Table 3. The effects of spatial scaling on the relationship between abundance and survivorship at the subgeneric level

Spatial scale		Data treatment	Test	Abundance metric		
				Raw	Rank	Proportional
Locality		NA	MW	0%		
			KS	0%		
			t test	0%	0%	0%
Formation		cumulative	MW	0%		
			KS	0%		
			t test	0%	0%	0%
		average	MW	0%	0%	0%
			KS	0%	0%	0%
			t test	0%	0%	0%
Region	West Gulf	cumulative	MW	$U_{64,56} = 1616, p = 0.35$		
			KS	$D_{64,56} = 0.14, p > 0.10$		
			t test	$t_{1,118} = -0.13, p = 0.90$	$t_{1,118} = 1.16, p = 0.25$	$t_{1,118} = -1.80, p = 0.07$
		average	MW	$U_{64,56} = 1610, p = 0.33$	$U_{64,56} = 1678, p = 0.55$	$U_{64,56} = 1613, p = 0.34$
			KS	$D_{64,56} = 0.14, p > 0.10$	$D_{64,56} = 0.14, p > 0.10$	$D_{64,56} = 0.16, p > 0.10$
			t test	$t_{1,118} = -1.24, p = 0.22$	$t_{1,118} = 1.14, p = 0.26$	$t_{1,118} = -1.83, p = 0.07$
	East Gulf	cumulative	MW	$U_{64,57} = 1714, p = 0.57$		
			KS	$D_{64,57} = 0.14, p > 0.10$		
			t test	$t_{1,119} = -0.73, p = 0.46$	$t_{1,119} = 0.64, p = 0.52$	$t_{1,119} = -1.13, p = 0.26$
		average	MW	$U_{64,57} = 1683, p = 0.46$	$U_{64,57} = 1657, p = 0.39$	$U_{64,57} = 1673, p = 0.43$
			KS	$D_{64,57} = 0.13, p > 0.10$	$D_{64,57} = 0.11, p > 0.10$	$D_{64,57} = 0.14, p > 0.10$
			t test	$t_{1,119} = -0.76, p = 0.45$	$t_{1,119} = 0.84, p = 0.40$	$t_{1,119} = -1.13, p = 0.26$
	Atlantic	cumulative	MW	$U_{64,56} = 1749, p = 0.82$		
			KS	$D_{64,56} = 0.13, p > 0.10$		
			t test	$t_{1,118} = -0.30, p = 0.76$	$t_{1,118} = 0.09, p = 0.93$	$t_{1,118} = -0.67, p = 0.50$
		average	MW	$U_{64,56} = 1749, p = 0.77$	$U_{64,56} = 1691, p = 0.60$	$U_{64,56} = 1736, p = 0.76$
			KS	$D_{64,56} = 0.13, p > 0.10$	$D_{64,56} = 0.13, p > 0.10$	$D_{64,56} = 0.11, p > 0.10$
			t test	$t_{1,118} = 0.05, p = 0.96$	$t_{1,118} = -0.66, p = 0.51$	$t_{1,118} = -0.60, p = 0.55$

Abundance is not correlated with survivorship across the K/T extinction, regardless of spatial scale examined. Results for the locality and formation scales are given as the percentage of localities and formations, respectively, in which a significant difference was recorded after Bonferroni adjustment. Results for the regional scale are presented in detail. Analyses included three abundance metrics (raw, rank, and proportional), two data treatments (cumulative and averaged), and three statistical tests [Mann–Whitney (MW), Kolmogrov–Smirnov (KS), and *t* test with data transformation, depending on analysis]. No significant differences in abundance between victims and survivors remained after Bonferroni correction. The critical ($\alpha = 0.05$) *P* values after Bonferroni adjustment are as follows: locality scale, $\alpha' = 0.0002$ ($k = 256$); formation scale, $\alpha' = 0.005$ ($k = 10$); and regional scale, $\alpha' = 0.02$ ($k = 3$). It should be noted that, because the nonparametric tests involve ranking of the data, they do not differentiate between the three abundance metrics when the data are treated cumulatively.