

Supplementary Table 2. Best fixed-effect structures for jack mackerel (*Trachurus declivis*) and redbait (*Emmelichthys nitidus*) from waters off Kangaroo Island (KI) and New South Wales (NSW) in Australia. Models were first fit with estimates of maximum likelihood and then refit with restricted estimates of maximum likelihood. df=degrees of freedom; AIC_c=Akaike information criterion corrected for small sample size; ΔAIC_c=difference in AIC_c between current and top model; LL=log likelihood; AIC_cWt=the proportion of the total predictive power of the model set; and R²_c=conditional coefficient of multiple determination. An asterisk (*) indicates the top-ranked model for each species and region.

Growth comparison	Fixed-effect structure						
	structure	df	AIC _c	ΔAIC _c	LL	AIC _c Wt	R ² _c
<i>T. declivis</i> —KI	<i>Age</i> *	12	129.75	0.00	-52.64	0.68	0.71
	<i>AgeCap</i>	12	149.42	19.67	-62.47	<0.001	0.67
	<i>Age + AgeCap</i>	13	131.28	1.52	-52.36	0.31	0.71
<i>T. declivis</i> —NSW	<i>Age</i> *	12	75.82	0.00	-25.53	0.54	0.72
	<i>AgeCap</i>	12	96.21	20.39	-35.72	<0.001	0.72
	<i>Age + AgeCap</i>	13	76.21	0.39	-24.66	0.45	0.72
<i>E. nitidus</i> —KI	<i>Age</i> *	12	54.65	0.00	-14.37	0.75	0.62
	<i>AgeCap</i>	12	70.38	15.73	-22.24	<0.001	0.79
	<i>Age + AgeCap</i>	13	56.86	2.21	-14.31	0.24	0.63
<i>E. nitidus</i> —NSW	<i>Age</i> *	12	254.91	0.00	-115.07	0.65	0.59
	<i>AgeCap</i>	12	287.72	32.82	-131.47	<0.001	0.60
	<i>Age + AgeCap</i>	13	256.18	1.28	-114.64	0.34	0.58