**Morphological convergence and disparity in tenrecs**

**Introduction**

* Superficial similarities, commonly cited as a convergent group ([Olson, 2013](#_ENREF_7))
* Convergence expected by chance ([Stayton, 2008](#_ENREF_10))
* Recent developments of methods of quantifying morphological convergence – usually on restricted groups
* Disparity – great diversity within the family, presumed to be a result of their adaptive radiation but again, this hasn’t been measured specifically. Needs multiple methods of measuring disparity ([Ciampaglio et al., 2001](#_ENREF_2))
* Geometric morphometrics – usually used for restricted groups of species but here it’s used on a broader scale (macroevolutionary approach)
* Three aims; 1) quantify convergence and disparity in tenrecs, 2) test the applicability of multiple measures of convergence and disparity to a new study group, 3) test whether different methods give similar results.

**Methods**

* Morphometrics of the skulls and mandible

Convergence

* Weighted count metric ([Stayton, 2008](#_ENREF_10))
* Multidimensional convergence index ([Stayton, 2006](#_ENREF_9))
* Comparing morphological and phylogenetic distance ([Muschick et al., 2012](#_ENREF_5))

Disparity

* Sum and product of range and variance ([Brusatte et al., 2008](#_ENREF_1), [Foth et al., 2012](#_ENREF_3), [Ruta et al., 2013](#_ENREF_8), [Wainwright, 2007](#_ENREF_11))
* Morphological disparity index ([Harmon et al., 2003](#_ENREF_4))
* Directly from the Procrustes shape data ([Zelditch et al., 2012](#_ENREF_12))
* Different disparity approach? ([O'Meara et al., 2006](#_ENREF_6)) Depends on the rate of evolution, length of evolution and the relationships of the taxa.

**Possible journals**

Evolution: Not an original article “Demonstrating a well-established phenomenon in another taxon or context may fall short of being acceptable.” But maybe a brief communication?

Journal of Evolutionary Biology? “Papers that are of narrow interest, or are not original in scope are not suitable for JEB.”

Proceedings B? May not be broad enough

Current Biology

Journal of morphology

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