



**Cover:** The northern anchovy *Engraulis mordax* engaging in ram filter feeding. Carey and Goldbogen (pp. 2717–2725) used high-speed video to examine the swimming kinematics of this foraging behaviour. Anchovies' typical swimming mode is known as beat–glide, characterized by periods of swimming followed by straight glides through the water. This mode is known to be highly efficient; however, when filter feeding they switch to energetically costly swimming, and the swimming kinematics are radically altered to overcome the increased hydrodynamic drag. Anchovies therefore switch routinely between diametrically contrasting swimming modes: energetically efficient and energetically intensive. Photo credit: Nick Balfour.

### INSIDE JEB

- 2679** Migrating young eagles follow adults for conservation success; Spear-nosed bats train echolocation beam; Some insect larvae tolerate high temperatures better during winter; Newborn piglets develop coordination within 8 h

### OUTSIDE JEB

- 2682** Oestrogens encode love for female mice; Message in a sperm cell; Fish larvae feed in the danger zone; To be or not to be ... male or female?

### COMMENTARY

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### SHORT COMMUNICATIONS

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- 2701** Differences in molecular mechanisms of K<sup>+</sup> clearance in the auditory sensory epithelium of birds and mammals  
**Wilms, V., Söffgen, C. and Nothwang, H. G.**

### RESEARCH ARTICLES

- 2706** How innate is locomotion in precocial animals? A study on the early development of spatio-temporal gait variables and gait symmetry in piglets  
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- 2717** Kinematics of ram filter feeding and beat–glide swimming in the northern anchovy *Engraulis mordax*  
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- 2743** Sex differences in the utilization of essential and non-essential amino acids in Lepidoptera  
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- 2757** The effect of thermal acclimation on aerobic scope and critical swimming speed in Atlantic salmon, *Salmo salar*  
**Hvas, M., Folkedal, O., Imsland, A. and Oppedal, F.**
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- 2787** Labrid cleaner fishes show kinematic convergence as juveniles despite variation in morphology  
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- 2809** Escape jumping by three age-classes of water striders from smooth, wavy and bubbling water surfaces  
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- 2816** Echo-acoustic scanning with noseleaf and ears in phyllostomid bats  
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- 2825** Individual quality via sensitivity to cysteine availability in a melanin-based honest signaling system  
**Galván, I. and Alonso-Alvarez, C.**
- 2834** Stable carbon isotopes in breath reveal fast metabolic incorporation rates and seasonally variable but rapid fat turnover in the common shrew (*Sorex araneus*)  
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