

### Additional file 1. Groups of dead Atlantic salmon smolts and European silver eels tagged with radio transmitters.

Groups of dead Atlantic salmon smolts and European silver eels tagged with radio transmitters and released in three German rivers. Information on fish taken by scavengers in these groups is also given. nd = not detected.

Species	River	Release site	Release date	Number of fish	Total body length, mm mean (min–max, SD)	Body mass, g mean (min–max, SD)	Number of fish moving upstream while staying in the river (taken by scavenger)	Number of fish moving upstream before disappearing from the river (taken by scavenger)	Number of fish disappearing from the river between two receiver sites (taken by scavenger)	Total number and proportion of fish taken by scavengers	Number of fish disappearing from the river when tagged fish were not monitored (uncertain fate)	Total number and proportion of fish left in the river at end of study period	Largest distance (km) recorded below release site before disappearing (values for each of the individuals that disappeared)
Salmon	Sieg	Tailrace	9 Apr 15	10	162 (135–185, 18)	36 (17–56, 13)	0	1	0	1 (10%)	0	9 (90%)	nd
Salmon	Sieg	Tailrace	16 Apr 15	10	164 (148–190, 13)	44 (32–62, 11)	0	0	3	3 (30%)	0	7 (70%)	nd, nd, nd
Salmon	Kinzig	On turbine	13 Apr 15	10	166 (150–186, 15)	43 (28–61, 11)	0	0	3	3 (30%)	0	7 (70%)	0, nd, nd
Salmon	Kinzig	On turbine	18 Apr 15	10	121 (91–162, 26)	19 (8–40, 12)	0	0	4	4 (40%)	0	6 (60%)	0, nd, nd, nd
Salmon	Diemel	Archimedes screw	10 Apr 15	10	159 (143–172, 11)	42 (30–54, 9)	0	3	4	7 (70%)	0	3 (30%)	0.4, 0.4, 0.4, 0.4, 0.4, 0.6, 1.1
Salmon	Diemel	Archimedes screw	15 Apr 15	10	153 (127–165, 12)	38 (22–50, 9)	0	0	0	0	0	10 (100%)	-
Eel	Sieg	Tailrace	8 Oct 14	5	829 (745–930, 68)	Not recorded	0	0	1	1 (20%)	0	4 (80%)	nd
Eel	Sieg	Tailrace	10 Oct 15	10	789 (720–860, 51)	918 (646–1203, 177)	1	0	0	1 (10%)	0	9 (90%)	1.4
Eel	Sieg	Tailrace	13 Oct 15	10	798 (700–916, 64)	1006 (616–1614, 341)	0	0	1	1 (10%)	0	9 (90%)	12.2
Eel	Sieg	Tailrace	21 Nov 15	5	778 (749–801, 22)	862 (704–979, 138)	0	0	0	0	0	5 (100%)	-
Eel	Sieg	Spillway gate	21 Nov 15	5	826 (775–857, 32)	1034 (886–1328, 171)	1	1	0	2 (40%)	0	3 (60%)	2.7, 12.9
Eel	Kinzig	On turbine	12 Oct 15	5	781 (720–855, 55)	864 (614–1040, 162)	0	0	1	1 (20%)	0	4 (80%)	nd
Eel	Kinzig	On turbine	21 Nov 15	5	761 (707–897, 80)	737 (662–856, 75)	0	0	0	0	0	5 (100%)	-
Eel	Diemel	Tailrace	9 Oct 14	5	817 (745–940, 77)	Not recorded	0	0	2	2 (40%)	1	2 (40%)	0.4, 0.4, 0.5
Eel	Diemel	Archimedes screw	9 Oct 14	5	724 (575–800, 94)	Not recorded	1	0	0	1 (20%)	1	3 (60%)	5.1, 0.4