




SUPPLEMENTARY MATERIAL

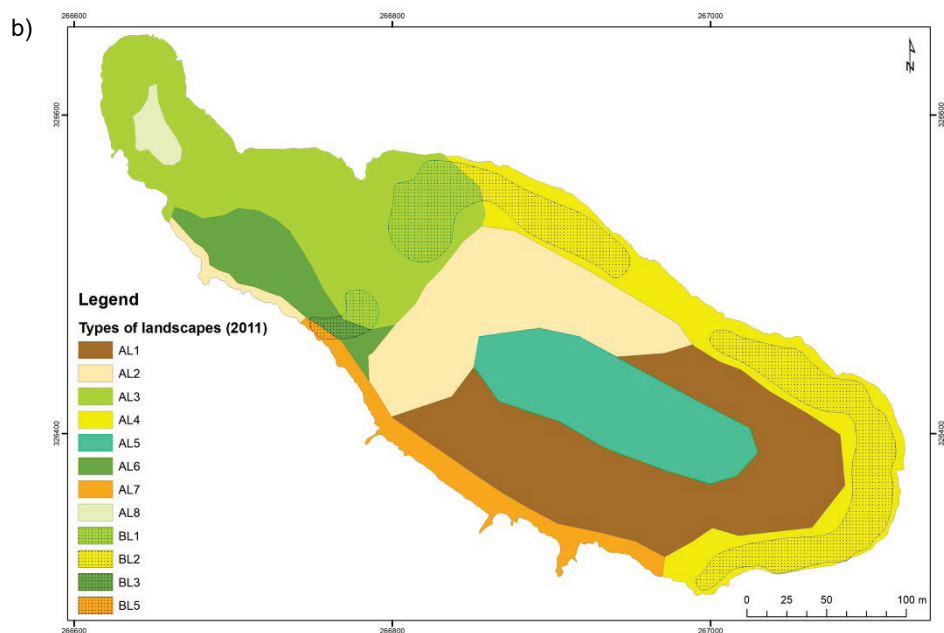
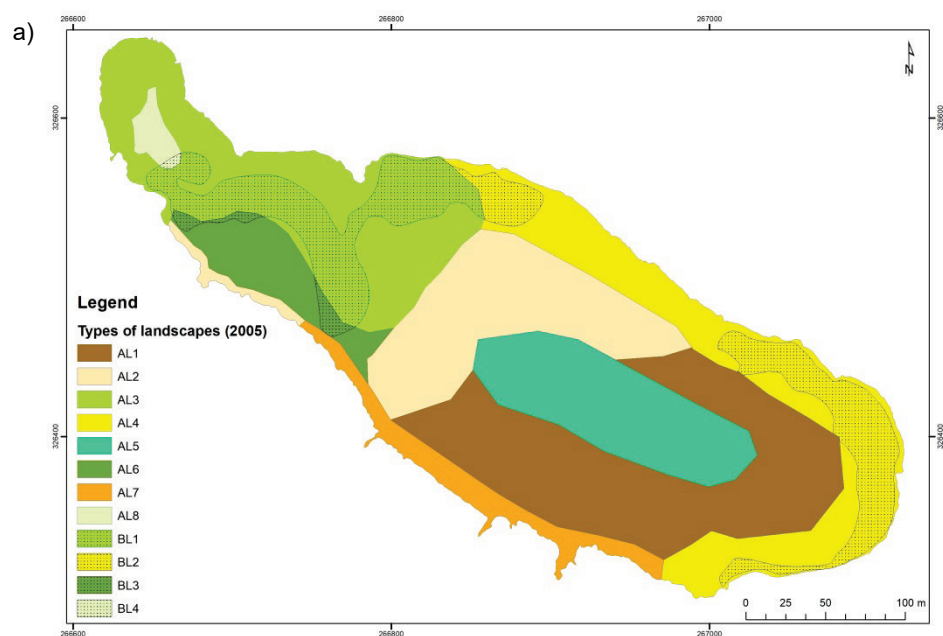
Underwater landscapes of Lake Wielki Staw in the Karkonosze Mountains – the only high-mountain lobelia lake in Poland

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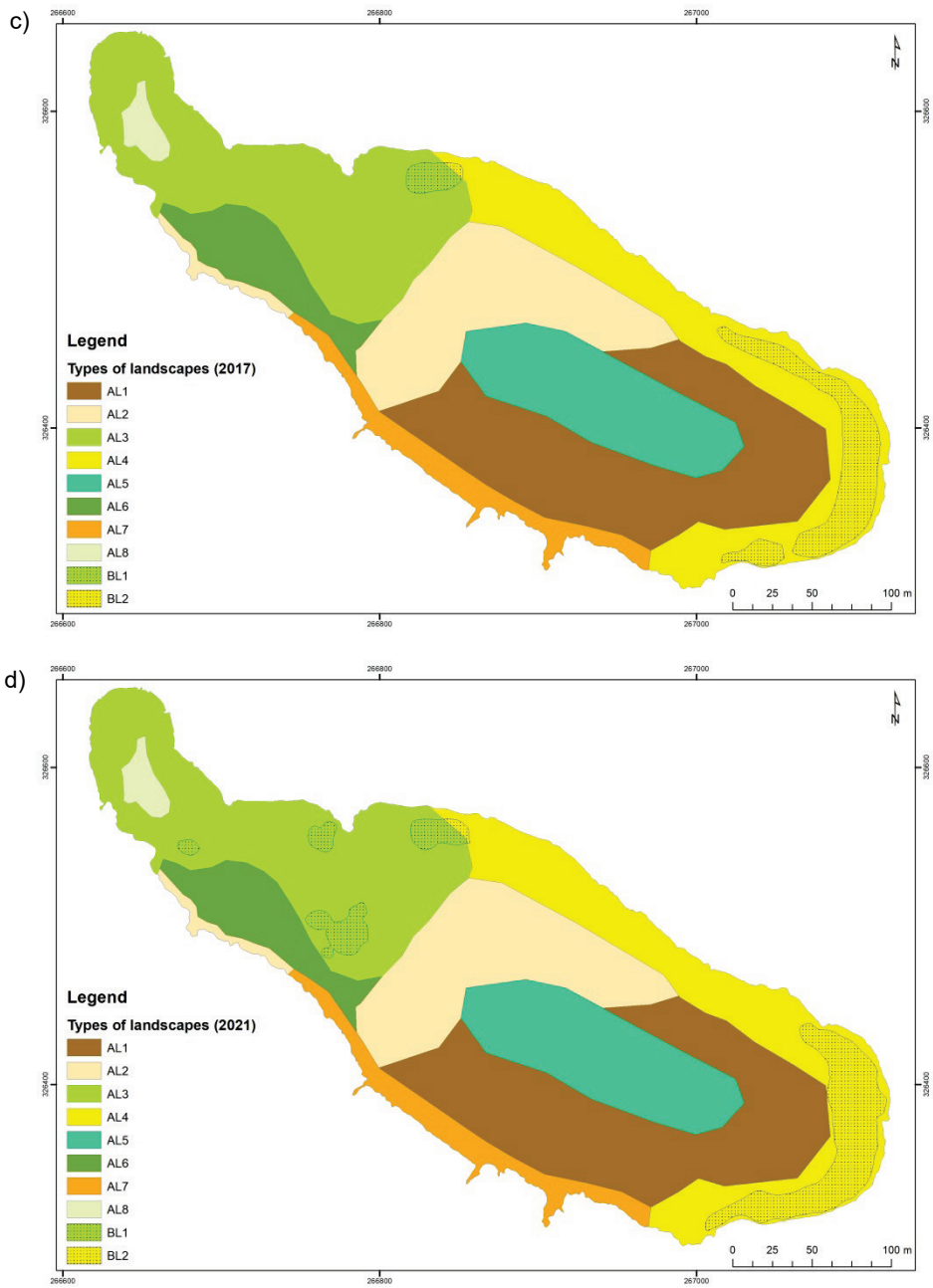


Fig. S1. Distribution of specific types of underwater landscapes in Lake Wielki Staw in the year: a) 2005, b) 2011, c) 2017, d) 2021; source: own study

Table S1. Changes of landscape types in all analysed periods

Landscape group	Landscape type	Lake area occupied by a particular landscape type in a given year (%)				Deviation of the area of a given landscape type from the reference criterion in the period selected		
		2005	2011	2017	2021	2005–2011	2011–2017	2017–2021
Landscapes with inanimate elements (AL)	steeply sloping bottom with the presence of boulders and stones (AL1)	21.73	21.73	21.73	21.73	0.00	0.00	0.00
	sloping bottom with the presence of boulders, stones, branches and twigs of <i>P. mugo</i> growing on the banks of the lake (AL2)	14.66	14.66	14.66	14.66	0.00	0.00	0.00
	flat, sandy bottom, with the presence of boulders, stones, branches and twigs of <i>P. mugo</i> growing on the banks of the lake (AL3)	13.09	18.06	21.07	19.76	4.97	3.01	–1.31
	gently sloping bottom with the presence of boulders, stones, branches and twigs of <i>P. mugo</i> growing on the banks of the lake (AL4)	12.17	8.90	14.66	14.01	–3.27	5.76	–0.65
	flat, sandy bottom with the presence of stones and boulders (AL5)	11.39	11.39	11.39	11.39	0.00	0.00	0.00
	flat, sandy bottom with the presence of stones (AL6)	4.58	4.97	5.37	5.37	0.39	0.40	0.00
	steeply sloping bottom with the presence of walls, boulders and stones (AL7)	4.32	4.19	4.32	4.32	–0.13	0.13	0.00
	flat, sandy bottom (AL8)	1.05	1.18	1.18	1.18	0.13	0.00	0.00
Landscapes with animate elements (BL)	flat, sandy bottom, with the presence of boulders, stones, branches and twigs of <i>P. mugo</i> growing on the banks of the lake and <i>I. lacustris</i> communities (BL1)	8.64	3.66	0.65	1.96	–4.98	–3.01	1.31
	gently sloping bottom with the presence of boulders, stones, branches and twigs of <i>P. mugo</i> growing on the banks of the lake and <i>I. lacustris</i> communities (BL2)	7.46	10.73	4.97	5.63	3.27	–5.76	0.66
	flat, sandy bottom with the presence of stones and <i>I. lacustris</i> communities (BL3)	0.79	0.39	0.00	0.00	–0.40	–0.39	0.00
	flat, sandy bottom and <i>I. lacustris</i> communities (BL4)	0.13	0.00	0.00	0.00	–0.13	0.00	0.00
	steeply sloping bottom with the presence of walls, boulders, stones and <i>I. lacustris</i> communities (BL5)	0.00	0.13	0.00	0.00	0.13	–0.13	0.00
Landscape Change Index (LCI)						17.80	18.59	3.93

Source: own study.