

Söderquist, P., Dessborn, L., Djerf, H., Elmberg, J., Gunnarsson, G. and Holopainen, S. 2021. Effects of released farmed mallards on species richness of breeding waterbirds and amphibians in natural, restored, and constructed wetlands. – Wildlife Biology 2021: wlb.00846

Appendix 1

Data from 32 wetlands in Scania, Sweden: size (hectares), depth (m), pH, P_{tot} (µg/l), wetland type (N = natural, R = restored, C = constructed (defined in Methods)), releases of mallards (Y = yes, N = no). Given are also data (1 = present) about bird species with a clear wetland affinity, present at the first (May 22-24, 2018) and second (July 16-18, 2018) survey, and about amphibian species recorded during bird surveys or amphibian survey (between May 5 and 26). Detection of fish during any of the surveys is denoted by 1 (identification to species was not attempted). Wetland macrophyte cover (floating and emergent) in percentage intervals (0 = none, 1 = less than 5%, 2 = 5-50%, 3 = more than 50%) was assessed visually during the first survey to the wetland. Dominating floating or emergent macrophyte as well as dominating shoreline vegetation at each wetland was also noted during the first survey.

Wetland Characteristics	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
Size (ha)	2.4	0.7	0.5	3.0	1.0	1.3	0.5	1.5	0.5	1.2	1.6	0.4	0.4	0.3	0.4	1.0	0.2	0.9	0.5	1.0	1.0	1.0	0.5	0.9	0.8	0.5	0.3	0.7	0.4	1.3	0.3	0.5	
Depth (m)	0.5	1.0	0.3	0.5	1.0	1.0	1.0	2.0	1.5	2.0	2.0	1.5	2.0	2.0	0.5	1.0	0.5	1.5	1.0	1.0	1.0	0.8	1.0	1.0	0.5	1.0	2.5	1.0	2.5	1.0	1.0	1.0	
pH	9.30	7.49	7.70	8.76	8.23	8.15	8.65	8.18	8.2	8.21	8.55	8.36	8.54	8.06	8.30	8.52	7.24	8.13	7.58	9.83	9.62	8.34	7.98	9.20	8.07	7.50	7.62	8.26	7.83	7.84	7.92	8.02	
P _{tot} (µg/l)	35	44	14		13	29	20	37	21	12	25	53	31	66	29		92	159	43	41	47	19	305	61	114	218	1498	209	783	10	35	53	
Type (N/R/C)	C	C	C	C	C	C	C	N	N	N	N	N	N	N	R	R	R	R	R	C	C	C	N	C	C	N	N	N	N	N	N	R	
Releases (Y/N)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Birds																																	
<i>First survey May 22--24, 2018</i>																																	
Mute swan <i>Cygnus olor</i>	1	1		1		1					1		1								1		1										
Greylag goose <i>Anser anser</i>	1	1		1	1	1	1									1						1								1			1
Common shelduck <i>Tadorna tadorna</i>		1		1	1				1						1								1			1	1	1	1				
Mallard <i>Anas platyrhynchos</i>		1	1	1	1	1	1	1			1			1						1		1	1	1	1	1	1	1	1	1	1	1	1
Gadwall <i>Mareca strepera</i>	1	1		1																1					1								
Northern shoveler <i>Spatula clypeata</i>				1																													

Willows <i>Salix</i> spp.	x									
Bulrush <i>Typha</i> spp.		x			x					
Yellow iris <i>Iris pseudacorus</i>		x								
Alder <i>Alnus glutinosa</i>					x				x	
Wych elm <i>Ulmus glabra</i>								x	x	
Ash <i>Fraxinus excelsior</i>								x		
Wild cherry <i>Prunus avium</i>								x		
Hawthorn <i>Crataegus</i> sp.									x	
Elder <i>Sambucus nigra</i>									x	
Norway spruce <i>Picea abies</i>									x	x

Appendix 2

Figure A1. Total mean change in number of species from the first (22-24 May 2018) to the second (16-18 July 2018) survey in wetlands with and without releases of mallards.

