

First records of some species of some dragonfly (Odonata) species in the Narew National Park

Pierwsze stwierdzenia kilku gatunków ważek (Odonata) w Narwiańskim Parku Narodowym

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In the year 2009 I started my dragonflies studies in the Narew National Park (NNP) and its buffer zone. A total of six areas were visited, five of them in the vicinity of Kurowo and one near Uchowo. This inventory started on 30 of June and 23 species were registered, four of them not yet documented in the NNP, *Lestes barbarus* (FABRICIUS, 1798), *L. virens* (CHARPENTIER, 1825), *L. viridis* (VANDER LINDEN, 1825) and *Epiptera bimaculata* (CHARPENTIER, 1825) (MATOS DA COSTA 2010). In that work I analysed all the Odonata inventory works which were done in the NNP and 44 species were documented, 60% of the Polish Odonata fauna, until that date (BERNARD et al. 2009; BUCZYŃSKA et al. 2007; BYSTROWSKI 1992; JÓDICKE 1999; KAMOCKI Et Al. 2009; MATOS DA COSTA 2010).

In the year 2010 I documented three new species in the NNP, which were *Leucorrhinia dubia* (VANDER LINDEN, 1825), *L. rubicunda* (LINNAEUS, 1758) and *L. pectoralis* (CHARPENTIER, 1825). *L. pectoralis* is protected species by the Bern Convention (Convention... 1979), by the Polish law (Rozporządzenie... 2004) and by the Network Natura 2000 (BERNARD 2004). These three *Leucorrhinia* species have similar habitat requirements. *L. dubia* its a species related to *Sphagnum* spp. bogs, ponds or lakes, usually acidic and normally in forests. *L. rubicunda* prefers standing acidic waters or bogs often in forest areas, even if sometimes breeds in richly vegetated habitats as *L. pectoralis* does. *L. pectoralis* of these three *Leucorrhinia* species is the one

who prefers less acidic waters and breeds in more vegetated areas, like oxbows, small ponds or marshy (mesotrophic waters) areas around bogs (BERNARD et al. 2009; DIJKSTRA 2006). *L. pectoralis* was documented in four areas: in the Area 1 (A1) in 15, 16, 17, 22 and 28 June and eight of July; in Area 2 (A2) and in Area 3 (A3) in eight and ten of June and in Area 4 (A4) in 24 and in 30 of May. *L. dubia* was observed in the vicinity of A1 in 20 of May and in A4 in 24 and 30 of May. *L. rubicunda* was registered in A2 in eight and ten of June and in A4 in 24 and 30 of May.

Brief description of these research areas:

A1 (UTM FD28): situated along the first 60 m of the Kurowo touristic pathway, in an arm of the Kurówka River. The flow is always predictable near the junction arm-main river channel but in the river arm the water is mainly still; however, some very slow flow sometimes occurs. Both of its margins are overgrown with several macrophyte species and few tree and bush species grow in the surrounding area.

A2 (FD28): situated in a waterhole with approximately 60 m², near Bieńdziuga. This area is situated in the border of an *Alnus glutinosa* (L.)GAERTN. swamp and on the other side is surrounded by meadows and agricultural fields. The waterhole is richly covered with macrophytes and on its margins different *Salix* spp. bushes grow and nearby other tree and bush species can be found.

A3 (FD28): Situated in the Kurówka River Bridge near Bieńdziuga. The left side, downstream area of the bridge is an open water river area where the flow is clearly predictable near the bridge piers. This area is situated another border of the same *Alnus glutinosa* swamp that borders A2, between the swamp and the water line several herbaceous plants and bush species grow. Macrophytes are present in the river margins.

A4 (FD27): In the Rynki area, situated between the Uhowo and Borowskie Żaki villages, I visited a *Sphagnum* spp. bog and its vicinities. In the *Sphagnum* spp. bog *Betula* spp. trees grow. This bog area is surrounded: by sandpits; by parcels of *Pinus silvestris* L. with different ages, by swamps of *Alnus glutinosa* and *Betula* spp. and by marshy areas with *Carex* spp. and *Salix* spp.

With this survey the number of species that were until now documented in the NNP increases to 47, representing 64% of the Polish odonate fauna (BYSTROWSKI 1992; JÖDICKE 1999; BUCZYŃSKA et al. 2007; KAMOCCI et al. 2009; BERNARD et al. 2009; MATOS DA COSTA 2010). This year, 2010, I registered in the NNP 13 species that I did not in 2009, increasing to 36 the number of species observed by me, 77% of the NNP Odonata documented fauna.

References

- BERNARD R. 2004. *Leucorrhinia pectoralis* (CHARPENTIER, 1825), Zalotka większa. [in:] P. ADAMSKI, R. BARTEL, A. BERESZYŃSKI, A. KEPPEL, Z. WITKOWKI (eds), Gatunki zwierząt (z wyjątkiem ptaków). Poradniki ochrony siedlisk i gatunków Natura 2000 – podręcznik metodyczny. Tom 6. Ministerstwo Środowiska, Warszawa: 35–38.
- BERNARD R., BUCZYŃSKI P., TOŃCZYK G., WENDZONKA J. 2009. A distribution atlas of dragonflies (Odonata) in Poland. Bogucki Wyd. Naukowe, Poznań.
- BUCZYŃSKA E., BUCZYŃSKI P., LECHOWSKI L. 2007. Wybrane owady wodne (Odonata, Heteroptera, Coleoptera, Trichoptera) Narwiańskiego Parku Narodowego – wyniki wstępnych badań. Parki nar. Rez. Przyr., 26(1): 25–40.
- BYSTROWSKI C. 1992. Waloryzacja entomologiczna rzędu ważki (Odonata) w NPK. Mscr., Warszawa.
- Convention on the conservation of European wildlife and natural habitats. Bern 19 September 1979.
- DIJKSTRA K.-D.B. (ed.) 2006. Field Guide to the Dragonflies of Britain and Europe. British Wildlife Publishing, Gillingham.
- JÖDICKE R. 1999. Libellenbeobachtungen in Podlasie, Nordostpolen. Libellula, 18(1/2): 31–48.
- KAMOCCI A., BYSTROWSKI C., MATOWICKA B., KOŁOS A., KOSIŃSKA R., WIĘCKO A. 2009. Inwentaryzacja przyrodnicza torfowiska Rynki i koncepcja monitoringu przyrodniczego. Mscr., Białystok.
- MATOS DA COSTA J. 2010. New data of the Odonata order in the Narew National Park. Odonatrix, 6(2): 33–36.
- Rozporządzenie Ministra Środowiska z dnia 28 września 2004 r w sprawie gatunków dziko występujących zwierząt objętych ochroną. Dz.U. nr 220, poz. 2237.

Summary

During my second year of dragonflies' (Odonata) studies, I documented for the first time *Leucorrhinia* species in the Narew National Park; those were the *L. dubia*, the *L. rubicunda* and the *L. pectoralis*. With these new records, the number of Odonata species in the NNP increases to 47 species, representing 64% of the Polish Odonata fauna. Besides that, this year I registered for the first time 13 species that I did not in the previous year, until now I observed 77% of the documented NNP Odonata fauna.

Key Words. Odonata, dragonflies, eastern Poland, Narew National Park, first records.