

SUPPLEMENTARY MATERIAL 1 TO:

Alexandrowicz, W. P., 2024. Record of environmental changes during the Holocene in the light of malacological studies of river sediments in the Łapszanka Stream valley (Spisz area, Carpathians, Southern Poland). *Annales Societatis Geologorum Poloniae*, 94: 187–204.

DETAIL FAUNAL COMPOSITION OF PROFILE LP-I

F_F – forest species, F_B – shadow-loving species of rare forests and shrub zones, F_H – shadow-loving, moist forest species, O_O – open-country species, M_I – mesophilous species of medium humid habitats, M_H – mesophilous species of humid habitats, H – hygrophilous species, W – aquatic species. For sample location see Figure 3; E – ecological group of molluscs after: Ložek (1964), Alexandrowicz and Alexandrowicz (2011) and Juříčková *et al.* (2014a).

E	Taxon	Profile Lp-I (samples)											
		1	2	3	4	5	6	7	8	9	10	11	12
F _F	<i>Platyla polita</i> (Hartm.)	6	7	1	1	3		1	5	8	9	6	2
	<i>Ena montana</i> (Drap.)	2	1	6	2	7	3	3	6	4	7	6	4
	<i>Cochlodina laminata</i> (Mont.)	1	1										
	<i>Ruthenica filograna</i> (Rossm.)		1			2		1					
	<i>Discus ruderatus</i> (Hartm.)	11	7		5	9	7	7	4	14	11	14	10
	<i>Vitrea diaphana</i> (Stud.)		3	1	3	5	2	4	6	5	8	7	9
	<i>Mediterranea depressa</i> (Sterki)				1	1			1		4		8
	<i>Aegopinella pura</i> (Ald.)	5	5	2	5	12		14	8	17	12	6	12
	<i>Eucobresia nivalis</i> (Dum et Mort)		1							1		1	
	<i>Semilimax semilimax</i> (Fér.)											4	1
	<i>Monachoides incarnatus</i> (Müll.)		7	3	12	11	14	11	7	12	16	16	20
	<i>Petasina unidentata</i> (Drap.)	2	4	2	4	6	8	9	2	8	9	3	1
	<i>Faustina faustina</i> (Rossm.)	5	2	1		2		1	3	3	6	6	5
	<i>Isognomostoma isognomostomos</i> (Schröt.)	8	3	2	2	3	4	5	3	4	7	6	7
F _B	<i>Aegopinella minor</i> (Stab.)		1	1				1	2	4	3	1	
	<i>Fruticicola fruticum</i> (Müll.)	14	8	6	8	8	3	5	10	14	15	6	4
F _H	<i>Macrogastra ventricosa</i> (Drap.)		1	4	5	2	7	3	3	5	1	3	1
	<i>Vestia gulo</i> (Bielz)			1	2	1	3	1	2	3	1	5	5
	<i>Vitrea crystallina</i> (Müll.)	48	26	26	29	30	34	21	31	59	41	34	35
	<i>Monachoides vicinus</i> (Rossm.)	21	21	15	19	14	23	19	14	31	26	29	27
	<i>Urticicola umbrosus</i> (C.Pfe.)	12	1		9	2	14	13	12	17	19	14	15
O _O	<i>Vallonia costata</i> (Müll.)	2								10	8	10	13
	<i>Vallonia pulchella</i> (Müll.)	1		1	1		1	2	3	12	16	14	21
M _I	<i>Cochlicopa lubrica</i> (Müll.)	7	5	6	3	1	4	5	5	12	6	7	4
	<i>Punctum pygmaeum</i> (Drap.)		1	1	2			2	1	2		5	4
	<i>Euconulus fulvus</i> (Müll.)				1	2		1	1	1		3	6
	<i>Perpolita hammonis</i> (Ström)	5		3	3	1		5	2	4	1	2	4
	<i>Vitrina pellucida</i> (Müll.)				2	1		1	1	1		1	5

E	Taxon	Profile Lp-I (samples)											
		1	2	3	4	5	6	7	8	9	10	11	12
M_H	<i>Carychium tridentatum</i> (Risso)	11	9	3	4	5	2	8	2	14	12	8	12
	<i>Succinella oblonga</i> (Drap.)			1	5	4	2	1	5	14	10	8	9
	<i>Columella edentula</i> (Drap.)	14	8	10	7	9	4	5	12	11	7	15	17
	<i>Perpolita petronella</i> (L.Pfc.)									5	3	2	6
	<i>Perforatella bidentata</i> (Gmel.)	19	24	19	29	21	24	22	36	26	24	29	39
	<i>Arianta arbustorum</i> (L.)	17	12	15	17	18	12	16	21	29	26	21	17
H	<i>Carychium minimum</i> Müll.	17	7	12	10	11	8	9	11	29	19	17	10
	<i>Succinea putris</i> (L.)	10											
	<i>Zonitoides nitidus</i> (Müll.)	7	5	7	7	5	8	4	5	14	11	10	4
W	<i>Galba truncatula</i> (Müll.)	7	4		3	4	3	1	3	4	1	6	1
	<i>Pisidium personatum</i> Malm	1								2			
Total species		26	27	25	30	30	23	31	31	35	30	35	34
Total individuals		254	175	149	203	202	192	201	227	404	339	329	346
	Plates of slugs	1			2	2	2			5		4	8
Indeterminate shell fragments													
	Vertiginidae	1			1			2				1	
	Clausiliidae	4	7	2	5	1		2		1	4	3	2
	Zonitidae	1	3	1	2	3	4	1	1	4	1	6	2
	Helicidae	8	5	2	1	2	4	5	2	2	6	3	2
	Other fragments	20	15	16	13	10	9	20	16	12	10	14	18
Total indeterminate shell fragments		34	30	21	22	16	17	30	19	19	21	27	24