



Cover: Sea otter in Simpson Bay, Alaska. The photo shows the blunt carnassial teeth in which hard food items are placed during biting events. Timm-Davis et al. (pp. 4703-4710) demonstrate that durophagy in sea otters is a specialized raptorial biting feeding mode. Their extreme blunt skull and mandibles, along with increased mechanical advantages of the masseter and increased bite force, form a repertoire of functional traits for durophagy. The kinematic data indicate innovations for the production of large bite forces at extreme wide gapes and gape angles. This image was taken under USFW permit number MA078744-4. Photo credit: Alice Cove Research.

INSIDE JEB

- 4549 How largemouth bass pucker up to slurp; Harnessed ants learn the hot way

CLASSICS

- 4551 Safety in numbers
Foster, W.

REVIEW

- 4554 Sensing in a noisy world: lessons from auditory specialists, echolocating bats
Corcoran, A. J. and Moss, C. F.

SHORT COMMUNICATIONS

- 4567 Characterizing the distribution of steroid sulfatase during embryonic development: when and where might metabolites of maternal steroids be reactivated?
Paitz, R. T., Duffield, K. R. and Bowden, R. M.
- 4571 Respiratory consequences of targeted losses of *Hoxa5* gene function in mice
Landry-Truchon, K., Fournier, S., Houde, N., Rousseau, J.-P., Jeannotte, L. and Kinkead, R.
- 4578 Head orientation of walking blowflies is controlled by visual and mechanical cues
Monteagudo, J., Lindemann, J. P. and Egelhaaf, M.
- 4583 Low glucose availability stimulates progesterone production by mouse ovaries *in vitro*
Wilsterman, K., Pepper, A. and Bentley, G. E.
- 4654 Free-ranging dogs prefer petting over food in repeated interactions with unfamiliar humans
Bhattacharjee, D., Sau, S., Das, J. and Bhadra, A.
- 4661 Aversive learning of odor-heat associations in ants
Desmedt, L., Baracchi, D., Devaud, J.-M., Giurfa, M. and d'Ettorre, P.
- 4669 Myogenic activity and serotonergic inhibition in the chromatophore network of the squid *Dosidicus gigas* (family Ommastrephidae) and *Doryteuthis opalescens* (family Loliginidae)
Rosen, H. E. and Gilly, W. F.
- 4681 Neuromuscular mechanisms of an elaborate wing display in the golden-collared manakin (*Manacus vitellinus*)
Fuxjager, M. J., Fusani, L., Goller, F., Trost, L., Maat, A. T., Gahr, M., Chiver, I., Ligon, R. M., IV, Chew, J. and Schlinger, B. A.
- 4689 Context-dependent chemosensory signaling, aggression and neural activation patterns in gravid female African cichlid fish
Field, K. E. and Maruska, K. P.
- 4703 Durophagous biting in sea otters (*Enhydra lutris*) differs kinematically from raptorial biting of other marine mammals
Timm-Davis, L. L., Davis, R. W. and Marshall, C. D.
- 4711 Effects of food availability on metabolism, behaviour, growth and their relationships in a triploid carp
Liu, S. and Fu, S.-J.

RESEARCH ARTICLES

- 4589 Pharmacological analysis of the transmembrane action potential configuration in myoepithelial cells of the spontaneously beating heart of the ascidian *Styela rustica in vitro*
Golovko, V. A., Kosevich, I. A. and Gonotkov, M. A.
- 4600 Thermal strategies of king penguins during prolonged fasting in water
Lewden, A., Enstipp, M. R., Bonnet, B., Bost, C., Georges, J.-Y. and Handrich, Y.
- 4612 The opercular mouth-opening mechanism of largemouth bass functions as a 3D four-bar linkage with three degrees of freedom
Olsen, A. M., Camp, A. L. and Brainerd, E. L.
- 4624 Fighting over burrows: the emergence of dominance hierarchies in the Norway lobster (*Nephrops norvegicus*)
Sbragaglia, V., Leiva, D., Arias, A., Antonio García, J., Aguzzi, J. and Breithaupt, T.
- 4634 Thermal tachypnea in avian embryos
Bícego, K. C. and Mortola, J. P.
- 4644 A new method to characterize function of the *Drosophila* heart by means of optical flow
Mönck, H., Toppe, D., Michael, E., Sigrist, S., Richter, V., Hilpert, D., Raccuglia, D., Efetova, M. and Schwärzel, M.
- 4720 Functional classification of gill ionocytes and spatiotemporal changes in their distribution after transfer from seawater to freshwater in Japanese seabass
Inokuchi, M., Nakamura, M., Miyanishi, H., Hiroi, J. and Kaneko, T.
- 4733 The force-generation process in active muscle is strain sensitive and endothermic: a temperature-perturbation study
Ranatunga, K. W. and Offer, G.
- 4743 Correction: The energetic cost of filtration by demosponges and their behavioural response to ambient currents
Ludeman, D. A., Reidenbach, M. A. and Leys, S. P.
- 4745 Correction: Long-axis twisting during locomotion of elongate fishes
Donatelli, C. M., Summers, A. P. and Tytell, E. D.
- 4746 Correction: Honeybees in a virtual reality environment learn unique combinations of colour and shape
Rusch, C., Roth, E., Vinauger, C. and Riffell, J. A.
- 4747 Correction: Audiograms of three subterranean rodent species (genus *Fukomys*) determined by auditory brainstem responses reveal extremely poor high-frequency cut-offs
Gerhardt, P., Henning, Y., Begall, S. and Malkemper, E. P.