

About newsletter

Newsletter "Dragonfly" was created in the framework of the project "Guardians of the watershed: Identifying Important Dragonfly Areas in Southwest Ukraine" to inform scientists and amateurs about results of the project.

About the project

In July 2006 a project with the title "Guardians of the watershed: Identifying Important Dragonfly Areas in Southwest Ukraine" was started. The work for the project will be done by Elena Dyatlova (Odessa National University, Odessa, Ukraine) in close co-operation with Vincent Kalkman (European Invertebrate Survey, Leiden, the Netherlands) and is funded by the Dutch ministry of Agriculture and Nature conservation. The project aims at making a list of Important Dragonflies Areas in the South-Western Ukraine. This information is important when establishing new nature reserves and for the management of existing reserves. In order to do so a database will be created containing Ukrainian records and additional fieldwork will be done. It is hoped that this project will be the start of an informal organized Odonata-community in the Ukraine.



Elena Dyatlova, area of Kugurlui and Kartal lakes, Ramsar wetlands of International Importance, July 2006.

Photo D. Kivganov



Vincent Kalkman, Ermakov island, Danube Biosphere Reserve, August 2006

Photo E. Dyatlova

Dragonflies in conservation biology

Dragonflies are amongst the most visible and well-known freshwater animals due to their displays over water and their often bright colours. Many species in the temperate regions have shown a dramatic decline in distribution and abundance. The group features prominently in nature management in the temperate regions of the world and they are often used as indicators for environmental health and conservation management. Their sensitivity to structural habitat quality (e.g. forest cover, water clarity) and amphibious habits make dragonflies well suited for use in evaluating environmental change in the long term (biogeography, climatology) and in the short term (conservation biology).



Ischnura evelans, exuvium. Vilkovo city, lower Danube, Green station "Pelican", May 2006
Photo M. Son



Ermakov island, Danube Biosphere Reserve, May 2006.
Photo E. Dyatlova

Odonatological investigations in the South-Western Ukraine during last century

In the steppe parts of the Black Sea region and delta parts of big rivers in the South-Western Ukraine dragonflies have been investigated by the famous zoologists in the end of XIX and the beginning of XX century:

(**Artobolevsky**, 1929; **Bartenev**, 1912; **Bartenev, Popova** 1928; **Brauner**, 1902, 1903, 1910; **Bezvali**, 1931; **Shugurov**, 1903 a, b. Much later, new investigations started in the end of XX – beginning of XXI centuries (**Gorb, Ermolenko**, 1996; **Martynov, Martynov**, 2004; **Matushkina**, 2006; **Pavlyuk**, 1981; **Polischuk**, 1974; **Shesurak**, 2001; **Volkova et al.**, 1970; **Titar**, 2004;). Nevertheless, this information is not available in a form in which it can be used for nature management and an overview important dragonflies areas is lacking (Fig.1).

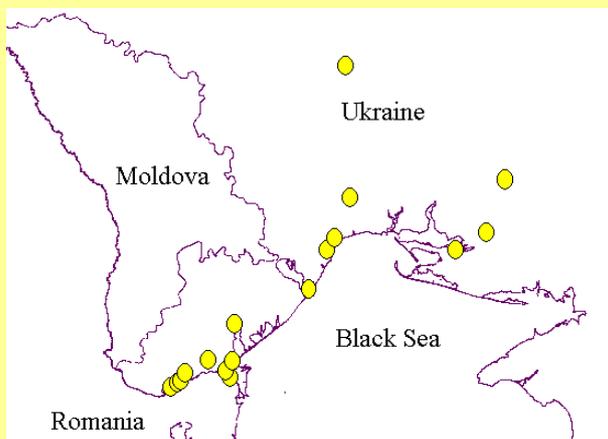
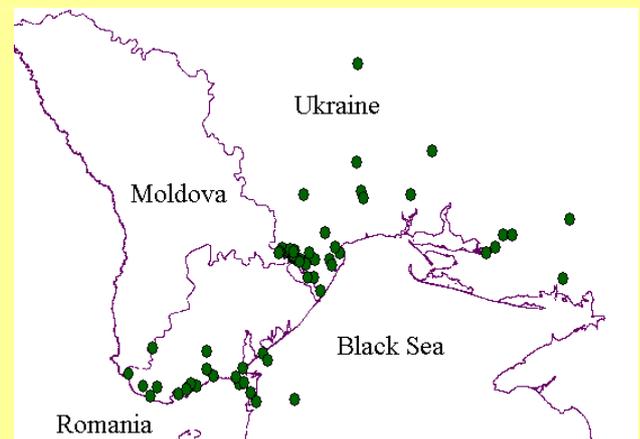


Fig. 1. Localities in the South-Western Ukraine where dragonflies were recorded based on literature data from the end of XIX till the beginning of XXI century.

Fig. 2. Localities in the South-Western Ukraine where dragonflies were recorded by Elena Dyatlova (Dyatlova, 2004 a,b; 2005 a,b,c,d; 2006 a,b,c; Dyatlova, unpublished data).



Our investigations (Dyatlova, 2004 a,b; 2005 a,b,c,d; 2006 a,b,c; Dyatlova, unpublished data) in the South-Western Ukraine have been started from 2002 and continue nowadays in the wetlands of International Importance (according to the Ramsar Convention on wetlands): **Dniester-Turunchuk Crossrivers Area, Northern Part of the Dniester Liman; Dnipro River Delta, Kyliiske Mouth (formerly Dunai Plavni), Kugurlui Lake, Kartal Lake and Tyligulskyi Liman**. Besides, material was collected on the wetlands which are not included to Ramsar List (http://www.ramsar.org/profile/profiles_ukraine.htm) but which are

perspective for protection of some rare species of Odonata. On some territories we investigated Odonata for the first time (Dniester-Turunchuk Crossrivers Area and Northern Part of the Dniester Liman, some Predanube Lakes and Black Sea limans). We also observed Odonata on the territories, from which data are fragmentary or/and obtained in the beginning of the last century (fig. 2). Material was collected from April till November. During investigations several species were observed in the region for the first time, new data on distribution of rare species were obtained (Dyatlova, 2006).

Odonata database

Records of dragonflies in SW-Ukraine from literature and from private collections have been inserted in a database. This database will be further expanded by visiting collections and by fieldwork.



Ischnura pumilio форма *aurantiaca* ♀
Photo A. Chernyawsky

Calopteryx splendens ♂
Photo D. Kivganov

In the summer of 2007 fieldwork will be carried out in internationally important wetland areas.



Libellula depressa, teneral ♂

Photo S. Ivko



Calopteryx splendens ♀

Photo D. Kivganov

Additional investigations in the SW-Ukraine

Some wetlands from Ramsar List (for instance: Sasyk Lake, Shagany-Alibei-Burnas Lakes System, etc) are heretofore unstudied or data on distribution of dragonflies here are very limited. Some of these waterbodies might not provide optimal habitats for larval stages of Odonata because they contain high level of salinity. They may however be important as foraging ground for adults and be corridors for migrations.

We observed migration of two species (*Aeshna mixta* and *Sympetrum meridionale*) in summer 2006 on the territory of Danube Biosphere Reserve (Taranova kosa) in the place where Danube connected with the Black Sea.



Vincent Kalkman, observing of mass migration of *Aeshna mixta* and *Sympetrum meridionale* on Taranova kosa (Danube Biosphere Reserve, Ukraine). August, 2006. Photo E. Dyatlova

Expected results

- Maps of all species
- A list of important dragonfly areas (IDA's) with background information
- A review of species of European concern

The above three published on Internet <http://dragonflyforall.narod.ru/>

In the next (2nd) issue of "Dragonfly" ...

- Wetlands of International Importance in the South-Western Ukraine
- Webpage "Dragonflies of Ukraine"
- Field season 2007 (routes for expeditions)



Flood-plain forest in the area of Vostochnoe girlo, Danube Biosphere Reserve, Ukraine. May 2006.

Photo E. Dyatlova



Temporary reservoir on Ermakov island, Danube Biosphere Reserve. August 2006.

Photo E. Dyatlova

For odonatologists and amateurs...

We invite for cooperation all interested people to collect data on dragonflies on the South-Western Ukraine. With all questions and suggestions on the project please contact lena.dyatlova@gmail.com

Let me know when you want to join 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 if I can help with information on localities and traveling.



Sympetrum meridionale

Photo D. Kivganov

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