

Supplementary Table 6: Results of the model selection procedure to determine the most appropriate random effects structure for the size-at-age LMMs. Five different random effects structures were explored: 1 = unstratified residual variance (V_R) only; 2 = common (unstratified) random effect of family (V_{FAM}) + common V_R ; 3 = V_{FAM} stratified by group + common V_R ; 4 = common V_{FAM} + V_R stratified by group; 5 = V_{FAM} and V_R each stratified by group. df = degrees of freedom associated with each random effects structure. The chosen random effects structure with the lowest Akaike Information Criterion (AIC) in each case is highlighted in bold.

		AIC for each random effects structure				
		1	2	3	4	5
Cohort	Sample					
1993	Electrofishing Aug 1993 0+parr L _F	-204.93 ($df=6$)	-208.06 ($df=7$)	-198.81 ($df=12$)	-204.17 ($df=9$)	-195.16 ($df=14$)
1994	Electrofishing Aug 1994 0+parr L _F	-1017.77 ($df=6$)	-1026.38 ($df=7$)	-1017.46 ($df=12$)	-1023.4 ($df=9$)	-1014.91 ($df=14$)
1994	Electrofishing Aug 1994 0+parr mass	84.17 ($df=6$)	71.52 ($df=7$)	80.50 ($df=12$)	73.46 ($df=9$)	81.98 ($df=14$)
1994	Electrofishing Jun 1995 1+parr L _F	-1131.13 ($df=6$)	-1163.40 ($df=7$)	-1155.44 ($df=12$)	-1166.61 ($df=9$)	-1158.73 ($df=14$)
1994	Electrofishing Jun 1995 1+parr mass	149.91 ($df=6$)	116.65 ($df=7$)	123.59 ($df=12$)	109.68 ($df=9$)	116.74 ($df=14$)
1998	Electrofishing Aug 1998 0+parr L _F	-495.93 ($df=7$)	-497.50 ($df=8$)	-488.13 ($df=13$)	-495.06 ($df=10$)	†
1998	Electrofishing Aug 1998 0+parr mass	31.84 ($df=7$)	32.83 ($df=8$)	42.24 ($df=13$)	34.82 ($df=10$)	43.95 ($df=15$)
1993	Hatchery controls 0+parr Aug 1993 L _F	-143.70 ($df=6$)	-141.70 ($df=7$)	-136.21 ($df=12$)	-142.06 ($df=9$)	-133.21 ($df=14$)
1993	Hatchery controls 0+parr Aug 1993 mass	64.17 ($df=6$)	66.17 ($df=7$)	70.81 ($df=12$)	65.70 ($df=9$)	74.03 ($df=14$)
1993	Hatchery controls mature 0+parr Nov 1993 L _F	-120.13 ($df=6$)	-140.72 ($df=7$)	-134.07 ($df=12$)	-139.70 ($df=9$)	-132.26 ($df=14$)
1993	Hatchery controls smolts Mar 1994 L _F	-389.81 ($df=6$)	-403.28 ($df=7$)	-395.83 ($df=12$)	-400.21 ($df=9$)	-392.60 ($df=14$)
1993	Hatchery controls smolts Mar 1994 mass	-44.63 ($df=6$)	-56.62 ($df=7$)	†	-52.95 ($df=9$)	†
1994	Hatchery controls smolts Mar 1995 L _F	-61.15 ($df=6$)	-59.52 ($df=7$)	-58.55 ($df=12$)	-94.28 ($df=9$)	†
1994	Hatchery controls smolts Mar 1995 mass	196.96 ($df=6$)	198.72 ($df=7$)	200.85 ($df=12$)	168.01 ($df=9$)	177.92 ($df=14$)

† Model did not converge