Evolution of life history traits and evolutionary paleoecology

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1 Theoretical framework

Evolutionary paleoecology has been defined as the study of the effect of ecological characters expressed at any level on the macroevolutionary process [Kitchell, 1985]. While macroevolution is defined as the long term speciation (λ) and extinction (μ) dynamics [Jablonski, 2008], this does not remain the sole manner of discussing macroevolutionary dynamics [Kitchell, 1990, 1985]. Instead, macroevolution can be discussed in terms of the dynamics of differential fitness. Here fitness is defined as the expected time till extinction [Cooper, 1984] which can be considered a universal statement of fitness.

Expected time till extinction is defined

$$E[t_{ext}] = \sum pt \tag{1}$$

where p is the probability that the subject of interest goes extinct and t is time [Cooper, 1984].

2 Effect of life history on survival in Permian brachiopods

3 Evolution of correlation in life history traits in brachiopods

4 Cosmopolitan versus endemic dynamics in Cenozoic terrestrial mammals

5 UNNAMED CHAPTER

References

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