

## Supplementary material 1

**Table 1.** Number, frequency of occurrence (O, %) and dominance index (D, %) of water mites in water bodies of the Visimsky Nature Reserve and its surroundings

Species	Number of specimens	Sulyom and Chusovaya Rivers		Tributaries of the Sulyom River		Helocrene	Small artificial ponds and ditches		Sulyomsky reservoir	Sphagnum bogs	Temporary ponds
		O	D	O	D	D	O	D	D	D	D
<b>Hydrachnidia</b>											
<b>Family Eylaidae</b>											
<i>Eylais extendens</i> (Müller, 1776)	4	–	–	–	–	–	17	1.1	2.4	–	–
<b>Family Limnocharidae</b>											
<i>Limnochara aquatica</i> (Linnaeus, 1758)	19	–	–	–	–	–	17	10.5	–	–	–
<b>Family Hydrachnidae</b>											
<i>Hydrachna cruenta</i> Müller, 1776	1	–	–	–	–	–	–	–	1.2	–	–
<i>Hydrachna incognita</i> (Wainstein, 1976)	13	–	–	–	–	–	17	0.6	–	–	21.0
<b>Family Hydrodromidae</b>											
<i>Hydrodroma despiciens</i> (Müller, 1776)	6	–	–	10	0.6	–	–	–	–	–	–
<i>Hydrodroma pilosa</i> Besseling, 1940	6	–	–	–	–	–	–	–	7.1	–	–
<i>Hydrodroma reinhardi</i> Pešić, 2002	7	11	0.5	–	–	–	–	–	–	–	–
<i>Hydrodroma torrenticola</i> (Walter, 1908)	17	11	1.2	10	0.2	–	–	–	–	–	–
<b>Family Hydryphantidae</b>											
<i>Hydryphantes hellichi</i> Thon, 1899	1	–	–	–	–	–	–	–	–	–	1.8
<i>Paniscus michaeli</i> Koenike, 1896	26	–	–	–	–	72.2	–	–	–	–	–
<i>Parathyas barbiger</i> a (Viets, 1908)	4	–	–	–	–	–	–	–	–	–	7.0
<i>Parathyas diremptellus</i> (Tuzovskij, 1990)	39	–	–	–	–	–	–	–	–	–	68.4
<i>Parathyas inepta</i> (Lundblad, 1925)	11	–	–	–	–	–	–	–	–	10.4	–
<i>Protzia uralensis</i> Tuzovskij, 2021	4	22	0.2	10	0.2	–	–	–	–	–	–
<b>Family Lebertiidae</b>											
<i>Lebertia (Lebertia) glabra</i> Thor, 1897	1	11	0.1	–	–	–	–	–	–	–	–
<i>Lebertia (Lebertia) fimbriata</i> Thor, 1899	375	67	18.5	90	26.7	–	–	–	–	–	–
<i>Lebertia (Mixolebertia) dubia</i> (Thor, 1899)	11	–	–	20	2.2	–	–	–	–	–	–
<i>Lebertia (Pilolebertia) inaequalis</i> (Koch, 1837)	12	56	0.6	10	0.8	–	–	–	–	–	–
<i>Lebertia (Pilolebertia) insignis</i> Neuman, 1880	6	33	0.4	–	–	–	–	–	–	–	–
<i>Lebertia (Pilolebertia) porosa</i> Thor, 1900	75	56	3.0	60	7.4	–	–	–	–	–	–
<b>Family Limnesiidae</b>											
<i>Limnesia (Limnesia) curvipalpis</i> Tuzovskij, 1997	11	–	–	–	–	–	17	6.1	–	–	–

<i>Limnesia (Limnesia) koenikei</i> Piersig, 1894	2	–	–	–	–	–	33	1.1	–	–	–
<i>Limnesia (Limnesia) maculata</i> (Müller, 1776)	32	–	–	–	–	–	–	–	38.1	–	–
<i>Limnesia (Limnesia) undulata</i> (Müller, 1776)	5	–	–	–	–	–	–	–	5.9	–	–
<b>Family Sperchontidae</b>											
<i>Sperchon (Sperchon) squamosus</i> Kramer, 1879	4	–	–	–	–	11.1	–	–	–	–	–
<i>Sperchon (Hyspidosperchon) clupeifer</i> Piersig, 1896	117	78	8.7	30	0.8	–	–	–	–	–	–
<i>Sperchon (Hyspidosperchon) hispidus</i> Koenike, 1895	3	11	0.2	–	–	–	–	–	–	–	–
<i>Sperchon (Palpisperchon) distans</i> (Scheffler, 1972)	1	–	–	10	0.2	–	–	–	–	–	–
<i>Sperchonopsis (Sperchonopsis) verrucosa</i> (Protz, 1896)	249	100	15.1	80	10.4	–	–	–	–	–	–
<i>Sperchonopsis (Sperchonopsella) minutiporus</i> Tuzovskij, 1990	1	11	0.1	–	–	–	–	–	–	–	–
<b>Family Torrenticolidae</b>											
<i>Torrenticola (Torrenticola) amplexa</i> (Koenike, 1908)	49	67	3.8	–	–	–	–	–	–	–	–
<i>Torrenticola (Torrenticola) brevirostris</i> (Halbert, 1911)	38	44	3.0	–	–	–	–	–	–	–	–
<b>Family Aturidae</b>											
<i>Aturus natangensis</i> Protz, 1900	15	56	1.2	–	–	–	–	–	–	–	–
<i>Aturus scaber</i> Kramer, 1875	3	22	0.2	–	–	–	–	–	–	–	–
<i>Ljanina bipapillata</i> Thor, 1898	25	44	1.4	40	1.4	–	–	–	–	–	–
<i>Ocybrachypoda celeripes</i> (Viets, 1910)	43	22	3.0	10	0.6	–	–	–	–	–	–
<b>Family Feltriidae</b>											
<i>Feltria (Feltria) minuta</i> Koenike, 1892	47	22	0.2	40	8.8	–	–	–	–	–	–
<b>Family Hygrobatidae</b>											
<i>Atractides (Atractides) nodipalpis</i> (Thor, 1899)	71	56	4.0	50	3.7	–	–	–	–	–	–
<i>Atractides (Atractides) robustus</i> (Sokolow, 1940)	7	11	0.5	–	–	–	–	–	–	–	–
<i>Atractides (Atractides) teneroides</i> Tuzovskij, 2023	20	33	1.0	30	1.4	–	–	–	–	–	–
<i>Atractides (Tympanomegapus) pavesii</i> Maglio, 1905	7	22	0.5	–	–	–	–	–	–	–	–
<i>Hygrobates (Hygrobates) calliger</i> Piersig, 1896	317	56	24.1	10	0.4	–	–	–	–	–	–
<i>Hygrobates (Hygrobates) fluviatilis</i> (Ström, 1768)	32	44	2.3	10	0.4	–	–	–	–	–	–
<i>Hygrobates (Hygrobates) foreli</i> (Lebert, 1874)	137	33	5.4	60	13.4	–	–	–	–	–	–
<i>Hygrobates (Rivobates) norvegicus</i> (Thor, 1897)	6	–	–	–	–	16.7	–	–	–	–	–
<i>Hygrobates</i> nymph	90	–	–	10	18.0	–	–	–	–	–	–
<i>Mesobates forcipatus</i> Thor, 1901	2	–	–	20	0.4	–	–	–	–	–	–
<i>Mixobates processifer</i> (Thor, 1905)	4	–	–	20	0.8	–	–	–	–	–	–
<b>Family Pionidae</b>											
<i>Hydrochoreutes krameri</i> Piersig, 1896	1	–	–	–	–	–	17	0.6	–	–	–
<i>Nautarachna crassa</i> (Koenike, 1908)	2	11	0.1	10	0.2	–	–	–	–	–	–
<i>Piona alpicola</i> (Neuman, 1880)	41	–	–	–	–	–	50	22.8	–	–	–

<i>Piona coccinea</i> (Koch, 1836)	8	–	–	–	–	–	–	–	9.5		
<i>Piona conglobata</i> (Koch, 1836)	7	–	–	–	–	–	–	–	8.3		
<i>Piona longipalpis</i> (Krendowskij, 1878)	4	–	–	–	–	–	–	–	4.8		
<i>Piona variabilis</i> (Koch, 1836)	3	–	–	–	–	–	–	–	3.6		
<i>Pionides ensifer</i> (Koenike, 1895)	1	–	–	–	–	–	–	–	–	–	1.8
<b>Family Unionicolidae</b>											
<i>Neumania (Neumania) limosa</i> (Koch, 1836)	23	–	–	–	–	–	50	12.8	–	–	–
<i>Neumania (Neumania) vernalis</i> (Müller, 1776)	1	–	–	–	–	–	–	–	1.2	–	–
<i>Unionicola crassipes</i> (Müller, 1776)	1	–	–	–	–	–	–	–	1.2	–	–
<b>Family Arrenuridae</b>											
<i>Arrenurus (Arrenurus) neumani</i> Piersig, 1895	11	–	–	–	–	–	33	1.1	10.7	–	–
<i>Arrenurus (Arrenurus) pustulator</i> (Müller, 1776)	4	–	–	–	–	–	–	–	4.8	–	–
<i>Arrenurus (Megaluracarus) buccinator</i> (Müller, 1776)	2	–	–	–	–	–	17	1.1	–	–	–
<i>Arrenurus (Micruracarus) forpicatus</i> Neuman, 1880	72	–	–	–	–	–	17	40.0	–	–	–
<i>Arrenurus</i> females and nymph	3	–	–	–	–	–	17	0.6	1.2	0.9	–
<b>Family Mideopsidae</b>											
<i>Mideopsis (Mideopsis) crassipes</i> Soar, 1904	10	44	0.4	20	1.0	–	–	–	–	–	–
<i>Mideopsis (Mideopsis) roztozcensis</i> Biesiadka et Kowalik, 1979	1	11	0.1	–	–	–	–	–	–	–	–
<b>Halacaroidea</b>											
<b>Family Halacaridae</b>											
<i>Lobohalacarus weberi</i> (Romijn & Viets, 1924)	2	–	–	–	–	–	–	–	–	1.9	–
<i>Porohalacarus alpinus</i> (Thor, 1910)	1	11	0.1	–	–	–	–	–	–	–	–
<i>Parasoldanellonyx parviscutatus</i> (Walter, 1917)	36	–	–	–	–	–	–	–	–	34.0	–
<i>Soldanellonyx chappuisi</i> Walter, 1917	3	11	0.1	–	–	–	–	–	–	1.9	–
<i>Soldanellonyx monardi</i> Walter, 1919	14	–	–	–	–	–	–	–	–	13.2	–
<i>Porolohmanella violacea</i> (Kramer, 1879)	40	–	–	–	–	–	–	–	–	37.7	–
<b>Total number</b>	2267	1305		499		36	180		84	106	57