

## Contents Volume 215 (9) 2012



**Cover:** Hugh, a Florida manatee (*Trichechus manatus latirostris*), was one of the test subjects for a behavioral hearing study conducted by Gaspard, Bauer, Reep, Dziuk, Cardwell, Read and Mann (pp. 1442–1447). The behavioral audiogram indicated frequency detection from 0.25 to 90.5 kHz with peak sensitivity extending from 8 to 32 kHz. Critical ratios, the capacity to detect tonal signals in the presence of noise, were also tested and found to be quite low. Gaining a better understanding of how this endangered species perceives its environment is a crucial component in guiding conservation efforts. Photo credit: Marc Ellis/Mote Marine Laboratory and Aquarium.

### ▼ Inside JEB

**Manatees should hear looming danger i; Microalgae keep sea urchins at bay i; Insect cuticle tougher than bone ii; Dunnarts' development adapts iii**

### Outside JEB

**Climate change a plus for albatross iv; The not-so-plain duet of the plain-tailed wren v; Why don't woodpeckers get headaches? v; Potential antidote to snake venom myotoxin vi**

### Commentary

**Storey, K. B. and Storey, J. M.** Aestivation: signaling and hypometabolism. 1425-1433

### Research Articles

**Korine, C., Krasnov, B. R., Khokhlova, I. S. and Pinshow, B.** Effects of host diet and thermal state on feeding performance of the flea *Xenopsylla ramesis*. 1435-1441

► **Gaspard, J. C., III, Bauer, G. B., Reep, R. L., Dziuk, K., Cardwell, A., Read, L. and Mann, D. A.** Audiogram and auditory critical ratios of two Florida manatees (*Trichechus manatus latirostris*). 1442-1447

**Soñanez-Organis, J. G., Vázquez-Medina, J. P., Zenteno-Savín, T., Aguilar, A., Crocker, D. E. and Ortiz, R. M.** Prolonged fasting increases purine recycling in post-weaned northern elephant seals. 1448-1455

**Staab, K. L., Holzman, R., Hernandez, L. P. and Wainwright, P. C.** Independently evolved upper jaw protrusion mechanisms show convergent hydrodynamic function in teleost fishes. 1456-1463

► **Kawamata, S.** Experimental evaluation of the anti-attachment effect of microalgal mats on grazing activity of the sea urchin *Strongylocentrotus nudus* in oscillating flows. 1464-1471

**Congdon, K. A., Hammond, A. S. and Ravosa, M. J.** Differential limb loading in miniature pigs (*Sus scrofa domestica*): a test of chondral modeling theory. 1472-1483

**Weber, J.-M. and Reidy, S. P.** Extending food deprivation reverses the short-term lipolytic response to fasting: role of the triacylglycerol/fatty acid cycle. 1484-1490

**Misra, S., Kwong, R. W. M. and Niyogi, S.** Transport of selenium across the plasma membrane of primary hepatocytes and enterocytes of rainbow trout. 1491-1501

► **Dirks, J.-H. and Taylor, D.** Fracture toughness of locust cuticle. 1502-1508

**Langman, V. A., Rowe, M. F., Roberts, T. J., Langman, N. V. and Taylor, C. R.** Minimum cost of transport in Asian elephants: do we really need a bigger elephant? 1509-1514

**van Os, N., Smits, S. H. J., Schmitt, L. and Grieshaber, M. K.** Control of D-octopine formation in scallop adductor muscle as revealed through thermodynamic studies of octopine dehydrogenase. 1515-1522

**Kress, D. and Egelhaaf, M.** Head and body stabilization in blowflies walking on differently structured substrates. 1523-1532

**Aguilera, P. A., Pereira, A. C. and Caputi, Á. A.** Active electrolocation in pulse gymnotids: sensory consequences of objects' mutual polarization. 1533-1541

**Bisch-Knaden, S., Carlsson, M. A., Sugimoto, Y., Schubert, M., Mißbach, C., Sachse, S. and Hansson, B. S.** Olfactory coding in five moth species from two families. 1542-1551

► **Riek, A. and Geiser, F.** Developmental phenotypic plasticity in a marsupial. 1552-1558

**Mellon, DeF., Jr and Abdul Hamid, O. A.** Identified antennular near-field receptors trigger reflex flicking in the crayfish. 1559-1566

**Stamper, S. A., Roth, E., Cowan, N. J. and Fortune, E. S.** Active sensing *via* movement shapes spatiotemporal patterns of sensory feedback. 1567-1574

**Poteat, M. D., Díaz-Jaramillo, M. and Buchwalter, D. B.** Divalent metal (Ca, Cd, Mn, Zn) uptake and interactions in the aquatic insect *Hydropsyche sparna*. 1575-1583

**Panagiotopoulou, O., Pataky, T. C., Hill, Z. and Hutchinson, J. R.** Statistical parametric mapping of the regional distribution and ontogenetic scaling of foot pressures during walking in Asian elephants (*Elephas maximus*). 1584-1593

**Al-Musawi, S. L., Stickland, N. C. and Bayol, S. A. M.** *In ovo* temperature manipulation differentially influences limb musculoskeletal development in two lines of chick embryos selected for divergent growth rates. 1594-1604

► Article featured 'Inside JEB'