

## SUPPLEMENTARY MATERIAL

### Artificial water reservoirs as nature conservation areas in Poland

Leszek Opyrchał<sup>1)</sup>  , Aleksandra Bąk<sup>1)</sup>  , Jerzy Romanowski<sup>2)</sup>  

<sup>1)</sup> Military University of Technology, Faculty of Civil Engineering and Geodesy, Gen. Sylwestra Kaliskiego St, 2, 00-908 Warsaw, Poland

<sup>2)</sup> Cardinal Stefan Wyszyński University, Faculty of Biology and Environmental Sciences, Wóycickiego St, 1/3, 01-938 Warsaw, Poland

\* Corresponding author

**Table S1.** The bird species listed in Appendixes I and II of Bird Directive and reported in four Natura 2000 Bird areas created near selected dams

No	Species	Turawa Dam	Goczałkowice Dam	Mietków Dam	Jeziorsko Dam
1	<i>Actitis hypoleucos</i>	X			
2	<i>Alcedo atthis</i>	X	X		X
3	<i>Anas clypeata</i>	X	X	X	X
4	<i>Anas crecca</i>	X	X		X
5	<i>Anas penelope</i>	X			X
6	<i>Anas platyrhynchos</i>	X	X	X	X
7	<i>Anas querquedula</i>	X	X		X
8	<i>Anas strepera</i>		X		X
9	<i>Anser albifrons</i>			X	X
10	<i>Anser anser</i>		X		X
11	<i>Anser fabalis</i>	X		X	X
12	<i>Anthus campestris</i>				X
13	<i>Ardea cinerea</i>				X
14	<i>Ardea purpurea</i>	X	X		
15	<i>Aythya ferina</i>	X	X		X
16	<i>Aythya fuligula</i>		X		X
17	<i>Aythya nyroca</i>	X			
18	<i>Botaurus stellaris</i>	X	X		X
19	<i>Branta leucopsis</i>	X			
20	<i>Branta ruficollis</i>	X			
21	<i>Calidris alpina</i>	X		X	X
22	<i>Calidris ferruginea</i>	X		X	
23	<i>Calidris minuta</i>	X		X	
24	<i>Caprimulgus europaeus</i>				X
25	<i>Charadrius dubius</i>		X	X	
26	<i>Chlidonias hybridus</i>	X	X		X

No	Species	Turawa Dam	Goczałkowice Dam	Mietków Dam	Jeziorsko Dam
27	<i>Chlidonias leucopterus</i>	X			
28	<i>Chlidonias niger</i>	X	X	X	X
29	<i>Ciconia ciconia</i>		X		X
30	<i>Ciconia nigra</i>	X			X
31	<i>Circus aeruginosus</i>	X	X		X
32	<i>Circus cyaneus</i>	X			
33	<i>Circus pygargus</i>	X			X
34	<i>Crex crex</i>	X	X		X
35	<i>Cygnus columbianus bewickii</i>	X			X
36	<i>Cygnus cygnus</i>	X	X		X
37	<i>Cygnus olor</i>		X		
38	<i>Dendrocopos medius</i>		X		
39	<i>Dryocopus martius</i>		X		X
40	<i>Egretta alba</i>	X	X		X
41	<i>Egretta garzetta</i>	X	X		
42	<i>Emberiza hortulana</i>	X	X		X
43	<i>Falco columbarius</i>	X			
44	<i>Falco peregrinus</i>	X			
45	<i>Ficedula albicollis</i>		X		
46	<i>Fulica atra</i>		X		X
47	<i>Gallinago gallinago</i>	X	X	X	X
48	<i>Gallinago media</i>	X			
49	<i>Gallinula chloropus</i>		X		
50	<i>Gavia arctica</i>	X			X
51	<i>Gavia stellata</i>	X			X
52	<i>Grus grus</i>	X	X		X
53	<i>Haematopus ostralegus</i>	X			
54	<i>Haliaeetus albicilla</i>	X	X		X
55	<i>Ixobrychus minutus</i>	X	X		X
56	<i>Lanius collurio</i>	X	X		X
57	<i>Lanius minor</i>		X		
58	<i>Larus cachinnans</i>			X	
59	<i>Larus canus</i>	X		X	
60	<i>Larus melanocephalus</i>	X	X	X	
61	<i>Larus minutus</i>	X			X
62	<i>Larus ridibundus</i>		X	X	
63	<i>Limosa lapponica</i>	X			
64	<i>Limosa limosa</i>	X			X
65	<i>Lullula arborea</i>				X
66	<i>Luscinia svecica</i>	X	X		

No	Species	Turawa Dam	Goczałkowice Dam	Mietków Dam	Jeziorsko Dam
67	<i>Mergus albellus</i>	X			X
68	<i>Milvus migrans</i>	X			
69	<i>Milvus milvus</i>	X			
70	<i>Netta rufina</i>		X		
71	<i>Numenius arquata</i>			X	X
72	<i>Nycticorax nycticorax</i>	X	X		
73	<i>Pandion haliaetus</i>	X			
74	<i>Pernis apivorus</i>	X	X	X	
75	<i>Phalacrocorax carbo</i>		X		X
76	<i>Phalaropus lobatus</i>	X			
77	<i>Philomachus pugnax</i>	X		X	
78	<i>Picus canus</i>	X	X		
79	<i>Platalea leucorodia</i>	X			
80	<i>Pluvialis apricaria</i>	X			X
81	<i>Pluvialis squatarola</i>			X	
82	<i>Podiceps auritus</i>	X			
83	<i>Podiceps cristatus</i>		X		X
84	<i>Podiceps grisegena</i>	X	X	X	X
85	<i>Podiceps nigricollis</i>	X	X		
86	<i>Porzana parva</i>	X	X		X
87	<i>Porzana porzana</i>	X	X		X
88	<i>Rallus aquaticus</i>		X		
89	<i>Recurvirostra avosetta</i>	X	X		
90	<i>Remiz pendulinus</i>				X
91	<i>Riparia riparia</i>				X
92	<i>Sterna albifrons</i>			X	
93	<i>Sterna caspia</i>	X			
94	<i>Sterna hirundo</i>	X	X	X	X
95	<i>Sylvia nisoria</i>		X		X
96	<i>Tachybaptus ruficollis</i>		X		X
97	<i>Tadorna tadorna</i>			X	X
98	<i>Tringa erythropus</i>			X	X
99	<i>Tringa glareola</i>	X		X	X
100	<i>Tringa nebularia</i>	X			X
101	<i>Tringa totanus</i>	X	X		X
102	<i>Xenus cinereus</i>	X			
103	<i>Vanellus vanellus</i>				X
	<b>Total</b>	<b>70</b>	<b>52</b>	<b>24</b>	<b>58</b>

Source: own elaboration based on Directive (2009).

**Table S2.** The priority species listed in Appendixes I and II of Habitat Directive and reported in four Natura 2000 Habitat areas created near selected dams

No	Species	Dychów Dam	Goczałkowice Dam	Myczkowce Dam	Orava Dam
	<b>Invertebrates</b>				
1	<i>Cerambyx cerdo</i>	x			
2	<i>Lucanus cervus</i>	x			
3	<i>Lycaena dispar</i>			x	
4	<i>Ophiogomphus cecilia</i>	x			
5	<i>Unio crassus</i>			x	
	<b>Fish</b>				
6	<i>Aspius aspius</i>	x		x	
7	<i>Barbus carpathicus</i>			x	x
8	<i>Cobitis taenia</i>	x		x	
9	<i>Cottus gobio</i>	x		x	x
10	<i>Eudontomyzon vladykovi</i>				x
11	<i>Lampetra planeri</i>	x		x	
12	<i>Misgurnus fossilis</i>		x		
13	<i>Rhodeus amarus</i>	x		x	
14	<i>Romanogobio kesslerii</i>			x	
15	<i>Sabanejewia aurata</i>				
16	<i>Salmo salar</i>			x	
	<b>Amphibia</b>				
17	<i>Bombina bombina</i>	x	x		
18	<i>Bombina variegata</i>				x
19	<i>Triturus creststus</i>	x			
	<b>Mammalia</b>				
20	<i>Castor fiber</i>	x	x		
21	<i>Lutra lutra</i>	x	x		
	<b>Total</b>	<b>12</b>	<b>4</b>	<b>10</b>	<b>4</b>

Source: own elaboration based on Council Directive (1992).

## REFERENCES

- Council Directive (1992) “Council directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora,” *Official Journal*, L 206, consolidated version 1.1.2007. Available at: <https://eur-lex.europa.eu/eli/dir/1992/43/oj/eng> (Accessed: December 30, 2023).
- Directive (2009) “Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds,” *Official Journal*, L 20/7. Available at: <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:020:0007:0025:en:PDF> (Accessed: December 30, 2023).