



Cover: The diablito poison frog (*Oophaga sylvatica*) rests on a leaf in a rainforest in Ecuador. Diablito frogs are chemically defended and sequester alkaloid toxins from their diet of leaf litter arthropods. In this issue, O'Connell et al. (jeb230342) show that alkaloids can be sequestered within 4 days of exposure and that this bioaccumulation changes the abundance of proteins involved in transport and metabolism in the intestines, liver and skin. Photo credit: Andrius Pasukonis.

INSIDE JEB

Head bobbing gives pigeons a sense of perspective

Knight, K.

jeb242283

Choosier small hive beetle males miss out when females score nutritious bee jelly

Knight, K.

jeb242214

Can microbial lodgers remote control fly hosts?

Knight, K.

jeb242217

Miraculous skin metamorphosis for beached amphibious fish

Knight, K.

jeb242173

OUTSIDE JEB

Warm fish eggs gasp for oxygen

Harter, T.

jeb235150

Gusty winds, flappy wings

Stenum, J.

jeb235101

Mole-rats play evolution by ear

Borowiec, B. G.

jeb235143

Synthetic sunflower scent trains bees for better pollination

Palavalli-Nettimi, R.

jeb235127

Panting zebra finches twitter to keep cool

Breit, A.

jeb235135

NEWS

Announcing the 2020 Journal of Experimental Biology Outstanding Paper Prize shortlist and winner

Knight, K.

jeb242266

COMMENTARY

Do endotherms have thermal performance curves?

Levesque, D. L. and Marshall, K. E.

jeb141309

REVIEW

Do aquatic ectotherms perform better under hypoxia after warm acclimation?

Collins, M., Truebano, M., Verberk, W. C. E. P. and Spicer, J. I.

jeb232512

SHORT COMMUNICATIONS

Rapid toxin sequestration modifies poison frog physiology

O'Connell, L. A., LS50: Integrated Science Laboratory

Course, O'Connell, J. D., Paulo, J. A., Trauger, S. A.,

Gygi, S. P. and Murray, A. W.

jeb230342

Epicatechin increases the persistence of long-term memory formed by conditioned taste aversion in *Lymnaea*

Itoh, A., Komatsuzaki, Y., Lukowiak, K. and Saito, M.

jeb238055

Latency of mechanically stimulated escape responses in the Pacific spiny dogfish, *Squalus suckleyi*

Schakmann, M., Becker, V., Søgaard, M., Johansen, J. L.,

Steffensen, J. F. and Domenici, P.

jeb230698

RESEARCH ARTICLES

Does the preferred walk–run transition speed on steep inclines minimize energetic cost, heart rate or neither?

Brill, J. W. and Kram, R.

jeb233056

Motion parallax via head movements modulates visuo-motor control in pigeons

Hataji, Y., Kuroshima, H. and Fujita, K.

jeb236547

Physiology and behavior under food limitation support an escape, not preparative, response in the nomadic pine siskin

(*Spinus pinus*)

DeSimone, J. G., Tobalske, B. W. and Breuner, C. W.

jeb238774

Multisensory integration supports configural learning of a home refuge in the whip spider *Phrynos marginemaculatus*

Flanigan, K. A. S., Wiegmann, D. D., Hebets, E. A. and

Bingman, V. P.

jeb238444

Symbiont regulation in *Stylophora pistillata* during cold stress: an acclimation mechanism against oxidative stress and severe bleaching

Marangoni, L. F. de B., Rottier, C. and Ferrier-Pagès, C.

jeb235275

- Ontogeny of the star compass in birds: pied flycatchers (*Ficedula hypoleuca*) can establish the star compass in spring
Zolotareva, A., Utvenko, G., Romanova, N., Pakhomov, A. and Chernetsov, N.
jeb237875
- Winter honeybee (*Apis mellifera*) populations show greater potential to induce immune responses than summer populations after immune stimuli
Dostálková, S., Dobeš, P., Kunc, M., Hurychová, J., Škrabišová, M., Petřivalský, M., Titěra, D., Havlík, J., Hyršl, P. and Danihlík, J.
jeb232595
- Regulation of dietary intake of protein and lipid by nurse-age adult worker honeybees
Stabler, D., Al-Esawy, M., Chennells, J. A., Perri, G., Robinson, A. and Wright, G. A.
jeb230615
- The impact of the gut microbiome on memory and sleep in *Drosophila*
Silva, V., Palacios-Muñoz, A., Okray, Z., Adair, K. L., Waddell, S., Douglas, A. E. and Ewer, J.
jeb233619
- Ocean acidification alters properties of the exoskeleton in adult Tanner crabs, *Chionoecetes bairdi*
Dickinson, G. H., Bejerano, S., Salvador, T., Makdisi, C., Patel, S., Long, W. C., Swiney, K. M., Foy, R. J., Steffel, B. V., Smith, K. E. and Aronson, R. B.
jeb232819
- Innovation in solitary bees is driven by exploration, shyness and activity levels
Collado, Miguel Á., Menzel, R., Sol, D. and Bartomeus, I.
jeb232058
- Contrasting strategies of osmotic and ionic regulation in freshwater crabs and shrimps: gene expression of gill ion transporters
Mantovani, M. and McNamara, J. C.
jeb233890
- Rapid and parallel changes in activity and mRNA of intestinal peptidase to match altered dietary protein levels in juvenile house sparrows (*Passer domesticus*)
Brun, A., Magallanes, M. E., Karasov, W. H. and Caviedes-Vidal, E.
jeb234708
- Response of the copepod *Acartia tonsa* to the hydrodynamic cues of small-scale, dissipative eddies in turbulence
Elmi, D., Webster, D. R. and Fields, D. M.
jeb237297
- Lower-limb muscle function is influenced by changing mechanical demands in cycling
Lai, A. K. M., Dick, T. J. M., Brown, N. A. T., Biewener, A. A. and Wakeling, J. M.
jeb228221