



Cover: As the largest extant fish species, tropical whale sharks defy the general principle that size increases with latitude. This exceptionalism is likely enabled by bulk filtration of patchy, seasonally available zooplankton. Cade and colleagues (jeb224402) used multi-day accelerometer tags to compare the swimming effort expended by whale sharks during putative foraging and non-foraging periods. At the surface, whale sharks use high-amplitude, fast tail beats during low-speed, multi-hour foraging bouts, yet their large size suggests a low metabolic cost. This high foraging efficiency implies that disturbances during active feeding may have an outsized impact on the life history of this outsized animal. Photo credit: Simon Pierce.

INSIDE JEB

Dinosaur eels build up their fin bones for life on land

Knight, K.

jeb228510

Hot minnows could struggle to navigate as temperatures rise

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jeb228593

It's cold out, but whale sharks stay warm within

Knight, K.

jeb227900

Testosterone soups up golden-collared manakin roll-snap at expense of endurance

Knight, K.

jeb227017

OUTSIDE JEB

Moths use a fuzzy muffler to deaden bat sonar

Putney, J.

jeb214353

Most salamanders glow: now what?

Borowiec, B. G.

jeb214346

Unpredictability stresses out sea bass

Mantica, G.

jeb214338

Ingenious ants reinvent the wheel

Stenum, J.

jeb214320

REVIEW

Molecular mechanisms of biomineralization in marine invertebrates

Clark, M. S.

jeb206961

SHORT COMMUNICATIONS

Absolute ethanol intake predicts ethanol preference in *Drosophila melanogaster*

Park, S. J. and Ja, W. W.

jeb224121

Retinal slip compensation of pitch-constrained blue bottle flies flying in a flight mill

Hsu, S.-J. and Cheng, B.

jeb210104

Membrane peroxidation index and maximum lifespan are negatively correlated in fish of the genus *Nothobranchius*

de Costa, J., Barja, G. and Almáida-Pagan, P. F.

jeb224063

RESEARCH ARTICLES

Whale sharks increase swimming effort while filter feeding, but appear to maintain high foraging efficiencies

Cade, D. E., Levenson, J. J., Cooper, R., de la Parra, R., Webb, D. H. and Dove, A. D. M.

jeb224402

Floral vibrations by buzz-pollinating bees achieve higher frequency, velocity and acceleration than flight and defence vibrations

Pritchard, D. J. and Vallejo-Marín, M.

jeb220541

Role of the gut microbiome in mediating standard metabolic rate after dietary shifts in the viviparous cockroach, *Diploptera punctata*

Ayayee, P. A., Kinney, G., Yarnes, C., Larsen, T., Custer, G. F., van Diepen, L. T. A. and Muñoz-García, A.

jeb218271

Secondary osteon structural heterogeneity between the cranial and caudal cortices of the proximal humerus in white-tailed deer

Nguyen, J. T. and Barak, M. M.

jeb225482

Terrestrial acclimation and exercise lead to bone functional response in *Polypterus senegalus* pectoral fins

Du, T. Y. and Standen, E. M.

jeb217554

Fish embryo vulnerability to combined acidification and warming coincides with a low capacity for homeostatic regulation

Dahlke, F., Lucassen, M., Bickmeyer, U., Wohlrab, S., Puvanendran, V., Mortensen, A., Chierici, M., Pörtner, H.-O. and Storch, D.

jeb212589

Thermo-TRPs and gut microbiota are involved in thermogenesis and energy metabolism during low temperature exposure of obese mice

Wen, J., Bo, T., Zhang, X., Wang, Z. and Wang, D.

jeb218974

Responses of activity rhythms to temperature cues evolve in *Drosophila* populations selected for divergent timing of eclosion

Abhilash, L., Kalliyil, A. and Sheeba, V.

jeb222414

Eye lid squinting during food pecking in pigeons

Ostheim, J., Delius, J. A. M. and Delius, J. D.

jeb223313

Reduced exploration capacity despite brain volume increase in warm-acclimated common minnow

Závorka, L., Koeck, B., Armstrong, T. A., Soğancı, M., Crespel, A. and Killen, S. S.

jeb223453

Androgenic modulation of extraordinary muscle speed creates a performance trade-off with endurance
Tobiansky, D. J., Miles, M. C., Goller, F. and Fuxjager, M. J.
jeb222984

Body temperature stability in the whale shark, the world's largest fish
Nakamura, I., Matsumoto, R. and Sato, K.
jeb210286

Spectral sensitivity of cone vision in the diurnal murid *Rhabdomys pumilio*
Allen, A. E., Moulard, J. W., Rodgers, J., Baño-Otálora, B., Douglas, R. H., Jeffery, G., Vugler, A. A., Brown, T. M. and Lucas, R. J.
jeb215368

The effect of ambient oxygen on the thermal performance of a cockroach, *Nauphoeta cinerea*
Lombardi, E. J., Bywater, C. L. and White, C. R.
jeb208306

CORRESPONDENCE

The metabolic cost of whistling is low but measurable in dolphins
Noren, D. P., Holt, M. M., Dunkin, R. C. and Williams, T. M.
jeb224048

Response to: The metabolic cost of whistling is low but measurable in dolphins
Pedersen, M. B., Fahlman, A., Borque-Espinosa, A., Madsen, P. T. and Jensen, F. H.
jeb224915