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CONTRIBUTION TO THE KNOWLEDGE OF THE MALACOFAUNA OF THE OJCÓW NATIONAL PARK

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ABSTRACT: The Ojców National Park malacofauna, although studied for more than a hundred years, is still insufficiently known. The paper deals with the malacofauna collected at four localities within the Ojców National Park. It comprises 73 species, out of which there are six new for the area. The authors give an ecological classification of the recorded species, the resulting check list of the malacofauna being compared with former data.

KEY WORDS: Gastropoda, land snails, ecological groups, faunistics, checklist

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ZESZYTY NAUKOWE AKADEMII GÓRNICZO-HUTNICZEJ IM. STANISŁAWA STASZICA

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The Ojców National Park malacofauna, although studied for more than a hundred years, is still insufficiently known. The paper deals with the malacofauna collected at four localities within the Ojców National Park. It comprises 73 species, out of which there are six new for the area. The authors give an ecological classification of the recorded species, the resulting check list of the malacofauna being compared with former data.

1. Introduction

It is for nearly 140 years that the malacofauna of the Ojców National Park has been studied. The first records of the occurrence of molluscs in the Ojców region are those of WAGA (1855, 1857). They are reports from naturalists' trips to Ojców, made in 1853 and 1854. Latter papers dealing with the malacofauna of the said region refer to the first reports. It was only 60 years after the studies of the malacofauna of Ojców had been initiated that POLINSKI (1914) published a critical review of the earlier observations on the subject. The review covered not only the published data but also unpublished ones (e.g. those collected by F. BIENIASZ). In his paper, POLINSKI listed 84 molfusc species he had admitted as inhabiting the area of the present Ojców National Park. Some of the species, given in earlier papers, the occurrence of which he had not confirmed, he cited with an annotation [Chilostoma rossmaesteri (L.PFEIFFER, 1842), Cochlodina costata (C.PFEIFFER, 1828), Bythinella dunkeri (FRAUENFELD, 1856)].

The next critical review considering, from the zoogeographical point of view, new species recorded, was published by URBAŃSKI (1977) regarding the area in question as a well known one, with 85 to 90 mollusc species known to occur there.

The material that the present paper deals with was collected in September, 1988, from some localities of the Ojców National Park, to obtain as many gastropod species as possible. Some other localities of the Kraków-Wieluń Upland were also surveyed for latter comparisons to be given in a separate paper.



Table 1

Malacocoenoses of the studied localities in the Ojców National Park

Ecologic group	Species	Locality			Local		
(LOZEK 1964)		A	В	С	D		
	Acanthinula aculeata (O.F.MÜLLER, 1774)	2	2	5			
	Acicula parcelineata (CLESSIN, 1911)	1 -	ī	•			
	A. politz (HARTMANN, 1840)	1	1	2			
	Aegopinella pura (ALDER, 1830)	6	2	31	3		
	Arion circumscriptus (JOHNSTON, 1828)	1					
	A. silvaticus (LOHMANDER, 1937)	1	2				
	Bielzia coerulans (M.BIELZ, 1851)	-1	1				
	Cochlodina laminata (MONTAGU, 1803)	1 -	2		1		
	C. orthostoma (MENKE, 1830)	6	12				
l.	Doudebardia rufa (DRAPARNAUD, 1805)	1		1			
Closed forest	Discus perspectivus (MÜHLFELD, 1816)	i	45	4			
Closed totest	Ena montana (DRAPARNAUD, 1801)	1 -	17	2			
	E. obscura (O.F.MÜLLER, 1774)	5			-		
	Eucobresia nivalis (DUMONT et MORTILLET, 1852) Chilostoma laustinum (ROSSMÄSSLER, 1835)	1 4	20		7		
	Isognomostoma isognomostoma (SCHROTER, 1784)	1 •	28 9		- 1		
	Lehmannia marginata (O.F.MÜLLER, 1774)	- 1	1				
	Macrogastra plicatula (DRAPARNAUD, 1801)	1	1				
	Oxychius depressus (STERKI, 1880)	1	2	4			
	Perforatella incarnata (O.F.MÜLLER, 1774)	3	14	•	1		
İ	Sphyradium doliolum (BRUGUIERE, 1792)	16	17	4	•		
	Trichia unidentata (DRAPARNAUD, 1805)	li	3	9	2		
	Vertigo pusilla O.F.MÜLLER. 1774	1 .	ž	40	_		
	Vitres diaphons (STUDER, 1820)	l l	•	2			
	V. subrimata (REINHARDT, 1871)	3	5	•			
	Aegopinella minor (STABILE, 1864)	1		3	2		
	Arianta arbustorum (LINNAEUS, 1758)	1		•	Ĩ		
	Arion subfuscus (DRAPARNAUD, 1805)	1			1		
	Balea biplicata (MONTAGU, 1803)	62	28		13		
H.	Bradybaena fruticum (O.F.MÜLLER, 1774)	1	1				
	Cepaea hortensis (O.F.MÜLLER, 1774)	1	1				
Woodland-scrub-	Discus rotundatus (O.F.MÜLLER, 1774)	15	4	22	2		
timbered steppe	Helix pomatia LINNAEUS, 1758	1	1				
	Limax cinereaniger WOLF, 1803	ı		1			
	Oxychilus glaber (ROSSMÄSSLER, 1835)	1	1				
	Vitres crystallins (O.F.MÜLLER, 1774)		2	10	1		
	Macrogastra ventricosa (DRAPARNAUD, 1801)	2					
HI	Perforatella umbrosa (C.PFEIFFER, 1828)	2	15				
Moist woodland	P. micina (ROSSMASSLER, 1842)		4		4		
	Cepaea vindobonensis (FÉRUSSAC, 1821)				1		
V.	Chondrina clienta (WESTERLUND, 1883)	15	3	33	•		
Steppe.	Pupilla sterri (VOITH, 1838)	1 7	ă	10			
keric rocks	Pupilla triplicata (STUDER, 1820)	1.	7	i			
	Pyramidula rupestris (DRAPARNAUD, 1801)	17	7	45			
	Euomphalia strigella (DRAPARNAUD, 1801)	1			1		
٧.	Pupilla muscorum (LINNAEUS, 1758)	Ìв			•		
Open country	Truncatellina cylindrica (FERUSSAC, 1807)	48		2	5		
n general	Vallonia costata (O.F.MÜLLER, 1774)	51	53	240	-		
	V. excentrica STERKI, 1892	1.					
	V. pulchella (O.F.MÜLLER, 1774)	13		8			
/I. Dry habitats	Cochlicopa lubricella (PORRO, 1838)	2	1				
	Arion fascialus (NILSSON, 1822)				1		
/H.	Claussika dubija DRAPARNAUD, 1805	16	18	31	1		
Mesic or diverse	C. parnula FERUSSAC, 1807	1	22	52			
nabitats	Cochicopa hibrica (O.F.MOLLER, 1774)	•		-10			

IX. Marshes and other very moist torrestrial habitats	Bythiosporum negificalissimum FALNIOWSKI et STEFFEK, 1989 Zonitoides niliidus (O.F.MULLER, 1774) Bythinolla austriaca (FRAUENFELD, 1856)		1	9	1
VIII. Damp habitats	Carychium tridentatum (RISSO, 1826) Columetta odentulu (DRAPARNAUD, 1805) Trichia niliosula (ROSSMASSLER, 1838) Vertigo substriata (JEFFREYS, 1833)	7	10 1	58 5	4
VII. (cont.) Mesic or diverse habitats	Deroceras reticulatum (O.F.MULLER, 1774) Eucomukus fukuus (O.F.MULLER, 1774) Helicigona lapicida (LINNAEUS, 1758) Limas maximus LINNAEUS, 1758 Nesovitea hammonis (STROM, 1765) Oilychikus celtarius (O.F.MULLER, 1774) Punctum pygmaeum (DRAPARNAUD, 1801) Vertigo alpestris ALDER, 1838 Vitea contracta (WESTERLUND, 1871) Vitrina pellucida (O.F.MULLER, 1774)	25 1 1 11	1 6 3 1 5 17 3	3 29 4 1 18 45 4	1

Locality: A - Castle of Ojców, limestone rocks and rubble in the forest; B - Krakowska Brama, an old forest on rocky substrate; D - Pieskowa Skata, boulders in forest.

2. Study area

The Ojców National Park is situated in the southern part of the Kraków-Wieluń Upłand, it covers the middle, 5 km long section of the valley of the Pradnik stream and the adjacent area of the Jurassic upland. The total area of the Park is 1590 ha. It is formed of Jurassic limestone, Along the valley there are separate limestone rocks, 12...40 m high, which are fragments of earler terraces. There are about 200 caverns in the rocks. The mean annual temperature of the area is 7.50C, the rainfall reaching 800 mm. It is known that man settled in the area as early as 120,000 to 115,000 years ago (the cave Jaskinia Ciemna). Hence, the Ojców region is considerably changed by man, which also concerns the composition of the malacofauna (URBAÑSKI 1977).

A mosaic of different biotopes covering a relatively small area provides suitable conditions for a rich variety of species of molluscs from various ecologic groups (sensu LOŽEK 1964), which was shown by earlier studies.

The reason why the natural conditions of the said area have aroused so much interest is that it is part of one of the most interesting lands of Poland – the vicinities of Kraków, in particular. Kraków has for a long time been a cultural and scientific centre, with distinguished malacologists who did a lot to extend the knowledge of the region. Last but not least, the Ojców region is formed of Jurassic limestones which create a favourable substrate for malacofauna.

The material was collected as for a study of land snails. The freshwater species found in the collection were subfossil ones [Bythihella austriaca (FRAUENFELD, 1856), Galba truncatula (O.F.MÜLLER, 1774)] The nomenclature we have adopted is after KERNEY, CAMERON & JUNGBLUTH (1983).

Check-list of recent molluscs of Ojców

Acaethinula aculeata (O.F. MÜLLER, 1774) Acicula parcelineata (CLESSIN, 1911) A. polita (HARTIMANN, 1840) Aegopinella pura (ALDER, 1830) Anion circumscriptus JOHNSTON, 1828 A. sivatous LOHMANDER, 1937 Bieletia coerutans (M.BIELZ, 1851) Bulgarica cana (HELD, 1836) Cochiodina laminata (MONTAGU, 1803) C. orthostoma (MENKE, 1830) Discus perspectivus (MÜHLFELD, 1816) D. ruderatus (FRUSSAC, 1821) Ena montana (DRAP ARNAUD, 1801) E obscura (O.F. MÜLLER, 1774) Chilestama faustinum (ROSSMÁSSLER, 1835) Iseganomastoma isoganomastoma (SCHROTTER, 1 Lehmannia margimata (O.F. MÜLLER, 1774) Eucobresia nivatis (DUMONT et MORTILLET, 185 Microgasta pikcatata (DRAPARNAUD, 1801) Mistacolimas tenellus O.F. MÜLLER, 1774 Orychilus depressus (STERKI, 1880) Perforatabla incarnata (O.F. MÜLLER, 1774) Ruthenica filograma (ROSSMÁSSLER, 1836) Sehyradium dalolum (BRUGUIERE, 1774) Ruthenica filograma (ROSSMÁSSLER, 1836) Vertigo pusilla O.F. MÜLLER, 1774 Vità en disphana (STUDER, 1820) V. subrimata (CRENHARDT, 1871) Aegopinella minor (STABILE, 1864) Arion subfascus (DRAPARNAUD, 1805) Vertigo pusilla O.F. MÜLLER, 1774) Discus rotundatus (O.F. MÜLLER, 1774) Capaca horibotrum (LINNAEUS, 1758) Balea bipikcata (MONTAGU, 1803) Bradybaena fruiscum (O.F. MÜLLER, 1774) Capaca horibotrum (LINNAEUS, 1758) Discus rotundatus (O.F. MÜLLER, 1774) Discus rotundatus (O.F. MÜLLER, 1774) Limax cinereoniger WOLF, 1803 Macrogastra rentricosa (DRAPARNAUD, 1801) Perforatibla bidentata (GABELIN, 1788) P. vicina (ROSSMÁSSLER, 1825) Vitrea crystatiling (O.F. MÜLLER, 1774) Limax cinereoniger WOLF, 1803 Moist woodland Microgastra rentricosa (DRAPARNAUD, 1801) Perforatibla bidentata (GABELIN, 1788) P. vicina (ROSSMÁSSLER, 1826) P. vicina (ROSAMÁSSLER, 1826) P. vicina (ROSAMÁ		POL	URB	•
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iteppe, xeric scheme Chondrula tridens (O.F.MÜLLER, 1774) Pupilla sterri (VOITH, 1838) P. triplicata (STUDER, 1820) Pyramidula rupostris (DRAPARNAUD, 1801) Truncatellina claustralis (GREDLER, 1856) Euomphalia strigella (DRAPARNAUD, 1801)	1	+	+	
Pupilla sterri (VOITH, 1838) P. triplicata (STUDER, 1820) Pyramidula rupostris (DRAPARNAUD, 1801) Truncatellina claustralis (GREDLER, 1866) Euemphalia stripella (DRAPARNAUD, 1801)	l l	+	+	
P. triplicata (STUDER, 1820) Pyramiduta rupestris (DRAPARNAUD, 1801) Truncatellina claustralis (GREDLER, 1856) Euomphalia stripella (DRAPARNAUD, 1801)	1	+	-	
P. triplicata (STUDER, 1820) Pyramiduta rupestris (DRAPARNAUD, 1801) Truncatellina claustralis (GREDLER, 1856) Evemphalia stripella (DRAPARNAUD, 1801)	1	+	+	
Truncatellina claustralis (GREDLER, 1856) Euemphalia strigella (DRAPARNAUD, 1801)	1	-	-	
Euomphalia strigolia (DRAPARNAUD. 1801)	1	<u>+</u>	+	
	1			
B W 43661	1	+	+	
Pupilla muscorum (LINNAEUS, 1758)	1	+	+	
. Truncatellina cylindrica (FERUSSAC, 1807)		+	*	
Open country Vallonia costata (O.F.MÜLLER, 1774) 1 general V. excentrica STERKI, 1892	1	+	+	

				10
5. (cont.)	V. pulchella (O.F. MÜLLER, 1774)	+	-	+
	Vertigo pyginaea (DRAPARNAUD, 1801)	-	+	-
6. Dry habitats	Cochlicopa lubricella (PORRO, 1838)	-	+	+
	Arion fasciatus (NILSSON, 1822)	-	w	+
1	Clausilia dubia DRAPARNAUD. 1805	+	+	+
l i	C. pareula FERUSSAC, 1807	+	+	+
i i	Cochlicopa lubrica (O.F. MÜLLER, 1774)	+	+	+
1	Deroceras reticulatum (O.F. MÜLLER, 1774)	-	W	+
i i	D. agreste (LINNAEUS, 1758)	+	DZ	-
]	D. rodnae GROSSU et LUPU, 1965	-	W	-
_	D. sturanyi (SIMROTH, 1894)	_	W	-
7.	Euconulus fulvus (O.F. MÜLLER, 1774)	+	DZ	+
Mesic or diverse	Lehmannia nyctelia (BOURGUIGNAT, 1861)	-	W	**
nabitats	Limax maximus LINNAEUS, 1758	1 :	+	+,
	Helicigona lapicida (LINNAEUS, 1758)	1 1	+	sf
	Laciniaria plicata (DRAPARNAUD, 1801) Nesovitrea hammonis (STROM, 1765)	T	-	-
	Punctum pygmaeum (DRAPARNAUD, 1801)	- I	DZ +	+
	Oxychilus cellarius (O.F. MÜLLER, 1774)	1	-	Ŧ
!	Trichia kubomirskii (SLÓSARSKI, 1881)		+	_
i	Vertigo alpestris ALDER, 1838	1 1	+	+
1	Vitrea contracta (WESTERLUND, 1871)	1 -		Ť
	Vitrina pellucida (O.F. MÜLLER, 1774)	+	DZ	+
	Carychium tridentatum (RISSO, 1826)	_	DZ	+
8.	Columella edentula (DRAPARNAUD, 1805)	-	-	+
Damp habitats	Succinea oblonga DRAPARNAUD, 1801	+	_	÷
	Trichia villosula (ROSSMASSLER, 1838)	i i	+	÷
	Vertigo substriata (JEFFREYS, 1833)	_	+	÷
ļ	Bythiospeum neglectissimum			
9.	FÁLNIÓWSKI eť ŠTEFFEK. 1989	-	_	+
Marshes and other	Carychium minimum O.F. MULLER, 1774	+	-	_
very moist terres-	Oxyloma elegans (RISSO, 1826)	+	-	-
trial habitats	Succinea putris (LINNAEUS, 1758)	+	+	
	Zonitoides nitidus (O.F. MÜLLER. 1774)	+	+	+
	Ancylus Iluviatilis O.F. MÜLLER, 1774	-	+	-
	Bythinella austriaca (FRAUENFELD, 1856)		+	+
l !	Lymnaea peregra (O.F. MOLLER, 1774)	+	+	-
10.	<i>L. auricularia</i> (LINNAEUS, 1758)	+	_	-
Freshwater	L. stagnalis (LINNAEUS, 1758)	+		
habitats	L. buncatula (O.F. MÜLLER, 1774)	+	+	+
in general [L. palustris (O.F. MÜLLER, 1774)	+	-	-
	Planorbarius corneus (LINNAEUS, 1758)	+	_	-
! !	Viviparus contectus (MILLET, 1813)	1 *	-	-
	Pisidium personatum MALM, 1855	-	+	-

Explanatory notes: + ~ present, - - absent, DZ - DZIECZKOWSKI (1972), W - WIKTOR (1973), sf - subfossii, POL - POLINSKI (1914), URB - URBANSKI (1977), LZK - LOŽEK (1964), * - present authors

3. Studied localities

A - the castle of Ojców - a hill with a ruin of a castle, overgrown with maple (Acer pseudoplatanus L.), hazel (Conylus avellana L.) and line (Tilia platyphyllos SCOP.). A rich malacolauna biotope is the large foot of limestone walls at the gate of the castle. The tops of the limestone rocks are inhabited by a typical xerophilous malacolauna. It is from here that the species Vallonia excentrica STERKI, 1892 and Vitrea contracta (WESTERLUND, 1871) were found for us, which was its first record from the Ojców region.

B - the Krakowska Brama rocks - an old .forest of beech (Fagus silvatica L.), line (Tilia platyphyllos SCOP.) and maple (Acer pseudoplatanus L.) growing on a rocky substrate. The locality is humid enough to be inhabited by a considerable number of snail species (53). Alternatively, the limestone rocks are a habitat of a xerophilous malacofauna. Form this locality, we recorded for the first time for the said region the following species: Columella edentula (DRAPARNAUD, 1805), Vitrea subrimata (REINHARDT, 1871), and Pupilla Iriplicata (STUDER, 1820). We also recorded there a few subfossil specimens of Helicipona lapicida (LINNAEUS, 1758). Despite a thorough search, we could not found a living specimen at the time of study. However, it was only two years later (August 1990) that we had found one living adult.

C - the Krakowska Brama rock (a small cave) - a slit in the slope of the valley, behind the gate of rocks. Among the snail species found there there were representatives of the family Moitessieriidae. They were described as a new species, under the name Bythiospeum neglectissimum FALNIOWSKI et ŠTEFFEK, 1989 (FALNIOWSKI & ŠTEFFEK 1989). The other species found there are: Vitrea subrimata, V. contracta (WESTERLUND, 1871), and Nesovitrea thammonis (STROM, 1765).

D - Pieskowa Skala - a forest growing on a rocky substrate, below the walls of the castle. The forest consists of maple (A. pseudoplatanus), line (T. platyphyllos), and others. From this locality we recorded Eucobresia nivalis (DUMONT et MORTILLET, 1852), which was for the first time from the said region.

Snail species and their respective localities are listed in Tab. 1.

4. Remarks on species

A comparative list of the malacofauna of Ojców (Tab. 2) covers 100 recent species of molluscs recorded so far from the area of the Ojców National Park. According to POLINSKI (1914) and URBANSKI (1977) we have not considered the species which were erroneously recorded from the Ojców region by either confused labels [Macrogastra latestriata (A.SCHMIDT, 1857), Cochodina costata (C. Pteiffer, 1828)] or an erroneous determination [Aegopinella nitens (MICHAUD, 1831), Chilostoma rossmaesteri Trichia hispida (LINNAEUS, 1758), T. plebela (DRAPARNAUD, 1805), Bythinella cylindrica (FRAUENFELD, 1856), B. dunkeri Arion hortensis FERUSSAC, 1819]. Similarly, we have not distinguished Lymnaea peregra 1. ovata (DRAPARNAUD) whose systematical position remains still open (FALNIOWSKI, 1980, 1981, 1983).

In the present study we have recorded the occurrence of 73 species, out of which there are six new for the area of the Park /Vitrea subrimata. V. contracta, Pupilla triplicata. Vallonia excentrica. Eucobresia nivalis. Bythiospeum neglectissimum). Furthermore, the species B. neglectissimum has not been known so far (FALNIOWSKI & ŠTEFFEK 1989).

We have not sampled some biotopes as, for instance, xeric slopes overgrown with grass and marshes and other very moist terrestrial habitats. It is the reason why we have not recorded

either *Helicella obvia* and *Chondrula tridens*, or *Carychium minimum*, *Oxyloma elegans* and *Succinea putris*, the latter three having recently been recorded by RIEDEL (1988).

The most numerous ecologic group is the one comprising forest and prevailingly forest snalls (ecologic groups 1 and 3 in the sense of LOŽEK 1964). The group consists of 44 species. The second group as to the number of species is that covering 20 indifferent species (ecologic group 7). Tab. 3 presents numbers of species, according to ecologic groups (sensu LOŽEK 1964), recorded by particular authors.

Table 3

Ecologic group	POLIŃSKI	URBAŃSKI et al.	present paper	Σ
1	23	26	25	29
2	10	11	11	11
3	4	3	3	4
4	6	6	5	8
5	5	5	6	7
6	0	1	1	1
7	13	17	14	20
8	2	3	5	5
9	4	2	2	5
10	8	5	2	10
Species	75	79	74	100

The above list proves the character of the studied area to be predominantly forest and indicates that the region has never been completely deforested. This is mainly confirmed by the presence of some species of ecologic group 1., which are sensitive to deforestation (Acicula parcelineata, Bulgarica cana, Discus perspectivus, D. ruderatus, Ruthenica lilograna, Vitrea subrimata).

We do not pretend to claim that the present list of the snall species of the Ojców National Park is complete. A thorough study of the remaining biotopes (meadows, freshwater habitats, xeric slopes, alluvia) may reveal other species that are known to occur in the close vicinity, namely the Kraków-Wieluń Upland (POLIŃSKI 1914, WIKTOR 1973, URBAŃSKI 1977, RIEDEL 1988). These are the species: Vertigo antivertigo (DRAPARNAUD, 1801), V. angustior JEFFREYS, 1830, Deroceras laeve (O.F.MÜLLER, 1774), Clausilia pumita C.P.FEIFFER, 1828, Cecilioides acicula (O.F.MÜLLER, 1774). Perforatella rubiginosa (A.S.CHMIDT, 1853). It is also probable that the West-European species Anon ater (LINNAEUS, 1758) whose distribution range is extending

eastward, occurs in the Ojców National Park area. The latter species, for instance, is numerous in the vicinity of Krynica (ŠTEFFEK unpublished data).

5. Nature conservation aspect: discussion and conclusions

As it has been mentioned above, the studied area comprises the north or, in some cases, the east distribution border of the majority o' mainly Alpine and Carpathian species (c.f. URBAŃSK! 1977). On the other hand, some Carpathian species of the family Clausilidae which have been found in the Pieniny Mountains, Hoty Cross Mountains, and at the Bukowa Mountain (Macrogastra latestriata, M. lumida (ROSSMÄSSLER, 1836), Balea lallax (ROSSMÄSSLER, 1836), Vestia elata (ROSSMÄSSLER, 1836), V. lurgida (ROSSMÄSSLER, 1836) do not occur here. Hence, as concerns the zoogeography of molluscs, the Ojców National Park can be regarded as a unique area, since no parallel to it can be found all over Poland.

Considering the recent data on the distribution pattern of particular snail species on the area of Poland, we put forward the proposal to classify selected species of the Ojców National Park to four groups, using the criteria "endangered" and "rare" (sensu ŠTEFFEK 1987a):

- 1. Critically endangered species very rare everywhere in Poland, single localities in the Park; the species very sensitive to, for instance, deforestation: Helicigona lapicida, Acicula parcelineata, Truncatellina claustralis, Pupilla triplicata, Bulgarica cana, Discus ruderatus, Bulhiospeum neglectissimum.
- 2. Endangered species quite rare all over Poland; a few localities in the area of the Ojców Park; their distribution is getting more and more limited by man: *Pyramidula rupestris, Vitrea subrimata, Helicella obvia, Helix pomatia, Vertigo substriata, Pupilla sterri.*
- 3. Rare species very rarely found in the Park area, the majority of the species have the distribution border here: Vertigo pygmaea, V. alpestris. Chondrina clienta. Vallonia excentrica. Discus perspectivus, Vitrea diaphana, Daudebardia rufa, Lehmannia nyctelia, Bielzia coerulans. Ruthenica liliograna, Clausilia parvula, Laciniaria plicata.
- 4. Extinct species species that probably have already died out in the area of the Park: Cepaea nemoralis (LINNAEUS, 1758). Helix Mescens ROSSMÄSSLER, 1837.

Finally, it must be said that the area of the Ojców National Park fully deserves more protection owing to the occurrence of such malacocenoses that, from the point of view of zoogeography, are very important in the whole Europe. As the so far unique area of the occurrence of the newly described species *Bythiospeum neglectissimum*, it should be regarded as a locality of an international significance (ŠTEFFEK 1987b).

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STRESZCZENIE

Materiały do znajomości malakofauny Ojcowskiego Parku Narodowego

Malakofauna Ojcowskiego Parku Narodowego, choć będaca obiektem badań od ponad stu lat, jest nadal niedostatecznie poznana. Praca omawia mięczaki zebrane na czterech stanowiskach w obrębie Ojcowskiego Parku Narodowego. Stwierdzono 73 gatunki, w tym sześć nowych dla tego terenu. Autorzy zamieszczają ekologiczną klasyfikację stwierdzonych gatunków, a także porównują listę stwierdzonych gatunków z wynikami wcześniejszych badań tego terenu.