

Table S2. Results from morphometric Analysis of variance (ANOVA) between *Chamaeza campanisona* populations. Degrees of freedom are within parentheses after the vocalization types. Sum of squares (Sum Sq), mean square values (Mean Sq) are reported.

Vocalization	Measurements	Sum Sq	Mean Sq	p
Calls	Call duration	0.1	0.0	0.000
	Low frequency	76731.0	38366.0	0.246
	High frequency	30207.0	15104.0	0.486
	Bandwidth	5912.0	2956.0	0.881
	Peak frequency	69620.0	34810.0	0.128
	Maximum entropy	3.4	1.7	0.000
Song	Song duration	377.7	125.9	0.000
	Low frequency	82673.0	27557.7	0.000
	High frequency	32812.0	10937.3	0.041
	Bandwidth	11156.0	3718.6	0.127
	Peak frequency	39963.0	13321.0	0.002
	Maximum entropy	2.8	0.9	0.000
	Number of notes	54535.0	18178.2	0.000
	Pace	291.6	97.2	0.000
Croak	Song duration	166.3	83.2	0.000
	Low frequency	64126.0	32063.0	0.049
	High frequency	26896.0	13448.0	0.581
	Bandwidth	79267.0	39633.0	0.056
	Peak frequency	4637.0	2318.4	0.736
	Maximum entropy	1.2	0.6	0.004
	Number of notes	21246.0	10623.0	0.000
	Pace	284.4	142.2	0.000