

The Journal of Experimental Biology 217 (24) December | Contents



Cover: Air-breathing fishes are generally associated with tropical environments, but the Alaska blackfish *Dallia pectoralis* contradicts this common conception by inhabiting waters that are ice-covered in winter, although it enters warm and hypoxic waters in the summer to forage and reproduce. Lefevre, Stecyk and colleagues (pp. 4387–4398) use bimodal intermittent-closed respirometry to investigate the influence of varying environmental conditions on air breathing in an attempt to shed light on the selective pressures that maintain the air-breathing ability. Their results show that hypoxia is the main drive for air breathing, even at cold temperatures, whereas increased temperature in itself does not stimulate air breathing. Photo credit: Sjannie Lefevre.

INSIDE JEB

4269 Oystershell amplifies pearlfish calls; Soft catch prepares power for frog leaps; Larvae sense bow wave for swift exit

EDITORIAL

4271 Article-level metrics – it's not just about citations **Handel, M. J. P.**

CLASSICS

4273 An affinity for biochemical adaptation to temperature **Gunderson, A. R. and Stillman, J. H.**

SHORT COMMUNICATIONS

- 4275 Anaemia only causes a small reduction in the upper critical temperature of sea bass: is oxygen delivery the limiting factor for tolerance of acute warming in fishes? Wang, T., Lefevre, S., Iversen, N. K., Findorf, I., Buchanan, R. and McKenzie, D. J.
- 4279 Buzzing during biosonar-based interception of prey in the delphinids *Tursiops truncatus* and *Pseudorca crassidens*Wisniewska, D. M., Johnson, M., Nachtigall, P. E. and

RESEARCH ARTICLES

Madsen, P. T.

- 4283 Sound production in Onuxodon fowleri (Carapidae) and its amplification by the host shell
 Kéver, L., Colleye, O., Lugli, M., Lecchini, D.,
 Lerouvreur, F., Herrel, A. and Parmentier, E.
- 4295 Supervised accelerometry analysis can identify prey capture by penguins at sea

 Carroll, G., Slip, D., Jonsen, I. and Harcourt, R.
- 4303 Reliable quantification of bite-force performance requires use of appropriate biting substrate and standardization of bite out-lever Lappin, A. K. and Jones, M. E. H.
- 4313 Effects of unsaturated fatty acids on torpor frequency and diet selection in Djungarian hamsters (*Phodopus sungorus*)

Diedrich, V., Steinlechner, S. and Scherbarth, F.

- Saving energy during hard times: energetic adaptations of Shetland pony mares
 Brinkmann, L., Gerken, M., Hambly, C.,
 Speakman, J. R. and Riek, A.
- 4328 Prey fish escape by sensing the bow wave of a predator Stewart, W. J., Nair, A., Jiang, H. and McHenry, M. J.
- 4337 Different transcription regulation routes are exerted by L- and D-amino acid enantiomers of peptide hormones Tom, M., Manfrin, C., Mosco, A., Gerdol, M., De Moro, G., Pallavicini, A. and Giulianini, P. G.

- 4347 Graded behavioral responses and habituation to sound in the common cuttlefish Sepia officinalis
 Samson, J. E., Mooney, T. A., Gussekloo, S. W. S. and Hanlon, R. T.
- 4356 Bats coordinate sonar and flight behavior as they forage in open and cluttered environments Falk, B., Jakobsen, L., Surlykke, A. and Moss, C. F.
- 4365 The energetic benefits of tendon springs in running: is the reduction of muscle work important? Holt, N. C., Roberts, T. J. and Askew, G. N.
- 4372 The mechanics of elastic loading and recoil in anuran jumpingAstley, H. C. and Roberts, T. J.
- 4379 Geographic variation in thermal physiological performance of the intertidal crab *Petrolisthes violaceus* along a latitudinal gradient
 Gaitán-Espitia, J. D., Bacigalupe, L. D., Opitz, T., Lagos, N. A., Timmermann, T. and Lardies, M. A.
- 4387 Air breathing in the Arctic: influence of temperature, hypoxia, activity and restricted air access on respiratory physiology of the Alaska blackfish *Dallia pectoralis* Lefevre, S., Damsgaard, C., Pascale, D. R., Nilsson, G. E. and Stecyk, J. A. W.
- 4399 Antioxidant defence and stress protein induction following heat stress in the Mediterranean snail *Xeropicta derbentina*Troschinski, S., Dieterich, A., Krais, S., Triebskorn, R. and Köhler, H.-R.
- 4406 Total body water and water turnover rates in the estuarine diamondback terrapin (*Malaclemys terrapin*) during the transition from dormancy to activity Harden, L. A., Duernberger, K. A., Jones, T. T. and Southwood Williard, A.
- 4414 Metabolism and water loss rate of the haematophagous insect *Rhodnius prolixus*: effect of starvation and temperature Rolandi, C., Iglesias, M. S. and Schilman, P. E.
- 4423 Nitric oxide modulates a swimmeret beating rhythm in the crayfish
 Mita, A., Yoshida, M. and Nagayama, T.

CORRESPONDENCE

- 4432 How and how not to investigate the oxygen and capacity limitation of thermal tolerance (OCLTT) and aerobic scope remarks on the article by Gräns et al. Pörtner, H.-O.
- 4433 Response to 'How and how not to investigate the oxygen and capacity limitation of thermal tolerance (OCLTT) and aerobic scope remarks on the article by Gräns et al.'
 Jutfelt, F., Gräns, A., Jönsson, E., Wiklander, K.,

Seth, H., Olsson, C., Dupont, S., Ortega-Martinez, O., Sundell, K., Axelsson, M. and Sandblom, E.