

BS3220: Extreme Animal Physiology

View Online



1.
Schmidt-Nielsen K. Animal Physiology. 3rd ed. Prentice-Hall; 1970.

2.
Irschick DJ, Higham TE. Animal Athletes: An Ecological and Evolutionary Approach. 1st Edition. Oxford University Press; 2016.

3.
Irschick DJ, Higham TE. Animal Athletes: An Ecological and Evolutionary Approach. First edition. Oxford University Press; 2016.
<https://ebookcentral.proquest.com/lib/rhul/detail.action?docID=4310898>

4.
O'Neill MC, Umberger BR, Holowka NB, Larson SG, Reiser PJ. Chimpanzee Super Strength and Human Skeletal Muscle Evolution. Proceedings of the National Academy of Sciences. 2017;114(28):7343-7348. doi:10.1073/pnas.1619071114

5.
Sportology. Muscle Basics: What Athletes Need to Know About the Muscular System | YouTube. Published online 2015. <https://www.youtube.com/watch?v=94Q-fvCAJzQ>

6.
Skeletal Muscle Contraction - The Sliding Filament Mechanism | YouTube. Published online

2017. https://www.youtube.com/watch?v=c_ICvEJ4NBM

7.

Scientific American. Why Are Chimps Stronger Than Humans? | YouTube. Published online 2013. <https://www.youtube.com/watch?v=w98mem4FVQ0>

8.

Control of Muscle Tension.

<https://courses.lumenlearning.com/boundless-ap/chapter/control-of-muscle-tension/>

9.

Storey KB, Storey JM. Molecular Physiology of Freeze Tolerance in Vertebrates. *Physiological Reviews*. 2017;97(2):623-665. doi:10.1152/physrev.00016.2016

10.

Diogenes S. Freezing North American Wood Frogs | YouTube. Published online 2016. <https://www.youtube.com/watch?v=4WQuZq3Ujwo>

11.

Channel S. Frogsicles: Frozen But Still Alive | YouTube. Published online 2015. <https://www.youtube.com/watch?v=pLPeehsXAr4>

12.

Spring Thawing Frogs | Biologists.

<http://movie.biologists.com/video/10.1242/jeb.101931/video-1>

13.

Nat Geo WILD. Living Dead Frogs | YouTube. Published online 2015. https://www.youtube.com/watch?v=U9Vj_GQFGHQ

14.

DuBridge T. The Wood Frog's Freeze Tolerance | YouTube. Published online 2015.
<https://www.youtube.com/watch?v=YBVijkcuy9w>

15.

Randomly Researched. Why Don't Penguins Feet Freeze | YouTube. Published online 2016.
<https://www.youtube.com/watch?v=IIBZTgMcwh8>

16.

Workswell. Animals in the Zoo: World in InfraRed | YouTube. Published online 2016.
<https://www.youtube.com/watch?v=bAYTR8IW6E8>

17.

Roach J. Antifreeze-Like Blood Lets Frogs Freeze and Thaw With Winter's Whims. Published 2007.
<https://www.nationalgeographic.com/animals/2007/02/frog-antifreeze-blood-winter-adaptation/>

18.

Conlon J. Freeze Tolerance in the Wood Frog *Rana sylvatica* Is Associated With Unusual Structural Features in Insulin but Not in Glucagon. *Journal of Molecular Endocrinology*. 1998;21(2):153-159. doi:10.1677/jme.0.0210153

19.

Layne JR, Costanzo JP, Lee RE. Freeze Duration Influences Postfreeze Survival in the Frog *Rana sylvatica*. *Journal of Experimental Zoology*. 1998;280(2):197-201.
doi:10.1002/(SICI)1097-010X(19980201)280:2<197::AID-JEZ11>3.0.CO;2-J

20.

Cowan KJ, Storey KB. Freeze-Thaw Effects on Metabolic Enzymes in Wood Frog Organs. *Cryobiology*. 2001;43(1):32-45. doi:10.1006/cryo.2001.2338

21.

Wu S, Storey KB. Up-Regulation of Acidic Ribosomal Phosphoprotein P0 in Response to Freezing or Anoxia in the Freeze Tolerant Wood Frog, *Rana Sylvatica*. *Cryobiology*. 2005;50(1):71-82. doi:10.1016/j.cryobiol.2004.11.001

22.

Wu S, De Croos JNA, Storey KB. Cold Acclimation-Induced Up-Regulation of the Ribosomal Protein L7 Gene in the Freeze Tolerant Wood Frog, *Rana Sylvatica*. *Gene*. 2008;424(1-2):48-55. doi:10.1016/j.gene.2008.07.023

23.

Cai Q, B. Storey K. Upregulation of a Novel Gene by Freezing Exposure in the Freeze-Tolerant Wood Frog (*Rana Sylvatica*). *Gene*. 1997;198(1-2):305-312. doi:10.1016/S0378-1119(97)00332-6

24.

Costanzo JP. Glucose Concentration Regulates Freeze Tolerance in the Wood Frog *Rana Sylvatica*. *Journal of Experimental Biology*. 1993;181(1):245-255. <http://jeb.biologists.org/content/181/1/245>

25.

Sinclair BJ, Stinziano JR, Williams CM, MacMillan HA, Marshall KE, Storey KB. Real-Time Measurement of Metabolic Rate During Freezing and Thawing of the Wood Frog, *Rana Sylvatica*: Implications for Overwinter Energy Use. *The Journal of Experimental Biology*. 2013;216(2):292-302. doi:10.1242/jeb.076331

26.

Larson DJ. Wood Frog Adaptations to Overwintering in Alaska: New Limits to Freezing Tolerance. *Journal of Experimental Biology*. 2014;217(12):2193-2200. <http://jeb.biologists.org/content/217/12/2193>

27.

Jon P. Costanzo. Hibernation Physiology, Freezing Adaptation and Extreme Freeze

Tolerance in a Northern Population of the Wood Frog. *Journal of Experimental Biology*. 2013;216(18):3461-3473. <http://jeb.biologists.org/content/216/18/3461>

28.

Irwin JT, Costanzo JP, Lee RE. Postfreeze Reduction of Locomotor Endurance in the Freeze-Tolerant Wood Frog. *Physiological and Biochemical Zoology*. 2003;76(3):331-338. doi:10.1086/374282

29.

Costanzo JP, Irwin JT, Lee RE. Freezing Impairment of Male Reproductive Behaviors of the Freeze-Tolerant Wood Frog, *Rana Sylvatica*. *Physiological Zoology*. 1997;70(2). https://www.jstor.org/stable/30164298?seq=1#metadata_info_tab_contents

30.

Layne JR, Lee RE, Heil TL. Freezing-Induced Changes in the Heart Rate of Wood Frogs (*Rana Sylvatica*). *American Journal of Physiology - Regulatory, Integrative and Comparative Physiology*. Published online 1989. <https://www.physiology.org/doi/abs/10.1152/ajpregu.1989.257.5.R1046>

31.

Layne JR, First MC. Resumption of Physiological Functions in the Wood Frog (*Rana Sylvatica*) After Freezing. *American Journal of Physiology - Regulatory, Integrative and Comparative Physiology*. 1991;261. <https://www.physiology.org/doi/abs/10.1152/ajpregu.1991.261.1.R134>

32.

Storey KB, Bishof J, Rubinsky B. Cryomicroscopic Analysis of Freezing in Liver of the Freeze-Tolerant Wood Frog. *American Journal of Physiology-Regulatory, Integrative and Comparative Physiology*. 1992;263. <https://www.physiology.org/doi/abs/10.1152/ajpregu.1992.263.1.R185>

33.

Joanisse DR, Storey KB. Oxidative Damage and Antioxidants in *Rana Sylvatica*, the Freeze-Tolerant Wood Frog. *American Journal of Physiology - Regulatory, Integrative and*

Comparative Physiology. 1996;271.

<https://www.physiology.org/doi/abs/10.1152/ajpregu.1996.271.3.R545>

34.

Churchill TA, Storey KB. Dehydration Tolerance in Wood Frogs: A New Perspective on Development of Amphibian Freeze Tolerance. *American Journal of Physiology - Regulatory, Integrative and Comparative Physiology*. 1993;265.

<https://www.physiology.org/doi/abs/10.1152/ajpregu.1993.265.6.R1324>

35.

Costanzo JP, Lee RE, Lortz PH. Physiological Responses of Freeze-Tolerant and -Intolerant Frogs: Clues to Evolution of Anuran Freeze Tolerance. *American Journal of Physiology-Regulatory, Integrative and Comparative Physiology*. 1993;265(4):R721-R725. doi:10.1152/ajpregu.1993.265.4.R721

36.

Costanzo JP, Reynolds AM, do Amaral MCF, Rosendale AJ, Lee RE. Cryoprotectants and Extreme Freeze Tolerance in a Subarctic Population of the Wood Frog. *PLOS ONE*. 2015;10(2). doi:10.1371/journal.pone.0117234

37.

Kling KB, Costanzo JP, Lee RE. Post-Freeze Recovery of Peripheral Nerve Function in the Freeze-Tolerant Wood Frog, *Rana Sylvatica*. *Journal of Comparative Physiology B*. 1994;164(4):316-320. doi:10.1007/BF00346449

38.

Storey KB, Storey JM. Biochemical Adaption for Freezing Tolerance in the Wood Frog, *rana Sylvatica*. *Journal of Comparative Physiology B*. 1984;155(1):29-36. doi:10.1007/BF00688788

39.

Storey KB. Glycolysis and the Regulation of Cryoprotectant Synthesis in Liver of the Freeze Tolerant Wood Frog. *Journal of Comparative Physiology B*. 1987;157(3):373-380. doi:10.1007/BF00693364

40.

PBS. Bear Hibernation | YouTube. Published online 2015.
<https://www.youtube.com/watch?v=WZSIABnPAPc>

41.

Examples of Sleeping and Torpid Hummingbirds | YouTube. Published online 2017.
<https://www.youtube.com/watch?v=WsxEm0n3lkw>

42.

Hummingbird Coming Out of Torpor | YouTube. Published online 2010.
<https://www.youtube.com/watch?v=BkaoBetJlso>

43.

Infrared: Hummingbird in Torpor | YouTube. Published online 2018.
<https://www.youtube.com/watch?v=8ObONmj4VU8>

44.

Sleeping Torpor Hummingbird in Bellevue Tennessee | YouTube. Published online 2010.
<https://www.youtube.com/watch?v=iNOKW8NkAVM>

45.

ScienceBlogs. How Do Hummingbirds Survive Cold Nights? Hummingbirds and Torpor. Published 2009.
<https://scienceblogs.com/grrlscientist/2006/04/09/hummingbirds-and-torpor>

46.

Rees PA. Asian Elephants (*Elephas Maximus*) Dust Bathe in Response to an Increase in Environmental Temperature. *Journal of Thermal Biology*. 2002;27(5):353-358.
doi:10.1016/S0306-4565(01)00100-0

47.

Weissenböck NM, Weiss CM, Schwammer HM, Kratochvil H. Thermal Windows on the Body Surface of African Elephants (*Loxodonta Africana*) Studied by Infrared Thermography. *Journal of Thermal Biology*. 2010;35(4):182-188. doi:10.1016/j.jtherbio.2010.03.002

48.

Maloiy GMO, Kamau JMZ, Shkolnik A, Meir M, Arieli R. Thermoregulation and Metabolism in a Small Desert Carnivore: The Fennec Fox (*Fennecus Zerda*) (Mammalia)*. *Journal of Zoology*. 2009;198(3):279-291. doi:10.1111/j.1469-7998.1982.tb02076.x

49.

Young KV. How the Horned Lizard Got Its Horns. *Science*. 2004;304(5667):65-65. doi:10.1126/science.1094790

50.

Careau V, Morand-Ferron J, Thomas D. Basal Metabolic Rate of Canidae from Hot Deserts to Cold Arctic Climates. *Journal of Mammalogy*. 2007;88(2):394-400. doi:10.1644/06-MAMM-A-111R1.1

51.

Tattersall GJ, Andrade DV, Abe AS. Heat Exchange From the Toucan Bill Reveals a Controllable Vascular Thermal Radiator. *Science*. 2009;325(5939):468-470. doi:10.1126/science.1175553

52.

Dunkin RC, Wilson D, Way N, Johnson K, Williams TM. Climate Influences Thermal Balance and Water Use in African and Asian Elephants: Physiology Can Predict Drivers of Elephant Distribution. *Journal of Experimental Biology*. 2013;216(15):2939-2952. doi:10.1242/jeb.080218

53.

Williams JB, Lenain D, Ostrowski S, Tieleman BI, Seddon PJ. Energy Expenditure and Water Flux of Rüppell's Foxes in Saudi Arabia. *Physiological and Biochemical Zoology*.

2002;75(5):479-488. doi:10.1086/344490

54.

Golightly RT, Ohmart RD. Metabolism and Body Temperature of Two Desert Canids: Coyotes and Kit Foxes. *Journal of Mammalogy*. 1983;64(4):624-635. doi:10.2307/1380518

55.

Burleson GL. The Source of the Blood Ejected from the Eye by Horned Toads. *Copeia*. 1942;1942(4). doi:10.2307/1438013

56.

Prieto AA, Whitford WG. Physiological Responses to Temperature in the Horned Lizards, *Phrynosoma cornutum* and *Phrynosoma douglassii*. *Copeia*. 1971;1971(3). doi:10.2307/1442447

57.

Middendorf GA, Sherbrooke WC. Canid Elicitation of Blood-Squirting in a Horned Lizard (*Phrynosoma cornutum*). *Copeia*. 1992;1992(2). doi:10.2307/1446212

58.

Sherbrooke WC, Middendorf, III GA. Blood-Squirting Variability in Horned Lizards (*Phrynosoma*). *Copeia*. 2001;2001(4).
https://www.jstor.org/stable/1448403?seq=1#metadata_info_tab_contents

59.

Sherbrooke WC, Middendorf, III GA. Responses of Kit Foxes (*Vulpes macrotis*) to Antipredator Blood-Squirting and Blood of Texas Horned Lizards (*Phrynosoma cornutum*). *Copeia*. 2004;2004(3).
https://www.jstor.org/stable/1448486?seq=1#metadata_info_tab_contents

60.

Whitford WG, Bryant M. Behavior of a Predator and its Prey: The Horned Lizard (*Phrynosoma Cornutum*) and Harvester Ants (*Pogonomyrmex* Spp.). *Ecology*. 1979;60(4):686-694. doi:10.2307/1936605

61.

Rissing SW. Prey Preferences in the Desert Horned Lizard: Influence of Prey Foraging Method and Aggressive Behavior. *Ecology*. 1981;62(4):1031-1040. doi:10.2307/1937002

62.

Dayan T, Tchernov E, Yom-Tov Y, Simberloff D. Ecological Character Displacement in Saharo-Arabian Vulpes: Outfoxing Bergmann's Rule. *Oikos*. 1989;55(2). doi:10.2307/3565430

63.

Sherbrooke WC. Defensive Head Posture in Horned Lizards (*Phrynosoma*: Sauria: Iguanidae). *The Southwestern Naturalist*. 1987;32(4). doi:10.2307/3671494

64.

III GAM, Sherbrooke WC, Braun EJ. Comparison of Blood Squirted from the Circumorbital Sinus and Systemic Blood in a Horned Lizard, *Phrynosoma cornutum*. *The Southwestern Naturalist*. 2001;46(3). doi:10.2307/3672440

65.

Baker MA. A Brain-cooling System in Mammals. *Scientific American*. 1979;240(5):130-139. https://www.jstor.org/stable/24965201?Search=yes&resultItemClick=true&searchText=A&searchText=Brain-cooling&searchText=System&searchText=in&searchText=Mammals&searchUri=%2Faction%2FdoBasicSearch%3Ffilter%3D%26amp%3BQuery%3DA%2BBrain-cooling%2BSystem%2Bin%2BMammals&ab_segments=0%2Ftbsub-1%2F relevance_config_with_tbsub&refreqid=search%3A4c1d2e8dde317574a16448ff1135029d&seq=1#metadata_info_tab_contents

66.

Heath JE. Head-Body Temperature Differences in Horned Lizards. *Physiological Zoology*.

1964;37(3):273-279. doi:10.1086/physzool.37.3.30152398

67.

Heath JE. Venous Shunts in the Cephalic Sinuses of Horned Lizards. *Physiological Zoology*. 1966;39(1):30-35. doi:10.1086/physzool.39.1.30152764

68.

Sherbrooke WC. Antipredator Responses by Texas Horned Lizards to Two Snake Taxa with Different Foraging and Subjugation Strategies. *Journal of Herpetology*. 2008;42(1):142-152. https://www.jstor.org/stable/40060492?seq=1#metadata_info_tab_contents

69.

Baker LA, Weathers WW, White FN. Temperature Induced Peripheral Blood Flow Changes in Lizards. *Journal of Comparative Physiology*. 1972;80(3):312-323. doi:10.1007/BF00694844

70.

Baker LA, Weathers WW, White FN. Temperature Induced Peripheral Blood Flow Changes in Lizards. *Journal of Comparative Physiology*. 1972;80(3):312-323. doi:10.1007/BF00694844

71.

Williams TM. Heat Transfer in Elephants: Thermal Partitioning Based on Skin Temperature Profiles. *Journal of Zoology*. 1990;222(2):235-245. doi:10.1111/j.1469-7998.1990.tb05674.x

72.

Koffi M, Andreopoulos Y, Jiji LM. The Role of Pinnae Flapping Motion on Elephant Metabolic Heat Dissipation. *Journal of Heat Transfer*. 2014;136(10). doi:10.1115/1.4027864

73.

Bonine KE, Garland T. Sprint Performance of Phrynosomatid Lizards, Measured on a High-Speed Treadmill, Correlates With Hindlimb Length. *Journal of Zoology*. 1999;248(2):255-265. doi:10.1111/j.1469-7998.1999.tb01201.x

74.

Sherbrooke WC, Schwenk K. Horned Lizards (*Phrynosoma*) Incapacitate Dangerous Ant Prey With Mucus. *Journal of Experimental Zoology Part A: Ecological Genetics and Physiology*. 2008;309A(8):447-459. doi:10.1002/jez.472

75.

van de Ven TMFN, Martin RO, Vink TJF, McKechnie AE, Cunningham SJ. Regulation of Heat Exchange Across the Hornbill Beak: Functional Similarities With Toucans? *PLOS ONE*. 2016;11(5). doi:10.1371/journal.pone.0154768

76.

Hay OP. On the Ejection of Blood From the Eyes of Horned Toads. *Proceedings of The United States National Museum*. 1892;15:375-378. <http://biostor.org/reference/78735/page/1>

77.

Weissenböck NM, Arnold W, Ruf T. Taking the heat: thermoregulation in Asian elephants under different climatic conditions. *Journal of Comparative Physiology B*. 2012;182(2):311-319. doi:10.1007/s00360-011-0609-8

78.

Williams JB, Muñoz-Garcia A, Ostrowski S, Tieleman BI. A Phylogenetic Analysis of Basal Metabolism, Total Evaporative Water Loss, and Life-History Among Foxes From Desert and Mesic Regions. *Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology*. 2004;174(1):29-39. doi:10.1007/s00360-003-0386-0

79.

Mamoune K. Fennec the Sahara Desert Fox | YouTube. Published online 2014. <https://www.youtube.com/watch?v=Zs-l0I9PR6M>

80.

World of Warmth. Several Cold Blooded Animals in Infrared | YouTube. Published online 2015. <https://www.youtube.com/watch?v=ilgA3R42Wug>

81.

BBC One. The Smallest Fox With the Biggest Ears! | BBC. <https://www.bbc.co.uk/programmes/p02jm74v>

82.

FG TECH. Thermal Drone Footage of Elephants to Monitor Endangered Species | YouTube. Published online 2018. https://www.youtube.com/watch?v=0UXg_-SdkQM

83.

Leggett H. Toucan Beak Is New Kind of 'Heating Bill'. Published 2009. <https://www.wired.com/2009/07/toucanbill/>

84.

Rohrig B. Animal Survival in Extreme Temperatures. Published 2013. <https://www.acs.org/content/acs/en/education/resources/highschool/chemmatters/past-issues/archive-2013-2014/animal-survival-in-extreme-temperatures.html>

85.

WIRED. Toucan Bill Regulates Body Temperature | YouTube. Published online 2009. https://www.youtube.com/watch?v=zCH_1lxxfNU

86.

Elephant - P640 | YouTube. Published online 2010. <https://www.youtube.com/watch?v=modltSYnlu0>

87.

Infrared IR Elephant | YouTube. Published online 2006.
<https://www.youtube.com/watch?v=1th1MYyosQk>

88.

Regulation of Heat Exchange across the Hornbill Beak: Functional Similarities with Toucans? | YouTube. Published online 2016.
<https://www.youtube.com/watch?v=o030OjVrPog>

89.

Rohrig B. Animal Survival in Extreme Temperatures. Published 2013.
<https://www.acs.org/content/acs/en/education/resources/highschool/chemmatters/past-issues/archive-2013-2014/animal-survival-in-extreme-temperatures.html>

90.

Miller PJO, Aoki K, Rendell LE, Amano M. Stereotypical Resting Behavior of the Sperm Whale. *Current Biology*. 2008;18(1):R21-R23. doi:10.1016/j.cub.2007.11.003

91.

Hooker SK, Baird RW. Deep-diving Behaviour of the Northern Bottlenose Whale, *Hyperoodon Ampullatus* (Cetacea: Ziphiidae). *Proceedings of the Royal Society of London Series B: Biological Sciences*. 1999;266(1420):671-676. doi:10.1098/rspb.1999.0688

92.

Madsen PT. Sperm Whale Sound Production Studied With Ultrasound Time/depth-Recording Tags. *Journal of Experimental Biology*. 2002;205(13):1899-1906.
<http://jeb.biologists.org/content/205/13/1899>

93.

Miller PJO. Swimming Gaits, Passive Drag and Buoyancy of Diving Sperm Whales *Physeter Macrocephalus*. *Journal of Experimental Biology*. 2004;207(11):1953-1967.
<http://jeb.biologists.org/content/207/11/1953>

94.

Moore MJ, Early GA. Cumulative Sperm Whale Bone Damage and the Bends. *Science*. 2215;306(5705).
https://www.jstor.org/stable/3839876?seq=1#metadata_info_tab_contents

95.

Tyack PL. Extreme Diving of Beaked Whales. *Journal of Experimental Biology*. 2006;209(21):4238-4253. <http://jeb.biologists.org/content/209/21/4238>

96.

Clarke MR. Function of the Spermaceti Organ of the Sperm Whale. *Nature*. 1970;228(5274):873-874. doi:10.1038/228873a0

97.

Zimmer WMX, Johnson MP, D'Amico A, Tyack PL. Combining Data From a Multisensor Tag and Passive Sonar to Determine the Diving Behavior of a Sperm Whale (*Physeter Macrocephalus*). *IEEE Journal of Oceanic Engineering*. 2003;28(1):13-28.
doi:10.1109/JOE.2002.808209

98.

Arnbom T, Papastavrou V, Weilgart LS, Whitehead H. Sperm Whales React to an Attack by Killer Whales. *Journal of Mammalogy*. 1987;68(2):450-453. doi:10.2307/1381497

99.

Norris KS, Harvey GW. A Theory for the Function of the Spermaceti Organ of the Sperm Whale (*Physeter catodon* L.). *Animal Orientation and Navigation*. Published online 1972:397-417. <https://ntrs.nasa.gov/search.jsp?R=19720017437>

100.

Baird RW, Webster DL, McSweeney DJ, Ligon AD, Schorr GS, Barlow J. Diving Behaviour of Cuvier's (*Ziphius cavirostris*) and Blainville's (*Mesoplodon densirostris*) Beaked Whales in

Hawai'i. *Canadian Journal of Zoology*. 2006;84(8):1120-1128. doi:10.1139/z06-095

101.

Rommel SA, Costidis AM, Fernandez A, et al. Elements of Beaked Whale Anatomy and Diving Physiology and Some Hypothetical Causes of Sonar-Related Stranding. *Journal of Cetacean Research and Management*. 2006;7(3):189-209.
<https://www.semanticscholar.org/paper/Elements-of-beaked-whale-anatomy-and-diving-an-d-of-Anusudha-Rommel/c7302e80a20db58cf516310cb03b5b40572affef>

102.

Clarke MR. Buoyancy Control as a Function of the Spermaceti Organ in the Sperm Whale. *Journal of the Marine Biological Association of the United Kingdom*. 1978;58(1):27-71.
doi:10.1017/S0025315400024395

103.

Schorr GS, Falcone EA, Moretti DJ, Andrews RD. First Long-Term Behavioral Records from Cuvier's Beaked Whales (*Ziphius cavirostris*) Reveal Record-Breaking Dives. *PLoS ONE*. 2014;9(3). doi:10.1371/journal.pone.0092633

104.

Chapter 10. Respiration and Diving Physiology. :237-269.
<http://cetuss.ucsd.edu/sio133/PDF/BertaChap10.pdf>

105.

Papastavrou V, Smith SC, Whitehead H. Diving Behaviour of the Sperm Whale, *Physeter macrocephalus*, Off the Galapagos Islands. *Canadian Journal of Zoology*. 1989;67:839-846.
http://whitelab.biology.dal.ca/hw/Papastavrou_et_al_1989.pdf

106.

Clarke MR. Structure and Proportions of the Spermaceti Organ in the Sperm Whale. *Journal of the Marine Biological Association of the United Kingdom*. 1978;58(01).
doi:10.1017/S0025315400024371

107.

Thode A. Tracking Sperm Whale (*Physeter macrocephalus*) Dive Profiles Using a Towed Passive Acoustic Array. *Journal of Acoustical Society of America*. 2004;116(1):245-253. <https://www.ncbi.nlm.nih.gov/pubmed/15295984>

108.

Watkins WA, Daher MA, Fristrup KM, Howald TJ, di Sciara GN. Sperm Whales Tagged With Transponders and Tracked Underwater by Sonar. *Marine Mammal Science*. 1993;9(1):55-67. doi:10.1111/j.1748-7692.1993.tb00426.x

109.

Watwood SL, Miller PJO, Johnson M, Madsen PT, Tyack PL. Deep-Diving Foraging Behaviour of Sperm Whales (*Physeter macrocephalus*). *Journal of Animal Ecology*. 2006;75(3):814-825. doi:10.1111/j.1365-2656.2006.01101.x

110.

Whitehead H. Babysitting, Dive Synchrony, and Indications of Alloparental Care in Sperm Whales. *Behavioral Ecology and Sociobiology*. 1996;38(4):237-244. doi:10.1007/s002650050238

111.

Adaptations of Pinnipeds and Cetaceans to the Marine Environment - Physiology | YouTube. Published online 2015. <https://www.youtube.com/watch?v=Cl-XYwajF0U>

112.

Comparative Physiology of Respiration in Sea Turtles and Cetaceans | YouTube. Published online 2018. <https://www.youtube.com/watch?v=5d3DxBupzz0>

113.

Bubble-Net Feeding Humpback Whales in Antarctica | YouTube. Published online 2017. <https://www.youtube.com/watch?v=AsrW5pFRbTw>

114.

Oregon State University Ecampus. Sperm Whale Dive, 3D Simulation | YouTube. Published online 2015. <https://www.youtube.com/watch?v=CJP8jC1SikQ>

115.

Science Magazine. Evolution of Mammalian Diving Capacity | YouTube. Published online 2013. <https://www.youtube.com/watch?v=i7BOTMb5Znw>

116.

BBC Studios. How Marine Mammals Survive Underwater Life | YouTube. Published online 2008. <https://www.youtube.com/watch?v=UYkiRbgiwx0>

117.

Nat Geo WILD. How to Dive Like a Sperm Whale | YouTube. Published online 2018. <https://www.youtube.com/watch?v=bRVPrILHDXo>

118.

Humpback Whale Bubble-Netting Strategy | YouTube. Published online 2014. <https://www.youtube.com/watch?v=CC8dbT4R1w4>

119.

Humpback Whale: Hunting Technique | YouTube. Published online 2007. <https://www.youtube.com/watch?v=vJvfjiCTvq4>

120.

Humpback Whales Startle Kayakers | YouTube. Published online 2013. https://www.youtube.com/watch?v=G10_wHNNPeI

121.

Victoria Grima Pita. Mammal Adaptations to Diving 2 | YouTube. Published online 2016.

<https://www.youtube.com/watch?v=tDR5R3ifFkQ>

122.

Discovery Channel. Sperm Whales Sleeping | YouTube. Published online 2013.
<https://www.youtube.com/watch?v=HengPojNgbM>

123.

BBC Earth. Whales' Bubble Net Fishing | YouTube. Published online 2015.
<https://www.youtube.com/watch?v=Q8iDcLTD9wQ>

124.

National Geographic. Whales Team Up in Amazing Bubble-Net Hunt | YouTube. Published online 2014. <https://www.youtube.com/watch?v=z00G0RxeSP0>

125.

Breathing (Marine Mammals).
<http://what-when-how.com/marine-mammals/breathing-marine-mammals/>

126.

How Do Deep-Diving Sea Creatures Withstand Huge Pressure Changes? Published 2002.
<https://www.scientificamerican.com/article/how-do-deep-diving-sea-cr/>

127.

A Very Brief Introduction to Aerodynamics | YouTube. Published online 2015.
<https://www.youtube.com/watch?v=CE-yhtJmseA>

128.

Aerodynamics: Airfoil Camber, Flaps, Slots-Slats & Drag: 'Smoke Lifts' circa 1938 NACA Langley | YouTube. Published online 2013.
https://www.youtube.com/watch?v=q_eMQvDoDWk

129.

Aerodynamics - How to Design an Aerodynamic Shape | YouTube. Published online 2014.
<https://www.youtube.com/watch?v=RjzH-VAmi3E>

130.

How Do Birds Fly? | YouTube. Published online 2012.
<https://www.youtube.com/watch?v=3So7OMwNgy8>

131.

Canadian Museum of Nature. Gallery Interactives: How Do Birds Fly? | Canadian Museum of Nature. https://nature.ca/discover/exb/hwdbrdsfly/index_e.html

132.

Veritasium. How Does A Wing Actually Work? | YouTube. Published online 2012.
<https://www.youtube.com/watch?v=aFO4PBolwFg>

133.

Principles of Flight | YouTube. Published online 2016.
<https://www.youtube.com/watch?v=5O-j0w-h7v0>

134.

RCModelReviews. The Aerodynamics of Flying Wings (Part 1) | YouTube. Published online 2017. <https://www.youtube.com/watch?v=gkb11eKXM14>

135.

The Basics of Aerodynamics | YouTube. Published online 2013.
https://www.youtube.com/watch?v=X1gEXs_gna4

136.

Whiffling Goose | YouTube. Published online 2012.
<https://www.youtube.com/watch?v=Z4j1tKVzicU>

137.

Bird Flight | Askabiologist. <https://askabiologist.asu.edu/how-do-birds-fly>

138.

Aerodynamics | HowThingsFly. <https://howthingsfly.si.edu/aerodynamics>

139.

Bishop CM, Spivey RJ, Hawkes LA, et al. The Roller Coaster Flight Strategy of Bar-Headed Geese Conserves Energy During Himalayan Migrations. *Science*. 2015;347(6219):250-254. doi:10.1126/science.1258732

140.

Scott GR. Elevated Performance: The Unique Physiology of Birds That Fly at High Altitudes. *Journal of Experimental Biology*. 2011;214(15):2455-2462. <http://jeb.biologists.org/content/214/15/2455>

141.

Hawkes LA, Balachandran S, Batbayar N, et al. The Trans-Himalayan Flights of Bar-Headed Geese (*Anser indicus*). *Proceedings of the National Academy of Sciences*. 2011;108(23):9516-9519. doi:10.1073/pnas.1017295108

142.

Hawkes LA, Butler PJ, Frappell PB, et al. Maximum Running Speed of Captive Bar-Headed Geese Is Unaffected by Severe Hypoxia. *PLoS ONE*. 2014;9(4). doi:10.1371/journal.pone.0094015

143.

Scott GR, Hawkes LA, Frappell PB, Butler PJ, Bishop CM, Milsom WK. How Bar-Headed

Geese Fly Over the Himalayas. Physiology. 2015;30(2):107-115.
doi:10.1152/physiol.00050.2014

144.

Altitude Physiology 4. How Does the Bar-Headed Goose Deal With Altitude? | YouTube. Published online 2014. <https://www.youtube.com/watch?v=fy6B33m5jeM>

145.

Bird Flight: Avian Respiration | YouTube. Published online 2010.
<https://www.youtube.com/watch?v=iigxJXFJF4U>

146.

Bar-Headed Geese Laugh at Mountain Climbers | YouTube. Published online 2013.
<https://www.youtube.com/watch?v=3y9C2Sj-RbQ>

147.

Abigail C. Bird Respiration | YouTube. Published online 2011.
<https://www.youtube.com/watch?v=lkerY5dbVNs>

148.

Nat Geo WILD. Fastest Animal Makes a Kill | YouTube. Published online 2013.
<https://www.youtube.com/watch?v=r7IglchYNew>

149.

Wochit News. For Geese, the Himalayas Are Basically a Roller Coaster | YouTube. Published online 2015. <https://www.youtube.com/watch?v=lvcR7xndYZ4>

150.

Maktab. pk. FSc Biology Book 1, CH 13, LEC 7: Respiration in Birds | YouTube. Published online 2017. <https://www.youtube.com/watch?v=yulXYwl0q2s>

151.

High Altitude and Deep Sea Physiology | YouTube. Published online 2018.
<https://www.youtube.com/watch?v=3sCwCn8En-w>

152.

How Can Peregrine Falcons Dive So Fast? | YouTube. Published online 2018.
<https://www.youtube.com/watch?v=4cAB6F02ycU>

153.

Smithsonian Channel. How the Fastest Animal on Earth Attacks Its Prey | YouTube.
Published online 2016. <https://www.youtube.com/watch?v=ovocT91G1ww>

154.

Science Magazine. Peregrine Falcons Maneuver Best When Dive-Bombing at Over 300
km/hr | YouTube. Published online 2018. <https://www.youtube.com/watch?v=CKmfti3obhA>

155.

Rethink Biology. Airflow in Birds | YouTube. Published online 2018.
<https://www.youtube.com/watch?v=4EX2vAg9E3w>

156.

Prairie Falcon Takes Out a Drake Mallard | YouTube. Published online 2016.
https://www.youtube.com/watch?v=73OvZ_l35Sw

157.

University of Exeter. Running Geese Give Insight Into Low Oxygen Tolerance | YouTube.
Published online 2014. <https://www.youtube.com/watch?v=c5miFi0ASjc>

158.

The Avian Respiratory System | YouTube. Published online 2013.
<https://www.youtube.com/watch?v=kWMmyVu1ueY>

159.

BBC. The Highest Flying Birds in the World | YouTube. Published online 2014.
<https://www.youtube.com/watch?v=WnNQWj98BR0>

160.

Bangor University. The Roller Coaster Flight Strategy of Bar-Headed Geese | YouTube. Published online 2015. <https://www.youtube.com/watch?v=VZ1hmjrkDk>

161.

BBC Studios. Top Gun Geese! - Extreme Animals | YouTube. Published online 2008.
https://www.youtube.com/watch?v=yd_w3biT3TU

162.

Whiffing Goose | YouTube. Published online 2012.
<https://www.youtube.com/watch?v=Z4j1tKVzicU>

163.

Why Peregrine Falcons Are the Fastest Animals on Earth | YouTube. Published online 2017.
<https://www.youtube.com/watch?v=y7rOjh4Lr78>

164.

How Do Bird Lungs Work, Anyway? Published 2013.
<https://lillianwaller.wordpress.com/2013/06/21/how-do-bird-lungs-work-anyway/>

165.

AskNature. Air Flow Patterns Facilitate Efficient Gas Exchange: Birds. Published 2016.

<https://asknature.org/strategy/air-flow-patterns-facilitate-efficient-gas-exchange/#.XF15sVX7SUI>

166.

PetCoach. How the Respiratory System of Birds Works.
<https://www.petcoach.co/article/respiratory-system-of-birds-anatomy-and-function/>

167.

Than K. Highest Flying Bird Found; Can Scale Himalaya. Published 2011.
<https://news.nationalgeographic.com/news/2011/06/110610-highest-flying-birds-geese-himalaya-mountains-animals/>

168.

Evans JS, Eifler DA, Eifler MA. Sand-Diving as an Escape Tactic in the Lizard *Merops* *Anchietae*. *Journal of Arid Environments*. 2017;140:1-5. doi:10.1016/j.jaridenv.2017.01.005

169.

Secor SM, Jayne BC, Bennett AF. Locomotor Performance and Energetic Cost of Sidewinding by the Snake *Crotalus Cerastes*. *Journal of Experimental Biology*. 1992;163(1):1-14. doi:10.1242/jeb.163.1.1

170.

Brain CK. Observations on the Temperature Tolerance of Lizards in the Central Namib Desert, South West Africa. *Scientific Papers of the Namib Desert Research Station*. 1963(15):1-5. https://journals.co.za/content/scipapndrs/1963/15/AJA0000008_135

171.

Marvi H, Gong C, Gravish N, et al. Sidewinding With Minimal Slip: Snake and Robot Ascent of Sandy Slopes. *Science*. 2014;346(6206):224-229. doi:10.1126/science.1255718

172.

Maladen RD, Ding Y, Li C, Goldman DI. Undulatory Swimming in Sand: Subsurface Locomotion of the Sandfish Lizard. *Science*. 2009;325(5938).
https://www.jstor.org/stable/20536648?seq=1#metadata_info_tab_contents

173.

Sharpe SS, Koehler SA, Kuckuk RM, et al. Locomotor Benefits of Being a Slender and Slick Sand Swimmer. *Journal of Experimental Biology*. 2015;218(3):440-450.
doi:10.1242/jeb.108357

174.

S. S. Sharpe. Correction: Locomotor Benefits of Being a Slender and Slick Sand-Swimmer. *Journal of Experimental Biology*. 2015;218(7):1111-1111.
<http://jeb.biologists.org/content/218/7/1111>

175.

Wu NC, Alton LA, Clemente CJ, Kearney MR, White CR. Morphology and Burrowing Energetics of Semi-Fossorial Skinks (*Liopholis*). *Journal of Experimental Biology*. Published online 2015. doi:10.1242/jeb.113803

176.

Astley HC, Gong C, Dai J, et al. Modulation of Orthogonal Body Waves Enables High Maneuverability in Sidewinding Locomotion. *Proceedings of the National Academy of Sciences*. 2015;112(19):6200-6205. doi:10.1073/pnas.1418965112

177.

Comanns P, Esser FJ, Kappel PH, Baumgartner W, Shaw J, Withers PC. Adsorption and Movement of Water by Skin of the Australian Thorny Devil (Agamidae: *Moloch horridus*). *Royal Society Open Science*. 2017;4(9). doi:10.1098/rsos.170591

178.

Moore RG. Seasonal and Daily Activity Patterns and Thermoregulation in the Southwestern Speckled Rattlesnake (*Crotalus mitchelli pyrrhus*) and the Colorado Desert Sidewinder (*Crotalus cerastes laterorepens*). *Copeia*. 1978;1978(3):439-442. doi:10.2307/1443608

179.

Secor SM. Ecological Significance of Movements and Activity Range for the Sidewinder, *Crotalus cerastes*. *Copeia*. 1994;1994(3). doi:10.2307/1447179

180.

Secor SM, Nagy KA. Bioenergetic Correlates of Foraging Mode for the Snakes *Crotalus Cerastes* and *Masticophis Flagellum*. *Ecology*. 1994;75(6):1600-1614. doi:10.2307/1939621

181.

Comanns P. Passive Water Collection With the Integument: Mechanisms and Their Biomimetic Potential. *Journal of Experimental Biology*. 2018;221(10). <http://jeb.biologists.org/content/221/10/jeb153130>

182.

BBC Earth. Planet Earth: Amazing Kangaroo Technique To Stay Cool | YouTube. Published online 2017. <https://www.youtube.com/watch?v=bbaX1yeSatQ>

183.

BBC Studios. Amazing Lizard Dance & Dive | YouTube. Published online 2008. <https://www.youtube.com/watch?v=1rkkKyYCxio>

184.

Nat Geo WILD. World's Weirdest - Blood Shooting Eyes | YouTube. Published online 2014. <https://www.youtube.com/watch?v=xodVcgJ8bc0>

185.

National Geographic. Blood Squirting Lizard | YouTube. Published online 2007. <https://www.youtube.com/watch?v=gEl6TXrkZnk>

186.

Nat Geo WILD. World's Weirdest: Blood-Squirting Lizard | YouTube. Published online 2013. <https://www.youtube.com/watch?v=GgB4u6Mgy2M>

187.

Smithsonian Channel. This Lizard Must Dance to Stay Alive | YouTube. Published online 2015. https://www.youtube.com/watch?v=joR4OL_mQnE&t=8s

188.

A Fascinating World. Did You Know: If an Horned Lizard Feels Threatened, It Can Shoot Blood | YouTube. Published online 2017. <https://www.youtube.com/watch?v=4zxt1ErNsBI>

189.

AskNature. Moving Efficiently Across Sand Without Slipping: Sidewinder | Asknature. Published 2017. <https://asknature.org/strategy/moving-efficiently-across-sand-without-slipping/#.XF2GY1X7SUI>

190.

Physics Buzz. Swimming Through Sand: The Secret of Sandfish Locomotion | physicsbuzz. Published 2010. <http://physicsbuzz.physicscentral.com/2010/12/swimming-through-sand-secret-of.html>

191.

AskNature. Eyes Squirt Blood: Pigmy Short-Horned Lizard | Asknature. Published 2016. <https://asknature.org/strategy/eyes-squirt-blood/#.XF2G5VX7SUI>

192.

Bertram JEA, Gutmann A. Motions of the Running Horse and Cheetah Revisited: Fundamental Mechanics of the Transverse and Rotary Gallop. *Journal of The Royal Society Interface*. 2009;6(35):549-559. doi:10.1098/rsif.2008.0328

193.

Hudson PE, Corr SA, Wilson AM. High Speed Galloping in the Cheetah (*Acinonyx jubatus*) and the Racing Greyhound (*Canis familiaris*): Spatio-Temporal and Kinetic Characteristics. *Journal of Experimental Biology*. 2012;215(14):2425-2434. doi:10.1242/jeb.066720

194.

Hildebrand M. Motions of the Running Cheetah and Horse. *Journal of Mammalogy*. 1959;40(4). doi:10.2307/1376265

195.

Hetem RS, Mitchell D, de Witt BA, et al. Cheetah Do Not Abandon Hunts Because They Overheat. *Biology Letters*. 2013;9(5):20130472-20130472. doi:10.1098/rsbl.2013.0472

196.

Wilson JW, Mills MGL, Wilson RP, et al. Cheetahs, *Acinonyx jubatus*, Balance Turn Capacity With Pace When Chasing Prey. *Biology Letters*. 2013;9(5):20130620-20130620. doi:10.1098/rsbl.2013.0620

197.

Taylor CR, Rowntree VJ. Temperature Regulation and Heat Balance in Running Cheetahs: A Strategy for Sprinters? *American Journal of Physiology*. 1973;224(4):848-851. <https://www.physiology.org/doi/abs/10.1152/ajplegacy.1973.224.4.848>

198.

Wilson JW, Mills MGL, Wilson RP, et al. Cheetahs, *Acinonyx jubatus*, Balance Turn Capacity With Pace When Chasing Prey. *Biology Letters*. 2013;9(5):20130620-20130620. doi:10.1098/rsbl.2013.0620

199.

Taylor CR, Shkolnik A, Dmi'el R, Baharav D, Borut A. Running in Cheetahs, Gazelles, and Goats: Energy Cost and Limb Configuration. *American Journal of Physiology*. 1974;227(4):848-850. <https://www.physiology.org/doi/abs/10.1152/ajplegacy.1974.227.4.848>

200.

O'Regan HJ. Defining Cheetahs, a Multivariate Analysis of Skull Shape in Big Cats. *Mammal Review*. 2002;32(1):58-62. doi:10.1046/j.1365-2907.2002.00093.x

201.

Sharp NCC. Timed Running Speed of a Cheetah (*Acinonyx jubatus*). *Journal of Zoology*. 1997;241(3):493-494. doi:10.1111/j.1469-7998.1997.tb04840.x

202.

Wilson AM, Lowe JC, Roskilly K, Hudson PE, Golabek KA, McNutt JW. Locomotion Dynamics of Hunting in Wild Cheetahs. *Nature*. 2013;498(7453):185-189. doi:10.1038/nature12295

203.

Cheetah Running Full Speed | YouTube. Published online 2016.
<https://www.youtube.com/watch?v=zgQ0cyNJZV4>

204.

ABB Formula E. Drag Race: Formula E Car vs Cheetah | YouTube. Published online 2017.
<https://www.youtube.com/watch?v=8-9oFxFODE>

205.

Smithsonian Channel. This Is Why You Can't Outrun a Cheetah | YouTube. Published online 2012. <https://www.youtube.com/watch?v=V8vejVgIHg&t=1s>

206.

5 Gaits of the Icelandic Horse | YouTube. Published online 2017.
<https://www.youtube.com/watch?v=RV9P0w8vZi8>

207.

Rhino Chase | YouTube. Published online 2012.
<https://www.youtube.com/watch?v=TisKPkAhhA4>

208.

Springbok Pronking | YouTube. Published online 2013.
<https://www.youtube.com/watch?v=jMliB9DnRXg>

209.

SJSU Neurophysiology - Lecture 12 - Central Pattern Generators | YouTube. Published online 2014. <https://www.youtube.com/watch?v=ZA0URG5jcdM>

210.

Edward Muybridge: Movie Examples from Animal Locomotion | YouTube. Published online 2013. <https://www.youtube.com/watch?v=07x7KhuwwFE>

211.

Welsh J. The Secret to Cheetahs' Speedy Stride Found | Livescience. Published 2012.
<https://www.livescience.com/21083-cheetah-greyhound-speed-secret.html>

212.

Wainwright PC. The Mechanism of Tongue Projection in Chameleons: I. Electromyographic Tests of Functional Hypotheses. *Journal of Experimental Biology*. 1992;168(1):1-21.
<http://jeb.biologists.org/content/168/1/1>

213.

Zood A. The Mechanism of Projection of the Chameleon's Tongue. *Journal of Experimental Biology*. 1933;10(2):174-185. <http://jeb.biologists.org/content/10/2/174>

214.

Creel S, Creel NM, Mills MGL, Monfort SL. Rank and Reproduction in Cooperatively Breeding African Wild Dogs: Behavioral and Endocrine Correlates. *Behavioral Ecology*. 1997;8(3):298-306. doi:10.1093/beheco/8.3.298

215.

Wainwright PC, Bennett AF. The Mechanism of Tongue Projection in Chameleons: II. Role of Shape Change in a Muscular Hydrostat. *Journal of Experimental Biology*. 1992;168(1):23-40. <http://jeb.biologists.org/content/168/1/23>

216.

Taylor CR, Schmidt-Nielsen K, Dmi'el R, Fedak M. Effect of Hyperthermia on Heat Balance During Running in the African Hunting Dog. *American Journal of Physiology*. 1971;220(3):823-827. <https://www.physiology.org/doi/abs/10.1152/ajplegacy.1971.220.3.823>

217.

Wainwright PC, Kraklau DM, Bennett AF. Kinematics of Tongue Projection in *Chamaeleo Oustaleti*. *Journal of Experimental Biology*. 1991;159(1):109-133. <http://jeb.biologists.org/content/159/1/109>

218.

Gorman ML, Mills MG, Raath JP, Speakman JR. High Hunting Costs Make African Wild Dogs Vulnerable to Kleptoparasitism by Hyaenas. *Nature*. 1998;391(6666):479-481. doi:10.1038/35131

219.

Müller UK, Kranenbarg S. Power at the Tip of the Tongue. *Science*. 2004;304(5668). https://www.jstor.org/stable/3836755?seq=1#metadata_info_tab_contents

220.

van Leeuwen JL. Why the Chameleon Has Spiral-Shaped Muscle Fibres in Its Tongue. *Philosophical Transactions: Biological Sciences*. 1997;352(1353). https://www.jstor.org/stable/56440?seq=1#metadata_info_tab_contents

221.

de Groot JH, van Leeuwen JL. Evidence for an Elastic Projection Mechanism in the Chameleon Tongue. *Proceedings of the Royal Society of London Series B: Biological Sciences*. 2004;271(1540):761-770. doi:10.1098/rspb.2003.2637

222.

Brau F, Lanterbecq D, Zghikh LN, Bels V, Damman P. Dynamics of Prey Prehension by Chameleons Through Viscous Adhesion. *Nature Physics*. 2016;12(10):931-935. doi:10.1038/nphys3795

223.

Herrel A. The Mechanics of Prey Prehension in Chameleons. *Journal of Experimental Biology*. 2000;203(21):3255-3263. <http://jeb.biologists.org/content/203/21/3255>

224.

Herrel A, Meyers JJ, Aerts P, Nishikawa KC. Functional Implications of Supercontracting Muscle in the Chameleon Tongue Retractors. *Journal of Experimental Biology*. 2001;204(21):3621-3627. <http://jeb.biologists.org/content/204/21/3621>

225.

Carbone C, Toit JTD, Gordon IJ. Feeding Success in African Wild Dogs: Does Kleptoparasitism by Spotted Hyenas Influence Hunting Group Size? *The Journal of Animal Ecology*. 1997;66(3). doi:10.2307/5978

226.

Creel S, Marusha Creel N. Limitation of African Wild Dogs by Competition with Larger Carnivores. *Conservation Biology*. 1996;10(2):526-538. https://www.jstor.org/stable/2386867?seq=1#metadata_info_tab_contents

227.

Estes RD, Goddard J. Prey Selection and Hunting Behavior of the African Wild Dog. *The*

Journal of Wildlife Management. 1967;31(1). doi:10.2307/3798360

228.

Moulton DE, Lessinnes T, O'Keeffe S, Dorfmann L, Goriely A. The Elastic Secrets of the Chameleon Tongue. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Science*. 2016;472(2188). doi:10.1098/rspa.2016.0030

229.

Anderson CV, Deban SM. Ballistic Tongue Projection in Chameleons Maintains High Performance at Low Temperature. *Proceedings of the National Academy of Sciences*. 2010;107(12):5495-5499. doi:10.1073/pnas.0910778107

230.

Courchamp F. Small Pack Size Imposes a Trade-Off Between Hunting and Pup-Guarding in the Painted Hunting Dog *Lycaon Pictus*. *Behavioral Ecology*. 2002;13(1):20-27. doi:10.1093/beheco/13.1.20

231.

Anderson CV, Sheridan T, Deban SM. Scaling of the Ballistic Tongue Apparatus in Chameleons. *Journal of Morphology*. 2012;273(11):1214-1226. doi:10.1002/jmor.20053

232.

Hubel TY, Myatt JP, Jordan NR, Dewhirst OP, McNutt JW, Wilson AM. Additive Opportunistic Capture Explains Group Hunting Benefits in African Wild Dogs. *Nature Communications*. 2016;7(1). doi:10.1038/ncomms11033

233.

Hubel TY, Myatt JP, Jordan NR, Dewhirst OP, McNutt JW, Wilson AM. Energy Cost and Return for Hunting in African Wild Dogs and Cheetahs. *Nature Communications*. 2016;7(1). doi:10.1038/ncomms11034

234.

Courchamp F, Macdonald DW. Crucial Importance of Pack Size in the African Wild Dog *Lycaon Pictus*. *Animal Conservation*. 2001;4(2):169-174. doi:10.1017/S1367943001001196

235.

Schwenk K, Bell DA. A Cryptic Intermediate in the Evolution of Chameleon Tongue Projection. *Experientia*. 1988;44(8):697-700. doi:10.1007/BF01941032

236.

Cham Tongue Mishap, With a Recovery | YouTube. Published online 2010. <https://www.youtube.com/watch?v=etjvcwYH9JE>

237.

National Geographic. Tiny Chameleons' Tongues Pack Strongest Punch | YouTube. Published online 2016. <https://www.youtube.com/watch?v=pn37IT7HbrA>

238.

BBC Earth. Chameleon Tongue In Slow Motion | YouTube. Published online 2013. <https://www.youtube.com/watch?v=z3oh73amxQo>

239.

ChameleoCam. How Does a Chameleon's Tongue Work? | YouTube. Published online 2016. <https://www.youtube.com/watch?v=tEap8hFIT9M>

240.

BBC Earth Unplugged. Chameleon Tongue Attack in Slow Motion | YouTube. Published online 2015. <https://www.youtube.com/watch?v=E76YBF3P0K0&t=57s>

241.

BBC Planet Earth. African Wild Dogs Hunting Behavior | YouTube. Published online 2015. <https://www.youtube.com/watch?v=WqEzEHRuLf0>

242.

African Wild Dog Facts: What Makes Them Such Fascinating Hunters? | Africa-Wildlife-Detective. <https://www.africa-wildlife-detective.com/African-wild-dog.html>

243.

The Reptipage: Chameleon Tongues | Reptilis. <http://reptilis.net/lacertilia/chamaeleonidae/tongue.html>

244.

Chameleons' Secret Hunting Weapon: Super-Sticky Mucus | National Geographic. <https://news.nationalgeographic.com/2016/06/chameleon-tongue-mucus-sticky-animals/>

245.

National Geographic. Chameleon Tongues Among Fastest on Earth | National Geographic. <https://news.nationalgeographic.com/2016/01/160105-chameleons-tongue-speed-animals-science/>

246.

Fisk AT, Tittlemier SA, Pranschke JL, Norstrom RJ. Using Anthropogenic Contaminants and Stable Isotopes to Assess the Feeding Ecology of Greenland Sharks. *Ecology*. 2002;83(8):2162-2172. doi:10.1890/0012-9658(2002)083[2162:UACASI]2.0.CO;2

247.

Nielsen J, Hedeholm RB, Heinemeier J, et al. Eye Lens Radiocarbon Reveals Centuries of Longevity in the Greenland Shark (*Somniosus Microcephalus*). *Science*. 2016;353(6300):702-704. doi:10.1126/science.aaf1703

248.

Campana SE, Natanson LJ, Myklevoll S. Bomb Dating and Age Determination of Large

Pelagic Sharks. *Canadian Journal of Fisheries and Aquatic Sciences*. 2002;59(3):450-455.
https://librarysearch.royalholloway.ac.uk/permalink/f/vavv8/TN_cdi_cristin_nora_11250_108697

249.

Gibbons JW, Semlitsch RD. Survivorship and Longevity of a Long-Lived Vertebrate Species: How Long do Turtles Live? *The Journal of Animal Ecology*. 1982;51(2). doi:10.2307/3981

250.

Gibbons JW. Why Do Turtles Live So Long? *BioScience*. 1987;37(4):262-269.
doi:10.2307/1310589

251.

Germano DJ. Longevity and Age-Size Relationships of Populations of Desert Tortoises. *Copeia*. 1992;1992(2):367-374. doi:10.2307/1446197

252.

MacNeil MA, McMeans BC, Hussey NE, et al. Biology of the Greenland Shark *Somniosus microcephalus*. *Journal of Fish Biology*. 2012;80(5):991-1018.
doi:10.1111/j.1095-8649.2012.03257.x

253.

Borucinska JD, Benz GW, Whiteley HE. Ocular Lesions Associated With Attachment of the Parasitic Copepod *Ommatokoita Elongata* (Grant) to Corneas of Greenland Sharks, *Somniosus Microcephalus* (Bloch & Schneider). *Journal of Fish Diseases*. 1998;21(6):415-422. doi:10.1046/j.1365-2761.1998.00122.x

254.

Rando TA. Stem Cells, Ageing and the Quest for Immortality. *Nature*. 2006;441(7097):1080-1086. doi:10.1038/nature04958

255.

Skomal GB, Benz GW. Ultrasonic Tracking of Greenland Sharks, *Somniosus microcephalus*, Under Arctic Ice. *Marine Biology*. 2004;145(3). doi:10.1007/s00227-004-1332-8

256.

Esoteric Detective. 400 Year Old Greenland Shark Found Still Alive | YouTube. Published online 2016. <https://www.youtube.com/watch?v=VJg7EdR0Nwg>

257.

The Galápagos Tortoise | YouTube. Published online 2010. <https://www.youtube.com/watch?v=uakRR7a2f3w>

258.

All Things Creepy. Giant Deep Sea Shark Lives Over 500 Years: Greenland Shark Lifespan Recent Studies | YouTube. Published online 2017. <https://www.youtube.com/watch?v=Wh8-GTBV2-l>

259.

Greenland Sharks in Science | YouTube. Published online 2018. <https://www.youtube.com/watch?v=Djj3-jF19F8>

260.

Greenland Shark the World's Longest Living Animal With Backbone Can Live for 400 Years | YouTube. Published online 2016. https://www.youtube.com/watch?v=T7RD_y17m7U

261.

Wonder World. Oldest Shark in the World - 512 Year Old Greenland Shark | YouTube. Published online 2017. <https://www.youtube.com/watch?v=h2HBk5sKlc&t=1s>

262.

Opposum with Babies | YouTube. Published online 2015.
<https://www.youtube.com/watch?v=0rwFYHBccSs>

263.

Richard Dawkins Foundation for Reason & Science. Richard Dawkins: Saddles and Domes: Evolution of the Giant Tortoises | YouTube. Published online 2009.
<https://www.youtube.com/watch?v=B4FVetapF2k>

264.

Mental Floss. Why Do Giant Tortoises Live So Long? | Mental Floss.
<http://mentalfloss.com/article/80091/why-do-giant-tortoises-live-so-long>

265.

Pennisi E. Greenland Shark May Live 400 Years, Smashing Longevity Record | Science Mag. Published 2016.
<http://www.sciencemag.org/news/2016/08/greenland-shark-may-live-400-years-smashing-longevity-record>

266.

Armstrong Moore E. Many Sharks Live a Century - Longer Than Thought | National Geographic. Published 2017.
<https://news.nationalgeographic.com/2017/11/sharks-age-longevity-lifespan-oceans/>

267.

Saporito RA, Donnelly MA, Jain P, Martin Garraffo H, Spande TF, Daly JW. Spatial and Temporal Patterns of Alkaloid Variation in the Poison Frog *Oophaga pumilio* in Costa Rica and Panama Over 30 Years. *Toxicon*. 2007;50(6):757-778.
doi:10.1016/j.toxicon.2007.06.022

268.

Dumbacher JP, Beehler BM, Spande TF, Garraffo HM, Daly JW. Homobatrachotoxin in the Genus *Pitohui*: Chemical Defense in Birds? *Science*. 1992;258(5083).
https://www.jstor.org/stable/2880333?seq=1#metadata_info_tab_contents

269.

Daly JW, Myers CW, Warnick JE, Albuquerque EX. Levels of Batrachotoxin and Lack of Sensitivity to its Action in Poison-Dart Frogs (Phyllobates). *Science*. 1980;208(4450).
https://www.jstor.org/stable/1684078?seq=1#metadata_info_tab_contents

270.

Dumbacher JP, Fleischer RC. Phylogenetic Evidence for Colour Pattern Convergence in Toxic Pitohuis: Müllerian Mimicry in Birds? *Proceedings: Biological Sciences*. 2001;268(1480).
https://www.jstor.org/stable/3067925?seq=1#metadata_info_tab_contents

271.

Dumbacher JP, Spande TF, Daly JW. Batrachotoxin Alkaloids from Passerine Birds: A Second Toxic Bird Genus (*Ifrita kowaldi*) from New Guinea. *Proceedings of the National Academy of Sciences of the United States of America*. 2000;97(24).
https://www.jstor.org/stable/123639?seq=1#metadata_info_tab_contents

272.

Dumbacher JP, Wako A, Derrickson SR, Samuelson A, Spande TF, Daly JW. Melyrid Beetles (*Choresine*): A Putative Source for the Batrachotoxin Alkaloids Found in Poison-Dart Frogs and Toxic Passerine Birds. *Proceedings of the National Academy of Sciences of the United States of America*. 2004;101(45).
https://www.jstor.org/stable/3373731?seq=1#metadata_info_tab_contents

273.

Maan ME, Cummings ME. Poison Frog Colors Are Honest Signals of Toxicity, Particularly for Bird Predators. *The American Naturalist*. 2012;179(1):E1-E14. doi:10.1086/663197

274.

Myers CW, Daly JW. Dart-Poison Frogs. *Scientific American*. 1983;248(2).
https://www.jstor.org/stable/24968834?seq=1#metadata_info_tab_contents

275.

Saporito RA, Zuercher R, Roberts M, Gerow KG, Donnelly MA. Experimental Evidence for Aposematism in the Dendrobatid Poison Frog *Oophaga pumilio*. *Copeia*. 2007;2007(4). https://www.jstor.org/stable/25140718?seq=1#metadata_info_tab_contents

276.

Dumbacher JP, Menon GK, Daly JW. Skin as a Toxin Storage Organ in the Endemic New Guinean Genus *Pitohui*. *The Auk*. 126(3):520-530. doi:10.1525/auk.2009.08230

277.

Wang IJ, Shaffer HB. Rapid Color Evolution in an Aposematic Species: A Phylogenetic Analysis of Color Variation in the Strikingly Polymorphic Strawberry Poison-Dart Frog. *Evolution*. 2008;62(11):2742-2759. doi:10.1111/j.1558-5646.2008.00507.x

278.

Tokuyama T, Daly J, Witkop B. Structure of Batrachotoxin, a Steroidal Alkaloid From the Colombian Arrow Poison Frog, *Phyllobates Aurotaenia*, and Partial Synthesis of Batrachotoxin and Its Analogs and Homologs. *Journal of the American Chemical Society*. 1969;91(14):3931-3938. doi:10.1021/ja01042a042

279.

Daly JW, Witkop B, Bommer P, Biemann K. Batrachotoxin. The Active Principle of the Colombian Arrow Poison Frog, *Phyllobates bicolor*. *Journal of the American Chemical Society*. 1965;87(1):124-126. doi:10.1021/ja01079a026

280.

Märki F, Witkop B. The Venom of the Colombian Arrow Poison Frog *Phyllobates bicolor*. *Experientia*. 1963;19(7):329-338. doi:10.1007/BF02152303

281.

Master TL. Predation by Rufous Motmot on Black-and-Green Poison Dart Frog. *The Wilson Bulletin*. 1999;111(3):439-440. https://www.jstor.org/stable/4164114?seq=1#metadata_info_tab_contents

282.

Vences M. Convergent Evolution of Aposematic Coloration in Neotropical Poison Frogs: A Molecular Phylogenetic Perspective. *Organisms Diversity & Evolution*. 2003;3(3):215-226. doi:10.1078/1439-6092-00076

283.

Wildlife All About. The Poisonous Dart Frog - Blue Frog | YouTube. Published online 2014. <https://www.youtube.com/watch?v=F6mb1fpPGTA>

284.

Gruber K. Poison Dart Frogs Are the Most Poisonous Animals Alive | BBC. Published 2015. <http://www.bbc.co.uk/earth/story/20150422-the-worlds-most-poisonous-animal>

285.

Butler R. Study Discovers Why Poison Dart Frogs Are Toxic | Mongabay. Published 2005. <https://news.mongabay.com/2005/08/study-discovers-why-poison-dart-frogs-are-toxic/>

286.

Discovery: First Scientifically Confirmed Poisonous Bird | YouTube. Published online 2010. <https://www.youtube.com/watch?v=Zj6O8WJ3qtE&t=89s>

287.

Kardong KV, Lavin-Murcio PA. Venom Delivery of Snakes as High-Pressure and Low-Pressure Systems. *Copeia*. 1993;1993(3). doi:10.2307/1447225

288.

Broeckhoven C, du Plessis A. Has Snake Fang Evolution Lost Its Bite? New Insights From a Structural Mechanics Viewpoint. *Biology Letters*. 2017;13(8). doi:10.1098/rsbl.2017.0293

289.

Van Riper W. How a Rattlesnake Strikes. *Scientific American*. 1953;189(4):100-102. doi:10.1038/scientificamerican1053-100

290.

Cintra-Francischinelli M, Caccin P, Chiavegato A, et al. Bothrops Snake Myotoxins Induce a Large Efflux of ATP and Potassium With Spreading of Cell Damage and Pain. *Proceedings of the National Academy of Sciences*. 2010;107(32):14140-14145. doi:10.1073/pnas.1009128107

291.

Kardong KV. The Evolution of the Venom Apparatus in Snakes From Colubrids to Viperids & Elapids. 1982;46:105-118. https://public.wsu.edu/~kkardong/Web%20of%20KVK_06b/Publications/Evolution_venom_app82.pdf

292.

Vonk FJ, Admiraal JF, Jackson K, Reshef R, de Bakker MAG. Evolutionary Origin and Development of Snake Fangs. *Nature*. 2008;454(7204):630-633. doi:10.1038/nature07178

293.

du Plessis A, Broeckhoven C, le Roux SG. Snake Fangs: 3D Morphological and Mechanical Analysis by MicroCT, Simulation, and Physical Compression Testing. *GigaScience*. 2018;7(1). doi:10.1093/gigascience/gix126

294.

Kardong KV. "Protovipers" and the Evolution of Snake Fangs. *Evolution*. 1979;33(1Part2):433-443. doi:10.1111/j.1558-5646.1979.tb04696.x

295.

Jackson K. How Tubular Venom-Conducting Fangs Are Formed. *Journal of Morphology*. 2002;252(3):291-297. doi:10.1002/jmor.1106

296.

Vonk FJ, Admiraal JF, Jackson K, Reshef R, de Bakker MAG. Evolutionary Origin and Development of Snake Fangs. *Nature*. 2008;454(7204):630-633. doi:10.1038/nature07178

297.

Nat Geo WILD. Spitting Mad Cobra | YouTube. Published online 2014. <https://www.youtube.com/watch?v=ThKIHVmBpzg>

298.

The Nature of Science. How Killer Cone Snails Kill | YouTube. Published online 2015. <https://www.youtube.com/watch?v=4wihKnARrAw>

299.

BBC Earth. Snake Bites Compared in Slow Mo: Spectacled Cobra vs Saw Scaled Viper | YouTube. Published online 2018. <https://www.youtube.com/watch?v=PJXx8bdrw0A>

300.

Smithsonian Channel. The Real Way Komodo Dragons Kill Prey | YouTube. Published online 2016. <https://www.youtube.com/watch?v=pFaSswGnT0I>

301.

National Geographic. Platypus Parts | YouTube. Published online 2007. <https://www.youtube.com/watch?v=QNoQvjlmGdk>

302.

BBC Earth. Deadly 60: Breathtaking! Slow Motion Puff Adder Attack | YouTube. Published online 2014. <https://www.youtube.com/watch?v=IPfG4OdGEyl>

303.

The Amazing Science Behind Fatal Snake Bites | BBC. Published 2015.
<https://www.bbc.co.uk/news/health-34214029>

304.

Ken Winkel. Mortal Poison: The Story of How Venom Works. The Conversation. Published online 2016.
<https://theconversation.com/mortal-poison-the-story-of-how-venom-works-50964>

305.

Snake Venom is Nature's Most Effective Killer | Popsci.
<https://www.popsci.com/scitech/article/2008-03/evolution%E2%80%99s-most-effective-killer-snake-venom#page-3>

306.

Pierson DJ. The Physiology of Dinosaurs: Circulatory and Respiratory Function in the Largest Animals Ever to Walk the earth.(donald F Egan Scientific Memorial Lecture)(report). Respiratory Care. 2009;54(7):887-911.
<http://rc.rcjournal.com/content/54/7/887/tab-pdf>

307.

Hughes S, Barry J, Russell J, Bell R, Gurung S. Neck Length and Mean Arterial Pressure in the Sauropod Dinosaurs. The Journal of Experimental Biology. 2016;219(8):1154-1161.
doi:10.1242/jeb.137448

308.

Laing B. Thermoregulation in Dinosaurs: A Continued Controversy. Published online 2001.
<http://scil.stanford.edu/research/learningcareers/capstones/brian/documents/biology06.pdf>

309.

Sander PM, Christian A, Clauss M, Fechner R, Gee CT. Biology of the Sauropod Dinosaurs: The Evolution of Gigantism. Biological Reviews. 2011;86(1):117-155.

doi:10.1111/j.1469-185X.2010.00137.x

310.

Wedel MJ. Vertebral Pneumaticity, Air Sacs, and the Physiology of Sauropod Dinosaurs. *Paleobiology*. 2003;29(2):243-255. doi:10.1017/S0094837300018091

311.

Eagle RA, Tutken T, Martin TS, Tripathi AK, Fricke HC. Dinosaur Body Temperatures Determined from Isotopic (^{13}C - ^{18}O) Ordering in Fossil Biominerals. *Science*. 2011;333(6041):443-445. https://www.jstor.org/stable/27978286?seq=1#metadata_info_tab_contents

312.

Ganse B, Stahn A, Stoinski S, Suthau T. Body Mass Estimation, Thermoregulation, and Cardiovascular Physiology of Large Sauropods. In: *Biology of the Sauropod Dinosaurs: Understanding the Life of Giants*. ; 2011:105-115. https://www.researchgate.net/publication/242019333_Body_Mass_Estimation_Thermoregulation_and_Cardiovascular_Physiology_of_Large_Sauropods

313.

National Geographic. 24 Jurassic CSI Supersize: How Did Sauropods Raise Such Long Necks | YouTube. Published online 2016. <https://www.youtube.com/watch?v=DPGL2240WL8>

314.

BBC Earth. Biggest Dinosaur Ever! Argentinosaurus | YouTube. Published online 2013. <https://www.youtube.com/watch?v=3QUK8gN1oSY>

315.

How Did Giant Sauropods Such as Brachiosaurus Hold Their Necks? | YouTube. Published online 2012. https://www.youtube.com/watch?v=StnR_2fbdul

316.

BBC News. How Did Sauropods Support Their Weight? | YouTube. Published online 2013.
<https://www.youtube.com/watch?v=mSyTgrcawGM>

317.

Big! The Life of Sauropod Dinosaurs | National Geographic. Published 2011.
<https://blog.nationalgeographic.org/2011/05/10/big-the-life-of-sauropod-dinosaurs/>

318.

Gill V. Dinosaur Titans: Sauropods' Secrets Revealed | BBC. Published 2013.
<https://www.bbc.co.uk/news/science-environment-24659003>

319.

Marshall M. Sauropod Farts Warmed the Planet. Published 2012.
<https://www.newscientist.com/article/dn21783-sauropod-farts-warmed-the-planet/>