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ENERGETICS: MEASUREMENT AND INTERPRETATION

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Energy balance, or the trade-off between energetic intake and energy costs, is a fundamental factor contributing to an organism's reproductive fitness. Many theories concerning reproductive and behavioural strategies in primates emphasise the role of energetics. Recent advances in analytical techniques, computer modelling and the development of non-invasive measurement of biochemical markers, such as C-peptide, ketones and a number of hormones, are enabling new insights into energetics and energetic adaptations in primates. This symposium brings together researchers from different institutions working on a range of taxa. Papers include a variety of topics, and use a range of methods for energetic assessment. The approaches used include comparative methods and modelling of locomotion, plus recently developed field techniques of non-invasive biochemical assessment. Some of these techniques are still at a developmental stage for primatology, particularly their use for wild animals. The research presented includes comparisons of individuals in different states, population level and broad-ranging species comparisons. The topics addressed include methodological issues, as well as questions concerning the energy costs of male and female reproductive strategies, locomotion and brain size, and consideration of the influence of nutritional and environmental factors on energy balance. The symposium aims to enable discussion of topical issues in primate energetics through the presentation of a variety of approaches and questions in one forum. Papers will emphasise the possibilities for interpretation of findings in evolutionary terms, thus contributing to the furthering of our understanding of the role of energetics in primate evolution.

Keyword: comparative, c-peptide, reproductive strategies, environmental stress