



Cover: Photograph (left) and 3D surface model of the skeleton (right) of the red-legged running frog, *Kassina maculata*, the latter image generated from CT scans. Richards et al. (pp. 1894–1904) and Porro et al. (pp. 1882–1893) combine data from *in vivo* experiments – including 3D kinematics and ground reaction forces – with inverse dynamics and inverse kinematics analyses to demonstrate how frogs are capable of jumping at an extreme range of take-off angles. Photo credit: Laura Porro.

INSIDE JEB

- 1745 Damselfish are coral fans; Even larvae act sick when they are poorly

CLASSICS

- 1747 The origin of the ‘channel arrest’ hypothesis
Robertson, R. M.

COMMENTARY

- 1749 Osmoregulation, bioenergetics and oxidative stress in coastal marine invertebrates: raising the questions for future research
Rivera-Ingraham, G. A. and Lignot, J.-H.

REVIEW

- 1761 Respiratory function and mechanics in pinnipeds and cetaceans
Fahlman, A., Moore, M. J. and Garcia-Parraga, D.

SHORT COMMUNICATIONS

- 1774 Pathogen-induced food evasion behavior in *Drosophila* larvae
Surendran, S., Hückesfeld, S., Wäschle, B. and Pankratz, M. J.
- 1781 Identification and characterization of the bombykal receptor in the hawkmoth *Manduca sexta*
Wicher, D., Morinaga, S., Halty-deLeon, L., Funk, N., Hansson, B., Touhara, K. and Stengl, M.
- 1787 Reactive oxygen species (ROS) and dimethylated sulphur compounds in coral explants under acute thermal stress
Gardner, S. G., Raina, J.-B., Ralph, P. J. and Petrou, K.
- 1792 Oxidative stress in a capital breeder (*Vipera aspis*) facing pregnancy and water constraints
Stier, A., Dupoué, A., Picard, D., Angelier, F., Brischoux, F. and Lourdais, O.
- 1797 Relative colour cues improve colour constancy in birds
Olsson, P. and Kelber, A.

RESEARCH ARTICLES

- 1803 Mutualistic damselfish induce higher photosynthetic rates in their host coral
Garcia-Herrera, N., Ferse, S. C. A., Kunzmann, A. and Genin, A.
- 1812 Potencies of effector genes in silencing odor-guided behavior in *Drosophila melanogaster*
Retzke, T., Thoma, M., Hansson, B. S. and Knaden, M.
- 1820 Speed-dependent modulation of wing muscle recruitment intensity and kinematics in two bat species
Konow, N., Cheney, J. A., Roberts, T. J., Iriarte-Díaz, J., Breuer, K. S., Waldman, J. R. S. and Swartz, S. M.
- 1830 Octopamine and tyramine regulate the activity of reproductive visceral muscles in the adult female blood-feeding bug, *Rhodnius prolixus*
Hana, S. and Lange, A. B.
- 1837 The cell specificity of gene expression in the response to heat stress in corals
Traylor-Knowles, N., Rose, N. H. and Palumbi, S. R.
- 1846 An early life hypoxia event has a long-term impact on protein digestion and growth in juvenile European sea bass
Zambonino-Infante, J. L., Mazurais, D., Dubuc, A., Quéau, P., Vanderplancke, G., Servili, A., Cahu, C., Le Bayon, N., Huelvan, C. and Claireaux, G.
- 1852 Formation and function of intracardiac valve cells in the *Drosophila* heart
Lammers, K., Abeln, B., Hüsken, M., Lehmacher, C., Psathaki, O. E., Alcorta, E., Meyer, H. and Paululat, A.
- 1864 Longitudinal quasi-static stability predicts changes in dog gait on rough terrain
Wilshin, S., Reeve, M. A., Haynes, G. C., Revzen, S., Koditschek, D. E. and Spence, A. J.
- 1875 Validating accelerometry estimates of energy expenditure across behaviours using heart rate data in a free-living seabird
Hicks, O., Burthe, S., Daunt, F., Butler, A., Bishop, C. and Green, J. A.
- 1882 Inverse dynamic modelling of jumping in the red-legged running frog, *Kassina maculata*
Porro, L. B., Collings, A. J., Eberhard, E. A., Chadwick, K. P. and Richards, C. T.
- 1894 Kinematic control of extreme jump angles in the red-legged running frog, *Kassina maculata*
Richards, C. T., Porro, L. B. and Collings, A. J.
- 1905 Oxidative ecology of paternal care in wild smallmouth bass, *Micropterus dolomieu*
Elmer, L. K., O’Connor, C. M., Philipp, D. P., Van Der Kraak, G., Gilmour, K. M., Willmore, W. G., Barthel, B. L. and Cooke, S. J.
- 1915 Motor and mechanical bases of the courtship call of the male treehopper *Umberonia crassicornis*
Miles, C. I., Allison, B. E., Losinger, M. J., Su, Q. T. and Miles, R. N.
- 1925 Octopamine and tyramine modulate the thermoregulatory fanning response in honey bees (*Apis mellifera*)
Cook, C. N., Brent, C. S. and Breed, M. D.