothemis nigra* (male), Turkey. Photo by Vincent Kalkman**

A new dragonfly species for the Ukraine, *Selysiothemis nigra*, was discovered by Dr. V.M. Tytar (Schmalhausen Institute of Zoology, Ukraine). One female was recorded on 20.07.2002 in the western part of Pokrovka (Kovalevka) village, Ochakov district, Mykolayivs'ka Oblast' (Province) (46° 28' 36"N, 31° 39' 33"E) on the bank of Chirnino lake. The length of the individual was 33.5 mm (measured from the head to the last abdominal segment), the span of the forewings was 61 mm (Tytar, in press).

Selysiothemis nigra was also recorded in Crimea in 2006, by Nataly Matushkina (Kiev National Taras Shevchenko University, Ukraine) (Matusknina, in press).

The species is found «mainly in central Asia and the Middle East. Scarce in the eastern Mediterranean, rare further west. Principally coastal in our area, but in Africa confined to oases in the Sahara» (Kalkman, 2006: In Dijkstra K.-D.B. & R. Lewington. *Fieldguide to the dragonflies of Britain and Europe)*.

Selysiothemis nigra has been added to the checklist of Ukrainian Odonata. Russian, Ukrainian and English names of the species are available.

Dragonflies in museum collections in Ukraine

The zoological museum of Odessa National I. I. Mechnikov University (http://www.onu.edu.ua/ru/cult/zoo.html) was founded at the beginning of the 19th century and is one of the oldest museums in Ukraine. Scientific collections hold more than 50,000 specimens, containing unique material from the 19th century including an entomological collection by Prof. E.E. Ballion, an anthropological collection by I. I. Mechnikov and a craniological collection of mammals collected in the Northwestern part of the Black Sea region. Amongst the unique exhibits is the fully mounted skeleton of a blue whale (*Balaenoptera musculus*) measuring 27 meters.

Displays of Zoological Museum of Odessa National I. I. Mechnikov University
Photo from webpage http://www.onu.edu.ua/ru/cult/zoo.html

Within the entomological collection of the Zoological museum of Odessa National I. I. Mechnikov University there are dragonflies from various parts of the Ukraine (Odessa, Kherson, Zakarpats'ka provinces and Crimea), Moldova, Suez Canal and Gulf of Aden. All material is dried and held on entomological pins.

In the odonatological collection from the middle of the 20th century by I. V. Maltsev and S. Ya. Blinstein, new data on dragonflies from southwestern Ukraine were obtained.
The most interesting records of species which are rare in the regional fauna were: *Brachytron pratense* (Müller, 1764), *Libellula quadrimaculata* Linnaeus, 1758, *Anax ephippiger* (Burmeister, 1839) and *Lestes macrostigma* (Eversmann, 1836). These species were recorded from several sites from which data are limited. This information has enlarged our knowledge on the distribution of Odonata in the area of study.

Libellula quadrimaculata ***Calopteryx splendens*** ***Lestes macrostigma***

Dragonflies from the entomological collection of the Zoological Museum of Odessa National I. I. Mechnikov University
Photo by E. Dyatlova

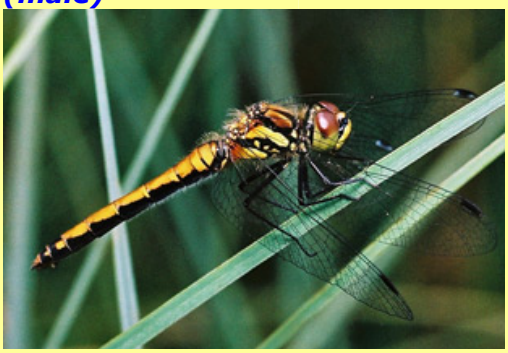
New historic data on dragonfly fauna in Southwestern Ukraine

Aeshna cyanea (emergence)

Aeshna cyanea (male)

The administrative divisions of Ukraine nowadays are different in comparison with the period before the Second World War. The former «Podolskaya guberniya» has become Odessa and Vinnitsa provinces. In the paper by **A. G. Artobolevsky** (1927) 16 species are mentioned for the Northern part of Odessa province: *Libellula quadrimaculata*, *Sympetrum sanguineum*, *Sympetrum danae*, *Sympetrum flaveolum*, *Sympetrum vulgatum*, *Cordulia aenea*, *Gomphus vulgatissimus*, *Calopteryx splendens*, *Lestes barbarus*, *Ischnura elegans*, *Coenagrion ornatum*, *Orthetrum cancellatum*, *Aeshna cyanea*, *Aeshna mixta*, *Aeshna isosceles*, *Erythromma najas*. From this list ***Sympetrum danae*** and ***Aeshna cyanea*** have not been mentioned in review publications for the Southwestern Ukraine before (Gorb et al., 2000; Dyatlova, 2006).

Photos by Bogusław Daraż, Poland



Sympetrum danae (female)

Sympetrum danae (male)

Letters from colleagues

Dear colleagues,

Here I'd like to inform you all about the ideas we are currently working on. 'We' are Jessica Ware from Rutgers University, NJ, and myself. With Jessica's help we have managed to pass the first step on the application procedure and were invited to complete the full application form. The research itself was inspired by the discovery of the *Somatochlora borisi* from the Balkan peninsula and morphological similarities in male anal appendages with North

American *Helocordulia uhleri*, as well as the theory developed by Belyshev & Haritonov (1981) about possible ways representatives of the genus *Somatochlora* may have invaded Europe from America through Asia some 5 million years ago.

Somatochlora borisi
Photo by B. Grebe

Our main goal is to answer the question: which are the closest relatives of *S. borisi*? Therefore, we would like to work with as many specimens as possible from the family Corduliidae from various regions (different latitudes, longitudes and altitudes) throughout Europe, Asia and North America. Molecular DNA studies will be carried out on all specimens.

Jessica will be responsible for North America and I'd like to establish contact with all of you and ask for your help. If you have any spare specimen(s) from this family, regardless of the genus, and would like to send it (them) to me, I'd be very grateful for any contribution to this project. According to Jessica, it is not a problem if you send dried specimens, as long as they were caught after 1980.

Please note that these specimens will be destroyed for the molecular studies and so cannot be returned to you. Therefore if you decide to help us, you have to send specimens that you are unlikely to require for your collection any more. If you don't have such specimens, please consider my request for the coming field season and collect some specimens for me whenever and wherever possible. I know it is a problem to catch dragonflies in some countries and so will be difficult for some of you to contribute. However, if any of you visit sites in Europe and Asia and find some Corduliids, please remember me. I would also be very grateful if you can direct me towards any other people I could contact with the same request.

Whether or not you decide to send any material, please answer this letter even if only with a single sentence. I need to know who is interested and who is not, in order to find other people from the same region.

With my best wishes and thanks in advance:

Milen Marinov, Bulgaria
mg_marinov@yahoo.com
http://odonata.biodiversity.bg/

For odonatologists and amateurs

We invite all interested people to help collect data on dragonflies of South-Western Ukraine. Please contact lena.dyatlova@gmail.com with any questions and suggestions about the project

Let me know if you want to join in a day or a few days of fieldwork. Foreigners are also invited to come to the Ukraine to do some fieldwork. Let me know when you are planning to go to the Ukraine and whether I can help with information on localities and travel.

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