



Cover: Diamondback terrapins (*Malaclemys terrapin*) experience a broad range of salinities in their coastal habitats. Williard and colleagues (jeb202390) investigated the effects of salinity on osmotic status, body fluid dynamics and metabolic rate of terrapins across a range of seasonally relevant temperatures. Terrapins primarily relied on energetically efficient behavioural adjustments, such as reducing rates of water and salt exchange with the environment, to defend osmotic homeostasis when faced with an acute increase in salinity. Terrapins are a species of conservation concern and additional studies to assess the implications of their osmoregulatory strategy for habitat utilization and resilience are warranted. Photo credit: Stephanie Nadeau.

INSIDE JEB

Pied flycatcher fathers compensate for moult at take-off

Knight, K.

jeb206193

Firebugs fight infection with egg yolk protein

Knight, K.

jeb206185

Tropical stingless bees don't react to caffeine

Knight, K.

jeb206441

Marine larval vision suffers in low oxygen

Knight, K.

jeb205534

COMMENTARY

Within-individual behavioural variability and division of labour in social insects

Jeanson, R.

jeb190868

SHORT COMMUNICATION

Differential glycogen utilization in shark acid- and base-regulatory gill cells

Roa, J. N. and Tresguerres, M.

jeb199448

RESEARCH ARTICLES

Food-derived volatiles enhance consumption in *Drosophila melanogaster*

Reisenman, C. E. and Scott, K.

jeb202762

Eccentric resistance training and β -hydroxy- β -methylbutyrate free acid affects muscle *PGC-1 α* expression and serum irisin, nesfatin-1 and resistin in rats

Shirvani, H., Rahmati-Ahmadabad, S., Broom, D. R. and Mirnejad, R.

jeb198424

UV light perception is modulated by the odour element of an olfactory–visual compound in restrained honeybees

Becker, M. C., Rössler, W. and Strube-Bloss, M. F.

jeb201483

A songbird compensates for wing molt during escape flights by reducing the molt gap and increasing angle of attack

Tomotani, B. M. and Muijres, F. T.

jeb195396

Changes in vitellogenin expression caused by nematodal and fungal infections in insects

Kodrík, D., Ibrahim, E., Gautam, U. K., Čapková Frydrychová, R., Bednářová, A., Křišťůfek, V. and Jedlička, P.

jeb202853

Goats decrease hindlimb stiffness when walking over compliant surfaces

Clites, T. R., Arnold, A. S., Singh, N. M., Kline, E., Chen, H., Tugman, C., Billadeau, B., Biewener, A. A. and Herr, H. M.

jeb198325

The neuropeptide CCHamide2 regulates diuresis in the Chagas disease vector *Rhodnius prolixus*

Capriotti, N., Ianowski, J. P., Gioino, P. and Ons, S.

jeb203000

Effects of temperature and salinity on body fluid dynamics and metabolism in the estuarine diamondback terrapin (*Malaclemys terrapin*)

Southwood Williard, A., Harden, L. A., Jones, T. T. and Midway, S. R.

jeb202390

Plastic changes in brain morphology in relation to learning and environmental enrichment in the guppy (*Poecilia reticulata*)

Fong, S., Buechel, S. D., Boussard, A., Kotschal, A. and Kolm, N.

jeb200402

Reproductive fitness of *Drosophila* is maximised by optimal developmental temperature

Klepsatel, P., Girish, T. N., Dircksen, H. and Gálíková, M.

jeb202184

Water and ion transport across the eversible vesicles in the colophore of the springtail *Orchesella cincta*

Konopová, B., Kolosov, D. and O'Donnell, M. J.

jeb200691

The gastric sieve of penaeid shrimp species is a sub-micrometer nutrient filter

Pattarayingsakul, W., Pudgerd, A., Munkongwongsiri, N., Vanichviriyakit, R., Chaijarasphong, T., Thitamadee, S. and Krangkum, T.

jeb199638

Voltages and resistances of the anterior Malpighian tubule of *Drosophila melanogaster*

Beyenbach, K. W.

jeb201574

Repeated stimulation of the pituitary–adrenal axis alters offspring phenotype of a wild passerine

Tilgar, V.

jeb200659

Effects of gut microbiota transfer on emotional reactivity in Japanese quails (*Coturnix japonica*)

Kraimi, N., Calandreau, L., Zemb, O., Germain, K., Dupont, C., Velge, P., Guitton, E., Lavillatte, S., Parias, C. and Leterrier, C.

jeb202879

Functional characterisation of two $\Delta 12$ -desaturases demonstrates targeted production of linoleic acid as pheromone precursor in *Nasonia*

Semmelmann, F., Kabeya, N., Malcicka, M., Bruckmann, A., Broschwitz, B., Straub, K., Merkl, R., Monroig, O., Sterner, R., Ruther, J. and Ellers, J.

jeb201038

Parabronchial remodeling in chicks in response to embryonic hypoxia

Amaral-Silva, L., Lambertz, M., Zara, F. J., Klein, W., Gargaglioni, L. H. and Bicego, K. C.

jeb197970

Maternal exercise before and during gestation modifies liver and muscle mitochondria in rat offspring

Siti, F., Dubouchaud, H., Hininger, I., Quiclet, C., Vial, G., Galinier, A., Casteilla, L., Fontaine, E., Batandier, C. and Couturier, K.

jeb194969

Prenatal independent and combined effects of yolk vitamin E and corticosterone on embryo growth and oxidative status in the yellow-legged gull

Parolini, M., Possenti, C. D., Secomandi, S., Carboni, S., Caprioli, M., Rubolini, D., Romano, A. and Saino, N.

jeb199265

Resource profitability, but not caffeine, affects individual and collective foraging in the stingless bee *Plebeia droryana*

Peng, T., Segers, F. H. I. D., Nascimento, F. and Grüter, C.

jeb195503

Vision is highly sensitive to oxygen availability in marine invertebrate larvae

McCormick, L. R., Levin, L. A. and Oesch, N. W.

jeb200899