

Table 4 Linear regression estimates of the parameters of Taylor's law $\log_{10}(V_m) = a + b \times \log_{10} m$, with m= flea index, V_m =variance of the relative flea index collected in different regions

Zones	Flea species	Intercept_a ($\pm$ SE)	Aggregation index_b ($\pm$ SE)	Adj R ²	Df	Swilk	Hetero-skedasticit
The western zone(I)	Combined fleas	0.30(0.19)	1.79(0.23)	0.83	11	ns	ns
	<i>X.skrjabini</i>	0.69(0.09)	1.42(0.15)	0.93	6	ns	ns
	<i>X.minax</i>	0.82(0.17)	1.21(0.21)	0.80	7	ns	ns
	<i>X.hirtipes</i>	0.76(0.18)	1.26(0.18)	0.93	3	ns	ns
	<i>N.laeviceps</i>	0.37(0.08)	1.20(0.15)	0.86	10	ns	ns
The middle zone(II)	Combined fleas	0.22(0.22)	1.82(0.26)	0.74	16	ns	ns
	<i>X.skrjabini</i>	0.62(0.06)	1.42(0.07)	0.97	11	ns	ns
	<i>X.minax</i>	0.55(0.08)	1.53(0.12)	0.95	8	ns	ns
	<i>X.hirtipes</i>	0.57(0.13)	1.56(0.18)	0.92	5	ns	ns
	<i>N.laeviceps</i>	0.50(0.07)	1.35(0.11)	0.91	14	ns	ns
The eastern zone(III)	Combined fleas	0.19(0.09)	1.70(0.13)	0.82	56	ns	ns
	<i>X.skrjabini</i>	0.36(0.06)	1.61(0.08)	0.89	56	ns	ns
	<i>X.minax</i>	0.63(0.12)	1.47(0.18)	0.93	4	ns	ns
	<i>X.hirtipes</i>	0.46(0.03)	1.31(0.05)	0.94	41	ns	ns
	<i>N.laeviceps</i>	0.39(0.05)	1.37(0.07)	0.90	43	ns	ns

Intercept_a, least-squares estimate of the intercept a of Taylor's law.

Aggregation index_b, least-squares estimate of the slope b of Taylor's law.

SE, standard error.

Adj R², adjusted R² (adjusted for the number of fitted parameters).

Df, error(residual) degrees of freedom (df) equals number of observations minus the number of fitted parameters.

Swilk, Shapiro-Wilk test of the normality of residuals from the linear regression of Taylor's law.

Heteroskedasticity, p-value of the test of the null hypothesis that the residuals from the linear regression are homoscedastic, i.e., all have the same variance.

ns, not significant at the 5% level.