How lizards cope with temperature variation

Reptiles are ectotherms that must behaviorally thermoregulate to acquire heat from the environment and avoid heat when air temperatures rise. But how well can reptiles cope with changes in their habitat or the climate, both of which change the thermal opportunities in their environment?

This project will examine how air temperature, habitat quality and basking opportunities influence thermoregulatory behavior in lizards (the Jacky dragon, *Amphibolurus muricatus*). The main component of the research is to analyze a large dataset already collected on lizard thermoregulation from animals held in semi-natural enclosures (see picture below of a jacky dragon wearing a temperature datalogger). Thus, the project will be data-rich. A second component of the research would involve experiments of the student’s design on lizard thermoregulation using captive animals. This project requires a student interested in 1) learning quantitative skills necessary to measure thermoregulation, 2) handling large amounts of data, 3) learning basic programming skills in R or MATLAB, and 4) working with live animals. The student will gain skills in analyzing large datasets, programming (R or MATLAB), animal research, and experimental design.

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