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for parental care to evolve and be consistent in species.

Introduction

In the study of life-history evolution, parental care is one of the topics that is researched the most (Klug and Bonsall, 2007). Parental care consists of acts or motivation provided by the parent to increase offspring survival or fitness. There are many different forms of parental care that can either directly benefit the offspring or indirectly provide benefits. Even though the main purpose of parental care is to increase offspring survival, the true reason parental care evolved is to increase the parents' life-time fitness (Sheldon et al., 1997). By increasing the chance that their offspring survives to adulthood, parents are ensuring that the energy they expended

fitness with improved future reproduction, aiding the fact that parental care is typically rare in most species.

Species that provide parental care

was that species that only reproduce once in their lifetime was a cost of parental care (Wong et al., 2013). This hypothesis explains that different lineages could have evolved, one in which care was seen in species that reproduce more than once in their life, and another lineage where care is not seen and the species only reproduces once in their lifetime (Wong et al., 2013). This study of insects is useful in trying to use species history to trace what led to parental care, however, it did not provide conclusive evidence, rather it proposed theories. All in all, the use of phylogenetic data is useful in tracing patterns that lead to the emergence and disappearance of parental care, although more research needs to be accomplished in this