



Cover: Adult king penguin (*Aptenodytes patagonicus*) stretching at the front of a breeding penguin colony on Possession Island in the Crozet Archipelago. Viblanc et al. (pp. 1686-1692) measured acute heart rate stress responses of breeding king penguins to experimental stressors throughout the breeding season. They found that fight-or-flight responses were progressively attenuated as breeding advanced, providing evidence that species can modulate their response to acute stress in relation to breeding stage in a way consistent with life history theory. Photo credit: Quentin Schull.

INSIDE JEB

- 1615** Pipefish fathers do not boost embryos' oxygen; Corollary signals coordinate swinging tentacles with swimming; Silk moth larvae suffer more than pupae in heat; Hot birds pant to keep cooler than air

OUTSIDE JEB

- 1618** Birds get crash-course in collisions; Bubbles create cosy environment for developing embryos; Take your time to resolve sensory conflicts; Boxfish don't swim the straight and narrow

RESEARCH ARTICLES

- 1621** Mechanisms and costs of mitochondrial thermal acclimation in a eurythermal killifish (*Fundulus heteroclitus*)
Chung, D. J. and Schulte, P. M.
- 1632** Aquatic burst locomotion by hydroplaning and paddling in common eiders (*Somateria mollissima*)
Gough, W. T., Farina, S. C. and Fish, F. E.
- 1639** Embryo oxygenation in pipefish brood pouches: novel insights
Braga Goncalves, I., Ahnesjö, I. and Kvarnemo, C.
- 1647** Vocal performance affects metabolic rate in dolphins: implications for animals communicating in noisy environments
Holt, M. M., Noren, D. P., Dunkin, R. C. and Williams, T. M.
- 1655** Jumping mechanisms and strategies in moths (Lepidoptera)
Burrows, M. and Dorosenko, M.
- 1667** Body mass affects seasonal variation in sickness intensity in a seasonally breeding rodent
Carlton, E. D. and Demas, G. E.
- 1677** Oxygen safety margins set thermal limits in an insect model system
Boardman, L. and Terblanche, J. S.
- 1686** Modulation of heart rate response to acute stressors throughout the breeding season in the king penguin *Aptenodytes patagonicus*
Viblanc, V. A., Smith, A. D., Gineste, B., Kauffmann, M. and Groscolas, R.
- 1693** Behaviour of the plathelminth *Symsagittifera roscoffensis* under different light conditions and the consequences for the symbiotic algae *Tetraselmis convolutae*
Nissen, M., Shcherbakov, D., Heyer, A., Brümmer, F. and Schill, R. O.
- 1699** Memory block: a consequence of conflict resolution
Ito, E., Yamagishi, M., Hatakeyama, D., Watanabe, T., Fujito, Y., Dyakonova, V. and Lukowiak, K.
- 1705** Avian thermoregulation in the heat: scaling of heat tolerance and evaporative cooling capacity in three southern African arid-zone passerines
Whitfield, M. C., Smit, B., McKechnie, A. E. and Wolf, B. O.
- 1715** Effects of the juvenile hormone analogue methoprene on rate of behavioural development, foraging performance and navigation in honey bees (*Apis mellifera*)
Chang, L.-H., Barron, A. B. and Cheng, K.
- 1725** The roles of visual parallax and edge attraction in the foraging behaviour of the butterfly *Papilio xuthus*
Stewart, F. J., Kinoshita, M. and Arikawa, K.
- 1733** Sexual differences in exploration behavior in *Xenopus tropicalis*?
Videliér, M., Cornette, R., Bonneaud, C. and Herrel, A.
- 1740** Disruption of amylase genes by RNA interference affects reproduction in the Pacific oyster *Crassostrea gigas*
Huvet, A., Béguel, J.-P., Cavaleiro, N. P., Thomas, Y., Quillien, V., Boudry, P., Alunno-Bruscia, M. and Fabioux, C.
- 1748** Locomotor corollary activation of trigeminal motoneurons: coupling of discrete motor behaviors
Hänzi, S., Banchi, R., Straka, H. and Chagnaud, B. P.
- 1759** Directional sound sensitivity in utricular afferents in the toadfish *Opsanus tau*
Maruska, K. P. and Mensinger, A. F.
- 1767** Scaling of left ventricle cardiomyocyte ultrastructure across development in the kangaroo *Macropus fuliginosus*
Snelling, E. P., Taggart, D. A., Maloney, S. K., Farrell, A. P., Leigh, C. M., Waterhouse, L., Williams, R. and Seymour, R. S.
- 1777** Aquatic surface respiration and swimming behaviour in adult and developing zebrafish exposed to hypoxia
Abdallah, S. J., Thomas, B. S. and Jonz, M. G.
- 1787** Dynamic changes in global and gene-specific DNA methylation during hibernation in adult thirteen-lined ground squirrels, *Ictidomys tridecemlineatus*
Alvarado, S., Mak, T., Liu, S., Storey, K. B. and Szyf, M.
- CORRECTION**
- 1796** Size dependence in non-sperm ejaculate production is reflected in daily energy expenditure and resting metabolic rate
Friesen, C. R., Powers, D. R., Copenhaver, P. E. and Mason, R. T.