



## Understanding the cardiorespiratory phenotypic effects across the life history of reptiles

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The developmental environment is widely recognized to affect organismal phenotype, and many studies on mammals link developmental challenges to adult disease. This phenotypic plasticity form the basis for the “fetal origins of adult disease” hypothesis, which is a response to conditions outside the norm for developing mammals. However, for organisms that normally experience fluctuating developmental conditions, phenotypic plasticity may convey a physiological advantage to juveniles. I study how developmental oxygen alter the cardiovascular phenotypes in crocodylians and turtles. These reptiles experience low oxygen during ontogeny, and their developing cardiovascular system exhibits phenotypic plasticity. This plasticity preconditions the heart at multiple levels of biological organization, to increase function and provide synergistic effects that convey a physiological advantage.



**Monday September 30<sup>th</sup> at 15.00**

*Seminar room at section for Zoophysiology*