



Cover: Illustration of a leatherback sea turtle (*Dermochelys coriacea*) foraging on gelatinous prey. Leatherback foraging behavior was investigated by Casey et al. (pp. 3961–3971) using a combination of physiological sensors, data loggers and telemetry. Gravid turtles from the St Croix, USVI nesting population were found to forage primarily in deep waters (>100 m) during the day (05:00–18:59 h). Although leatherbacks were found to opportunistically feed in the Caribbean Sea, prey ingestion rates indicate that energy reserves acquired prior to the breeding season are crucial for successful reproduction. Illustration by Kelly Finan.

▼ Inside JEB

Why big people walk more economically than small people i;
Robofin produces thrust when other fins drag i; Diving
leatherbacks regulate buoyancy ii; Unpredictability helps
flies remember to avoid heat iii

Outside JEB

Is it cheaper to ‘grow up’ fast? iv; Goby stabilizes upwelling
ecosystem v; Bigger isn’t always better v; Of HIF, muscles
and normoxia vi

News

Knight, K. Charlie Ellington FRS retires. 3943-3944

Research Articles

Bruijn, S. M., Meijer, O. G., Beek, P. J. and van Dieën, J. H.
The effects of arm swing on human gait stability. 3945-3952

**Allen, J. J., Mähger, L. M., Buresch, K. C., Fetchko, T.,
Gardner, M. and Hanlon, R. T.** Night vision by cuttlefish
enables changeable camouflage. 3953-3960

**Casey, J., Garner, J., Garner, S. and Southwood Williard,
A.** Diel foraging behavior of gravid leatherback sea turtles in
deep waters of the Caribbean Sea. 3961-3971

► **Weyand, P. G., Smith, B. R., Puyau, M. R. and Butte, N. F.**
The mass-specific energy cost of human walking is set by
stature. 3972-3979

Grønlien, H. K., Rønnevig, A. K., Hagen, B. and Sand, O.
Chemo-accumulation without changes in membrane potential in
the microstome form of the ciliate *Tetrahymena vorax*.
3980-3987

Zhao, Z.-J., Chi, Q.-S., Cao, J. and Han, Y.-D. The energy
budget, thermogenic capacity and behavior in Swiss mice
exposed to a consecutive decrease in temperatures. 3988-3997

**Harrison, S. M., Whitton, R. C., Kawcak, C. E., Stover, S.
M. and Pandy, M. G.** Relationship between muscle forces,
joint loading and utilization of elastic strain energy in equine
locomotion. 3998-4009

**Collin, H., Meistertzheim, A.-L., David, E., Moraga, D. and
Boutet, I.** Response of the Pacific oyster *Crassostrea gigas*,
Thunberg 1793, to pesticide exposure under experimental
conditions. 4010-4017

► **Sitaraman, D. and Zars, T.** Lack of prediction for high-
temperature exposures enhances *Drosophila* place learning.
4018-4022

Awata, H., Matsushita, A., Wakakuwa, M. and Arikawa, K.
Eyes with basic dorsal and specific ventral regions in the glacial
Apollo, *Parnassius glacialis* (Papilionidae). 4023-4029

Hewer, A., Will, T. and van Bel, A. J. E. Plant cues for aphid
navigation in vascular tissues. 4030-4042

► **Tangorra, J. L., Lauder, G. V., Hunter, I. W., Mittal, R.,
Madden, P. G. A. and Bozkurtas, M.** The effect of fin ray
flexural rigidity on the propulsive forces generated by a
biorobotic fish pectoral fin. 4043-4054

Hustert, R. and Baldus, M. Ballistic movements of jumping
legs implemented as variable components of cricket behaviour.
4055-4064

**Conrad, T., Paxton, R. J., Barth, F. G., Francke, W. and
Ayasse, M.** Female choice in the red mason bee, *Osmia rufa*
(L.) (Megachilidae). 4065-4073

► **Fossette, S., Gleiss, A. C., Myers, A. E., Garner, S., Liebsch,
N., Whitney, N. M., Hays, G. C., Wilson, R. P. and
Lutcavage, M. E.** Behaviour and buoyancy regulation in the
deepest-diving reptile: the leatherback turtle. 4074-4083

**Mass, T., Kline, D. I., Roopin, M., Veal, C. J., Cohen, S.,
Iluz, D. and Levy, O.** The spectral quality of light is a key
driver of photosynthesis and photoadaptation in *Stylophora
pistillata* colonies from different depths in the Red Sea.
4084-4091

Ebanks, S. C., O’Donnell, M. J. and Grosell, M.
Characterization of mechanisms for Ca^{2+} and $\text{HCO}_3^-/\text{CO}_3^{2-}$
acquisition for shell formation in embryos of the freshwater
common pond snail *Lymnaea stagnalis*. 4092-4098

**Adelman, J. S., Bentley, G. E., Wingfield, J. C., Martin, L.
B. and Hau, M.** Population differences in fever and sickness
behaviors in a wild passerine: a role for cytokines. 4099-4109

**Riskin, D. K., Iriarte-Díaz, J., Middleton, K. M.,
Breuer, K. S. and Swartz, S. M.** The effect of body size on the
wing movements of pteropodid bats, with insights into thrust
and lift production. 4110-4122

Corrigendum

Denny, M. W. Limits to running speed in dogs, horses and
humans. 4123

► Article featured ‘Inside JEB’