

Directional Asymmetry of Gonadal Development in Sweet Fish, *Plecoglossus altivelis* Temminck and Schlegel

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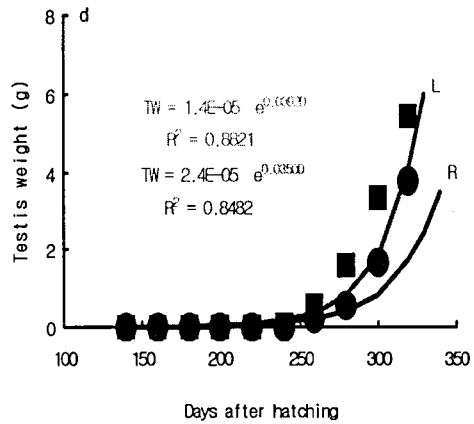
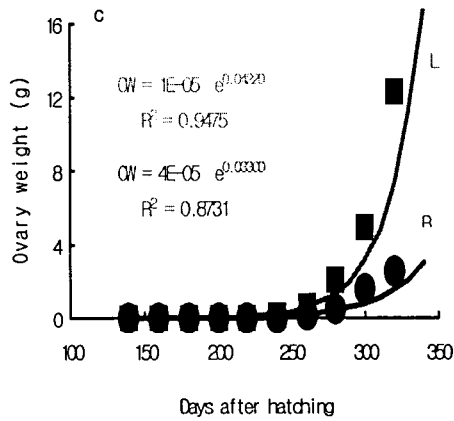
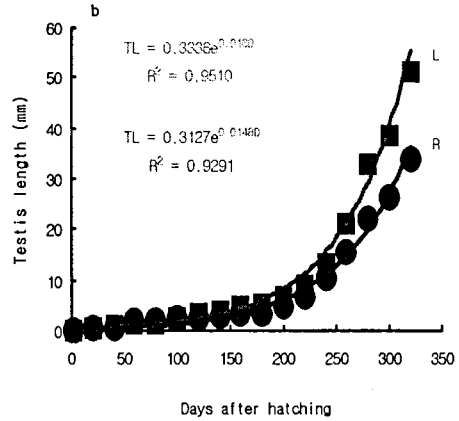
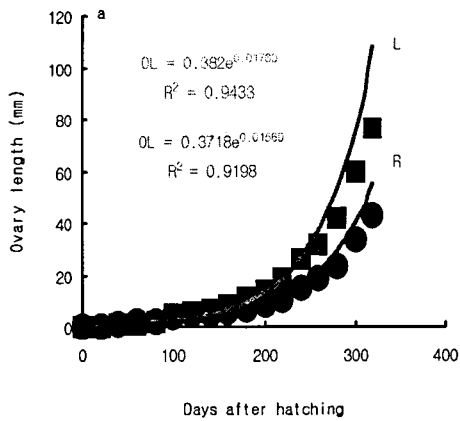
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We examined asymmetries in gonadal growth traits within both sexes of hatchery reared sweet fish, *Plecoglossus altivelis* Temminck and Schlegel. The pattern of the gonadal growth from hatching to 320 days after hatching was a type of a directional (sinistral) asymmetry (DA) except for the growth in gonad weight from 140 to 180 days after hatching, although the ovary of the right side tended to exhibit more pronounced DA phenomenon.

ANCOVA result for testing the difference between left and right in ovary length, testis length, ovary weight and testis weight of sweet fish

Trait	Intercept				Slope			
	Left	Right	T-value	P	Left	Right	T-value	P
Ovary length	-0.9623	-0.9893	-2.1809*	P<0.05	0.0176	0.0156	-1.2418	P>0.05
Testis length	-1.0977	-1.1624	-25.0246**	P<0.001	0.0160	0.0148	-0.8005	P>0.05
Ovary weight	-11.4114	-10.2101	-2.6608*	P<0.05	0.0422	0.0030	-1.6161	P>0.05
Testis weight	-11.1664	-10.6408	-1.1433	P>0.05	0.0392	0.0350	-0.5898	P>0.05

*Significant at $\alpha=0.05$, **Significant at $\alpha=0.01$.



Early growth of gonad length (a and b) from hatching to 320 days after hatching and gonad weight (c and d) from 140 days to 320 days after hatching in sweet fish. R=right side, L=left side.

References

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