



Cover: In addition to the more commonly observed slow crawling gait, sea stars exhibit a faster, oscillatory gait driven by synchronization of their podia. Ellers et al. (jeb242813) describe the kinematics of this newly recognized gait, called the bouncy gait, although there is no time during a stride when all podia are off the ground. Characteristic of this faster gait is that hodographs are clockwise and potential and kinetic energy are in phase, as they are in terrestrial vertebrate running. However, the ratio of these energies is very different, as is reflected in the Froude number, which is approximately 1–10 for terrestrial vertebrate running but 10^{-3} – 10^{-4} for sea stars using the oscillatory gait. Photo credit: Olaf Ellers.

INSIDE JEB

Time tweaks rodents' subterranean hearing

Knight, K.

jeb243784

Corroboree frogs get yellower but no thanks to β -carotene

Knight, K.

jeb243755

Kids don't walk like scaled-down adults

Knight, K.

jeb243739

COMMENTARY

Safety factors as a 'design' principle of animal form and function: an historical perspective

Hicks, J. W. and Wang, T.

jeb243324

REVIEW

Communication with self, friends and foes in active-sensing animals

Jones, T. K., Allen, K. M. and Moss, C. F.

jeb242637

SHORT COMMUNICATION

Postural control in the elephant

Dewolf, A. H., Ivanenko, Y. P., Mesquita, R. M. and

Willems, P. A.

jeb243648

RESEARCH ARTICLES

Thermal history of alfalfa leafcutting bees affects nesting and diapause incidence

Earls, K. N., Porter, M. S., Rinehart, J. P. and Greenlee, K. J.

jeb243242

Kinematics of sea star legged locomotion

Ellers, O., Khoriaty, M. and Johnson, A. S.

jeb242813

Rapid embryonic development supports the early onset of gill functions in two coral reef damselfishes

Prescott, L. A., Regish, A. M., McMahon, S. J.,

McCormick, S. D. and Rummer, J. L.

jeb242364

Immune and hormonal modulation in the postprandial period of bullfrogs (*Lithobates catesbeianus*)

de Figueiredo, A. C., Titon, S. C. M., Cyrino, J. C.,

Nogueira, L. A. K. and Gomes, F. R.

jeb243153

Beyond muscles: role of intramuscular connective tissue elasticity and passive stiffness in octopus arm muscle function

Di Clemente, A., Maiole, F., Bornia, I. and Zullo, L.

jeb242644

Local thermal environment and warming influence supercooling and drive widespread shifts in the metabolome of diapausing *Pieris rapae* butterflies

Mikucki, E. E. and Lockwood, B. L.

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Evoked auditory potentials from African mole-rats and coruros reveal disparity in subterranean rodent hearing

Caspar, K. R., Heinrich, A., Mellinghaus, L., Gerhardt, P. and Begall, S.

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A magnet attached to the forehead disrupts magnetic compass orientation in a migratory songbird

Packmor, F., Kishkinev, D., Bittermann, F., Kofler, B., Machowetz, C., Zechmeister, T., Zawadzki, L. C., Guilford, T. and Holland, R. A.

jeb243337

Neuroigin 1 expression is linked to plasticity of behavioral and neuronal responses to sex pheromone in the male moth *Agrotis ipsilon*

Durand, N., Aguilar, P., Demondion, E., Bourgeois, T., Bozzolan, F. and Debernard, S.

jeb243184

Does dietary β -carotene influence ontogenetic colour change in the southern corroboree frog?

Walton, S. J., Silla, A. J., Endler, J. A. and Byrne, P. G.

jeb243182

Increased cellular detoxification, cytoskeletal activities and protein transport explain physiological stress in a lagoon sponge

Beepat, S. S., Davy, S. K., Oakley, C. A., Mashini, A., Peng, L. and Bell, J. J.

jeb242820

Simple models highlight differences in the walking biomechanics of young children and adults

Rose, V. L. and Arellano, C. J.

jeb243040

Prenatal yolk corticosterone exposure promotes skeletal growth and induces oxidative imbalance in yellow-legged gull embryos

Romano, A., Possenti, C. D., Caprioli, M., De Felice, B., Rubolini, D. and Parolini, M.

jeb242943