

Oviposition location is key for offspring fitness

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ABSTRACT

Animals have evolved different behavioural, physiological, or morphological adaptations to increase survival and fitness of their offspring. Amphibians exhibit huge diversity in reproductive strategies, which are largely driven by oviposition site selection. A clear example of this are glassfrogs, where clutches are laid in species-specific conditions including exact positioning on leaves. Hence, we raise the question of how important is oviposition location for offspring survival and development. To tackle this question, we used *Teratohyla spinosa*, a Neotropical glassfrog that lays its jelly rich eggs on the edge at the underside of leaves. As clutches are in constant contact with dripping water canalized by the leaf's surface, we hypothesized that *T. spinosa* strategically chooses these locations to ensure clutch hydration during embryo development. We experimentally relocated clutches to the central part of leaves and compared their hydration status, embryonic development, predation rate, and hatching success to control clutches. Our preliminary results show that mortality was not affected by clutch location on the leaf, however, hydration conditions differed considerably between test and control clutches, especially when located on big leaves. Overall, our results demonstrate that parents can increase offspring fitness by strategic oviposition site choice even species that show no extended parental behaviour.