



**Cover:** Flying insects often suffer different levels of wing damage caused by accidental collisions. Rajabi and colleagues (jeb215194) reviewed the literature on damage-reducing morphological adaptations in wings, covering natural causes of wing collisions, their impact on the structural integrity of wings and associated consequences for both insect flight performance and life expectancy. The results suggest that flying insects exhibit a great resilience to wing injuries not only because wings have evolved to be damage tolerant but also because insects might compensate for wing damage by altering wing kinematics. Photo credit: Hamed Rajabi.

## EDITORIAL

Conversation moves on: revisiting early-career researchers and a new focus on fieldwork

**Knight, K.**

jeb226407

## INSIDE JEB

Alkaline guts protect sea urchin larvae from infection

**Knight, K.**

jeb226928

Simulated larvae reveal why fish fry lose their dinner

**Knight, K.**

jeb225979

Two percent change switches motor muscle to brake

**Knight, K.**

jeb225383

## OUTSIDE JEB

Temperature spikes snuff out Earth's biodiversity

**McCallum, E.**

jeb214270

Flying lizards plan ahead to avoid clutter

**Socha, J.**

jeb225128

No oxygen? No mitochondria? No problem

**Birceanu, O.**

jeb214288

Lizard athletes have a home-field advantage

**Bressman, N.**

jeb214304

Full bellies stave off climate change

**Harter, T.**

jeb214312

## CONVERSATION

In the field: an interview with Craig Franklin

jeb226399

## COMMENTARY

Insect wing damage: causes, consequences and compensatory mechanisms

**Rajabi, H., Dirks, J.-H. and Gorb, S. N.**

jeb215194

## SHORT COMMUNICATION

Variable occurrence of apoptosis in the testes of diploid and sterile allotetraploid *Cobitis* (Teleostei, Cobitidae) males during the reproductive cycle

**Jablonska, O., Juchno, D., Leska, A., Kowalewska, K. and Boroní, A.**

jeb212050

## RESEARCH ARTICLES

Route learning during tandem running in the rock ant

*Temnothorax albipennis*

**Sasaki, T., Danczak, L., Thompson, B., Morshed, T. and Pratt, S. C.**

jeb221408

Spontaneous quantity discrimination of artificial flowers by foraging honeybees

**Howard, S. R., Schramme, J., Garcia, J. E., Ng, L., Avarguès-Weber, A., Greentree, A. D. and Dyer, A. G.**

jeb223610

Does the New Zealand rockwren (*Xenicus gilviventris*) hibernate?

**McNab, B. K. and Weston, K. A.**

jeb212126

Alkaline guts contribute to immunity during exposure to acidified seawater in the sea urchin larva

**Stumpff, M., Petersen, I., Thoben, F., Yan, J.-J., Leippe, M. and Hu, M. Y.**

jeb222844

The hydrodynamic regime drives flow reversals in suction-feeding larval fishes during early ontogeny

**Krishnan, K., Nafi, A. S., Gurka, R. and Holzman, R.**

jeb214734

The brains of six African mole-rat species show divergent responses to hypoxia

**Logan, S. M., Szerezewski, K. E., Bennett, N. C., Hart, D. W., van Jaarsveld, B., Pamenter, M. E. and Storey, K. B.**

jeb215905

*Wolbachia*-infected ant colonies have increased reproductive investment and an accelerated life cycle

**Singh, R. and Linksvayer, T. A.**

jeb220079

Near-equal compressibility of liver oil and seawater minimises buoyancy changes in deep-sea sharks and chimaeras

**Priede, I. G., Burgass, R. W., Mandalakis, M., Spyros, A., Gikas, P., Burns, F. and Drewery, J.**

jeb222943

Individual vocal recognition in zebra finches relies on song syllable structure rather than song syllable order

**Geberzahn, N. and Derégnaucourt, S.**

jeb220087

Using aerobic exercise to evaluate sub-lethal tolerance of acute warming in fishes

**Blasco, F. R., Esbaugh, A. J., Killen, S. S., Rantin, F. T., Taylor, E. W. and McKenzie, D. J.**

jeb218602

Exposure to hot temperatures during lactation in Swiss mice stunts offspring growth and decreases future reproductive performance of female offspring

**Bao, M.-H., Chen, L.-B., Hambly, C., Speakman, J. R. and Zhao, Z.-J.**

jeb223560

Shift in worker physiology and gene expression pattern from reproductive to diapause-like with colony age in the bumble bee *Bombus impatiens*

**Treanore, E. D., Kiner, J. M., Kerner, M. E. and Amsalem, E.**

jeb218768

Nanometer-scale structure differences in the myofilament lattice spacing of two cockroach leg muscles correspond to their different functions

**Tune, T. C., Ma, W., Irving, T. and Sponberg, S.**

jeb212829

Induction of nitric oxide synthesis: a strategy to defend against high environmental ammonia-induced oxidative stress in primary hepatocytes of air-breathing catfish, *Clarias magur*

**Hasan, R., Koner, D., Khongmawlo, E. and Saha, N.**

jeb219626

#### CORRECTION

Correction: Exposure to hot temperatures during lactation in Swiss mice stunts offspring growth and decreases future reproductive performance of female offspring

**Bao, M.-H., Chen, L.-B., Hambly, C., Speakman, J. R. and Zhao, Z.-J.**

jeb228809