

The effect of water depth on growth and development in lunged and lungless larval anurans (frogs and toads)

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The BLB bequest generously awarded me £600 to investigate the effect of water depth on growth and development in several Trinidadian species during June and July of 2015. I was accompanied by a student who would be continuing the project work into mid-August. The project was very successful, with all four of the intended species (two lunged frogs: *Engystomops pustulosus* & *Leptodactylus fuscus*; two lungless toads: *Rhinella marina* & *R. beebei*) being found at an acceptable stage to be included in the study (i.e. at the start of the free swimming stage). Given limitations on space and equipment, we were not able to run all the species simultaneously. This meant that we were only able to get a complete set of data (i.e. to metamorphosis) for *R. marina*, *B. beebei* and *L. fuscus*. Data on *E. pustulosus* was collected to stages prior to metamorphosis, which should allow some of the intended comparisons.

While in Trinidad, I was also able to assist in the development and supervision of several of the other student projects, specifically boldness in relation to throat colouration in the Trinidad stream frog *Mannophryne trinitatis* and the competitive interactions of *L. fuscus* and *E. pustulosus* in small water bodies.

After completion of the analysis of data, the work will be prepared for publication.

Conclusion: The work went as well as could be expected and I was actually able to do more than I intended (since one of the more difficult species was found easily). It was also hugely valuable to have travelled out with a group of students, since more detailed observations could be made than if I was travelling on my own.