

Engineering a Dinosaur

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Wednesday 15 March 2017

The reading list can be found at

<http://www.geolsoc.org.uk/EvolutionofFossils17>

Popular Articles and Resources

Background – dinosaurs, mammals and early tetrapods

- a. BBC Nature – Prehistoric life

<http://www.bbc.co.uk/nature/prehistoric>

- b. Live Science – A brief history of dinosaurs

<http://www.livescience.com/3945-history-dinosaurs.html>

- c. BBC Earth - How do we know what dinosaurs looked like

<http://www.bbc.co.uk/earth/story/20160217-what-was-it-like-to-be-a-dinosaur>

- d. National Geographic – The rise of mammals

<http://science.nationalgeographic.com/science/prehistoric-world/rise-mammals/#page=2>

- e. The Guardian - Tiktaalik fossils reveal how fish evolved into four-legged land animals

<https://www.theguardian.com/science/2014/jan/13/tiktaalik-fossil-fish-four-legged-land-animal>

Dinosaur feeding, locomotion and habitat

- a. New Scientist – See inside the heads of the biggest dinosaurs ever

<https://www.newscientist.com/article/dn26347-see-inside-the-heads-of-the-biggest-dinosaurs-ever/>

- b. New Scientist - Why Big Al's butt was much worse than his bite

<https://www.newscientist.com/article/mg16922790-500-why-big-als-butt-was-much-worse-than-his-bite/>

- c. Science - T. rex's shock-absorbing skull

<http://www.sciencemag.org/news/2004/06/t-rexs-shock-absorbing-skull>

- d. BBC Nature - T. rex bite was world's strongest

<http://www.bbc.co.uk/nature/17159086>

- e. Nature - Tyrannosaurus couldn't run

<http://www.nature.com/news/2002/020228/full/news020225-5.html>

- f. University of Bristol - What dinosaurs' colour patterns say about their habitat

<http://www.bristol.ac.uk/news/2016/september/dinosaur-colour-patterns.html>

Journal Articles and Books

- a. Cuff, Andrew R., and Rayfield, Emily J. "Feeding mechanics in spinosaurid theropods and extant crocodylians." PLoS One 8.5 (2013) <http://dx.doi.org/10.1371/journal.pone.0065295>
- b. Button DJ, Rayfield EJ & Barrett PM 2014 Cranial biomechanics underpins high sauropod diversity in resource-poor environments. Proceedings of the Royal Society of London, B. 281: 20142114.
- c. Gill PG, Purnell MA, Crumpton N, Robson Brown K, Gostling NJ, Stampanoni M & Rayfield EJ. 2014 Dietary specializations and diversity in feeding ecology of the earliest stem mammals. Nature 512: 303-305.
- d. Cunningham JA, Rahman IA, Lautenschlager S, Rayfield EJ & Donoghue PCJ 2014 A virtual world of paleontology. Trends in Ecology and Evolution 29(6): 347-357.
- e. Lautenschlager S, Altangerel P, Witmer LM. & Rayfield EJ 2013 Edentulism, beaks and biomechanical innovations in the early evolution of theropod dinosaurs. Proceedings of the National Academy of Sciences 110: 20657-20662 DOI: 10.1073/pnas.13107111110
- f. Anderson PSL, Bright JA, Gill PG, Palmer C & Rayfield EJ. 2012. Models in palaeontological functional analysis. Biology Letters 8: 119-122 DOI: 10.1098/rsbl.2011.0674
- g. Anderson PSL, Friedman M, Brazeau MD & Rayfield EJ. 2011. Initial radiation of jaws demonstrated stability despite faunal and environmental change. Nature 476: 206-209. DOI:10.1038/nature10207
- h. Rayfield EJ. 2007. Finite element analysis and understanding the biomechanics and evolution of living and fossil organisms. Annual Review of Earth and Planetary Sciences 35: 541-576.
- i. Dinosaur Palaeobiology, Brusatte, Stephen L. (2012)
- j. Your Inner Fish, Shubin, Neil (2008)