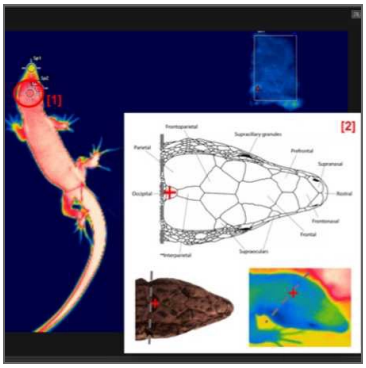

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Illustrated Protocol for Processing Radiometric Videos Using the Software FLIR Tools : An Approach Applied to a Novel Methodology for Lizard Thermal Exchange Rates Studies

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ABSTRACT

The novel methodology developed by Mochales-Riaño & Barroso et al. (in press) for experimentally obtaining thermal exchange rates of small lizards through the use of radiometric videos, underpinned the need to devise a thermal video processing protocol to standardize this data collection. This protocol addresses this need as it represents a subsequently optimized version of the processing pipeline used for the aforementioned proof-of-concept study.

This protocol was used to successfully obtain temperature data from several body parts from thermoregulating lizards, enabling internal body temperature to be inferred (as per Barroso et al., 2016 and 2020), as well as providing insights into thermal exchange rates and the patterns of regional heterothermy and temperature redistribution in these animals.

So far, variants of this video analysis protocol have been successfully deployed in several ongoing research projects, on several species of lizards.

ATTACHMENTS

Illustrated Protocol for Processing Radiometric Videos Using the Software FLIR Tools.pdf

Protocol status: Working
We use this protocol and it's working

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PROTOCOL integer ID: 96315

Keywords: thermal imaging, radiometric videos, FLIR, thermal video processing, thermal physiology

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IMAGE ATTRIBUTION

All images by the Author, Frederico M Barroso, except the diagram of the lizards head kindly donated by Giulia Simbula.

GUIDELINES

When processing multiple videos for posterior comparison of data, it is recommended that said processing is done by the same person in order to avoid any operator bias.