

Artykuły naukowe / Scientific articles

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Ważki (Odonata) pogranicza Wysoczyzny Kaliskiej i Równiny Rychwalskiej (Wielkopolska) Dragonflies (Odonata) of the borderland between the Kalisz High Plain and Rychwalska Plain (Great Poland)

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Abstract. Paper summarizes six-year long (2007–2012) studies on dragonflies (Odonata) in the county of Pleszew (Western Poland) as well as the eight border sites located in the area of adjacent counties (Fig. 1). The whole area is in the macroregion of the Południowowielkopolska Lowland, in the borderland of two mesoregions: the Kalisz High Plain and Rychwalska Plain. The research was aimed at understanding the species composition of dragonflies and discovering as many sites of rare species as possible.

58 sites lying on the Kalisz High Plain and 85 sites located in the Rychwalska Plain were controlled. Noteworthy is the presence of tens *Sphagnum* peat bogs in the studied part of the Rychwalska Plain. Dragonflies were caught with an entomological net and were released after being photographed, exuviae were also collected as well as larvae at one site. Most of the sites were controlled irregularly (mainly between June and August), often only once. The records of particular species were differentiated into three categories: 1) development confirmed (larvae, exuviae, teneral imagines, intensive reproductive behavior – copulations, tandems, laying eggs), 2) development likely (single reproductive behavior, territorial imagines, a large population in the environment suitable for development), 3) development possible (single imagines observed only).

In the years 2007–2012 in the discussed area 55 species of dragonflies were recorded (data in this paper), as well as *Aeshna juncea* given earlier (Bernard, Tończyk 2011). Total number of 56 species comprise 77% of the species reported in Poland so far (Bernard et al. 2009). For many species important information clearly enriching the knowledge of their distribution in this part of Poland was collected. This particularly refers to the species associated with *Sphagnum* bogs (*Aeshna subarctica*, *Leucorrhinia albifrons*, *L. dubia* and *L. rubicunda*), thermophilous species (*Aeshna affinis*, *Orthetrum albistylum*, *O. brunneum*, *O. coerulescens*, *Crocothemis erythraea*, *Sympetrum fonscolombii* and *S. meridionale*) as well as rare and very rare in south-western Poland (*Lestes barbarus*, *Sympecma paedisca*, *Coenagrion lunulatum*, *Epitheca bimaculata* and *Leucorrhinia caudalis*). Protection of the studied *Sphagnum* peat bogs, where many rare and protected species of vascular plants (Żurawlew, Żurawlew 2010) and the dragonflies (this study) are present, should be one of the priorities of the Forestry Grodziec managing this area.

The four tables given in this paper show: studied habitats with the number of species (Tab. 1), a list of the sites of all species and the observed flight period (Tab. 2), the sites with the highest number of species (Tab. 3) and the listing of the occurrence of dragonflies for 15 UTM squares covering the studied area (Tab. 4).

Key Words: Odonata, Kalisz High Plain, Rychwalska Plain, *Sphagnum* peat bogs, *Aeshna subarctica*.

Występowanie i wybiórczość siedliskowa iglicy małej *Nehalennia speciosa* (CHARPENTIER, 1840) (Odonata: Coenagrionidae) w dolinie Biebrzy

Distribution and habitat selection of *Nehalennia speciosa* (Charpentier, 1840) (Odonata: Coenagrionidae) in Biebrza valley

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Abstract. Eight new localities of *Nehalennia speciosa* (CHARPENTIER, 1840) were found in the Biebrza river valley, NE Poland, six of them in the Biebrza National Park (Figs 1, 2). The Biebrza river valley is famous as the largest complex of marshes in Poland and in Central Europe. *N. speciosa* has never been recorded there before. Six out of eight localities were found in the southern basin of the river that is best preserved, with vast areas of fen mires. The locality “Osowiec-Twierdza” (Fig. 1) represents small dystrophic water bodies with the *Sphagnum* moss mat; *N. speciosa* is present in the nearby *Carex rostrata* swamp. Habitats of the other seven localities (fen mires) are different from those most typical of the species in Poland as they do not contain *Sphagnum*. Additionally, these fen mires are floristically rich in comparison with many other habitats of *N. speciosa* in Poland. Locality “Bagno Ławki” is especially untypical as the plant community there is dominated by *Equisetum fluviatile* that is known from only very few other localities of *N. speciosa* in Poland. Special feature of five out of six localities in the lower basin of the Biebrza valley is the dominance of *Carex rostrata* that is a common characteristic of the localities in eastern Poland. The presence of *N. speciosa*, recorded in vast areas of fen mires of the Biebrza valley may suggest that other localities of the species are to be discovered there.

Key Words: *Nehalennia speciosa*, Sedgling, habitat selection, Biebrza river valley, Biebrza National Park.

Dwie zapomniane prace o ważkach (Odonata) Polski
Two forgotten papers about dragonflies (Odonata) of Poland

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Abstract. Author discusses two Russian papers with data from the vicinity of Puławy (eastern Poland) which have been omitted in odonatological literature so far including “A distribution atlas of dragonflies (Odonata) in Poland” (BERNARD et al. 2009).

ZAITSEV (1908) gave on the margins of the paper about interesting insects of the vicinities of Puławy the information about the recording of *Caraphractus cinctus* (Hymenoptera: Mymaridae). Then it was wrongly regarded as a specialized parasite of the eggs of *Calopteryx virgo* therefore its presence was treated as an evidence for the occurrence of this dragonfly species (KOLOSOV 1916; ZAITSEV 1908). However, *C. cinctus* parasitizes mainly Dytiscidae (Coleoptera), it is also found in the eggs of *Notonecta* spp. (Hemiptera: Heteroptera) – therefore this reasoning is unauthorized and the paper of ZAITSEV (1908) should be excluded as a source of data on dragonflies of Poland.

KOLOSOV was known as the author of the paper about the mass migration of *Libellula quadrimaculata* through Puławy (Kolosov 1915). His collection was partially preserved in the Museum and Institute of Zoology of the Polish Academy of Sciences (MIZ PAS). This data has been used by Bernard et al. (2009) and discussed in details by BUCZYŃSKI (2012) who considered it in most as unpublished. However, it was published in „Zapiski Novo-Aleksandriyskago Instituta Selskago Khozyaistva i Lesovodstva” („Memoires de l’Institute Agronomique et Forester à Nowo-Alexandria”) (KOLOSOV 1916) although this work has never been cited, not only in Poland but also in Russia and the Soviet Union. This probably resulted from a chain of unfortunate events. The paper was published during the war when the publishing institute was evacuated from Puławy to Kharkov where it stayed. Therefore this paper was absent in Polish libraries. However, for

Russian authors the discussed paper was not interesting then for it was local and referred to a different country.

KOLOSOV (1916) gave 41 dragonfly species: 40 from Puławy and its vicinity as well as 5 from fragmentary studied sites in other areas of Poland. At the same time *Orthetrum cancellatum* was wrongly recorded: the provided picture of copulatory apparatus of a male indicates *O. albistylum*. The analysis of data and the comparison with the preserved material (BUCZYŃSKI 2012) show that the specimens in MIZ PAS were re-labelled which resulted in the loss of the detailed data about the sites: new uniformed labels provided general site „Novaya Aleksandriya” (=Puławy). Moreover, the collection of MIZ PAS contains the species which were not given by KOLOSOV (1916): *Lestes virens*, *Enallagma cyathigerum*, *Anax imperator* and *A. parthenope*. Taking into consideration all of the data, in the area of Puławy ca. 100 years ago 44 dragonfly species were recorded – that number was impressive in the light of contemporary standards of faunistic studies and such a small area. This shows the very high natural values of the valley of the middle River Vistula at that time. This data show the unique, almost complete picture of dragonfly assemblages of the valley of large lowland river in Central Europe during the period when such areas were still transformed in small degree by man.

Key Words: Odonata, historical data, forgotten paper, Poland, river valley, KOLOSOV, ZAITZEV.

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Literatura i recenzje / Literature and reviews

Strony / Pages: 72-76

Polskie i dotyczące Polski prace odonatologiczne. 11. Rok 2012
Polish and dedicated to Poland odonatological papers. 11. The year 2012

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Abstract. The author presents a list of Polish and dedicated to Poland odonatological papers that were published in the year 2012. In the reported time period, 47 papers of various kind were published. One paper published in the year 2011 is given too.

Key Words: Odonata, dragonflies, bibliography, 2012, Poland, Polish authors.

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Sprawozdania i komunikaty / Reports and announcements

Strony / Pages: 77-80

X Ogólnopolskie Sympozjum Sekcji Odonatologicznej PTE – Izabelin, 28–30.06.2013 r.
10th National Symposium of the Odonatological Section of Polish Entomological Society – Izabelin,
June 28–30, 2013

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Abstract. The author discusses the symposium organized in June 2013 in the Kampinoski National Park (central Poland). One scientific session and a several field sessions took place. During the field sessions, at 16 sites 34 dragonfly species were found with one species (*Erythromma viridulum*) which makes together 53 species known in this area. Moreover, the recently discovered population of *Nehalennia speciosa* at the transitional peat bog Długie Bagno was studied with respect to its numbers (at least several thousands of specimens) and the characteristic of its habitat

Key Words: Dragonflies, Odonata, symposium, Poland, Kampinos National Park, records, *Nehalennia speciosa*.