

MILLIPEDES (DIPLOPODA) OF SELECTED HABITATS OF THE POLESKI NATIONAL PARK

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Abstract. This paper deals with millipedes of selected habitats of the Poleski National Park and provides supplementary faunistic information for the Polesie region. The study sites represented typical habitats of the Poleski National Park - bogs and meadows. The material collected over 1995-1998 using Barber pitfall traps included 3504 specimens, representing 9 species: *Glomeris connexa*, *Polyzoniun germanicum*, *Mastigona bosniensis*, *Polydesmus complanatus*, *Leptoiulus proximus*, *Xestoiulus laeticollis laeticollis*, *Megaphyllum projectum kochi*, *Ommatoiulus sabulosus* and *O. vilnensis*. In the total material *P. complanatus*, *G. connexa* and *O. sabulosus* were the most abundant consecutively. The groups of dominance of millipede assemblages for each site showed differences. There were no clear quantitative similarities among the millipede assemblages in similar habitats. Millipedes found in the Poleski National Park were mainly eurytopic species. However there were observed distinctiv species for individual study habitats: *C. connexa* for alder carr and *M. bosniensis* for marshy pine forest. *M. bosniensis* and *O. vilnensis* are new species, and *X. l. laeticollis* is new subspecies for Poleski National Park and Polesie region.

Key words: millipedes, Diplopoda, faunistic, ecology, the Poleski National Park, bogs, meadows

INTRODUCTION

The Poleski National Park is located in central-eastern part of Poland, in the Lublin Province. It was established in 1990 and originally covered the area of 4813 ha. The Park originated from peatbogs reserves: Durne Bog, Lake Moszne, Lake Długie, Orłowskie Peatbog. Bubnów Bog became part of the Poleski National Park in 1994. Currently the park covers 9762 ha: 4780 ha of woodland, waters and wastelands (including swamps) take up 2090 ha [Chmielewski, Radwan 1993, www.mos.gov.pl/kzpn].

There are no complete reports on millipedes of the Poleski National Park, except for the reports by Stojalowska and Bielak-Oleksy [1970] who listed 21 species of the Łęczyca-Włodawa Lake District and Chełmskie Hillock. This paper, developed after a thirty-year break, provides supplementary faunistic data on the Polesie region.

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MATERIAL AND METHODS

The material was collected over 1995-1998 as part of arachnological studies conducted by Hajdamowicz [2002] in selected habitats of the Poleski National Park (Fig. 1). 3504 individuals, representing 9 species (Table 1), were sampled with Barber pitfall traps (Fig. 2). 3297 specimens (Table 2) were included into the statistical analyses; the data from April, May and June 1995 were not included as then it was necessary to reorder some pitfalls and so to the statistical analyses covered the material obtained July 1995 through June 1998 (three full years). The identifications were made using the guidelines developed by Schubart [1934], Stojałowska [1961] and Blower [1985], while the classification and nomenclature follow Hoffman [1979] and Enghoff [1984].

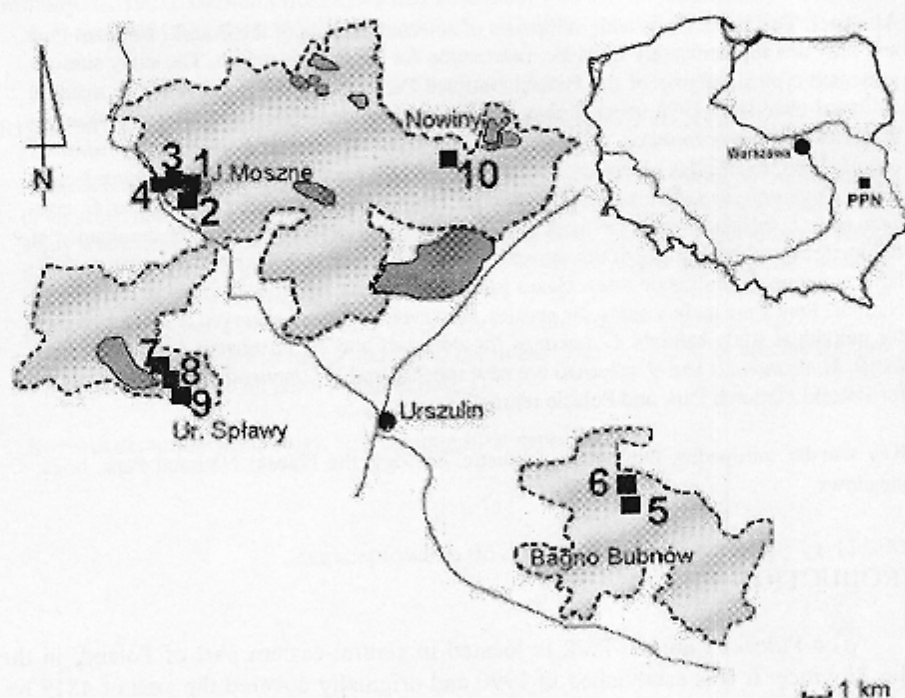


Fig. 1. Location of the study sites in the Poleski National Park:

----- boundaries of the Poleski National Park; — roads;

■ - study sites: 1. Transitional and raised peat bog, 2. Wood raised peat bog, 3. Marshy pine forest, 4. Drained marshy pine forest, 5. Sedge fen, 6. Moist meadow, 7. Willow-birch thickets, 8. Alder carr, 9. Fresh meadow, 10. Inundated post-hog meadow; • - lakes

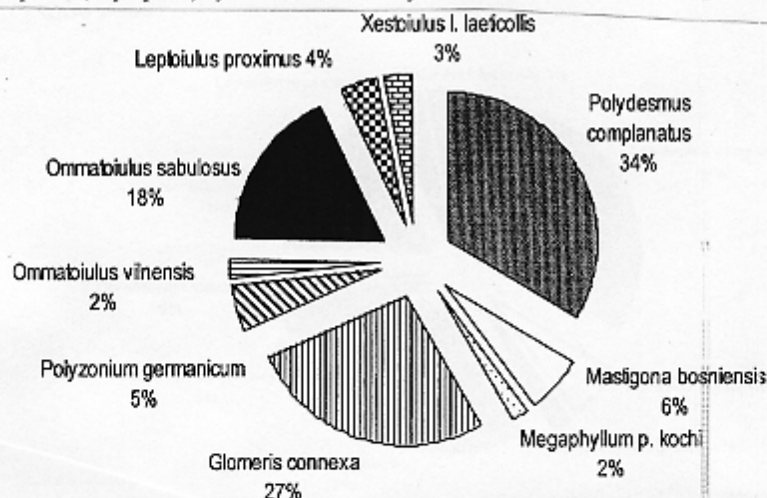


Fig. 2. Representation of millipedes species in the total materials collected in the Poleski National Park

Table 1. Abundance of millipedes specimens in the study sites; Bbg – marshy pine forest, Bbp – drained marshy pine forest, Lwg – moist meadow, Lsw – fresh meadow, Ols – alder carr Pp – inundated post-bog meadow, Tpw – transitional and raised peat bog, Trz – sedge fen, Twl – wood raised peat bog, Zwb – willow-birch thickets

| Species | Study site | | | | | | | | | | Σ |
|---|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------|
| | 1. Tpw | 2. Twl | 3. Bbg | 4. Bbp | 5. Trz | 6. Lwg | 7. Zwb | 8. Ols | 9. Lsw | 10. Pp | |
| | Number of specimens | | | | | | | | | | |
| <i>Glomeris connexa</i> | 6 | 8 | 0 | 25 | 0 | 0 | 0 | 830 | 70 | 0 | 939 |
| <i>Mastigona bosniensis</i> | 1 | 0 | 181 | 7 | 0 | 0 | 0 | 4 | 1 | 17 | 211 |
| <i>Polydesmus complanatus</i> | 118 | 36 | 148 | 225 | 0 | 0 | 411 | 112 | 104 | 44 | 1198 |
| <i>Xestoiulus laeticollis laeticollis</i> | 0 | 8 | 1 | 8 | 8 | 18 | 23 | 18 | 9 | 0 | 93 |
| <i>Leptoiulus proximus</i> | 50 | 0 | 19 | 7 | 0 | 34 | 22 | 16 | 3 | 2 | 153 |
| <i>Megaphyllum projectum kochi</i> | 9 | 2 | 19 | 8 | 0 | 9 | 4 | 7 | 16 | 3 | 77 |
| <i>Ommatiolus sabulosus</i> | 1 | 46 | 70 | 67 | 5 | 86 | 81 | 46 | 216 | 0 | 618 |
| <i>Ommatiolus vilnensis</i> | 4 | 8 | 20 | 11 | 1 | 0 | 10 | 0 | 0 | 0 | 54 |
| <i>Polyzonium germanicum</i> | 16 | 24 | 28 | 3 | 2 | 1 | 23 | 37 | 27 | 0 | 161 |
| Σ | 205 | 132 | 486 | 361 | 16 | 148 | 574 | 1070 | 446 | 66 | 3504 |

Table 2. Number of millipedes specimens used in the statistical analysis, for abbreviations, see Table 1

| Species | Study site | | | | | | | | | | Σ |
|---|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------|
| | 1. Tpw | 2. Twl | 3. Bbg | 4. Bbp | 5. Trz | 6. Lwg | 7. Zwb | 8. Ols | 9. Lsw | 10. Pp | |
| | Number of specimens | | | | | | | | | | |
| <i>Glomeris connexa</i> | 6 | 8 | 0 | 25 | 0 | 0 | 0 | 822 | 66 | 0 | 927 |
| <i>Mastigona bosniensis</i> | 1 | 0 | 181 | 7 | 0 | 0 | 0 | 4 | 1 | 17 | 211 |
| <i>Polydesmus complanatus</i> | 115 | 30 | 131 | 168 | 0 | 0 | 411 | 112 | 68 | 44 | 1079 |
| <i>Xestoiulus laeticollis laeticollis</i> | 0 | 8 | 1 | 8 | 8 | 18 | 23 | 18 | 9 | 0 | 93 |
| <i>Leptoiulus proximus</i> | 50 | 0 | 7 | 1 | 0 | 31 | 13 | 16 | 2 | 2 | 122 |
| <i>Megaphyllum projectum kochi</i> | 9 | 2 | 19 | 6 | 0 | 4 | 4 | 7 | 15 | 3 | 69 |
| <i>Ommatiolus sabulosus</i> | 1 | 46 | 70 | 52 | 4 | 78 | 74 | 46 | 211 | 0 | 582 |
| <i>Ommatiolus vilnensis</i> | 4 | 8 | 20 | 11 | 1 | 0 | 10 | 0 | 0 | 0 | 54 |
| <i>Polyzonium germanicum</i> | 16 | 23 | 28 | 3 | 2 | 1 | 23 | 37 | 27 | 0 | 160 |
| Σ | 202 | 125 | 457 | 281 | 15 | 132 | 558 | 1062 | 399 | 66 | 3297 |

The analyses of similarities of millipede assemblages were made using the method of hierarchical classification in MVSP (MultiVariate Statistical Package) [Kovach 1993]. The similarity was measured with Jaccard's coefficient (J_c) and Euclidean distance. The samples were sorted with the average distance technique for the whole set with an option of unweighted pair group method average (UPGMA). The data was transformed as natural logarithm \ln to minimize the difference in the abundance of species. J_c value is the same as the value of the Moraczewski and Steinhaus coefficient, frequently used in zoological studies [Górny, Grün, 1981].

The dominance analysis used the 6-class scale [Górny and Grün, 1981]: 1 superdominants: >30.0%; 2 eudominants: 10.1-30.0%; 3 dominants: 5.1-10.0%; 4 subdominants: 2.1-5.0%; 5 recedents: 1.1-2.0%; 6. subrecedents: < 1.0%.

STUDY SITES

1. Transitional and raised peat bog (Tpw)

The site was a mosaic of transitional and raised peat bogs. Their characteristic quality was a great abundance of sedges and dwarf-shrubs (about 80% of the cover) and the moss layer (up to 100% of the cover). Trees were only represented here by single pine and birch saplings, up to 3m high.

2. Wood raised peat bog (Twl)

The site showed a well-developed pine tree layer, up to 50% of the cover. Undergrowth layer consisted of pine saplings and deciduous trees and thickets (30% of the cover). Moss and sedge and dwarf-shrub layers, were similar to the same layers in site 1.

3. Marshy pine forest (Bbg)

Tree layer consisted of pine trees and single birches, was well-developed (60% of the cover). The site showed a poorly-developed tree saplings layer (10% of the cover), well-developed dwarf-shrub layer (80% of the cover) - mainly *Ledum palustre* and *Vaccinium uliginosum*, as well as a compact moss layer (90% of the cover).

4. Drained marshy pine forest (Bbp)

Tree layer consisted of pine trees and birches, was well-developed (60% of the cover), as well undergrowth layer included saplings of pine, birch and different deciduous species (40% of the cover). Dwarf-shrub layer was well-developed (80% of the cover), but the content of ground water was lower than in site 3, which was seen from a lower viability of *Ledum palustre* and *Vaccinium uliginosum*. Moss layer was less developed (70% of the cover).

5. Sedge fen (Trz)

The association was similar to that of low meadow with standing water in spring and autumn. The cover of sedge and herb layer was up to 90%, the moss was layer poorly-developed (40% of the cover). No trees.

6. Moist meadow (Łwg)

Multi-species moist meadow with the grass *Molinia caerulea* (turf cover – 90% of the cover). The moss layer – 40% of the cover.

7. Willow-birch thickets (Zwb)

Willow (*Salix rosmarinifolia*) and birch (*Betula humilis*) thickets. This was the plant association of low thickets, with a well-developed layer of shrubs (70% of the cover), herbaceous layer (80% of the cover) and mosses (70% of the cover).

8. Alder carr

The association had a form of a juvenile tree stand consisted mainly of alder trees (*Alnus glutinosa*) with the crown closure up to 90%. The undergrowth layer included deciduous species of trees and thickets and was poorly-developed (20% of the cover). Herbaceous layer was compact (70% of the cover) however, it was heterogeneous, which was connected with the tuft structure development. The moss layer was about 60% of the cover.

9. Fresh meadow (Łsw)

Fresh meadow with *Arrhenatherum elatius*. It was the multi-species plant association, dominated by high grasses.

10. Inundated post-bog meadow (Plp)

The association with *Deschampsia caespitosa*, with the herbaceous layer accounting for 90% of the cover and the moss layer – for 40% of the cover.

RESULTS AND DISCUSSION

The following 9 Diplopoda species, represented by 5 orders, were identified in the study sites:

Glomerida: *Glomeris connexa* C. L. Koch, 1847,

Polyzoniida: *Polyzonium germanicum* Brandt, 1837,

Chordeumatida: *Mastigona bosniensis* [Verhoeff, 1887],

Polydesmida: *Polydesmus complanatus* [Linnaeus, 1761]

Iulida: *Leptoiulus proximus* [Nemec, 1896],

Xestoiulus laeticollis laeticollis [Porat, 1889],

Megaphyllum projectum kochi [Verhoeff, 1907],

Ommatoiulus sabulosus [Linnaeus, 1758],

Ommatoiulus vlnensis [Jawłowski, 1925],

Species composition

Analyzing the species composition and abundance of millipedes in study plots in the Poleski National Park, three species showed to be the most abundant: *P. complanatus*, *G. connexa* and *O. sabulosus* cosecutively. These 3 species, considering their distribution in Europe and the occurrence in many different habitats, show a great range of tolerance (they are eurytopic).

P. complanatus is a Central European species. It is the most abundant millipede species in Poland, reported in many places [Stojałowska, Staręga 1974]. It occupies different habitats; ranging from damp forests and peat bogs to dry grasses and xerothermic thickets [Bielak-Oleksy 1967, Stojałowska, Staręga 1974, Jędryczkowski 1979, 1987, 1995, Jaśkiewicz, Piróg 1990, Wytwer 1992, 2001, Kopacz 1998]. In the Poleski National Park *P. complanatus* was the most abundant millipede, with a total of 1198 specimens caught. It was not found on the sedge fen and moist meadow. Both habitats were periodically flooded, thus this species was missing here. Millipedes occur in damp habitats but they do not tolerate standing water.

G. connexa – a species of Central Europe. It occurs all across Poland, in some areas it is the main millipede species [Stojałowska, Staręga 1974]. *G. connexa* is found in different types of forests, in shaded spots and damp places; in forest litter, wood dust, under stones as well as in roadside thickets [Bielak-Oleksy 1967, Stojałowska, Staręga 1974, Jędryczkowski 1979, 1987, Jaśkiewicz, Piróg 1990, Wytwer 1992, 2001, Kopacz 1998]. In the Poleski National Park a total of 939 specimens were collected, most of which, 830 specimens, in alder carr, which coincides with the reports [Wytwer, Tracz, 2003] on *G. connexa* being a typical species of damp forests. It occurs in clusters. In the Poleski National Park the abundance of this species showed the greatest variation, from 830 specimens in alder carr to 0 specimens in sedge fen, moist meadow, marshy pine forest, willow-birch thickets and the inundated post-bog meadow.

O. sabulosus is a European species which occurs all across the country [Stojałowska, Staręga 1974]; photophilous, living in the litter of leafy, mixed and coniferous forests, in xerothermic thickets, in the meadows and clearings and in old gardens [Stojałowska, Staręga 1974, Jędryczkowski 1979, 1987, 1995, Jaśkiewicz, Piróg 1990, Wytwer 1992, 2001, Kopacz 1998]. In the Poleski National Park a total of 618 specimens were collected. *O. sabulosus* was the most abundant in the fresh meadow (216 specimens) and it was missing in the inundated post-bog meadow.

M. bosniensis is a species which is new to the Poleski National Park, found in south-eastern Europe. *M. bosniensis* occurs all across Poland, except for the Carpathian and Sudety Mountains [Stojałowska, Staręga 1974]. It is found in bright thickets, forests clearings, in open areas, leafy forests (beech, oak, dry-ground, riparian forests), coniferous forests, grasses and xerothermic thickets [Stojałowska, Staręga 1974, Jaśkiewicz, Piróg 1990, Jędryczkowski 1995, Kopacz 1998, Wytwer 2001]. In the Poleski National Park 211 specimens were caught, most in marshy pine forest.

X. laeticollis laeticollis is a subspecies new to the Poleski National Park, found in the Central Europe. As reported by Stojałowska, Staręga [1974], this subspecies is well known in northern and western parts of Poland. Identifying it in the Poleski National Park moved its occurrence eastwards. It is very hygrophilous, and as such, it is often found in alder thickets, on lake shores, in spruce forests [Stojałowska, Staręga 1974, Kopacz 1998]. In the Poleski National Park a total 93 specimens were collected, most of them in very damp habitats - willow-birch thickets, alder carr, and moist meadow.

L. proximus is a species of Central Europe. It occurs all across Poland, except for the Tatras [Stojałowska, Staręga 1974]. It is very sensitive to humidity changes. *L. proximus* lives in forest litter and under stones, both in moist leafy forests, raised peat bogs and

a drier environment, in mixed forests and even in the coniferous ones, as well as in gardens [Stojałowska, Staręga 1974, Jędrzyckowski 1979, 1987, 1995, Jaśkiewicz, Piróg 1990, Kopacz 1998, Wytwer 2001]. In the Poleski National Park 153 specimens were caught. It was only missing in sedge fen and wood raised peat bog.

M. projectum kochi is a species of Central Europe which occurs all across Poland [Stojałowska, Staręga 1974]. It is a thermophilous and photophilous species, found in forest litter, wood dust, under the bark of dead trees on the edges of leafy and mixed forests, in clearings as well as in thickets and xerothermic grasses [Bielak-Oleksy 1967, Stojałowska, Staręga 1974, Jędrzyckowski 1979, 1987, 1995, Jaśkiewicz, Piróg 1990, Kopacz 1998, Wytwer 2001]. In the Poleski National Park 77 specimens were caught. It was only missing in sedge fen.

O. vilnensis is a species new to the Poleski National Park, found in Eastern Europe. It occurs all across Poland, except for the south-eastern part of the country and the Carpathians [Stojałowska, Staręga 1974]. The habitat of *O. vilnensis* is poorly known. In the Świętokrzyskie Mountains it was found in the meadow [Jędrzyckowski 1987], in Białowieża Primeval Forest in swamp spruce forest and in the Knyszyńska Primeval Forest – in moss forest [Kopacz 1998, Wytwer 2001]. The most recent study of different types of forests of the Białowieża Primeval Forest reported by Wytwer and Tracz [2003] demonstrated that *O. vilnensis* is the species which occurs in low numbers in different types of forests, all researched in the Białowieża National Park. In the Poleski National Park 54 specimens were collected. This species was the most abundant in the bog marshy forest and less abundant in drained marshy pine forest and willow-birch thickets. It was missing in all types of meadows and in alder carr.

P. germanicum is a species found in Central Europe, known all across Poland [Stojałowska, Staręga 1974]. It occurs in forest litter, under stones, heaps of tree trunks of all types of forests, thickets, and also in peat bogs and on the lake shores [Bielak-Oleksy 1967, Stojałowska, Staręga 1974, Jędrzyckowski 1979, 1987, Jaśkiewicz, Piróg 1990, Wytwer 1992, 1997, 2001, Kopacz 1998, Wytwer, Tracz 2003]. In the Poleski National Park a total of 161 specimens were caught. It was only missing in the inundated post-bog meadow.

All the 9 species were found only in drained marshy pine forest. The lowest number of species was observed in sedge fen and the inundated post-bog meadow (4 each).

Analyzing the similarity of the species composition of millipedes assemblages in the Poleski National Park, there was recorded a considerable qualitative similarity (Fig. 3).

Millipedes assemblages of alder carr and fresh meadow demonstrated the same species composition, Jaccard's coefficient = 1.00 (8 common species). In these sites *O. sabulosus* was missing only. A high value of Jaccard's coefficient was also recorded for drained marshy pine forest and the transitional and raised peat bog (0.90), and marshy pine forest and willow-birch thickets (0.88). All the sites created a group with the coefficient of similarity of species composition which equals 0.75.

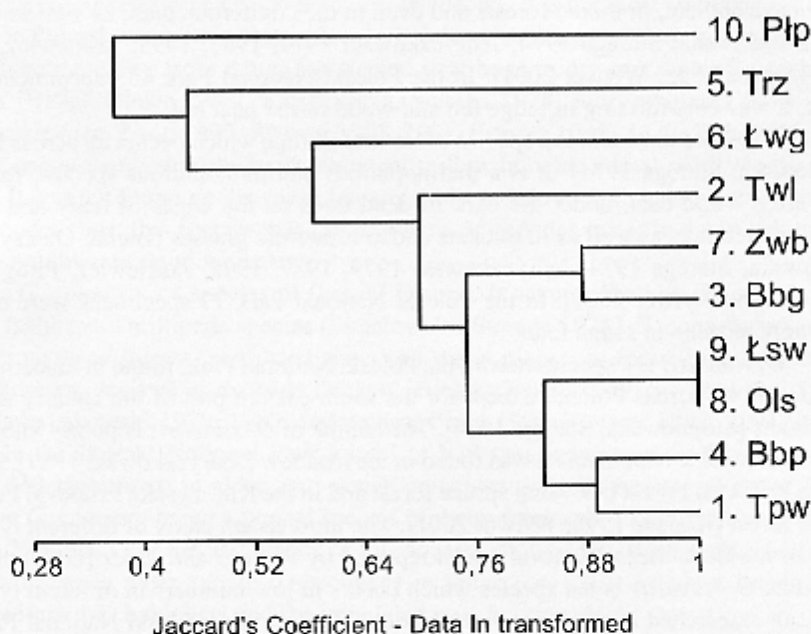


Fig. 3. Species composition similarity of millipede assemblages in the study sites (abbreviations, see Table 1)

Structure of dominance

With the use of the analysis of the dominance structure in all the 9 sites (Figs 4, 5), it can be noted that in each of them the structure was different, which is due to different humidity and plant species composition, tree layer especially. Five species were superdominants. In the transitional and raised peat bog, the inundated post-bog meadow, drained marshy pine forest, and in willow-birch thickets *P. complanatus* was the superdominant, while in the wood raised peat bog, moist and fresh meadow - *O. sabulosus* was the superdominant, whereas in the alder carr - *G. connexa* was the superdominant. In the marshy pine forest the role of the superdominant was played by *M. bosniensis* and in the sedge fen - by *X. l. laeticollis* (Fig. 5). Lower positions in the structure of dominance were attributed to different species, which results in such a great diversity.

Wytwer [1992], investigating pine forests in different parts of Poland, and Wytwer and Tracz [2003], studying different types of forests of the Białowieża Primeval Forest, recorded no *M. bosniensis* and *X. l. laeticollis*. In the sites of the Poleski National Park forest a total of 192 specimens of *M. bosniensis* were caught (181 in the marshy pine forest, 7 in the drained marshy pine forest and 4 in the alder carr) as well as 27 specimens of *X. l. laeticollis* (1 in the marshy pine forest, 8 in the drained marshy pine forest and 18 in the alder carr) (Table 1).

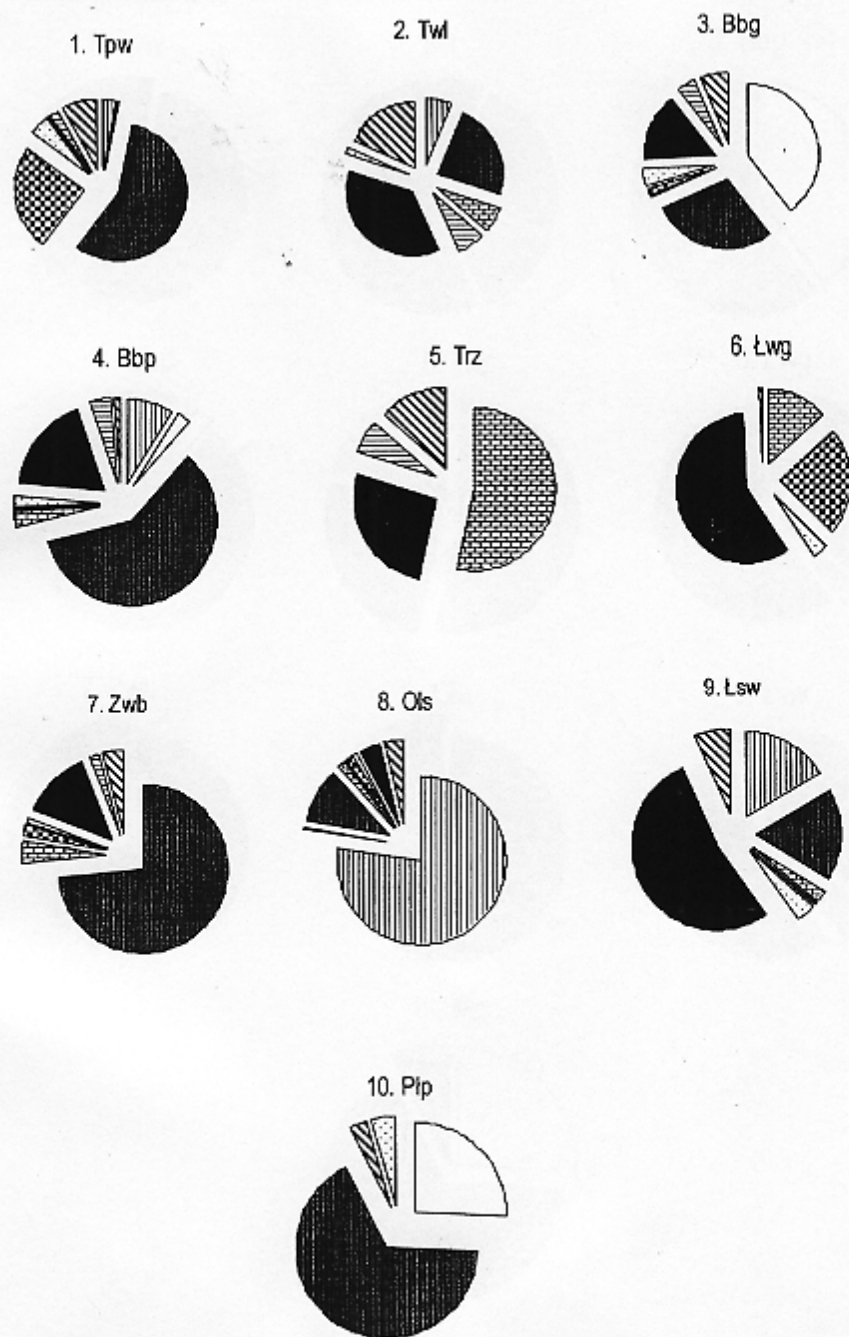


Fig. 4. Domination structure of millipedes assemblages in each study site
Abbreviations, see Table 1. Pattern on the graphs, see Fig. 2

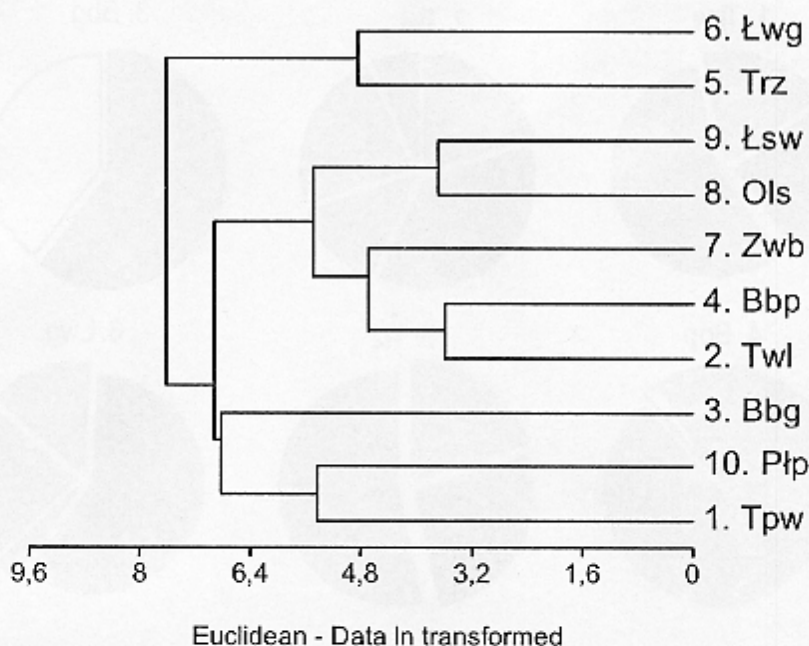


Fig. 5. Dominance structure similarity of millipede assemblages in each study site (abbreviations, see Table 1)

Check-list of millipede species of the Poleski National Park

Table 3. List of millipedes species of the Łęczyca-Włodawa Lake District

| Item | Species | Stojalowska, Bielak-Oleksy [1970] | This paper |
|------|---|--------------------------------------|------------|
| 1. | <i>Polyxenus lagurus</i> | + | |
| 2. | <i>Glomeris hexasticha</i> | + | |
| 3. | <i>Glomeris connexa</i> | + | + |
| 4. | <i>Mastigona bosniensis</i> | . | + |
| 5. | <i>Heteroporaia vihorlatica</i> | + | |
| 6. | <i>Brachydesmus superus</i> | + | |
| 7. | <i>Polydesmus complanatus</i> | + | + |
| 8. | <i>Polydesmus inconstans</i> | + | |
| 9. | <i>Isobates varicornis</i> | + | |
| 10. | <i>Napoiulus venustus</i> | + | |
| 11. | <i>Proteroiulus fuscus</i> | + | |
| 12. | <i>Cylindroiulus frisius</i> | + | |
| 13. | <i>Metaleptophyllum nanum</i> | + | |
| 14. | <i>Xestoiulus laeticollis laeticollis</i> | . | + |
| 15. | <i>Xestoiulus laeticollis mierzewski</i> | + | |
| 16. | <i>Leptoiulus proximus</i> | + | + |
| 17. | <i>Megaphyllum projectum kochi</i> | + | + |
| 18. | <i>Omnatoiulus sabulosus</i> | + | + |
| 19. | <i>Omnatoiulus vilnensis</i> | . | + |
| 20. | <i>Polyzonium germanicum</i> | + | + |
| | | 17 | 9 |

Today 86 millipede species are observed in Poland [Wytwer 1997], of which 17 species are reported in the Łeczyca-Włodawa Lake District [Stojałowska, Bielak-Oleksy 1970] (Table 3). The most recent studies report on further 2 and 1 subspecies species found in the Poleski National Park. The Diplopoda check-list for the Poleski National Park includes 20 species (Table 3), which accounts for 23% of Poland's millipedes. In the Poleski National Park there are no elements which would differentiate the millipede fauna of the Łeczyca-Włodawa Lake District from the rest of the country.

CONCLUSIONS

1. Most of millipedes of the Poleski National Park were eurytopic species which occur in many habitats.
2. Millipedes of the Poleski National Park could be divided into a few groups:
 - species abundant in many habitats: *P. complanatus*, *O. sabulosus*,
 - abundant species which dominate in one habitat - alder carr *G. connexa*,
 - non-abundant species which dominate in one habitat - marshy pine forest: *M. bo-sniensis*,
 - non-abundant species in many habitats: *M. l. laeticollis*, *L. proximus*, *M. p. kochi*, *O. vilnensis*, *P. germanicum*.
3. In the total material, 3 species were the most abundant: *P. complanatus*, *G. connexa* and *O. sabulosus*.
4. There was no clear habitat similarity in the structure of dominance of respective millipedes assemblages in the study sites.
5. Alder carr and fresh meadow were the only ones which demonstrate the same species composition of millipedes ($Jc = 1.00$).
6. The millipedes check-list for the Poleski National Park includes 20 species.

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KROCIONOGI (DIPLOPODA) WYBRANYCH ŚRODOWISK W POLESKIM PARKU NARODOWYM

Streszczenie. Dotychczasowe dane na temat krocionogów Polesia pochodzą z pracy Stojałowskiej i Bielak-Oleksy [1970]. Stwierdzono wówczas 21 gatunków. Niniejsza praca dotyczy wybranych środowisk w Poleskim Parku Narodowym i uzupełnia dane faunistyczne dla obszaru Polesia. Powierzchnie badawcze reprezentowały typowe środowiska Poleskiego PN - torfowiska i łąki. Materiał, zebrany w latach 1995-1998 przy pomocy pułapek Barbe-

ra, liczył 3504 okazy, reprezentujące 9 gatunków: *Glomeris connexa*, *Polyzonium germanicum*, *Mastigona bosniensis*, *Polydesmus complanatus*, *Leptoiulus proximus*, *Xestoiulus laeticollis laeticollis*, *Megaphyllum projectum kochi*, *Ommatoiulus sabulosus*, *O. vilnensis*. W całym materiale najliczniejsze były: *P. complanatus*, *G. connexa* oraz *O. sabulosus*. Klasy dominacji zgrupowań krocionogów dla poszczególnych powierzchni wykazują różnice. Brak wyraźnego podobieństwa w strukturze dominacji zgrupowań krocionogów z podobnych siedlisk. Diplopoda stwierdzone w Poleskim PN to gatunki głównie eurytopowe. Jednakże dwa gatunki preferowały jedno środowisko, *G. connexa* preferował siedlisko olsu, a *M. bosniensis* preferował wyraźnie siedlisko boru bagiennego. *M. bosniensis* i *O. vilnensis* są nowymi gatunkami, a *X. l. laeticollis* nowym podgatunkiem dla Poleskiego Parku Narodowego i Polesia.

Słowa kluczowe: krocionogi, Diplopoda, faunistyka, ekologia, Poleski Park Narodowy, torfowiska, łąki.

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