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**Occurrence of *Rhagionidae*, *Therevidae* and *Asilidae* (Diptera) in the pine forests of the Berezinsky Biospheric Reserve**

**Abstract** A study conducted in three study sites in the canopy layer of a pine forest in the Berezinsky Biospheric Reserve has yielded 7 species of *Rhagionidae*, 6 of *Therevidae* and 6 of *Asilidae*.

The Berezinsky Biospheric Reserve is diversified both in terms of habitats and floristic composition (LITVINOVA 1991, BAŃKOWSKA & LITVINOVA 1994). Faunistically, the reserve is very poorly investigated, and the available data do not reflect the diversity of the fauna. The only exception is a study of horse flies (*Tabanidae*), which includes a comprehensive list of species and data on their abundance (TERESHKINA 1991).

The following paper contains information on species composition of three dipteran families: *Rhagionidae*, *Therevidae* and *Asilidae*. The catches were performed in three study sites: Kvetcha, Perekhodci and Postrezhe. Each site represents a different type of pine forest (BAŃKOWSKA & LITVINOVA 1994). The study material was collected with Moericke's traps in the years 1989 and 1990. A description of the study sites and trapping methods may be found in the paper quoted above. Representatives of the three families under study are not abundant in the material collected. It particularly concerns traps situated in the ground cover which were frequently subject to damage. Because of that the materials collected in canopies and ground cover have been combined. However, we have preserved the division into individual sites where the catches were performed. The data on the number of specimens caught (Tab. 1) have been related to species and the study sites.

*Rhagionidae* 7 species of that family were found in the three sites altogether. Three of them (*R. tringarius* (L.), *R. scolopaceus* (L.) and *R. lineola* (F.)) are listed among the species most frequently mentioned in faunistical inventories embracing the area of Poland. They occur in various types of plant associations (MIKOŁAJCZYK 1991). Another three species (*R. conspicuus* (MG.), *R. notatus* (MG.) and

*R. cingulatus* (Lw.)) have not been registered in the lowlands before as they are more associated with mountainous areas. As many as 5 species common in European lowlands were not registered in the study which may testify to inadequacy of the faunistical analysis of the area. A comparison of the data from pine canopies and the ground cover shows that *R. scolopaceus* (L.) is as frequent in pine canopies as it is in the ground cover, while *R. lineola* (F.) is much more abundant in the upper forest floor than in the ground cover.

Table I. The number of specimens of Rhagionidae, Therevidae and Asilidae caught in the pine forest at the Berezina Biosphere Reserve

No	Species	Sampling plots			Total
		Kvetcha	Postrezhe	Perekhodcy	
<b>Rhagionidae</b>					
1	<i>Rhagio lineola</i> (F.)	11	–	25	36
2	<i>Rhagio scolopaceus</i> (L.)	2	16	8	26
3	<i>Rhagio tringarius</i> (L.)	2	–	–	2
4	<i>Chrysopilus splendidus</i> (MG.)	–	2	–	2
5	<i>Rhagio notatus</i> MG.	–	3	–	3
6	<i>Rhagio cingulatus</i> LW.	–	–	–	1
7	<i>Rhagio conspicuus</i> MG.	1	–	–	1
Total		16	21	33	71
<b>Therevidae</b>					
1	<i>Psilocephala ardea</i> (FABR.)	2	1	1	4
2	<i>Thereva lanata</i> ZETT.	–	–	1	1
3	<i>Thereva nobilitata</i> (FABR.)	1	–	1	2
4	<i>Thereva inornata</i> VERR.	1	–	–	1
5	<i>Thereva fulva</i> (MG.)	1	–	–	1
6	<i>Thereva microcephala</i> LW.	–	–	1	1
Total		5	1	4	10
<b>Asilidae</b>					
1	<i>Neoitamus socius</i> (LW.)	10	2	3	15
2	<i>Neoitamus cyanurus</i> (LW.)	2	1	–	3
3	<i>Machimus atricapillus</i> (MG.)	1	–	–	1
4	<i>Machimus pyragra</i> ZELL.	–	1	–	1
5	<i>Dioctria hyalipennis</i> (F.)	–	1	1	2
6	<i>Laphria fimbriata</i> MG.	–	3	–	3
Total		13	8	4	25

**Therevidae** The low number of specimens collected does not allow of a more exhaustive faunistical analysis. The species recorded are considered to be typical representatives of the coniferous forest fauna. An interesting fact is the discovery of *Th. inornata* VERR, a species rarely registered in Europe, and *Th. microcephala* LOEW, which is a faunistical rarity (TROJAN 1981).

*Asilidae* are represented by 6 species. All but one species are common European elements occurring in various habitats. *Laphria fimbriata* MG. is a rare species, found mainly in tree canopies.

Apart from the species listed above, the study yielded also specimens of *Microchrysa polita* (L.) and *M. flavicornis* (MG.). They are representatives of saprophagous land-dwelling *Stratiomyidae* whose larvae live under the bark of dead tree branches.

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#### STRESZCZENIE

[Tytuł: Występowanie *Rhagionidae*, *Therevidae* i *Asilidae* (Diptera) w borach sosnowych rezerwatu biosfery Berezyna]

Na trzech stanowiskach reprezentujących trzy typy borów sosnowych w rezerwacie biosfery Berezyna zebrano w latach 1989 i 1990 za pomocą pułapek Moe-ricke'go faunę latającą koron i po części runa. W materiale stwierdzono występowanie 7 gatunków *Rhagionidae*, 6 *Therevidae* i 6 *Asilidae*. Omówiono reprezentatywność materiału oraz podano charakterystykę niektórych gatunków.