



**Cover:** Does adapting to walk economically require conscious, or explicit, attention? Or rather, do we adapt automatically, or implicitly? McAllister et al. (jeb242655) explored the contributions of implicit and explicit processes in energy optimization during human walking. Even when distracted by a secondary task, participants adapted to walk economically, suggesting that energy optimization involves implicit processing. Understanding the cognitive nature of energy optimization has direct implications in clinical rehabilitation and assistive device design. If we don't need to think about walking economically – if it occurs implicitly – then our attention can be directed toward other objectives. Artwork credit: Megan McAllister.

## INSIDE JEB

Moth proboscis 'nose' differentiates flower fine dining  
**Knight, K.**  
jeb243368

Walking efficiently takes next to no thought  
**Knight, K.**  
jeb243349

Rearing seahorses trigger powerful gulps  
**Knight, K.**  
jeb243282

Imposter eggs of pecking cowbirds have stronger shells for protection  
**Knight, K.**  
jeb243316

## OUTSIDE JEB

Hot shark embryos freeze less to stay safe  
**Murillo, A.**  
jeb236968

Birds of a feather shouldn't always fly together  
**Nadler, L.**  
jeb236976

Elephants Hoover up their dinner  
**Basu, C.**  
jeb236935

How diving flies navigate in for the kill  
**Kaimaki, D.-M.**  
jeb236950

Colored night lights impact phytoplankton communities  
**Mantica, G.**  
jeb236943

## COMMENTARY

Sulfide metabolism and the mechanism of torpor  
**Jensen, B. S. and Fago, A.**  
jeb215764

## REVIEW

The neuroethology of avian brood parasitism  
**Lynch, K. S.**  
jeb222307

## SHORT COMMUNICATION

Maintained barostatic regulation of heart rate in digesting snakes (*Boa constrictor*)  
**Wang, T., Abe, A. S., Cruz-Neto, A. P., Andrade, D. V. and Taylor, E. W.**  
jeb242202

## RESEARCH ARTICLES

Moths sense but do not learn flower odors with their proboscis during flower investigation  
**Adam, E., Hansson, B. S. and Knaden, M.**  
jeb242780

Energy optimization during walking involves implicit processing  
**McAllister, M. J., Blair, R. L., Donelan, J. M. and Selinger, J. C.**  
jeb242655

Energy expenditure across immune challenge severities in a lizard: consequences for innate immunity, locomotor performance and oxidative status  
**Hudson, S. B., Virgin, E. E., Kepas, M. E. and French, S. S.**  
jeb242608

Elastic energy storage in seahorses leads to a unique suction flow dynamics compared with other actinopterygians  
**Avidan, C. and Holzman, R.**  
jeb236430

Mitochondrial responses towards intermittent heat shocks in the eastern oyster, *Crassostrea virginica*  
**Hraoui, G., Breton, S., Miron, G., Boudreau, L. H., Hunter-Manseau, F. and Pichaud, N.**  
jeb242745

*In vivo* human gracilis whole-muscle passive stress–sarcomere strain relationship  
**Persad, L. S., Binder-Markey, B. I., Shin, A. Y., Kaufman, K. R. and Lieber, R. L.**  
jeb242722

How to build a puncture- and breakage-resistant eggshell? Mechanical and structural analyses of avian brood parasites and their hosts  
**López, A. V., Bolmaro, R. E., Ávalos, M., Gerschenson, L. N., Reboreda, J. C., Fiorini, V. D., Tartalini, V., Risso, P. and Hauber, M. E.**  
jeb243016

Timing of increased temperature sensitivity coincides with nervous system development in winter moth embryos  
**van Dis, N. E., van der Zee, M., Hut, R. A., Wertheim, B. and Visser, M. E.**  
jeb242554

## CORRESPONDENCE

Coming up for air  
**Farrell, A. P., Mueller, C. A. and Seymour, R. S.**  
jeb243101

Response to 'Coming up for air'  
**Seibel, B., Andres, A., Birk, M., Shaw, T., Timpe, A. and Welsh, C.**  
jeb243148