Table S1. Tests for non-linear relationships between sexual selection metrics and species richness inferred from phylogenetic least squares (PGLS) regressions. Likelihood Ratio (LR) tests indicate whether adding a quadratic term to the linear model results in a better model fit.

Predictor	df	Linear term				Quadratic term				LR-Test	
		Estimate	SE	*F*-value	*P*-value	Estimate	SE	*F*-value	*P*-value	χ^2	*P*-value
male I	35	0.02	0.50	0.24	0.627	0.01	0.09	0.02	0.894	3.01	0.083
female I	35	-1.08	1.06	1.15	0.291	0.36	0.49	0.55	0.465	0.95	0.329
ΔI (lnCVR)	35	0.89	0.81	10.33	0.003	0.40	0.50	0.62	0.436	1.09	0.297
male I_s	37	0.54	0.65	0.11	0.745	-0.12	0.16	0.58	0.449	1.29	0.257
female I_s	36	-0.82	1.53	0.06	0.807	0.47	0.98	0.23	0.637	2.02	0.155
ΔI_s (lnCVR)	37	0.90	0.84	0.59	0.447	-0.48	0.64	0.57	0.457	1.52	0.217
male β_{ss} (Fisher's z)	31	6.60	1.28	13.97	0.001	-2.59	0.61	18.15	< 0.001	15.57	< 0.001
female β_{ss} (Fisher's z)	31	1.09	1.33	1.44	0.240	-0.33	0.71	0.21	0.647	1.36	0.244
$\Delta\beta_{ss}$ (Hedge's g)	31	0.10	0.91	4.83	0.036	0.84	0.74	1.29	0.264	2.52	0.112