



Cover: Springtails (Collembola) are ancient hexapods living primarily in the upper layer of the soil. However, some species, like the water springtail (*Podura aquatica*), live on the surface of calm waters. This is the only springtail species that has been shown behaviourally to be able to detect the polarization of light, which is a typical ability of many aquatic insect species. Egri and Kriska (Jeb199760) demonstrate that the positive polarotaxis of *P. aquatica* functions in the blue spectral range but that longer wavelengths may also mediate important visual information for this species. Photo credit: Imre Potyó.

INSIDE JEB

Clownfish larvae J-curl to catch copepods

Knight, K.

jeb206177

Castaway cottonmouths depend on rain to slake thirst

Knight, K.

jeb205526

Tropical paper wasps serve long apprenticeships

Knight, K.

jeb204230

Hikers trade speed and efficiency for stability

Knight, K.

jeb204222

OUTSIDE JEB

Genes of the world's coolest fish

Borowiec, B. G.

jeb192757

Are fish self-aware?

McCallum, E.

jeb192781

It's a small world on a hot leaf

Turner, J. M.

jeb192773

The vertebrate story lies in the fossil of a slimy fish

Birceanu, O.

jeb192799

Singing mice take turns talking

Vahaba, D. M.

jeb192765

CONVERSATION

Early-career researchers: an interview with Heath MacMillan

jeb205476

OBITUARY

Ewald R. Weibel (1929–2019)

Hoppeler, H. and Lindstedt, S. L.

jeb205260

SHORT COMMUNICATION

Predatory posture and performance in a precocious larval fish targeting evasive copepods

Fashingbauer, M. C., Tuttle, L. J., Robinson, H. E., Strickler, J. R., Hartline, D. K. and Lenz, P. H.

jeb191411

METHODS AND TECHNIQUES

A new, practicable and economical cage design for experimental studies on small honey bee colonies

Sonter, C. A., Rader, R. and Wilson, S. C.

jeb200998

RESEARCH ARTICLES

Selection for longer limbs in mice increases bone stiffness and brittleness, but does not alter bending strength

Cosman, M. N., Britz, H. M. and Rolian, C.

jeb203125

Cranial kinesis in the miniaturised lizard *Ablepharus kitaibelii* (Squamata: Scincidae)

Handschuh, S., Natchev, N., Kummer, S., Beisser, C. J., Lemell, P., Herrel, A. and Vergilov, V.

jeb198291

Effects of group size on learning and memory in the honey bee *Apis mellifera*

Tsvetkov, N., Cook, C. N. and Zayed, A.

jeb193888

Fatigue and recovery measured with dynamic properties versus isometric force: effects of exercise intensity

Krüger, R. L., Aboodarda, S. J., Jaimes, L. M., MacIntosh, B. R., Samozino, P. and Millet, G. Y.

jeb197483

Renal acid excretion contributes to acid–base regulation during hypercapnia in air-exposed swamp eel (*Monopterus albus*)

Thinh, P. V., Thanh-Huong, D. T., Gam, L. T. H., Damsgaard, C., Phuong, N. T., Bayley, M. and Wang, T.

jeb198259

Ammonia-N exposure alters neurohormone levels in the hemolymph and mRNA abundance of neurohormone receptors and associated downstream factors in the gills of *Litopenaeus vannamei*

Si, L., Pan, L., Wang, H. and Zhang, X.

jeb200204

Avian surface reconstruction in free flight with application to flight stability analysis of a barn owl and peregrine falcon

Durston, N. E., Wan, X., Liu, J. G. and Windsor, S. P.

jeb185488

Water relations of an insular pit viper

Sandfoss, M. R. and Lillywhite, H. B.

jeb204065

Dim-light vision in jumping spiders (Araneae, Salticidae): identification of prey and rivals

Cerveira, A. M., Jackson, R. R. and Nelson, X. J.

jeb198069

Phenotypic plasticity in locomotor performance of a monophyletic group of weevils accords with the 'warmer is better' hypothesis
Treasure, A. M. and Chown, S. L.
jeb195255

Getting older, getting smarter: ontogeny of foraging behaviour in the tropical social wasp *Ropalidia marginata*
Mandal, S. and Brahma, A.
jeb199844

Stiffness gradients facilitate ovipositor bending and spatial probing control in a parasitic wasp
Cerkvenik, U., van Leeuwen, J. L., Kovalev, A., Gorb, S. N., Matsumura, Y. and Gussekloo, S. W. S.
jeb195628

Autonomic cardiac regulation facilitates acute heat tolerance in rainbow trout: *in situ* and *in vivo* support
Gilbert, M. J. H., Rani, V., McKenzie, S. M. and Farrell, A. P.
jeb194365

Cost of transport is a repeatable trait but is not determined by mitochondrial efficiency in zebrafish (*Danio rerio*)
Jahn, M. and Seebacher, F.
jeb201400

Joint angular excursions during cyclical behaviors differ between tetrapod feeding and locomotor systems
Granatosky, M. C., McElroy, E. J., Laird, M. F., Iriarte-Diaz, J., Reilly, S. M., Taylor, A. B. and Ross, C. F.
jeb200451

How does the water springtail optically locate suitable habitats? Spectral sensitivity of phototaxis and polarotaxis in *Podura aquatica*
Egri, Á. E. and Kriska, G.
jeb199760

Severe thermoregulatory deficiencies in mice with a deletion in the titin gene *TTN*
Miyano, C. A., Orezza, S. F., Buck, C. L. and Nishikawa, K. C.
jeb198564

Is conservation of center of mass mechanics a priority in human walking? Insights from leg-length asymmetry experiments
McDonald, K. A., Devaprakash, D. and Rubenson, J.
jeb195172

Preferred walking speed on rough terrain: is it all about energetics?
Gast, K., Kram, R. and Riemer, R.
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Respiratory sinus arrhythmia is a major component of heart rate variability in undisturbed, remotely monitored rattlesnakes, *Crotalus durissus*
Sanches, P. V. W., Taylor, E. W., Duran, L. M., Cruz, A. L., Dias, D. P. M. and Leite, C. A. C.
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