

**Table S4.** P-values of pairwise comparisons (ANOVA) of intercepts of height expansion rate (=  $ER_h$ ) between species, where no significant difference in slope was detected (Table S2). In the linear regression models, species are included as interaction terms. Significant p-values (< 0.05) are highlighted in bold, representing cases where the trajectories may be parallel, but the intercept is significantly different, i.e.,  $ER_h$  is distinct at the same conch height.

$ER_h$	<i>Pa. mutabile</i>	<i>Pl. cambria</i>	<i>S. bullatum</i>	<i>S. endogastrum</i>	<i>S. inflatum</i>	<i>S. magicum</i>	<i>S. marywadeae</i>	<i>S. shanxiense</i>	<i>S. sibirienne</i>	<i>S. sinense</i>	<i>S. wanwanense</i>
<i>Pa. mutabile</i>		0.1136	0.4909	0.0865	0.5581	0.0779	0.4390	0.2536	<b>0.0445</b>	0.1009	0.6490
<i>Pl. cambria</i>	0.1136		0.1757	<b>0.0042</b>	0.1859	<b>0.0036</b>	<b>0.0499</b>	0.0576		<b>0.0075</b>	0.2855
<i>S. bullatum</i>	0.4909	0.1757		<b>0.0012</b>		<b>0.0019</b>	<b>&lt; 0.0001</b>	<b>0.0012</b>	<b>0.0004</b>	<b>0.0012</b>	<b>0.0047</b>
<i>S. endogastrum</i>	0.0865	<b>0.0042</b>	<b>0.0012</b>			0.2897	0.7692	0.6873	0.2107	0.4442	0.8692
<i>S. inflatum</i>	0.5581	0.1859				<b>0.0346</b>	<b>0.0385</b>			<b>0.0268</b>	<b>0.0349</b>
<i>S. magicum</i>	0.0779	<b>0.0036</b>	<b>0.0019</b>	0.2897	<b>0.0346</b>		0.8373	0.7852	0.0984	0.5358	0.9094
<i>S. marywadeae</i>	0.4390	<b>0.0499</b>	<b>&lt; 0.0001</b>	0.7692	<b>0.0385</b>	0.8373			<b>&lt; 0.0001</b>	<b>&lt; 0.0001</b>	<b>&lt; 0.0001</b>
<i>S. shanxiense</i>	0.2536	0.0576	<b>0.0012</b>	0.6873		0.7852			<b>&lt; 0.0001</b>		<b>0.0003</b>
<i>S. sibirienne</i>	<b>0.0445</b>		<b>0.0004</b>	0.2107		0.0984	<b>&lt; 0.0001</b>	<b>&lt; 0.0001</b>		0.4047	0.8939
<i>S. sinense</i>	0.1009	<b>0.0075</b>	<b>0.0012</b>	0.4442	<b>0.0268</b>	0.5358	<b>&lt; 0.0001</b>		0.4047		0.6957
<i>S. wanwanense</i>	0.6490	0.2855	<b>0.0047</b>	0.8692	<b>0.0349</b>	0.9094	<b>&lt; 0.0001</b>	<b>0.0003</b>	0.8939	0.6957	