



**Cover:** Mantises jump accurately to targets propelled by direct contractions of their limb muscles. To determine what constrains jumping performance using this mechanism, Sutton et al. (pp. 2127-2136) compared data from high-speed videos (1000 frames s<sup>-1</sup>) of jumps by 5 mg first instar nymphs through all nymphal stages to 1200 mg adults, with predictions of models constrained by energy, power and acceleration. Only the power-limited model explained natural jumping. The image shows an adult praying mantis, *Stagmomantis theophila*, viewed against a background of selected images from a video of a jumping sixth instar nymph. Photo credit: M. Burrows.

### INSIDE JEB

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### CLASSICS

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**Else, P. L.**

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**Pfeffer, S. E., Wahl, V. L. and Wittlinger, M.**
- 2119** How to find home backwards? Navigation during rearward homing of *Cataglyphis fortis* desert ants  
**Pfeffer, S. E. and Wittlinger, M.**
- 2127** Take-off speed in jumping mantises depends on body size and a power-limited mechanism  
**Sutton, G. P., Doroshenko, M., Cullen, D. A. and Burrows, M.**
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- 2145** Avian thermoregulation in the heat: efficient evaporative cooling allows for extreme heat tolerance in four southern hemisphere columbids  
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- 2166** Basking hamsters reduce resting metabolism, body temperature and energy costs during rewarming from torpor  
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- 2173** Specialized primary feathers produce tonal sounds during flight in rock pigeons (*Columba livia*)  
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- 2182** Refuging rainbow trout selectively exploit flows behind tandem cylinders  
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- 2192** Counting calories in cormorants: dynamic body acceleration predicts daily energy expenditure measured in pelagic cormorants  
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- 2201** Inhibition of the oxidative stress response by heat stress in *Caenorhabditis elegans*  
**Crombie, T. A., Tang, L., Choe, K. P. and Julian, D.**

- 2212** Brood size constrains the development of endothermy in blue tits  
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