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**Skąposzczety niektórych potoków Tatr Wysokich
i Białki Tatrzańskiej**

**Oligochaetes (*Oligochaeta*) of some streams of the
High Tatra Mts and of the River Białka Tatrzańska**

Wpłynęło 10 października 1975 r.

Abstract — In the investigated material 25 species of *Oligochaeta* belonging to 4 families were identified, among them 12 species new for the Tatra Mts. The fauna of oligochaetes from various streams was compared and significant changes were found in the fauna of the Rybi Potok, these being caused by water pollution from the shelter at Morskie Oko.

The fauna of *Oligochaeta* of the Tatra Mts was elaborated on the basis of the materials assembled by Drs M. and A. Kownacki within the framework of investigations carried out by the Laboratory of Water Biology of the Polish Academy of Sciences. The material was collected in the Sucha Woda stream from May 1965 to May 1966, in the Białka and its tributaries — the Rybi Potok and the Roztoka — from June 1962 to May 1963, again in the Rybi Potok in the years 1971—1972 and in the stream coming from the mountain pass Przełęcz pod Chłopkiem in 1969. A short characteristic of the stations at which oligochaetes occurred is given in Table I, elaborated on the basis of Kownacki's data (1968). The stations 7, 18, 20 were situated beyond the territory of the Tatra Mts — in the Tatra Highlands. The material was collected by means of a bottom sampler covered with 0.3 mm mesh bolting cloth and preserved in 4 per cent formalin. Oligochaetes occurred mainly on a sandy substratum in lenitic places and constituted 1 to 18 per cent of the macrofauna (Kownacki 1971).

For the sake of clarity in the numerical denotation of the stations, an additional denotation (RP — the Rybi Potok) were introduced before the number of the station (RP 1 to RP5) for samples collected in the Rybi Potok in the years 1971—1972.

Tabela I. Krótka charakterystyka stanowisk

Table I. Short characteristic of the stations

Fotok Stream	Stan. nr Station No	Wys. npm. Altitude	Spadek Gradient	Temperatura Temperature	ph	Charakter dna Kind of bottom materials
Czarny Potok	2	1620-1550	210	4	6.4-6.6	głazy i kamienie częściowo porośnięte sinicami boulders and stones partly overgrown with blue-green algae
Czarny Potok	2A	1540-1530	80	4 - 7	6.4-6.8	duże kamienie, silnie porośnięte mchem i glonami large stones strongly overgrown with moss and algae
Czarny Potok	3	1460	100	1.5- 8	6.6-7.0	głazy i kamienie porośnięte mchem i glonami, przy brzegu żwirowiska i zastoiska boulders and stones overgrown with algae and moss, at the bank gravel heaps and flooded areas
Sucha Woda	4	1330	66	2 - 7	6.2-7.5	głazy i kamienie, przy brzegu żwirowiska boulders and stones, at the bank gravel heaps
Sucha Woda	5	1180	66.6	0.4- 9	6.6-7.4	głazy i otoczaki, przy brzegu żwirowiska boulders, and rounded rocky debris, at the bank gravel heaps
Sucha Woda	6	880	20	1.5-10	7.4-8.0	otoczaki pokryte glonami, przy brzegach duże zastoiska rounded rocky debris overgrows with algae, at the bank large flooded areas
Cichy Potok	7	775	20	0.3-15	7.0-8.0	granitowe otoczaki i kawałki łupka pokryte orzkiemami granite pebble and pieces of shale overgrown with diatoms
Potok z przełęczy pod Chłopkiem	10	1900	613			rumowisko skalne rocky rubble
Roztoka	11	1500-1400	200			ostrokrawędziste kamienie częściowo porośnięte mchem sharp-edged stones partly overgrown with moss
Roztoka	12	1320-1280	80			głazy i kamienie częściowo porośnięte mchem boulders and stones partly overgrown with moss
Roztoka	13	1040-1020	66			duże otoczaki, przy brzegu piaszczyste zastoiska boulders, at the bank sandy flooded areas
Potok z Czarnego Stawu pod Rysami	14	1580-1393	321			kamienie i lita skała porośnięta mchem stones and rock overgrown with moss
Rybi Potok	15	1180-1140	113			głazy, otoczaki i piaszczyste zastoiska boulders, pebbles and sandy flooded areas
Białka	16	960	20			głazy i otoczaki boulders and pebbles
Białka	17	850-840	8			otoczaki, miejscami progi skalne, przy brzegu zamulone kamienie pebbles, sometimes rocky jumps, at the bank stones covered with mud
Białka	18	780	15			otoczaki, przy brzegu małe zastoiska pebbles, at the bank small flooded areas
Białka	19	625-620	9			otoczaki, przy brzegu pokryte glonami i delikatnym mułkiem pebbles, at the bank covered with algae and soft mud
Białka	20	530	9			otoczaki, przy brzegu zastoiska pebbles, at the bank flooded areas
Rybi Potok	RP1	1390	40	1.2-12.4	6.4-7.0	głazy i kamienie porośnięte glonami boulders and stones overgrown with algae
Rybi Potok	RP2	1380	40	1.2-12.4	6.4-6.9	muł porośnięty warstwą Leptomitus sp. mud overgrown with a layer of Leptomitus sp.
Rybi Potok	RP3	1380	40	1.1-11.9	6.5-7.1	duże kamienie grubo porośnięte mchem i kępami Leptomitus sp. large stones thickly overgrown with moss and tufts of Leptomitus sp.
Rybi Potok	RP4	1370	40	0.8-12.7	6.5-7.1	otoczaki porośnięte mchem pebbles overgrown with moss
Rybi Potok	RP5	1350	40	0.8-12.7	6.4-7.8	głazy i kamienie częściowo porośnięte glonami boulders and stones partly overgrown with algae

Tabela II. Lista gatunków skąposzczetów wykazanych dotychczas z Tatr.
Dane z literatury obejmują prace: Kowalewskiego (1914, 1916),
Černosvitova (1930) i Hraběgo (1939, 1942)

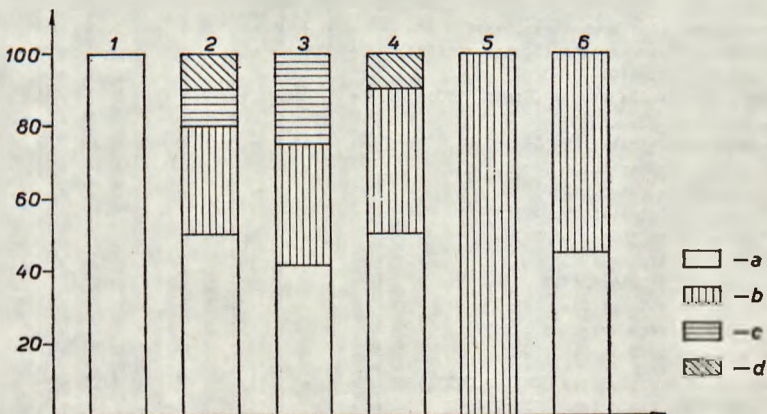
Table II. List of oligochaetes species reported hitherto from the Tatra Mts.
Data from literature comprise papers by: Kowalewski (1914, 1916),
Černosvitov (1930) and Hrabé (1939, 1942)

Gatunek - Species	Potoki - Streams						Dane z literatury	
	Sucha łoża	Bostoka	Rybi Potok 1962-1963	Rybi Potok 1971-1972	Białka	Potok z przeł. pod Chłopkiem	Jezióra lakes	potoki streams
<i>Aeolosoma quaternarium</i> Ehren., 1831							+	
<i>Chaetogaster diastrophus</i> (Gruith., 1828)				+			+	
- <i>diaphanus</i> (Gruith., 1828)				+			+	
- <i>crystallinus</i> Vejd., 1883							+	
<i>Nais elinguis</i> Müller, 1774				+			+	
- <i>bretscheri</i> Mich., 1899	+			+	+			
- <i>communis</i> Piguët, 1906	+	+	+	+	+			
- <i>variabilis</i> Piguët, 1906	+	+	+	+	+		+	+
- <i>pardalis</i> Piguët, 1906	+			+				
- <i>pseudobtusa</i> Piguët, 1906			+	+	+		+	
- <i>simplex</i> Piguët, 1906		+	+					
- <i>alpina</i> Sperber, 1948				+	+			
<i>Aulodrilus plurisetus</i> (Piguët, 1906)							+	
<i>Tubifex tubifex</i> Müller, 1774)							+	+
- <i>ignotus</i> (Stolc, 1886)							+	
- <i>montanus</i> Kowalewski, 1919							+	
<i>Limnodrilus hoffmeisteri</i> Clap., 1862							+	
<i>Peloscoclex ferox</i> (Eisen, 1879)							+	
<i>Propappus volki</i> Michaelsen, 1916	+	+	+		+			
<i>Mesenchytraeus armatus</i> (Levinson, 1884)	+	+	+			+	+	
- <i>gaudens</i> Cognetti, 1903							+	
<i>Cernosvitoviella atrata</i> (Brets., 1903)	+						+	
- <i>tatrensis</i> (Kow., 1916)			+		+		+	
- <i>carpatica</i> (Brets., 1903)	+	+	+				+	
<i>Cognettia aphagnetorum</i> (Vejd., 1877)		+					+	
- <i>glandulosa</i> (Mich., 1888)	+		+				+	
- <i>anomala</i> (Černosvitov, 1928)					+			
<i>Henlea nasuta</i> (Eisen, 1878)		+						
- <i>rosai</i> Bretscher, 1899							+	
- <i>perpusilla</i> Friend, 1911						+		
<i>Bryodrilus ehlersi</i> Ude, 1892							+	
<i>Fridericia perrieri</i> (Vejd., 1877)					+			
- <i>variata</i> Bretscher 1902							+	
<i>Lumbriculus variegatus</i> (Müller, 1774)	+	+					+	+
<i>Stylogrilus heringianus</i> Clap., 1862	+						+	
- <i>brachystylus</i> Hrabé, 1928	+							
<i>Tatriella slovenica</i> Hrabé, 1936							+	
<i>Trichodrilus tatrensis</i> Hrabé, 1937							+	
<i>Haplotaxis gordioides</i> (Hartman, 1821)		+	+				+	+

General remarks

In the examined material, consisting of a total number of 4341 specimens, 25 species of *Oligochaeta* belonging to 4 families were identified: 10 species of the family *Naididae*, 11 of *Enchytraeidae*, 3 of *Lumbriculidae* and 1 of *Haplotaxidae* (Table II). In none of the investigated streams were species of the family *Tubificidae* identified, though they were found to occur in the ponds and streams of the Tatra Mts (Minkiewicz 1914, Hrabec 1942).

In the existing elaborations of the fauna of *Oligochaeta* of the Tatra Mts 27 species were mentioned of which *Henlea rosai* and *Fridericia variata* are at present regarded as dubious species. Kowalewski in his paper (1914) gives 17 species of *Oligochaeta*, Černosvitov (1930) found 15 species in the High Tatra Mts., and Hrabec (1939, 1942) 10 species of which *Nais variabilis*, *Tubifex tubifex*, *Stylodrilus heringianus* and *Haplotaxis gordioides* occurred in streams. In the materials collected by M. and A. Kownacki 12 species new for the Polish Tatra Mts. were identified (Table II), this giving, together with those mentioned in the previous papers, a total number of 39 species of *Oligochaeta* from the lakes and streams of the Tatra Mts.



Ryc. 1. Procentowy udział rodzin skąposzczetów w badanych potokach. 1 — potok z przełęczy pod Chłopkiem; 2 — Roztoka; 3 — Sucha Woda; 4 — Rybi Potok w latach 1962—1963; 5 — Rybi Potok w latach 1971—1972; 6 — Białka; a — *Enchytraeidae*; b — *Naididae*; c — *Lumbriculidae*; d — *Haplotaxidae*

Fig. 1. Percentage share of *Oligochaeta* families in the investigated streams. 1 — the stream from the mountain pass pod Chłopkiem; 2 — the Roztoka; 3 — the Sucha Woda; 4 — the Rybi Potok in the years 1962—1963; 5 — the Rybi Potok in the years 1971—1972; 6 — the Białka; a — *Enchytraeidae*; b — *Naididae*; c — *Lumbriculidae*; d — *Haplotaxidae*

Species from the family *Enchytraeidae* constitute in the streams from 100 per cent (the stream from the mountain pass Pod Chłopkiem) to 44.5 per cent (the Białka Tatrzańska) of the *Oligochaeta* species (fig. 1). In the samples from the Rybi Potok collected in 1971 and 1972 enchytraeids were not encountered, although in 1962 and 1963 their participation in that stream was 50 per cent. This would indicate an increasing effect of sewage from the mountain shelter at Morskie Oko.

Among the 11 species of enchytraeids caught *Mesenchytraeus armatus*, *Cernovitoviella atrata*, *C. carpatica*, *Cognettia sphagnetorum*, and *C. glandulosa* are amphibiotic forms, *Henlea nasuta*, *H. perpusilla*, and *Fridericia perrieri* occur mainly in a land environment and only *Propappus volki*, *Cernovitoviella tatrensis*, and *Cognettia anomala* have been found solely in aquatic environments. A large percentage share of amphibiotic forms in the aquatic fauna is characteristic of montane streams, especially in the zone close to their springs (Kasprzak, Szcześny 1976).

Systematic survey of species

Chaetogaster diastrophus — found only in the Rybi Potok below the outflow of sewage from the shelter at Morskie Oko: at stations RP3 — 27th March 1972 — 6 specimens, and at RP4 — 2nd September 1972 — 2 specimens. Reported by Minkiewicz (1914) from the lakes of the Tatra Mts.

Ch. diaphanus — usually occurs concomitantly with *Ch. diastrophus*. Caught at stations: RP3 — 2nd September 1971 — 15 specimens, RP4 — 2nd September 1971 — 117 specimens, and RP5 — 2nd September 1971 — 20 specimens. Reported by Minkiewicz (1914).

Nais elinguis — 3 specimens caught in the Rybi Potok at stations: RP1 — 1st December 1971 — 1 specimen, and RP4 — 3rd June 1972 — 2 specimens. Reported by Minkiewicz (1914) as very common in the Tatra Mts, but Hraabe (1939) questions the correctness of identification.

N. bretscheri — occurs in small numbers in the lower course of the Cichy Potok: at station 7 — 8th October 1965 — 10 specimens, and in the Białka Tatrzańska at stations 17, 18, 19, and in the Rybi Potok at stations RP3 — 27th March 1972 — 141 specimens, at RP4 — 3rd June 1972 — 3 specimens. A species not previously reported from the Tatra Mts.

N. communis — occurs in all investigated streams from an altitude of 1620 m. In the Czarny Potok at station 2 but not in large numbers. Most numerous in the Rybi Potok at station RP2 — 2nd September 1971 — 111 specimens. A species not previously reported from the Tatra Mts.

N. variabilis — the most common species, constituting 50.6 per cent of all identified individuals. Especially numerous at station 15, where 1652 specimens were caught, and at stations 2 and 14 situated below the outflow of the streams from the ponds. A species frequently reported from the Tatra Mts (Černosvitov 1930, Hrabě 1939).

N. pardalis — occurs in the Rybi Potok at stations RP3 — 27th March 1972 — 39 specimens, and RP4 — 1st September 1971 — 15 specimens and at station 7 in the Cicha Woda stream — 12th August 1965 — 2 specimens. A species not previously reported from the Tatra Mts.

N. pseudobtusa — a species rare in the Aatra Mts, single example being caught in the Rybi Potok at stations RP 1 and RP 3 — 2nd September 1971 — and in the Białka at station 19 — 14th September 1963. Reported by Minkiewicz (1914) from Lake Morskie Oko.

N. simplex — a few individuals were caught in the Roztoka stream at station 11 — 15th May 1963 — 2 specimens, and in the stream flowing out from the Czarny Staw below the Rysy at station 14 — 20th June 1962 — 1 specimen. A species not previously reported from the Tatra Mts.

N. alpina — this mountain species occurred in the Rybi Potok at station RP1 — 2nd September 1971 — 14 specimens and 1st December 1971 — 2 specimens, and at station RP4 — 3rd June 1972 — 7 specimens; it also occurred at the gorge sector of the Białka at station 19 — 14th September 1963 — 7 specimens. A species not hitherto reported from the Tatra Mts.

Propappus volki — in the Czarny Potok at station 2A — 3rd October 1966 — 3 sexually mature individuals were found. It also occurs in the stream flowing out from the Czarny Staw below the Rysy at station 14 — 20th June 1962 — 1 specimen, in the Roztoka stream at station 12 — 15th May 1963 — 1 specimen, and in the lower course of the Sucha Woda at station 6, while in the Białka at stations 16, 17, 18 and 20 it is a dominant. Not previously reported from the Tatra Mts.

Mesenchytraeus armatus — occurs mainly in the upper course of the investigated streams: the stream flowing out from the Czarny Staw below the Rysy station 15 — 13th September 1963 — 205 specimens, at other stations being less numerous, the Czarny Potok: station 2 — 18th August 1965 — 12 specimens. In the stream flowing from the mountain pass Pod Chłopkiem it constitutes 96 per cent of all the oligochaetes. Reported from the ponds of the Tatra Mts (Kowalewski 1914, Černosvitov 1930).

Cernosvitoviella atrata — this species, rare in Poland, occurred in the Sucha Woda stream at station 5 — 13th May 1966 — 2 specimens. Reported from the lakes of the Slovakian Tatra Mts (Černosvitov 1930).

C. tatrensis — found in small numbers in the Rybi Potok at station 15 — 24th October 1963 — 3 specimens, and in the Tatra Highlands in the

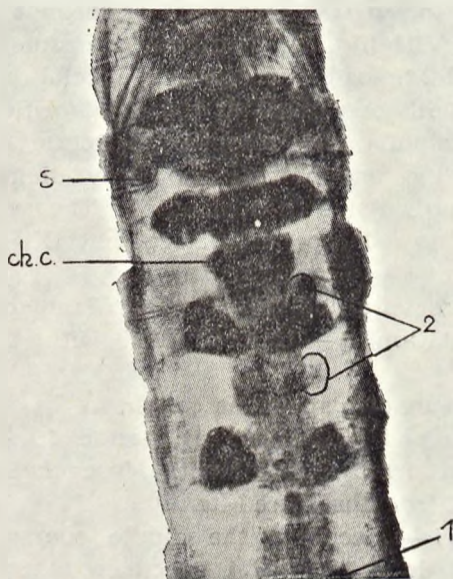
Białka at station 17 — 23rd June 1962 — 2 specimens. According to Kowalewski (1916) the most common species in the lakes of the Tatra Mts.

C. carpatica — occurs in the stream from the Czarny Staw below the Rysy: at station 14 — 20th June 1962 — 2 specimens, in the Roztoka at station 12 — 20th September 1962 — 3 specimens, and in the Sucha Woda at station 5 — 4th March 1965 — 1 specimen. A species new for the Tatra Mts.

Cognettia sphagnetorum — caught only in the Roztoka stream at station 11 — 15th May 1963 — 2 specimens, and station 12 — 21st June 1962 — 1 specimen. Reported by Minkiewicz (1914) and Černosvitov (1930) from lakes.

C. galindulosa — occurs in small numbers in the Czarny Potok at station 2 — 2nd May 1965 — 3 specimens, and in the Rybi Potok at station 15 — 12th July 1963 — 5 specimens, 13th September 1963 — 3 specimens. Reported by Minkiewicz (1914) and Černosvitov (1930) from the lakes of the Tatra Mts.

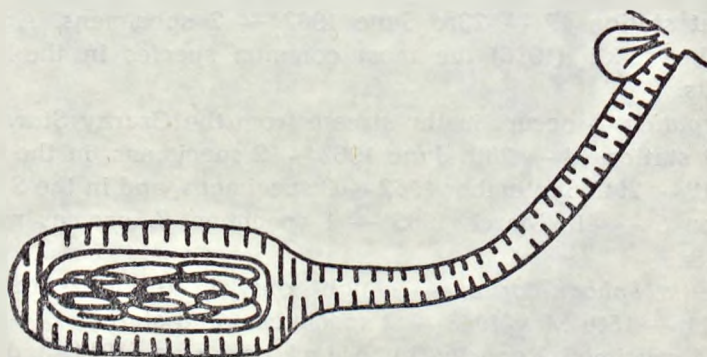
C. anomala — this rare species occurred only in the Tatra Highlands in the Białka Tatrzańska at station — 18 18th May 1963. Described by Černosvitov (1928) from a stream in the Howerla massif in the



Ryc. 2. *Cognettia anomala* (Černosvitov 1928). Gruczoły septalne i zbiorniczki nasienne. 1 — V para pierwszorzędowych gruczołów septalnych; 2 — drugorzędowe gruczoły septalne; s — zbiorniczek nasienny; ch.c. — komórki chloragogenowe.

(Fot. Anna Jordan)

Fig. 2. *Cognettia anomala* (Černosvitov 1928). Septal glands and spermathecae (receptacula seminis). 1 — V pair of primary septal glands; 2 — secondary septal glands; s — spermatheca; ch.c. — chloragogene cells. (Phot. Anna Jordan)



Ryc. 3. *Cognettia anomala* (Černosvitov 1928). Zbiorniczek nasienny (receptaculum seminis)

Fig. 3. *Cognettia anomala* (Černosvitov 1928). Spermatheca (receptaculum seminis)

Eastern Carpathians at an altitude of 1950 m. In the investigated material 4 immature and 1 mature individuals were caught. It is described as follows: setae formula 2.3: 2.3. Five pairs of primary septal glands at dissepiments IV/V to VIII/IX. Two pairs of secondary septal glands in segments VII and VIII (fig. 2). Spermathecae situated in segment V. Ampulla cylindrical 2 times longer than wide, ectal duct 1.5 times longer than the ampulla with one gland at the ectal orifice (fig. 3). Lack of contact between ampulla and oesophagus. Sperm funnels cylindrical, their length equalling one half of the body diameter. Sperm ducts fairly short, opening outside in segment X. The seminal vesicle well developed, occupying a large part of segment IX. A species new for Poland.

Henlea nasuta — several individuals of this land species caught in the Roztoka stream at station 13 — 14th May 1963. Hitherto not reported from the Tatra Mts.

H. perpusilla — 1 mature specimen caught in the stream flowing from the mountain pass pod Chłopkiem at station 10 — 14th September 1969 — where it occurred together with *Mesenchytraeus armatus*. Not previously reported from the Tatra Mts.

Fridericia perrieri — occurs in the middle course of the Białka at station 17 — 23rd June 1962 — 1 specimen. A species not hitherto report from the Tatra Mts.

Lumbriculus variegatus — occurs in small numbers along the whole length of the Roztoka at station 11 — 15th May 1963 — 1 specimen, at station 12 — 16th August 1962 — 1 specimen, at station 13 — 16th August 1962 — 1 specimen, and in the Sucha Woda stream at station 4 — 15th May 1966 — 4 specimens. A species reported repeatedly from the Tatra

Mts (Kowalewski 1914, Černosvitov 1930, Hrabe 1939, 1942).

Stylodrilus heringianus — caught only in the Czarny Potok at station 3 — 21st July 1965 — 4 specimens, 18th August 1965 — 3 specimens, 9th September 1965 — 7 specimens, 15th May 1966 — 3 specimens, this constituting 37 per cent of oligochaetes caught at that station. Reported by Kowalewski (1914) and Hrabe (1939) from ponds and lakes.

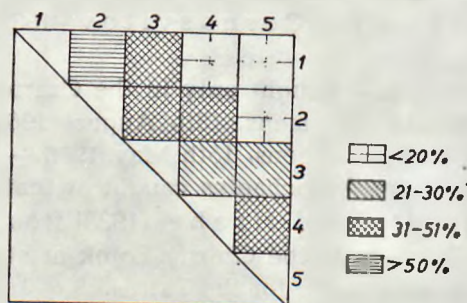
S. brachystylus — occurs in the Czarny Potok at station 3—21st July 1965 — 2 specimens. Species new for the Tatras.

Haplotaxis gordioides — found in the Rybi Potok at station 15—19th September 1962 — 2 specimens, 12th July 1963 — 2 specimens, 13th September 1963 — 1 specimen, and in the Roztoka at station 13—16th August 1962 — 1 specimen. Often reported from the Tatra Mts (Minkiewicz 1914, Černosvitov 1930, Hrabe 1939).

Comparison of the special composition of *Oligochaeta* in the investigated streams of the Tatra Mts

In order to compare the fauna of *Oligochaeta* of the investigated streams the percentage of similarity was calculated according to Jaccard's formula (1902) and the results were graphically presented (fig. 4). For clearer presentation of the changes occurring in the Rybi Potok, which takes in sewage from the shelter at Morskie Oko, the materials from 1962—1963 and 1971—1972 were treated separately.

The most similar character of the fauna was shown by the Rybi Potok in the years 1962—1963 and by the Roztoka. They were distinguished by a great share of amphibiotic species from the family *Enchytraeidae*, a few from the family *Naididae*, and by the occurrence of *Haplotaxis gordioides*. During the years 1963 to 1971 great changes in the fauna of *Oligochaeta* took place in the Rybi Potok: *Enchytraeidae* and *Haplotaxis gordioides* disappeared while new species of *Naididae* (Table II) appeared. The fauna of *Oligochaeta* in the stream evolved as to their special composition, tending to the fauna of submontane and lowland streams. Such a line of changes in the polluted montane streams was found by Kownacki (1973) for the whole aquatic fauna. It seems most likely that already in the years 1962—1963 the fauna of the Rybi Potok was slightly changed under the influence of the sewage, this being indicated by its similarity with the River Białka. The fauna of the Rybi Potok from the years 1962—1963 can be treated as evidence of a transitory stage between a clean montane stream and a submontane river. In the years 1971—1972 mainly species of the family *Naididae* (Table II) occurred in



Ryc. 4. Procent podobieństwa składu gatunkowego skąposzczetów w badanych potokach. 1 — Rostoka; 2 — Rybi Potok w latach 1962—1963; 3 — Sucha Woda; 4 — Białka; 5 — Rybi Potok w latach 1971—1972

Fig. 4 — Similarity percentage of the special composition of *Oligochaeta* in the investigated streams. 1 — the Rostoka; 2 — the Rybi Potok in the years 1962—1963; 3 — the Sucha Woda; 4 — the Białka; 5 — the Rybi Potok in the years 1971—1972

the Białka and in the Rybi Potok, among *Enchytraeidae* the most common being *Propappus volki* (77 per cent of the total number of specimens caught in the Białka). As a whole the fauna of *Oligochaeta* of the Sucha Woda stream has a similar character to that of the Rybi Potok from the years 1962—1963 and of the stream Rostoka. It differs from it only in a greater share of species of the family *Lumbriculidae* and the occurrence of some other species of the family *Naididae* (Table II).

STRESZCZENIE

W materiałach zbieranych w następujących potokach Tatr Wysokich: Rybi Potok, Rostoka, Białka, Sucha Woda, potok z przełęczy pod Chłopkiem, oznaczono 25 gatunków skąposzczetów, w tym 12 gatunków nowych dla fauny Tatr.

Z rodziny *Naididae* znaleziono 10 gatunków, z których najpospolitszym był *Nais variabilis*, stanowiący połowę wszystkich oznaczonych osobników i występujący we wszystkich potokach. Pospolite były też *Nais bretscheri* i *N. communis* oznaczone z trzech potoków. Gatunki: *Chaetogaster diastrophus*, *Ch. diaphanus* i *Nais elinguis* znaleziono tylko w Rybim Potoku, *N. alpina* i *N. pseudobtusa* występowały w Rybim Potoku i w Białce, a *N. pardalis* w Rybim Potoku i w Cichej Wodzie. *N. simplex* znaleziono w Roztoce i w potoku z Czarnego Stawu pod Rysami.

Z rodziny *Enchytraeidae* oznaczono 11 gatunków, w tym 3 wodne, 5 amfibiicznych i 3 lądowe. Gatunki: *Cernosvitoviella atrata*, *Cognettia sphagnetorum*, *C. anomala*, *Henlea nasuta*, *H. perpusilla* i *Fridericia perrieri* występowały bardzo nielicznie i tylko w jednym potoku, *Cernosvitoviella tatrensis* i *Cognettia glandulosa* znaleziono w dwu potokach, a *Cernosvitoviella carpatica* występowała bardzo nielicznie w trzech potokach. Najpospolitszymi gatunkami wazonkowców były *Propappus volki* i *Mesenchytraeus armatus*, które znaleziono w 4 potokach.

Gatunki z rodziny *Lumbriculidae*: *Lumbriculus variegatus*, *Stylodrilus heringianus* i *S. brachystylus* występowały głównie w potoku Sucha Woda, tylko *L. variegatus* znaleziono także w Roztoce.

Haplotaxis gordioides znaleziono tylko w Rybim Potoku i w Roztoce, gdzie występował bardzo nielicznie.

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