



**Cover:** Aggressive encounters are a distinct feature across many animal taxa. For eusocial insects such as ants, cooperation among nestmate friends helps establish discrete societies whereas aggression against non-nestmate foes is vital for defending queen and colony. Ferguson et al. (jeb215400) demonstrate that, in *Camponotus floridanus* non-nestmate skirmishes (pictured), the path toward aggression depends on the odorant receptor-mediated recognition of a precise and unambiguous odor cue. If this trigger stimulus is absent or otherwise unclear, ants will default toward acceptance. Put simply, in highly evolved ant societies, if you're not a foe, you must be a friend. Photo credit: Vanderbilt University.

### INSIDE JEB

Antarctic bald notothen uses spleen scuba tank to keep down blood viscosity  
**Knight, K.**  
jeb221549

### SHORT COMMUNICATIONS

Daily energy expenditure in white storks is lower after fledging than in the nest  
**Flack, A., Schaeffer, P. J., Taylor, J. R. E., Müller, I., Wikelski, M. and Fiedler, W.**  
jeb219337

Physiological and pharmacological characterization of a molluscan neuronal efflux transporter; evidence for age-related transporter impairment  
**Hermann, P. M., Perry, A. C., Hamad, I. and Wildering, W. C.**  
jeb213785

Evidence for a rapid cold hardening response in cultured *Drosophila* S2 cells  
**Nadeau, E. A. W. and Teets, N. M.**  
jeb212613

### RESEARCH ARTICLES

Rainbow trout slow myoblast cell culture as a model to study slow skeletal muscle, and the characterization of *mir-133* and *mir-499* families as a case study  
**Duran, B. O. d. S., Dal-Pai-Silva, M. and Garcia de la serrana, D.**  
jeb216390

Mitochondrial thermo-sensitivity in invasive and native freshwater mussels  
**Hraoui, G., Bettinazzi, S., Gendron, A. D., Boisclair, D. and Breton, S.**  
jeb215921

The neuropeptide Drosulfakinin regulates social isolation-induced aggression in *Drosophila*  
**Agrawal, P., Kao, D., Chung, P. and Looger, L. L.**  
jeb207407

Energy compensation and received echo level dynamics in constant-frequency bats during active target approaches  
**Stidsholt, L., Müller, R., Beedholm, K., Ma, H., Johnson, M. and Madsen, P. T.**  
jeb217109

Odor coding of nestmate recognition in the eusocial ant *Camponotus floridanus*  
**Ferguson, S. T., Park, K. Y., Ruff, A. A., Bakis, I. and Zwiebel, L. J.**  
jeb215400

Extreme blood-boosting capacity of an Antarctic fish represents an adaptation to life in a sub-zero environment  
**Brijs, J., Axelsson, M., Rosengren, M., Jutfelt, F. and Gräns, A.**  
jeb218164

The need for speed: functional specializations of locomotor and feeding muscles in *Anolis* lizards  
**Anderson, C. V. and Roberts, T. J.**  
jeb213397

Metabolic partitioning of sucrose and seasonal changes in fat turnover rate in ruby-throated hummingbirds (*Archilochus colubris*)  
**Dick, M. F., Alcantara-Tangonan, A., Oghli, Y. S. and Welch, K. C.**  
jeb212696

Effects of a titin mutation on force enhancement and force depression in mouse soleus muscles  
**Tahir, U., Monroy, J. A., Rice, N. A. and Nishikawa, K. C.**  
jeb197038

Mind the gap: natural cleft palates reduce biting performance in bats  
**Curtis, A. A., Arbour, J. H. and Santana, S. E.**  
jeb196535

Variation in limb loading magnitude and timing in tetrapods  
**Granatosky, M. C., McElroy, E. J., Lemelin, P., Reilly, S. M., Nyakatura, J. A., Andrada, E., Kilbourne, B. M., Allen, V. R., Butcher, M. T., Blob, R. W. and Ross, C. F.**  
jeb201525

Oxygenation properties of hemoglobin and the evolutionary origins of isoform multiplicity in an amphibious air-breathing fish, the blue-spotted mudskipper (*Boleophthalmus pectinirostris*)  
**Storz, J. F., Natarajan, C., Grouleff, M. K., Vandewege, M., Hoffmann, F. G., You, X., Venkatesh, B. and Fago, A.**  
jeb217307

Sexual dimorphism in human arm power and force: implications for sexual selection on fighting ability  
**Morris, J. S., Link, J., Martin, J. C. and Carrier, D. R.**  
jeb212365

Pectoral fin kinematics and motor patterns are shaped by fin ray mechanosensation during steady swimming in *Scarus quoyi*  
**Aiello, B. R., Olsen, A. M., Mathis, C. E., Westneat, M. W. and Hale, M. E.**  
jeb211466

The visual spectral sensitivity of the Chilean recluse spider  
*Loxosceles laeta*  
**Tapia, F., Olivares, J. and Schmachtenberg, O.**  
jeb217133

Reassessing the contribution of the Na<sup>+</sup>/H<sup>+</sup> exchanger Nhe3b to Na<sup>+</sup> uptake in zebrafish (*Danio rerio*) using CRISPR/Cas9 gene editing  
**Zimmer, A. M., Shir-Mohammadi, K., Kwong, R. W. M. and Perry, S. F.**  
jeb215111

Frogs seek hypoxic microhabitats that accentuate metabolic depression during dormancy  
**Rossi, G. S., Cramp, R. L., Wright, P. A. and Franklin, C. E.**  
jeb218743

Hypoxia-seeking behavior, metabolic depression and skeletal muscle function in an amphibious fish out of water  
**Rossi, G. S. and Wright, P. A.**  
jeb213355

Investigating the relationship between corticosterone and glucose in a reptile  
**Neuman-Lee, L. A., Hudson, S. B., Webb, A. C. and French, S. S.**  
jeb203885

Suction adhesion in the gliding joint of a cephalopod  
**Smith, A. M., LaValva, S. M., Loiacono, M. M. and Thompson, J. T.**  
jeb211227