



**Cover:** How other animals see the world has always intrigued us, not least because their eyes are often notably different from ours. In visually mediated decision making, regional specialisations of eyes largely determine the information animals have for critical judgements. Bagheri et al. (jeb210195) present a new method for estimating the spatial resolution of compound eyes, using 3D micro-CT images of preserved animals. This method estimates the way in which a compound eye samples the visual field by mapping the viewing directions of individual photoreceptors (white dots) and calculating spatial resolution in different directions of view. This study reveals that fiddler crabs see the world with two parallel streaks located just above and below the visual horizon. Picture credit: Zahra Bagheri and Jeremy Shaw.

### INSIDE JEB

Leaping small fish out-power breaching whales

**Knight, K.**

jeb219436

Male flower beetles' massive femora clamp females in place

**Knight, K.**

jeb219428

Falcons' vision up to speed for fast lifestyle

**Knight, K.**

jeb219493

### OUTSIDE JEB

Moles power-walk with their thumbs

**Basu, C.**

jeb211391

A new spin on flight control

**Lesser, E.**

jeb211383

Rising CO<sub>2</sub> saves lives

**Harter, T.**

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Electric fish turn down the power

**Turko, A.**

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The big problem with microplastic pollution

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### EDITORIAL

The changing face of peer review

**Hoppeler, H. and Handel, M.**

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### COMMENTARY

The stalk-eyed fly as a model for aggression – is there a conserved role for 5-HT between vertebrates and invertebrates?

**Bubak, A. N., Watt, M. J., Yaeger, J. D. W., Renner, K. J. and Swallow, J. G.**

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### SHORT COMMUNICATIONS

The energetics of 'airtime': estimating swim power from breaching behaviour in fishes and cetaceans

**Halsey, L. G. and Iosilevskii, G.**

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Why do muscles lose torque potential when activated within their agonistic group?

**de Brito Fontana, H., de Campos, D., Sawatsky, A., Han, S.-won and Herzog, W.**

jeb213843

A selfish genetic element linked to increased lifespan impacts metabolism in female house mice

**Lopes, P. C. and Lindholm, A. K.**

jeb212704

### RESEARCH ARTICLES

A new method for mapping spatial resolution in compound eyes suggests two visual streaks in fiddler crabs

**Bagheri, Z. M., Jessop, A.-L., Kato, S., Partridge, J. C., Shaw, J., Ogawa, Y. and Hemmi, J. M.**

jeb210195

History-dependent perturbation response in limb muscle

**Libby, T., Chukwueke, C. and Sponberg, S.**

jeb199018

Maternal glucocorticoids promote offspring growth without inducing oxidative stress or shortening telomeres in wild red squirrels

**Dantzer, B., van Kesteren, F., Westrick, S. E., Boutin, S., McAdam, A. G., Lane, J. E., Gillespie, R., Majer, A., Haussmann, M. F. and Monaghan, P.**

jeb212373

Establishment of correctly focused eyes may not require visual input in arthropods

**Owens, M., Giordullo, I. and Buschbeck, E. K.**

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Experience-dependent tuning of early olfactory processing in the adult honey bee, *Apis mellifera*

**Jernigan, C. M., Halby, R., Gerkin, R. C., Sinakevitch, I., Locatelli, F. and Smith, B. H.**

jeb206748

Whistling is metabolically cheap for communicating bottlenose dolphins (*Tursiops truncatus*)

**Pedersen, M. B., Fahlman, A., Borque-Espinosa, A., Madsen, P. T. and Jensen, F. H.**

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Comparing perineuronal nets and parvalbumin development between blackbird species with differences in early developmental song exposure

**Cornez, G., Langro, J., Cornil, C. A., Balthazart, J. and Lynch, K. S.**

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Do the enlarged hind legs of male thick-legged flower beetles contribute to take-off or mating?

**Burrows, M.**

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A fitness cost resulting from *Hamiltonella defensa* infection is associated with altered probing and feeding behaviour in

*Rhopalosiphum padi*

**Leybourne, D. J., Valentine, T. A., Bos, J. I. B. and Karley, A. J.**

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Tissue-specific expression of 11 $\beta$ -HSD and its effects on plasma corticosterone during the stress response

**Pérez, J. H., Swanson, R. E., Lau, H. J., Cheah, J., Bishop, V. R., Snell, K. R. S., Reid, A. M. A., Meddle, S. L., Wingfield, J. C. and Krause, J. S.**

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How fast can raptors see?

**Potier, S., Lieuvin, M., Pfaff, M. and Kelber, A.**

jeb209031