

# BS3220: Extreme Animal Physiology

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[1]

K. Schmidt-Nielsen, *Animal Physiology*, 3rd ed. Englewood Cliffs, N.J.: Prentice-Hall, 1970.

[2]

D. J. Irschick and T. E. Higham, *Animal Athletes: An Ecological and Evolutionary Approach*, 1st Edition. Oxford: Oxford University Press, 2016.

[3]

D. J. Irschick and T. E. Higham, *Animal Athletes: An Ecological and Evolutionary Approach*, First edition. Oxford: Oxford University Press, 2016 [Online]. Available: <https://ebookcentral.proquest.com/lib/rhul/detail.action?docID=4310898>

[4]

M. C. O'Neill, B. R. Umberger, N. B. Holowka, S. G. Larson, and P. J. Reiser, 'Chimpanzee Super Strength and Human Skeletal Muscle Evolution', *Proceedings of the National Academy of Sciences*, vol. 114, no. 28, pp. 7343–7348, 2017, doi: 10.1073/pnas.1619071114.

[5]

Sportology, 'Muscle Basics: What Athletes Need to Know About the Muscular System | YouTube'. YouTube, 2015 [Online]. Available: <https://www.youtube.com/watch?v=94Q-fvCAJzQ>

[6]

'Skeletal Muscle Contraction - The Sliding Filament Mechanism | YouTube'. YouTube, 2017 [Online]. Available: [https://www.youtube.com/watch?v=c\\_ICvEJ4NBM](https://www.youtube.com/watch?v=c_ICvEJ4NBM)

[7]

Scientific American, 'Why Are Chimps Stronger Than Humans? | YouTube'. YouTube, 2013 [Online]. Available: <https://www.youtube.com/watch?v=w98mem4FVQ0>

[8]

'Control of Muscle Tension'. [Online]. Available: <https://courses.lumenlearning.com/boundless-ap/chapter/control-of-muscle-tension/>

[9]

K. B. Storey and J. M. Storey, 'Molecular Physiology of Freeze Tolerance in Vertebrates', *Physiological Reviews*, vol. 97, no. 2, pp. 623-665, 2017, doi: 10.1152/physrev.00016.2016.

[10]

S. Diogenes, 'Freezing North American Wood Frogs | YouTube'. YouTube, 2016 [Online]. Available: <https://www.youtube.com/watch?v=4WQuZq3UJwo>

[11]

S. Channel, 'Frogsicles: Frozen But Still Alive | YouTube'. YouTube, 2015 [Online]. Available: <https://www.youtube.com/watch?v=pLPeehsXAr4>

[12]

'Spring Thawing Frogs | Biologists'. [Online]. Available: <http://movie.biologists.com/video/10.1242/jeb.101931/video-1>

[13]

Nat Geo WILD, 'Living Dead Frogs | YouTube'. YouTube, 2015 [Online]. Available: [https://www.youtube.com/watch?v=U9Vj\\_GQFGHQ](https://www.youtube.com/watch?v=U9Vj_GQFGHQ)

[14]

T. DuBridg, 'The Wood Frog's Freeze Tolerance | YouTube'. YouTube, 2015 [Online]. Available: <https://www.youtube.com/watch?v=YBVijkcuy9w>

[15]

Randomly Researched, 'Why Don't Penguins Feet Freeze | YouTube'. YouTube, 2016 [Online]. Available: <https://www.youtube.com/watch?v=lIBZTgMcwh8>

[16]

Workswell, 'Animals in the Zoo: World in InfraRed | YouTube'. YouTube, 2016 [Online]. Available: <https://www.youtube.com/watch?v=bAYTR8IW6E8>

[17]

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

[18]

J. Conlon, 'Freeze Tolerance in the Wood Frog *Rana Sylvatica* Is Associated With Unusual Structural Features in Insulin but Not in Glucagon', *Journal of Molecular Endocrinology*, vol. 21, no. 2, pp. 153–159, 1998, doi: 10.1677/jme.0.0210153.

[19]

J. R. Layne, J. P. Costanzo, and R. E. Lee, 'Freeze Duration Influences Postfreeze Survival in the Frog *Rana Sylvatica*', *Journal of Experimental Zoology*, vol. 280, no. 2, pp. 197–201, 1998, doi: 10.1002/(SICI)1097-010X(19980201)280:2<197::AID-JEZ11>3.0.CO;2-J. [Online]. Available: <https://onlinelibrary.wiley.com/doi/abs/10.1002/%28SICI%291097-010X%2819980201%29280%3A2%3C197%3A%3AAID-JEZ11%3E3.0.CO%3B2-J>

[20]

K. J. Cowan and K. B. Storey, 'Freeze-Thaw Effects on Metabolic Enzymes in Wood Frog Organs', *Cryobiology*, vol. 43, no. 1, pp. 32–45, 2001, doi: 10.1006/cryo.2001.2338.

[21]

S. Wu and K. B. Storey, 'Up-Regulation of Acidic Ribosomal Phosphoprotein P0 in Response to Freezing or Anoxia in the Freeze Tolerant Wood Frog, *Rana Sylvatica*', *Cryobiology*, vol. 50, no. 1, pp. 71–82, 2005, doi: 10.1016/j.cryobiol.2004.11.001.

[22]

S. Wu, J. N. A. De Croos, and K. B. Storey, 'Cold Acclimation-Induced Up-Regulation of the Ribosomal Protein L7 Gene in the Freeze Tolerant Wood Frog, *Rana Sylvatica*', *Gene*, vol. 424, no. 1–2, pp. 48–55, 2008, doi: 10.1016/j.gene.2008.07.023.

[23]

Q. Cai and K. B. Storey, 'Upregulation of a Novel Gene by Freezing Exposure in the Freeze-Tolerant Wood Frog (*Rana Sylvatica*)', *Gene*, vol. 198, no. 1–2, pp. 305–312, 1997, doi: 10.1016/S0378-1119(97)00332-6.

[24]

J. P. Costanzo, 'Glucose Concentration Regulates Freeze Tolerance in the Wood Frog *Rana Sylvatica*', *Journal of Experimental Biology*, vol. 181, no. 1, pp. 245–255, 1993 [Online]. Available: <http://jeb.biologists.org/content/181/1/245>

[25]

B. J. Sinclair, J. R. Stinziano, C. M. Williams, H. A. MacMillan, K. E. Marshall, and K. B. Storey, '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*, vol. 216, no. 2, pp. 292–302, 2013, doi: 10.1242/jeb.076331.

[26]

D. J. Larson, 'Wood Frog Adaptations to Overwintering in Alaska: New Limits to Freezing Tolerance', *Journal of Experimental Biology*, vol. 217, no. 12, pp. 2193–2200, 2014 [Online]. Available: <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*, vol. 216, no. 18, pp. 3461–3473, 2013 [Online]. Available: <http://jeb.biologists.org/content/216/18/3461>

[28]

J. T. Irwin, J. P. Costanzo, and R. E. Lee, 'Postfreeze Reduction of Locomotor Endurance in the Freeze-Tolerant Wood Frog', *Physiological and Biochemical Zoology*, vol. 76, no. 3, pp. 331–338, 2003, doi: 10.1086/374282.

[29]

J. P. Costanzo, J. T. Irwin, and R. E. Lee, 'Freezing Impairment of Male Reproductive Behaviors of the Freeze-Tolerant Wood Frog, *Rana Sylvatica*', *Physiological Zoology*, vol. 70, no. 2, 1997 [Online]. Available: [https://www.jstor.org/stable/30164298?seq=1#metadata\\_info\\_tab\\_contents](https://www.jstor.org/stable/30164298?seq=1#metadata_info_tab_contents)

[30]

J. R. Layne, R. E. Lee, and T. L. Heil, 'Freezing-Induced Changes in the Heart Rate of Wood Frogs (*Rana Sylvatica*)', *American Journal of Physiology - Regulatory, Integrative and Comparative Physiology*, 1989 [Online]. Available: <https://www.physiology.org/doi/abs/10.1152/ajpregu.1989.257.5.R1046>

[31]

J. R. Layne and M. C. First, 'Resumption of Physiological Functions in the Wood Frog (*Rana Sylvatica*) After Freezing', *American Journal of Physiology - Regulatory, Integrative and Comparative Physiology*, vol. 261, 1991 [Online]. Available: <https://www.physiology.org/doi/abs/10.1152/ajpregu.1991.261.1.R134>

[32]

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

[33]

D. R. Joannis and K. B. Storey, 'Oxidative Damage and Antioxidants in *Rana sylvatica*, the Freeze-Tolerant Wood Frog', *American Journal of Physiology - Regulatory, Integrative and Comparative Physiology*, vol. 271, 1996 [Online]. Available: <https://www.physiology.org/doi/abs/10.1152/ajpregu.1996.271.3.R545>

[34]

T. A. Churchill and K. B. Storey, 'Dehydration Tolerance in Wood Frogs: A New Perspective on Development of Amphibian Freeze Tolerance', *American Journal of Physiology - Regulatory, Integrative and Comparative Physiology*, vol. 265, 1993 [Online]. Available: <https://www.physiology.org/doi/abs/10.1152/ajpregu.1993.265.6.R1324>

[35]

J. P. Costanzo, R. E. Lee, and P. H. Lortz, 'Physiological Responses of Freeze-Tolerant and -Intolerant Frogs: Clues to Evolution of Anuran Freeze Tolerance', *American Journal of Physiology-Regulatory, Integrative and Comparative Physiology*, vol. 265, no. 4, pp. R721–R725, 1993, doi: 10.1152/ajpregu.1993.265.4.R721.

[36]

J. P. Costanzo, A. M. Reynolds, M. C. F. do Amaral, A. J. Rosendale, and R. E. Lee, 'Cryoprotectants and Extreme Freeze Tolerance in a Subarctic Population of the Wood Frog', *PLOS ONE*, vol. 10, no. 2, 2015, doi: 10.1371/journal.pone.0117234.

[37]

K. B. Kling, J. P. Costanzo, and R. E. Lee, 'Post-Freeze Recovery of Peripheral Nerve Function in the Freeze-Tolerant Wood Frog, *Rana sylvatica*', *Journal of Comparative Physiology B*, vol. 164, no. 4, pp. 316–320, 1994, doi: 10.1007/BF00346449.

[38]

K. B. Storey and J. M. Storey, 'Biochemical Adaption for Freezing Tolerance in the Wood Frog, *rana Sylvatica*', *Journal of Comparative Physiology B*, vol. 155, no. 1, pp. 29–36, 1984, doi: 10.1007/BF00688788.

[39]

K. B. Storey, 'Glycolysis and the Regulation of Cryoprotectant Synthesis in Liver of the Freeze Tolerant Wood Frog', *Journal of Comparative Physiology B*, vol. 157, no. 3, pp. 373–380, 1987, doi: 10.1007/BF00693364.

[40]

PBS, 'Bear Hibernation | YouTube'. YouTube, 2015 [Online]. Available: <https://www.youtube.com/watch?v=WZSIABnPAPc>

[41]

'Examples of Sleeping and Torpid Hummingbirds | YouTube'. YouTube, 2017 [Online]. Available: <https://www.youtube.com/watch?v=WsxEm0n3lkw>

[42]

'Hummingbird Coming Out of Torpor | YouTube'. YouTube, 2010 [Online]. Available: <https://www.youtube.com/watch?v=BkaoBetJlso>

[43]

'Infrared: Hummingbird in Torpor | YouTube'. YouTube, 2018 [Online]. Available: <https://www.youtube.com/watch?v=8ObONmj4VU8>

[44]

'Sleeping Torpor Hummingbird in Bellevue Tennessee | YouTube'. YouTube, 2010 [Online]. Available: <https://www.youtube.com/watch?v=iNOKW8NkAVM>

[45]

ScienceBlogs, 'How Do Hummingbirds Survive Cold Nights? Hummingbirds and Torpor',

2009. [Online]. Available:  
<https://scienceblogs.com/grrlscientist/2006/04/09/hummingbirds-and-torpor>

[46]

P. A. Rees, 'Asian Elephants (*Elephas Maximus*) Dust Bathe in Response to an Increase in Environmental Temperature', *Journal of Thermal Biology*, vol. 27, no. 5, pp. 353–358, 2002, doi: 10.1016/S0306-4565(01)00100-0.

[47]

N. M. Weissenböck, C. M. Weiss, H. M. Schwammer, and H. Kratochvil, 'Thermal Windows on the Body Surface of African Elephants (*Loxodonta Africana*) Studied by Infrared Thermography', *Journal of Thermal Biology*, vol. 35, no. 4, pp. 182–188, 2010, doi: 10.1016/j.jtherbio.2010.03.002.

[48]

G. M. O. Maloiy, J. M. Z. Kamau, A. Shkolnik, M. Meir, and R. Arieli, 'Thermoregulation and Metabolism in a Small Desert Carnivore: The Fennec Fox (*Fennecus Zerda*) (Mammalia)\*', *Journal of Zoology*, vol. 198, no. 3, pp. 279–291, 2009, doi: 10.1111/j.1469-7998.1982.tb02076.x.

[49]

K. V. Young, 'How the Horned Lizard Got Its Horns', *Science*, vol. 304, no. 5667, pp. 65–65, 2004, doi: 10.1126/science.1094790.

[50]

V. Careau, J. Morand-Ferron, and D. Thomas, 'Basal Metabolic Rate of Canidae from Hot Deserts to Cold Arctic Climates', *Journal of Mammalogy*, vol. 88, no. 2, pp. 394–400, 2007, doi: 10.1644/06-MAMM-A-111R1.1.

[51]

G. J. Tattersall, D. V. Andrade, and A. S. Abe, 'Heat Exchange From the Toucan Bill Reveals a Controllable Vascular Thermal Radiator', *Science*, vol. 325, no. 5939, pp. 468–470, 2009, doi: 10.1126/science.1175553.



[52]

R. C. Dunkin, D. Wilson, N. Way, K. Johnson, and T. M. Williams, 'Climate Influences Thermal Balance and Water Use in African and Asian Elephants: Physiology Can Predict Drivers of Elephant Distribution', *Journal of Experimental Biology*, vol. 216, no. 15, pp. 2939–2952, 2013, doi: 10.1242/jeb.080218.

[53]

J. B. Williams, D. Lenain, S. Ostrowski, B. I. Tieleman, and P. J. Seddon, 'Energy Expenditure and Water Flux of Rüppell's Foxes in Saudi Arabia', *Physiological and Biochemical Zoology*, vol. 75, no. 5, pp. 479–488, 2002, doi: 10.1086/344490.

[54]

R. T. Golightly and R. D. Ohmart, 'Metabolism and Body Temperature of Two Desert Canids: Coyotes and Kit Foxes', *Journal of Mammalogy*, vol. 64, no. 4, pp. 624–635, 1983, doi: 10.2307/1380518.

[55]

G. L. Burleson, 'The Source of the Blood Ejected from the Eye by Horned Toads', *Copeia*, vol. 1942, no. 4, 1942, doi: 10.2307/1438013.

[56]

A. A. Prieto and W. G. Whitford, 'Physiological Responses to Temperature in the Horned Lizards, *Phrynosoma cornutum* and *Phrynosoma douglassii*', *Copeia*, vol. 1971, no. 3, 1971, doi: 10.2307/1442447.

[57]

G. A. Middendorf and W. C. Sherbrooke, 'Canid Elicitation of Blood-Squirting in a Horned Lizard (*Phrynosoma cornutum*)', *Copeia*, vol. 1992, no. 2, 1992, doi: 10.2307/1446212.

[58]

W. C. Sherbrooke and G. A. Middendorf, III, 'Blood-Squirting Variability in Horned Lizards (*Phrynosoma*)', *Copeia*, vol. 2001, no. 4, 2001 [Online]. Available:

[https://www.jstor.org/stable/1448403?seq=1#metadata\\_info\\_tab\\_contents](https://www.jstor.org/stable/1448403?seq=1#metadata_info_tab_contents)

[59]

W. C. Sherbrooke and G. A. Middendorf, III, 'Responses of Kit Foxes (*Vulpes macrotis*) to Antipredator Blood-Squirting and Blood of Texas Horned Lizards (*Phrynosoma cornutum*)', *Copeia*, vol. 2004, no. 3, 2004 [Online]. Available: [https://www.jstor.org/stable/1448486?seq=1#metadata\\_info\\_tab\\_contents](https://www.jstor.org/stable/1448486?seq=1#metadata_info_tab_contents)

[60]

W. G. Whitford and M. Bryant, 'Behavior of a Predator and its Prey: The Horned Lizard (*Phrynosoma Cornutum*) and Harvester Ants (*Pogonomyrmex Spp.*)', *Ecology*, vol. 60, no. 4, pp. 686–694, 1979, doi: 10.2307/1936605.

[61]

S. W. Rissing, 'Prey Preferences in the Desert Horned Lizard: Influence of Prey Foraging Method and Aggressive Behavior', *Ecology*, vol. 62, no. 4, pp. 1031–1040, 1981, doi: 10.2307/1937002.

[62]

T. Dayan, E. Tchernov, Y. Yom-Tov, and D. Simberloff, 'Ecological Character Displacement in Saharo-Arabian Vulpes: Outfoxing Bergmann's Rule', *Oikos*, vol. 55, no. 2, 1989, doi: 10.2307/3565430.

[63]

W. C. Sherbrooke, 'Defensive Head Posture in Horned Lizards (*Phrynosoma*: Sauria: Iguanidae)', *The Southwestern Naturalist*, vol. 32, no. 4, 1987, doi: 10.2307/3671494.

[64]

G. A. M. III, W. C. Sherbrooke, and E. J. Braun, 'Comparison of Blood Squirted from the Circumorbital Sinus and Systemic Blood in a Horned Lizard, *Phrynosoma cornutum*', *The Southwestern Naturalist*, vol. 46, no. 3, 2001, doi: 10.2307/3672440.

[65]

M. A. Baker, 'A Brain-cooling System in Mammals', *Scientific American*, vol. 240, no. 5, pp. 130–139, 1979 [Online]. Available: [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%2Frelevance\\_config\\_with\\_tbsub&refreqid=search%3A4c1d2e8dde317574a16448ff1135029d&seq=1#metadata\\_info\\_tab\\_contents](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%2Frelevance_config_with_tbsub&refreqid=search%3A4c1d2e8dde317574a16448ff1135029d&seq=1#metadata_info_tab_contents)

[66]

J. E. Heath, 'Head-Body Temperature Differences in Horned Lizards', *Physiological Zoology*, vol. 37, no. 3, pp. 273–279, 1964, doi: 10.1086/physzool.37.3.30152398.

[67]

J. E. Heath, 'Venous Shunts in the Cephalic Sinuses of Horned Lizards', *Physiological Zoology*, vol. 39, no. 1, pp. 30–35, 1966, doi: 10.1086/physzool.39.1.30152764.

[68]

W. C. Sherbrooke, 'Antipredator Responses by Texas Horned Lizards to Two Snake Taxa with Different Foraging and Subjugation Strategies', *Journal of Herpetology*, vol. 42, no. 1, pp. 142–152, 2008 [Online]. Available: [https://www.jstor.org/stable/40060492?seq=1#metadata\\_info\\_tab\\_contents](https://www.jstor.org/stable/40060492?seq=1#metadata_info_tab_contents)

[69]

L. A. Baker, W. W. Weathers, and F. N. White, 'Temperature Induced Peripheral Blood Flow Changes in Lizards', *Journal of Comparative Physiology*, vol. 80, no. 3, pp. 312–323, 1972, doi: 10.1007/BF00694844.

[70]

L. A. Baker, W. W. Weathers, and F. N. White, 'Temperature Induced Peripheral Blood Flow Changes in Lizards', *Journal of Comparative Physiology*, vol. 80, no. 3, pp. 312–323, 1972, doi: 10.1007/BF00694844.

[71]

T. M. Williams, 'Heat Transfer in Elephants: Thermal Partitioning Based on Skin Temperature Profiles', *Journal of Zoology*, vol. 222, no. 2, pp. 235–245, 1990, doi: 10.1111/j.1469-7998.1990.tb05674.x.

[72]

M. Koffi, Y. Andreopoulos, and L. M. Jiji, 'The Role of Pinnae Flapping Motion on Elephant Metabolic Heat Dissipation', *Journal of Heat Transfer*, vol. 136, no. 10, 2014, doi: 10.1115/1.4027864.

[73]

K. E. Bonine and T. Garland, 'Sprint Performance of Phrynosomatid Lizards, Measured on a High-Speed Treadmill, Correlates With Hindlimb Length', *Journal of Zoology*, vol. 248, no. 2, pp. 255–265, 1999, doi: 10.1111/j.1469-7998.1999.tb01201.x.

[74]

W. C. Sherbrooke and K. Schwenk, 'Horned Lizards (*Phrynosoma*) Incapacitate Dangerous Ant Prey With Mucus', *Journal of Experimental Zoology Part A: Ecological Genetics and Physiology*, vol. 309A, no. 8, pp. 447–459, 2008, doi: 10.1002/jez.472.

[75]

T. M. F. N. van de Ven, R. O. Martin, T. J. F. Vink, A. E. McKechnie, and S. J. Cunningham, 'Regulation of Heat Exchange Across the Hornbill Beak: Functional Similarities With Toucans?', *PLOS ONE*, vol. 11, no. 5, 2016, doi: 10.1371/journal.pone.0154768.

[76]

O. P. Hay, 'On the Ejection of Blood From the Eyes of Horned Toads', *Proceedings of The United States National Museum*, vol. 15, pp. 375–378, 1892 [Online]. Available: <http://biostor.org/reference/78735/page/1>

[77]

N. M. Weissenböck, W. Arnold, and T. Ruf, 'Taking the heat: thermoregulation in Asian elephants under different climatic conditions', *Journal of Comparative Physiology B*, vol.

182, no. 2, pp. 311–319, 2012, doi: 10.1007/s00360-011-0609-8.

[78]

J. B. Williams, A. Muñoz-García, S. Ostrowski, and B. I. Tieleman, '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*, vol. 174, no. 1, pp. 29–39, 2004, doi: 10.1007/s00360-003-0386-0.

[79]

K. Mamoune, 'Fennec the Sahara Desert Fox | YouTube'. YouTube, 2014 [Online]. Available: <https://www.youtube.com/watch?v=Zs-I0I9PR6M>

[80]

World of Warmth, 'Several Cold Blooded Animals in Infrared | YouTube'. YouTube, 2015 [Online]. Available: <https://www.youtube.com/watch?v=ilgA3R42Wug>

[81]

BBC One, 'The Smallest Fox With the Biggest Ears! | BBC'. [Online]. Available: <https://www.bbc.co.uk/programmes/p02jm74v>

[82]

FG TECH, 'Thermal Drone Footage of Elephants to Monitor Endangered Species | YouTube'. YouTube, 2018 [Online]. Available: [https://www.youtube.com/watch?v=0UXg\\_-SdkQM](https://www.youtube.com/watch?v=0UXg_-SdkQM)

[83]

H. Leggett, 'Toucan Beak Is New Kind of "Heating Bill"', 2009. [Online]. Available: <https://www.wired.com/2009/07/toucanbill/>

[84]

B. Rohrig, 'Animal Survival in Extreme Temperatures', 2013. [Online]. Available:

<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'. YouTube, 2009 [Online]. Available: [https://www.youtube.com/watch?v=zCH\\_1lxxfNU](https://www.youtube.com/watch?v=zCH_1lxxfNU)

[86]

'Elephant - P640 | YouTube'. YouTube, 2010 [Online]. Available: <https://www.youtube.com/watch?v=modltSYnlu0>

[87]

'Infrared IR Elephant | YouTube'. YouTube, 2006 [Online]. Available: <https://www.youtube.com/watch?v=1th1MYyosQk>

[88]

'Regulation of Heat Exchange across the Hornbill Beak: Functional Similarities with Toucans? | YouTube'. YouTube, 2016 [Online]. Available: <https://www.youtube.com/watch?v=o030OjVrPog>

[89]

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

[90]

P. J. O. Miller, K. Aoki, L. E. Rendell, and M. Amano, 'Stereotypical Resting Behavior of the Sperm Whale', *Current Biology*, vol. 18, no. 1, pp. R21–R23, 2008, doi: 10.1016/j.cub.2007.11.003.

[91]

S. K. Hooker and R. W. Baird, 'Deep-diving Behaviour of the Northern Bottlenose Whale, *Hyperoodon Ampullatus* (Cetacea: Ziphiidae)', *Proceedings of the Royal Society of London. Series B: Biological Sciences*, vol. 266, no. 1420, pp. 671–676, 1999, doi: 10.1098/rspb.1999.0688.

[92]

P. T. Madsen, 'Sperm Whale Sound Production Studied With Ultrasound Time/depth-Recording Tags', *Journal of Experimental Biology*, vol. 205, no. 13, pp. 1899–1906, 2002 [Online]. Available: <http://jeb.biologists.org/content/205/13/1899>

[93]

P. J. O. Miller, 'Swimming Gaits, Passive Drag and Buoyancy of Diving Sperm Whales *Physeter Macrocephalus*', *Journal of Experimental Biology*, vol. 207, no. 11, pp. 1953–1967, 2004 [Online]. Available: <http://jeb.biologists.org/content/207/11/1953>

[94]

M. J. Moore and G. A. Early, 'Cumulative Sperm Whale Bone Damage and the Bends', *Science*, vol. 306, no. 5705, 2215 [Online]. Available: [https://www.jstor.org/stable/3839876?seq=1#metadata\\_info\\_tab\\_contents](https://www.jstor.org/stable/3839876?seq=1#metadata_info_tab_contents)

[95]

P. L. Tyack, 'Extreme Diving of Beaked Whales', *Journal of Experimental Biology*, vol. 209, no. 21, pp. 4238–4253, 2006 [Online]. Available: <http://jeb.biologists.org/content/209/21/4238>

[96]

M. R. Clarke, 'Function of the Spermaceti Organ of the Sperm Whale', *Nature*, vol. 228, no. 5274, pp. 873–874, 1970, doi: 10.1038/228873a0.

[97]

W. M. X. Zimmer, M. P. Johnson, A. D'Amico, and P. L. Tyack, '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*, vol. 28, no. 1, pp. 13–28, 2003, doi: 10.1109/JOE.2002.808209.

[98]

T. Arnborn, V. Papastavrou, L. S. Weilgart, and H. Whitehead, 'Sperm Whales React to an Attack by Killer Whales', *Journal of Mammalogy*, vol. 68, no. 2, pp. 450–453, 1987, doi: 10.2307/1381497.

[99]

K. S. Norris and G. W. Harvey, 'A Theory for the Function of the Spermaceti Organ of the Sperm Whale (*Physeter catodon* L.)', *Animal Orientation and Navigation*. NASA, Washington, pp. 397–417, 1972 [Online]. Available: <https://ntrs.nasa.gov/search.jsp?R=19720017437>

[100]

R. W. Baird, D. L. Webster, D. J. McSweeney, A. D. Ligon, G. S. Schorr, and J. Barlow, 'Diving Behaviour of Cuvier's (*Ziphius cavirostris*) and Blainville's (*Mesoplodon densirostris*) Beaked Whales in Hawai'i', *Canadian Journal of Zoology*, vol. 84, no. 8, pp. 1120–1128, 2006, doi: 10.1139/z06-095. [Online]. Available: [https://go.gale.com/ps/i.do?p=AONE&u=rho\\_ttda&id=GALE|A155926691&v=2.1&it=r](https://go.gale.com/ps/i.do?p=AONE&u=rho_ttda&id=GALE|A155926691&v=2.1&it=r)

[101]

S. A. Rommel et al., 'Elements of Beaked Whale Anatomy and Diving Physiology and Some Hypothetical Causes of Sonar-Related Stranding', *Journal of Cetacean Research and Management*, vol. 7, no. 3, pp. 189–209, 2006 [Online]. Available: <https://www.semanticscholar.org/paper/Elements-of-beaked-whale-anatomy-and-diving-an-d-of-Anusudha-Rommel/c7302e80a20db58cf516310cb03b5b40572affef>

[102]

M. R. Clarke, 'Buoyancy Control as a Function of the Spermaceti Organ in the Sperm Whale', *Journal of the Marine Biological Association of the United Kingdom*, vol. 58, no. 1, pp. 27–71, 1978, doi: 10.1017/S0025315400024395.

[103]

G. S. Schorr, E. A. Falcone, D. J. Moretti, and R. D. Andrews, 'First Long-Term Behavioral Records from Cuvier's Beaked Whales (*Ziphius cavirostris*) Reveal Record-Breaking Dives',



PLoS ONE, vol. 9, no. 3, 2014, doi: 10.1371/journal.pone.0092633.

[104]

'Chapter 10. Respiration and Diving Physiology'. pp. 237–269 [Online]. Available: <http://cetus.ucsd.edu/sio133/PDF/BertaChap10.pdf>

[105]

V. Papastavrou, S. C. Smith, and H. Whitehead, 'Diving Behaviour of the Sperm Whale, *Physeter macrocephalus*, Off the Galapagos Islands', *Canadian Journal of Zoology*, vol. 67, pp. 839–846, 1989 [Online]. Available: [http://whitelab.biology.dal.ca/hw/Papastavrou\\_et\\_al\\_1989.pdf](http://whitelab.biology.dal.ca/hw/Papastavrou_et_al_1989.pdf)

[106]

M. R. Clarke, 'Structure and Proportions of the Spermaceti Organ in the Sperm Whale', *Journal of the Marine Biological Association of the United Kingdom*, vol. 58, no. 01, 1978, doi: 10.1017/S0025315400024371.

[107]

A. Thode, 'Tracking Sperm Whale (*Physeter macrocephalus*) Dive Profiles Using a Towed Passive Acoustic Array', *Journal of Acoustical Society of America*, vol. 116, no. 1, pp. 245–253, 2004 [Online]. Available: <https://www.ncbi.nlm.nih.gov/pubmed/15295984>

[108]

W. A. Watkins, M. A. Daher, K. M. Fristrup, T. J. Howald, and G. N. di Sciara, 'Sperm Whales Tagged With Transponders and Tracked Underwater by Sonar', *Marine Mammal Science*, vol. 9, no. 1, pp. 55–67, 1993, doi: 10.1111/j.1748-7692.1993.tb00426.x.

[109]

S. L. Watwood, P. J. O. Miller, M. Johnson, P. T. Madsen, and P. L. Tyack, 'Deep-Diving Foraging Behaviour of Sperm Whales (*Physeter macrocephalus*)', *Journal of Animal Ecology*, vol. 75, no. 3, pp. 814–825, 2006, doi: 10.1111/j.1365-2656.2006.01101.x.

[110]

H. Whitehead, 'Babysitting, Dive Synchrony, and Indications of Alloparental Care in Sperm Whales', *Behavioral Ecology and Sociobiology*, vol. 38, no. 4, pp. 237–244, 1996, doi: 10.1007/s002650050238.

[111]

'Adaptations of Pinnipeds and Cetaceans to the Marine Environment - Physiology | YouTube'. YouTube, 2015 [Online]. Available: <https://www.youtube.com/watch?v=CI-XYwajF0U>

[112]

'Comparative Physiology of Respiration in Sea Turtles and Cetaceans | YouTube'. YouTube, 2018 [Online]. Available: <https://www.youtube.com/watch?v=5d3DxBupzz0>

[113]

'Bubble-Net Feeding Humpback Whales in Antarctica | YouTube'. YouTube, 2017 [Online]. Available: <https://www.youtube.com/watch?v=AsrW5pFRbTw>

[114]

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

[115]

Science Magazine, 'Evolution of Mammalian Diving Capacity | YouTube'. YouTube, 2013 [Online]. Available: <https://www.youtube.com/watch?v=i7BOTMb5Znw>

[116]

BBC Studios, 'How Marine Mammals Survive Underwater Life | YouTube'. YouTube, 2008 [Online]. Available: <https://www.youtube.com/watch?v=UYkiRbgiwx0>

[117]

Nat Geo WILD, 'How to Dive Like a Sperm Whale | YouTube'. YouTube, 2018 [Online]. Available: <https://www.youtube.com/watch?v=bRVPrILHDXo>

[118]

'Humpback Whale Bubble-Netting Strategy | YouTube'. YouTube, 2014 [Online]. Available: <https://www.youtube.com/watch?v=CC8dbT4R1w4>

[119]

'Humpback Whale: Hunting Technique | YouTube'. YouTube, 2007 [Online]. Available: <https://www.youtube.com/watch?v=vjvfjiCTvq4>

[120]

'Humpback Whales Startle Kayakers | YouTube'. YouTube, 2013 [Online]. Available: [https://www.youtube.com/watch?v=G10\\_wHNNPel](https://www.youtube.com/watch?v=G10_wHNNPel)

[121]

Victoria Grima Pita, 'Mammal Adaptations to Diving 2 | YouTube'. YouTube, 2016 [Online]. Available: <https://www.youtube.com/watch?v=tDR5R3ifFkQ>

[122]

Discovery Channel, 'Sperm Whales Sleeping | YouTube'. YouTube, 2013 [Online]. Available: <https://www.youtube.com/watch?v=HengPojNgbM>

[123]

BBC Earth, 'Whales' Bubble Net Fishing | YouTube'. YouTube, 2015 [Online]. Available: <https://www.youtube.com/watch?v=Q8iDcLTD9wQ>

[124]

National Geographic, 'Whales Team Up in Amazing Bubble-Net Hunt | YouTube'. YouTube, 2014 [Online]. Available: <https://www.youtube.com/watch?v=z00G0RxeSP0>

[125]

'Breathing (Marine Mammals)'. [Online]. Available:  
<http://what-when-how.com/marine-mammals/breathing-marine-mammals/>

[126]

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

[127]

'A Very Brief Introduction to Aerodynamics | YouTube'. YouTube, 2015 [Online]. Available: <https://www.youtube.com/watch?v=CE-yhtJmseA>

[128]

'Aerodynamics: Airfoil Camber, Flaps, Slots-Slats & Drag: "Smoke Lifts" circa 1938 NACA Langley | YouTube'. YouTube, 2013 [Online]. Available: [https://www.youtube.com/watch?v=q\\_eMQvDoDWk](https://www.youtube.com/watch?v=q_eMQvDoDWk)

[129]

'Aerodynamics - How to Design an Aerodynamic Shape | YouTube'. YouTube, 2014 [Online]. Available: <https://www.youtube.com/watch?v=RjzH-VAmi3E>

[130]

'How Do Birds Fly? | YouTube'. YouTube, 2012 [Online]. Available: <https://www.youtube.com/watch?v=3So7OMwNgy8>

[131]

Canadian Museum of Nature, 'Gallery Interactives: How Do Birds Fly? | Canadian Museum of Nature'. [Online]. Available: [https://nature.ca/discover/exb/hwdbrdsfly/index\\_e.html](https://nature.ca/discover/exb/hwdbrdsfly/index_e.html)

[132]

Veritasium, 'How Does A Wing Actually Work? | YouTube'. YouTube, 2012 [Online]. Available: <https://www.youtube.com/watch?v=aFO4PBolwFg>

[133]

'Principles of Flight | YouTube'. YouTube, 2016 [Online]. Available: <https://www.youtube.com/watch?v=5O-j0w-h7v0>

[134]

RCModelReviews, 'The Aerodynamics of Flying Wings (Part 1) | YouTube'. YouTube, 2017 [Online]. Available: <https://www.youtube.com/watch?v=gkb11eKXM14>

[135]

'The Basics of Aerodynamics | YouTube'. YouTube, 2013 [Online]. Available: [https://www.youtube.com/watch?v=X1gEXs\\_gna4](https://www.youtube.com/watch?v=X1gEXs_gna4)

[136]

'Whiffling Goose | YouTube'. YouTube, 2012 [Online]. Available: <https://www.youtube.com/watch?v=Z4j1tKVzicU>

[137]

'Bird Flight | Askabiologist'. [Online]. Available: <https://askabiologist.asu.edu/how-do-birds-fly>

[138]

'Aerodynamics | HowThingsFly'. [Online]. Available: <https://howthingsfly.si.edu/aerodynamics>

[139]

C. M. Bishop et al., 'The Roller Coaster Flight Strategy of Bar-Headed Geese Conserves

Energy During Himalayan Migrations', *Science*, vol. 347, no. 6219, pp. 250–254, 2015, doi: 10.1126/science.1258732.

[140]

G. R. Scott, 'Elevated Performance: The Unique Physiology of Birds That Fly at High Altitudes', *Journal of Experimental Biology*, vol. 214, no. 15, pp. 2455–2462, 2011 [Online]. Available: <http://jeb.biologists.org/content/214/15/2455>

[141]

L. A. Hawkes et al., 'The Trans-Himalayan Flights of Bar-Headed Geese (*Anser indicus*)', *Proceedings of the National Academy of Sciences*, vol. 108, no. 23, pp. 9516–9519, 2011, doi: 10.1073/pnas.1017295108.

[142]

L. A. Hawkes et al., 'Maximum Running Speed of Captive Bar-Headed Geese Is Unaffected by Severe Hypoxia', *PLoS ONE*, vol. 9, no. 4, 2014, doi: 10.1371/journal.pone.0094015.

[143]

G. R. Scott, L. A. Hawkes, P. B. Frappell, P. J. Butler, C. M. Bishop, and W. K. Milsom, 'How Bar-Headed Geese Fly Over the Himalayas', *Physiology*, vol. 30, no. 2, pp. 107–115, 2015, doi: 10.1152/physiol.00050.2014.

[144]

'Altitude Physiology 4. How Does the Bar-Headed Goose Deal With Altitude? | YouTube'. YouTube, 2014 [Online]. Available: <https://www.youtube.com/watch?v=fy6B33m5jeM>

[145]

'Bird Flight: Avian Respiration | YouTube'. YouTube, 2010 [Online]. Available: <https://www.youtube.com/watch?v=iigxJXFJF4U>

[146]

'Bar-Headed Geese Laugh at Mountain Climbers | YouTube'. YouTube, 2013 [Online].

Available: <https://www.youtube.com/watch?v=3y9C2Sj-RbQ>

[147]

Abigail C, 'Bird Respiration | YouTube'. YouTube, 2011 [Online]. Available: <https://www.youtube.com/watch?v=lkerY5dbVNs>

[148]

Nat Geo WILD, 'Fastest Animal Makes a Kill | YouTube'. YouTube, 2013 [Online]. Available: <https://www.youtube.com/watch?v=r7IglchYNew>

[149]

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

[150]

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

[151]

'High Altitude and Deep Sea Physiology | YouTube'. YouTube, 2018 [Online]. Available: <https://www.youtube.com/watch?v=3sCwCn8En-w>

[152]

'How Can Peregrine Falcons Dive So Fast? | YouTube'. YouTube, 2018 [Online]. Available: <https://www.youtube.com/watch?v=4cAB6F02ycU>

[153]

Smithsonian Channel, 'How the Fastest Animal on Earth Attacks Its Prey | YouTube'. YouTube, 2016 [Online]. Available: <https://www.youtube.com/watch?v=ovocT91G1ww>

[154]

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

[155]

Rethink Biology, 'Airflow in Birds | YouTube'. YouTube, 2018 [Online]. Available: <https://www.youtube.com/watch?v=4EX2vAg9E3w>

[156]

'Prairie Falcon Takes Out a Drake Mallard | YouTube'. YouTube, 2016 [Online]. Available: [https://www.youtube.com/watch?v=73OvZ\\_l35Sw](https://www.youtube.com/watch?v=73OvZ_l35Sw)

[157]

University of Exeter, 'Running Geese Give Insight Into Low Oxygen Tolerance | YouTube'. YouTube, 2014 [Online]. Available: <https://www.youtube.com/watch?v=c5miFi0ASjc>

[158]

'The Avian Respiratory System | YouTube'. YouTube, 2013 [Online]. Available: <https://www.youtube.com/watch?v=kWMmyVu1ueY>

[159]

BBC, 'The Highest Flying Birds in the World | YouTube'. YouTube, 2014 [Online]. Available: <https://www.youtube.com/watch?v=WnNQWj98BR0>

[160]

Bangor University, 'The Roller Coaster Flight Strategy of Bar-Headed Geese | YouTube'. YouTube, 2015 [Online]. Available: <https://www.youtube.com/watch?v=VZ1hmjrkDk>

[161]



BBC Studios, 'Top Gun Geese! - Extreme Animals | YouTube'. YouTube, 2008 [Online]. Available: [https://www.youtube.com/watch?v=yd\\_w3biT3TU](https://www.youtube.com/watch?v=yd_w3biT3TU)

[162]

'Whiffing Goose | YouTube'. YouTube, 2012 [Online]. Available: <https://www.youtube.com/watch?v=Z4j1tKVzicU>

[163]

'Why Peregrine Falcons Are the Fastest Animals on Earth | YouTube'. YouTube, 2017 [Online]. Available: <https://www.youtube.com/watch?v=y7rOjh4Lr78>

[164]

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

[165]

AskNature, 'Air Flow Patterns Facilitate Efficient Gas Exchange: Birds', 2016. [Online]. Available: <https://asknature.org/strategy/air-flow-patterns-facilitate-efficient-gas-exchange/#.XF15sVX7SUI>

[166]

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

[167]

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

[168]

J. S. Evans, D. A. Eifler, and M. A. Eifler, 'Sand-Diving as an Escape Tactic in the Lizard *Meroles Anchietae*', *Journal of Arid Environments*, vol. 140, pp. 1–5, 2017, doi: 10.1016/j.jaridenv.2017.01.005.

[169]

S. M. Secor, B. C. Jayne, and A. F. Bennett, 'Locomotor Performance and Energetic Cost of Sidewinding by the Snake *Crotalus Cerastes*', *Journal of Experimental Biology*, vol. 163, no. 1, pp. 1–14, 1992, doi: 10.1242/jeb.163.1.1.

[170]

C. K. Brain, 'Observations on the Temperature Tolerance of Lizards in the Central Namib Desert, South West Africa', *Scientific Papers of the Namib Desert Research Station*, vol. 1963, no. 15, pp. 1–5 [Online]. Available: [https://journals.co.za/content/scipapndrs/1963/15/AJA0000008\\_135](https://journals.co.za/content/scipapndrs/1963/15/AJA0000008_135)

[171]

H. Marvi et al., 'Sidewinding With Minimal Slip: Snake and Robot Ascent of Sandy Slopes', *Science*, vol. 346, no. 6206, pp. 224–229, 2014, doi: 10.1126/science.1255718.

[172]

R. D. Maladen, Y. Ding, C. Li, and D. I. Goldman, 'Undulatory Swimming in Sand: Subsurface Locomotion of the Sandfish Lizard', *Science*, vol. 325, no. 5938, 2009 [Online]. Available: [https://www.jstor.org/stable/20536648?seq=1#metadata\\_info\\_tab\\_contents](https://www.jstor.org/stable/20536648?seq=1#metadata_info_tab_contents)

[173]

S. S. Sharpe et al., 'Locomotor Benefits of Being a Slender and Slick Sand Swimmer', *Journal of Experimental Biology*, vol. 218, no. 3, pp. 440–450, 2015, doi: 10.1242/jeb.108357.

[174]

S. S. Sharpe, 'Correction: Locomotor Benefits of Being a Slender and Slick Sand-Swimmer', *Journal of Experimental Biology*, vol. 218, no. 7, pp. 1111–1111, 2015 [Online]. Available: <http://jeb.biologists.org/content/218/7/1111>

[175]

N. C. Wu, L. A. Alton, C. J. Clemente, M. R. Kearney, and C. R. White, 'Morphology and Burrowing Energetics of Semi-Fossorial Skinks ( *Liopholis* )', *Journal of Experimental Biology*, 2015, doi: 10.1242/jeb.113803.

[176]

H. C. Astley et al., 'Modulation of Orthogonal Body Waves Enables High Maneuverability in Sidewinding Locomotion', *Proceedings of the National Academy of Sciences*, vol. 112, no. 19, pp. 6200–6205, 2015, doi: 10.1073/pnas.1418965112.

[177]

P. Comanns, F. J. Esser, P. H. Kappel, W. Baumgartner, J. Shaw, and P. C. Withers, 'Adsorption and Movement of Water by Skin of the Australian Thorny Devil (*Agamidae*: *Moloch horridus*)', *Royal Society Open Science*, vol. 4, no. 9, 2017, doi: 10.1098/rsos.170591.

[178]

R. G. Moore, 'Seasonal and Daily Activity Patterns and Thermoregulation in the Southwestern Speckled Rattlesnake (*Crotalus mitchelli pyrrhus*) and the Colorado Desert Sidewinder (*Crotalus cerastes laterorepens*)', *Copeia*, vol. 1978, no. 3, pp. 439–442, 1978, doi: 10.2307/1443608. [Online]. Available: <https://www.jstor.org/stable/1443608>

[179]

S. M. Secor, 'Ecological Significance of Movements and Activity Range for the Sidewinder, *Crotalus cerastes*', *Copeia*, vol. 1994, no. 3, 1994, doi: 10.2307/1447179.

[180]

S. M. Secor and K. A. Nagy, 'Bioenergetic Correlates of Foraging Mode for the Snakes *Crotalus Cerastes* and *Masticophis Flagellum*', *Ecology*, vol. 75, no. 6, pp. 1600–1614, 1994, doi: 10.2307/1939621.

[181]

P. Comanns, 'Passive Water Collection With the Integument: Mechanisms and Their Biomimetic Potential', *Journal of Experimental Biology*, vol. 221, no. 10, 2018 [Online]. Available: <http://jeb.biologists.org/content/221/10/jeb153130>

[182]

BBC Earth, 'Planet Earth: Amazing Kangaroo Technique To Stay Cool | YouTube'. YouTube, 2017 [Online]. Available: <https://www.youtube.com/watch?v=bbaX1yeSatQ>

[183]

BBC Studios, 'Amazing Lizard Dance & Dive | YouTube'. YouTube, 2008 [Online]. Available: <https://www.youtube.com/watch?v=1rkkKyYCxio>

[184]

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

[185]

National Geographic, 'Blood Squirting Lizard | YouTube'. YouTube, 2007 [Online]. Available: <https://www.youtube.com/watch?v=gEl6TXrkZnk>

[186]

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

[187]

Smithsonian Channel, 'This Lizard Must Dance to Stay Alive | YouTube'. YouTube, 2015 [Online]. Available: [https://www.youtube.com/watch?v=joR4OL\\_mQnE&t=8s](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'. Youtube, 2017 [Online]. Available:

<https://www.youtube.com/watch?v=4zxt1ErNsBI>

[189]

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

[190]

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

[191]

AskNature, 'Eyes Squirt Blood: Pigmy Short-Horned Lizard | Asknature', 2016. [Online]. Available: <https://asknature.org/strategy/eyes-squirt-blood/#.XF2G5VX7SUI>

[192]

J. E. A. Bertram and A. Gutmann, 'Motions of the Running Horse and Cheetah Revisited: Fundamental Mechanics of the Transverse and Rotary Gallop', *Journal of The Royal Society Interface*, vol. 6, no. 35, pp. 549–559, 2009, doi: 10.1098/rsif.2008.0328.

[193]

P. E. Hudson, S. A. Corr, and A. M. Wilson, 'High Speed Galloping in the Cheetah (*Acinonyx jubatus*) and the Racing Greyhound (*Canis familiaris*): Spatio-Temporal and Kinetic Characteristics', *Journal of Experimental Biology*, vol. 215, no. 14, pp. 2425–2434, 2012, doi: 10.1242/jeb.066720.

[194]

M. Hildebrand, 'Motions of the Running Cheetah and Horse', *Journal of Mammalogy*, vol. 40, no. 4, 1959, doi: 10.2307/1376265.

[195]

R. S. Hetem et al., 'Cheetah Do Not Abandon Hunts Because They Overheat', *Biology Letters*, vol. 9, no. 5, pp. 20130472–20130472, 2013, doi: 10.1098/rsbl.2013.0472.

[196]

J. W. Wilson et al., 'Cheetahs, *Acinonyx jubatus*, Balance Turn Capacity With Pace When Chasing Prey', *Biology Letters*, vol. 9, no. 5, pp. 20130620–20130620, 2013, doi: 10.1098/rsbl.2013.0620.

[197]

C. R. Taylor and V. J. Rowntree, 'Temperature Regulation and Heat Balance in Running Cheetahs: A Strategy for Sprinters?', *American Journal of Physiology*, vol. 224, no. 4, pp. 848–851, 1973 [Online]. Available: <https://www.physiology.org/doi/abs/10.1152/ajplegacy.1973.224.4.848>

[198]

J. W. Wilson et al., 'Cheetahs, *Acinonyx jubatus*, Balance Turn Capacity With Pace When Chasing Prey', *Biology Letters*, vol. 9, no. 5, pp. 20130620–20130620, 2013, doi: 10.1098/rsbl.2013.0620.

[199]

C. R. Taylor, A. Shkolnik, R. Dmi'el, D. Baharav, and A. Borut, 'Running in Cheetahs, Gazelles, and Goats: Energy Cost and Limb Configuration', *American Journal of Physiology*, vol. 227, no. 4, pp. 848–850, 1974 [Online]. Available: <https://www.physiology.org/doi/abs/10.1152/ajplegacy.1974.227.4.848>

[200]

H. J. O'Regan, 'Defining Cheetahs, a Multivariate Analysis of Skull Shape in Big Cats', *Mammal Review*, vol. 32, no. 1, pp. 58–62, 2002, doi: 10.1046/j.1365-2907.2002.00093.x.

[201]

N. C. C. Sharp, 'Timed Running Speed of a Cheetah (*Acinonyx jubatus*)', *Journal of Zoology*,

vol. 241, no. 3, pp. 493–494, 1997, doi: 10.1111/j.1469-7998.1997.tb04840.x.

[202]

A. M. Wilson, J. C. Lowe, K. Roskilly, P. E. Hudson, K. A. Golabek, and J. W. McNutt, 'Locomotion Dynamics of Hunting in Wild Cheetahs', *Nature*, vol. 498, no. 7453, pp. 185–189, 2013, doi: 10.1038/nature12295.

[203]

'Cheetah Running Full Speed | YouTube'. 2016 [Online]. Available: <https://www.youtube.com/watch?v=zgQ0cyNJZV4>

[204]

ABB Formula E, 'Drag Race: Formula E Car vs Cheetah | YouTube'. 2017 [Online]. Available: <https://www.youtube.com/watch?v=8-9oFxFODE>

[205]

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

[206]

'5 Gaits of the Icelandic Horse | YouTube'. 2017 [Online]. Available: <https://www.youtube.com/watch?v=RV9P0w8vZi8>

[207]

'Rhino Chase | YouTube'. 2012 [Online]. Available: <https://www.youtube.com/watch?v=TisKPkAhhA4>

[208]

'Springbok Pronking | YouTube'. 2013 [Online]. Available: <https://www.youtube.com/watch?v=jMliB9DnRXg>

[209]

'SJSU Neurophysiology - Lecture 12 - Central Pattern Generators | YouTube'. 2014 [Online]. Available: <https://www.youtube.com/watch?v=ZA0URG5jcdM>

[210]

'Edward Muybridge: Movie Exaples from Animal Locomotion | YouTube'. 2013 [Online]. Available: <https://www.youtube.com/watch?v=07x7KhuwwFE>

[211]

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

[212]

P. C. Wainwright, 'The Mechanism of Tongue Projection in Chameleons: I. Electromyographic Tests of Functional Hypotheses', *Journal of Experimental Biology*, vol. 168, no. 1, pp. 1-21, 1992 [Online]. Available: <http://jeb.biologists.org/content/168/1/1>

[213]

A. Zood, 'The Mechanism of Projection of the Chameleon's Tongue', *Journal of Experimental Biology*, vol. 10, no. 2, pp. 174-185, 1933 [Online]. Available: <http://jeb.biologists.org/content/10/2/174>

[214]

S. Creel, N. M. Creel, M. G. L. Mills, and S. L. Monfort, 'Rank and Reproduction in Cooperatively Breeding African Wild Dogs: Behavioral and Endocrine Correlates', *Behavioral Ecology*, vol. 8, no. 3, pp. 298-306, 1997, doi: 10.1093/beheco/8.3.298.

[215]

P. C. Wainwright and A. F. Bennett, 'The Mechanism of Tongue Projection in Chameleons: II. Role of Shape Change in a Muscular Hydrostat', *Journal of Experimental Biology*, vol. 168, no. 1, pp. 23-40, 1992 [Online]. Available: <http://jeb.biologists.org/content/168/1/23>



[216]

C. R. Taylor, K. Schmidt-Nielsen, R. Dmi'el, and M. Fedak, 'Effect of Hyperthermia on Heat Balance During Running in the African Hunting Dog', *American Journal of Physiology*, vol. 220, no. 3, pp. 823–827, 1971 [Online]. Available: <https://www.physiology.org/doi/abs/10.1152/ajplegacy.1971.220.3.823>

[217]

P. C. Wainwright, D. M. Kraklau, and A. F. Bennett, 'Kinematics of Tongue Projection in *Chamaeleo Oustaleti*', *Journal of Experimental Biology*, vol. 159, no. 1, pp. 109–133, 1991 [Online]. Available: <http://jeb.biologists.org/content/159/1/109>

[218]

M. L. Gorman, M. G. Mills, J. P. Raath, and J. R. Speakman, 'High Hunting Costs Make African Wild Dogs Vulnerable to Kleptoparasitism by Hyaenas', *Nature*, vol. 391, no. 6666, pp. 479–481, 1998, doi: 10.1038/35131.

[219]

U. K. Müller and S. Kranenbarg, 'Power at the Tip of the Tongue', *Science*, vol. 304, no. 5668, 2004 [Online]. Available: [https://www.jstor.org/stable/3836755?seq=1#metadata\\_info\\_tab\\_contents](https://www.jstor.org/stable/3836755?seq=1#metadata_info_tab_contents)

[220]

J. L. van Leeuwen, 'Why the Chameleon Has Spiral-Shaped Muscle Fibres in Its Tongue', *Philosophical Transactions: Biological Sciences*, vol. 352, no. 1353, 1997 [Online]. Available: [https://www.jstor.org/stable/56440?seq=1#metadata\\_info\\_tab\\_contents](https://www.jstor.org/stable/56440?seq=1#metadata_info_tab_contents)

[221]

J. H. de Groot and J. L. van Leeuwen, 'Evidence for an Elastic Projection Mechanism in the Chameleon Tongue', *Proceedings of the Royal Society of London. Series B: Biological Sciences*, vol. 271, no. 1540, pp. 761–770, 2004, doi: 10.1098/rspb.2003.2637.

[222]

F. Brau, D. Lanterbecq, L.-N. Zghikh, V. Bels, and P. Damman, 'Dynamics of Prey Prehension by Chameleons Through Viscous Adhesion', *Nature Physics*, vol. 12, no. 10, pp. 931–935, 2016, doi: 10.1038/nphys3795.

[223]

A. Herrel, 'The Mechanics of Prey Prehension in Chameleons', *Journal of Experimental Biology*, vol. 203, no. 21, pp. 3255–3263, 2000 [Online]. Available: <http://jeb.biologists.org/content/203/21/3255>

[224]

A. Herrel, J. J. Meyers, P. Aerts, and K. C. Nishikawa, 'Functional Implications of Supercontracting Muscle in the Chameleon Tongue Retractors', *Journal of Experimental Biology*, vol. 204, no. 21, pp. 3621–3627, 2001 [Online]. Available: <http://jeb.biologists.org/content/204/21/3621>

[225]

C. Carbone, J. T. D. Toit, and I. J. Gordon, 'Feeding Success in African Wild Dogs: Does Kleptoparasitism by Spotted Hyenas Influence Hunting Group Size?', *The Journal of Animal Ecology*, vol. 66, no. 3, 1997, doi: 10.2307/5978.

[226]

S. Creel and N. Marusha Creel, 'Limitation of African Wild Dogs by Competition with Larger Carnivores', *Conservation Biology*, vol. 10, no. 2, pp. 526–538, 1996 [Online]. Available: [https://www.jstor.org/stable/2386867?seq=1#metadata\\_info\\_tab\\_contents](https://www.jstor.org/stable/2386867?seq=1#metadata_info_tab_contents)

[227]

R. D. Estes and J. Goddard, 'Prey Selection and Hunting Behavior of the African Wild Dog', *The Journal of Wildlife Management*, vol. 31, no. 1, 1967, doi: 10.2307/3798360.

[228]

D. E. Moulton, T. Lessinnes, S. O'Keeffe, L. Dorfmann, and A. Goriely, 'The Elastic Secrets of the Chameleon Tongue', *Proceedings of the Royal Society A: Mathematical, Physical and*

Engineering Science, vol. 472, no. 2188, 2016, doi: 10.1098/rspa.2016.0030.

[229]

C. V. Anderson and S. M. Deban, 'Ballistic Tongue Projection in Chameleons Maintains High Performance at Low Temperature', *Proceedings of the National Academy of Sciences*, vol. 107, no. 12, pp. 5495–5499, 2010, doi: 10.1073/pnas.0910778107.

[230]

F. Courchamp, 'Small Pack Size Imposes a Trade-Off Between Hunting and Pup-Guarding in the Painted Hunting Dog *Lycaon Pictus*', *Behavioral Ecology*, vol. 13, no. 1, pp. 20–27, 2002, doi: 10.1093/beheco/13.1.20.

[231]

C. V. Anderson, T. Sheridan, and S. M. Deban, 'Scaling of the Ballistic Tongue Apparatus in Chameleons', *Journal of Morphology*, vol. 273, no. 11, pp. 1214–1226, 2012, doi: 10.1002/jmor.20053.

[232]

T. Y. Hubel, J. P. Myatt, N. R. Jordan, O. P. Dewhirst, J. W. McNutt, and A. M. Wilson, 'Additive Opportunistic Capture Explains Group Hunting Benefits in African Wild Dogs', *Nature Communications*, vol. 7, no. 1, 2016, doi: 10.1038/ncomms11033.

[233]

T. Y. Hubel, J. P. Myatt, N. R. Jordan, O. P. Dewhirst, J. W. McNutt, and A. M. Wilson, 'Energy Cost and Return for Hunting in African Wild Dogs and Cheetahs', *Nature Communications*, vol. 7, no. 1, 2016, doi: 10.1038/ncomms11034.

[234]

F. Courchamp and D. W. Macdonald, 'Crucial Importance of Pack Size in the African Wild Dog *Lycaon Pictus*', *Animal Conservation*, vol. 4, no. 2, pp. 169–174, 2001, doi: 10.1017/S1367943001001196.

[235]

K. Schwenk and D. A. Bell, 'A Cryptic Intermediate in the Evolution of Chameleon Tongue Projection', *Experientia*, vol. 44, no. 8, pp. 697–700, 1988, doi: 10.1007/BF01941032.

[236]

'Cham Tongue Mishap, With a Recovery | YouTube'. 2010 [Online]. Available: <https://www.youtube.com/watch?v=etjvcwYH9JE>

[237]

National Geographic, 'Tiny Chameleons' Tongues Pack Strongest Punch | YouTube'. 2016 [Online]. Available: <https://www.youtube.com/watch?v=pn37IT7HbrA>

[238]

BBC Earth, 'Chameleon Tongue In Slow Motion | YouTube'. 2013 [Online]. Available: <https://www.youtube.com/watch?v=z3oh73amxQo>

[239]

ChameleoCam, 'How Does a Chameleon's Tongue Work? | YouTube'. 2016 [Online]. Available: <https://www.youtube.com/watch?v=tEap8hFIT9M>

[240]

BBC Earth Unplugged, 'Chameleon Tongue Attack in Slow Motion | YouTube'. 2015 [Online]. Available: <https://www.youtube.com/watch?v=E76YBF3P0K0&t=57s>

[241]

BBC Planet Earth, 'African Wild Dogs Hunting Behavior | YouTube'. 2015 [Online]. Available: <https://www.youtube.com/watch?v=WqEzEHRuLf0>

[242]

'African Wild Dog Facts: What Makes Them Such Fascinating Hunters? |

Africa-Wildlife-Detective'. [Online]. Available:  
<https://www.africa-wildlife-detective.com/African-wild-dog.html>

[243]

'The Reptipage: Chameleon Tongues | Reptilis'. [Online]. Available:  
<http://reptilis.net/lacertilia/chamaeleonidae/tongue.html>

[244]

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

[245]

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

[246]

A. T. Fisk, S. A. Tittlemier, J. L. Pranschke, and R. J. Norstrom, 'Using Anthropogenic Contaminants and Stable Isotopes to Assess the Feeding Ecology of Greenland Sharks', *Ecology*, vol. 83, no. 8, pp. 2162–2172, 2002, doi: 10.1890/0012-9658(2002)083[2162:UACASI]2.0.CO;2.

[247]

J. Nielsen et al., 'Eye Lens Radiocarbon Reveals Centuries of Longevity in the Greenland Shark (*Somniosus Microcephalus*)', *Science*, vol. 353, no. 6300, pp. 702–704, 2016, doi: 10.1126/science.aaf1703.

[248]

S. E. Campana, L. J. Natanson, and S. Myklevoll, 'Bomb Dating and Age Determination of Large Pelagic Sharks', *Canadian Journal of Fisheries and Aquatic Sciences*, vol. 59, no. 3, pp. 450–455, 2002 [Online]. Available:

[https://librarysearch.royalholloway.ac.uk/permalink/f/vavv8/TN\\_cdi\\_cristin\\_nora\\_11250\\_108697](https://librarysearch.royalholloway.ac.uk/permalink/f/vavv8/TN_cdi_cristin_nora_11250_108697)

[249]

J. W. Gibbons and R. D. Semlitsch, 'Survivorship and Longevity of a Long-Lived Vertebrate Species: How Long do Turtles Live?', *The Journal of Animal Ecology*, vol. 51, no. 2, 1982, doi: 10.2307/3981.

[250]

J. W. Gibbons, 'Why Do Turtles Live So Long?', *BioScience*, vol. 37, no. 4, pp. 262–269, 1987, doi: 10.2307/1310589.

[251]

D. J. Germano, 'Longevity and Age-Size Relationships of Populations of Desert Tortoises', *Copeia*, vol. 1992, no. 2, pp. 367–374, 1992, doi: 10.2307/1446197.

[252]

M. A. MacNeil et al., 'Biology of the Greenland Shark *Somniosus microcephalus*', *Journal of Fish Biology*, vol. 80, no. 5, pp. 991–1018, 2012, doi: 10.1111/j.1095-8649.2012.03257.x.

[253]

J. D. Borucinska, G. W. Benz, and H. E. Whiteley, '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*, vol. 21, no. 6, pp. 415–422, 1998, doi: 10.1046/j.1365-2761.1998.00122.x.

[254]

T. A. Rando, 'Stem Cells, Ageing and the Quest for Immortality', *Nature*, vol. 441, no. 7097, pp. 1080–1086, 2006, doi: 10.1038/nature04958.

[255]

G. B. Skomal and G. W. Benz, 'Ultrasonic Tracking of Greenland Sharks, *Somniosus microcephalus*, Under Arctic Ice', *Marine Biology*, vol. 145, no. 3, 2004, doi: 10.1007/s00227-004-1332-8.

[256]

Esoteric Detective, '400 Year Old Greenland Shark Found Still Alive | YouTube'. 2016 [Online]. Available: <https://www.youtube.com/watch?v=VJg7EdR0Nwg>

[257]

'The Galápagos Tortoise | YouTube'. 2010 [Online]. Available: <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'. 2017 [Online]. Available: <https://www.youtube.com/watch?v=Wh8-GTBV2-I>

[259]

'Greenland Sharks in Science | YouTube'. 2018 [Online]. Available: <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'. 2016 [Online]. Available: [https://www.youtube.com/watch?v=T7RD\\_y17m7U](https://www.youtube.com/watch?v=T7RD_y17m7U)

[261]

Wonder World, 'Oldest Shark in the World - 512 Year Old Greenland Shark | YouTube'. 2017 [Online]. Available: <https://www.youtube.com/watch?v=hz2HBk5sKlc&t=1s>

[262]

'Opposum with Babies | YouTube'. 2015 [Online]. Available:  
<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'. 2009 [Online]. Available:  
<https://www.youtube.com/watch?v=B4FVetapF2k>

[264]

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

[265]

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

[266]

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

[267]

R. A. Saporito, M. A. Donnelly, P. Jain, H. Martin Garraffo, T. F. Spande, and J. W. Daly, 'Spatial and Temporal Patterns of Alkaloid Variation in the Poison Frog *Oophaga pumilio* in Costa Rica and Panama Over 30 Years', *Toxicon*, vol. 50, no. 6, pp. 757–778, 2007, doi: 10.1016/j.toxicon.2007.06.022.

[268]

J. P. Dumbacher, B. M. Beehler, T. F. Spande, H. M. Garraffo, and J. W. Daly, 'Homobatrachotoxin in the Genus *Pitohui*: Chemical Defense in Birds?', *Science*, vol. 258, no. 5083, 1992 [Online]. Available:  
[https://www.jstor.org/stable/2880333?seq=1#metadata\\_info\\_tab\\_contents](https://www.jstor.org/stable/2880333?seq=1#metadata_info_tab_contents)



[269]

J. W. Daly, C. W. Myers, J. E. Warnick, and E. X. Albuquerque, 'Levels of Batrachotoxin and Lack of Sensitivity to its Action in Poison-Dart Frogs (Phylllobates)', *Science*, vol. 208, no. 4450, 1980 [Online]. Available:  
[https://www.jstor.org/stable/1684078?seq=1#metadata\\_info\\_tab\\_contents](https://www.jstor.org/stable/1684078?seq=1#metadata_info_tab_contents)

[270]

J. P. Dumbacher and R. C. Fleischer, 'Phylogenetic Evidence for Colour Pattern Convergence in Toxic Pitohuis: Müllerian Mimicry in Birds?', *Proceedings: Biological Sciences*, vol. 268, no. 1480, 2001 [Online]. Available:  
[https://www.jstor.org/stable/3067925?seq=1#metadata\\_info\\_tab\\_contents](https://www.jstor.org/stable/3067925?seq=1#metadata_info_tab_contents)

[271]

J. P. Dumbacher, T. F. Spande, and J. W. Daly, '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*, vol. 97, no. 24, 2000 [Online]. Available:  
[https://www.jstor.org/stable/123639?seq=1#metadata\\_info\\_tab\\_contents](https://www.jstor.org/stable/123639?seq=1#metadata_info_tab_contents)

[272]

J. P. Dumbacher, A. Wako, S. R. Derrickson, A. Samuelson, T. F. Spande, and J. W. Daly, '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*, vol. 101, no. 45, 2004 [Online]. Available:  
[https://www.jstor.org/stable/3373731?seq=1#metadata\\_info\\_tab\\_contents](https://www.jstor.org/stable/3373731?seq=1#metadata_info_tab_contents)

[273]

M. E. Maan and M. E. Cummings, 'Poison Frog Colors Are Honest Signals of Toxicity, Particularly for Bird Predators', *The American Naturalist*, vol. 179, no. 1, pp. E1–E14, 2012, doi: 10.1086/663197.

[274]

C. W. Myers and J. W. Daly, 'Dart-Poison Frogs', *Scientific American*, vol. 248, no. 2, 1983 [Online]. Available:

[https://www.jstor.org/stable/24968834?seq=1#metadata\\_info\\_tab\\_contents](https://www.jstor.org/stable/24968834?seq=1#metadata_info_tab_contents)

[275]

R. A. Saporito, R. Zuercher, M. Roberts, K. G. Gerow, and M. A. Donnelly, 'Experimental Evidence for Aposematism in the Dendrobatid Poison Frog *Oophaga pumilio*', *Copeia*, vol. 2007, no. 4, 2007 [Online]. Available: [https://www.jstor.org/stable/25140718?seq=1#metadata\\_info\\_tab\\_contents](https://www.jstor.org/stable/25140718?seq=1#metadata_info_tab_contents)

[276]

J. P. Dumbacher, G. K. Menon, and J. W. Daly, 'Skin as a Toxin Storage Organ in the Endemic New Guinean Genus *Pitohui*', *The Auk*, vol. 126, no. 3, pp. 520–530, doi: 10.1525/auk.2009.08230. [Online]. Available: <https://bioone.org/journals/The-Auk/volume-126/issue-3/auk.2009.08230/Skin-as-a-Toxin-Storage-Organ-in-the-Endemic-New/10.1525/auk.2009.08230.full>

[277]

I. J. Wang and H. B. Shaffer, 'Rapid Color Evolution in an Aposematic Species: A Phylogenetic Analysis of Color Variation in the Strikingly Polymorphic Strawberry Poison-Dart Frog', *Evolution*, vol. 62, no. 11, pp. 2742–2759, 2008, doi: 10.1111/j.1558-5646.2008.00507.x.

[278]

T. Tokuyama, J. Daly, and B. Witkop, '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*, vol. 91, no. 14, pp. 3931–3938, 1969, doi: 10.1021/ja01042a042.

[279]

J. W. Daly, B. Witkop, P. Bommer, and K. Biemann, 'Batrachotoxin. The Active Principle of the Colombian Arrow Poison Frog, *Phyllobates bicolor*', *Journal of the American Chemical Society*, vol. 87, no. 1, pp. 124–126, 1965, doi: 10.1021/ja01079a026.

[280]

F. Märki and B. Witkop, 'The Venom of the Colombian Arrow Poison Frog *Phyllobates*

bicolor', *Experientia*, vol. 19, no. 7, pp. 329–338, 1963, doi: 10.1007/BF02152303.

[281]

T. L. Master, 'Predation by Rufous Motmot on Black-and-Green Poison Dart Frog', *The Wilson Bulletin*, vol. 111, no. 3, pp. 439–440, 1999 [Online]. Available: [https://www.jstor.org/stable/4164114?seq=1#metadata\\_info\\_tab\\_contents](https://www.jstor.org/stable/4164114?seq=1#metadata_info_tab_contents)

[282]

M. Vences, 'Convergent Evolution of Aposematic Coloration in Neotropical Poison Frogs: A Molecular Phylogenetic Perspective', *Organisms Diversity & Evolution*, vol. 3, no. 3, pp. 215–226, 2003, doi: 10.1078/1439-6092-00076.

[283]

Wildlife All About, 'The Poisonous Dart Frog - Blue Frog | YouTube'. 2014 [Online]. Available: <https://www.youtube.com/watch?v=F6mb1fpPGTA>

[284]

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

[285]

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

[286]

'Discovery: First Scientifically Confirmed Poisonous Bird | YouTube'. 2010 [Online]. Available: <https://www.youtube.com/watch?v=Zj6O8WJ3qtE&t=89s>

[287]

K. V. Kardong and P. A. Lavin-Murcio, 'Venom Delivery of Snakes as High-Pressure and Low-Pressure Systems', *Copeia*, vol. 1993, no. 3, 1993, doi: 10.2307/1447225.

[288]

C. Broeckhoven and A. du Plessis, 'Has Snake Fang Evolution Lost Its Bite? New Insights From a Structural Mechanics Viewpoint', *Biology Letters*, vol. 13, no. 8, 2017, doi: 10.1098/rsbl.2017.0293.

[289]

W. Van Riper, 'How a Rattlesnake Strikes', *Scientific American*, vol. 189, no. 4, pp. 100–102, 1953, doi: 10.1038/scientificamerican1053-100.

[290]

M. Cintra-Francischinelli 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*, vol. 107, no. 32, pp. 14140–14145, 2010, doi: 10.1073/pnas.1009128107.

[291]

K. V. Kardong, 'The Evolution of the Venom Apparatus in Snakes From Colubrids to Viperids & Elapids', vol. 46. Department of Zoology, Washington State University, pp. 105–118, 1982 [Online]. Available: [https://public.wsu.edu/~kkardong/Web%20of%20KVK\\_06b/Publications/Evolution\\_venom\\_a pp82.pdf](https://public.wsu.edu/~kkardong/Web%20of%20KVK_06b/Publications/Evolution_venom_a pp82.pdf)

[292]

F. J. Vonk, J. F. Admiraal, K. Jackson, R. Reshef, and M. A. G. de Bakker, 'Evolutionary Origin and Development of Snake Fangs', *Nature*, vol. 454, no. 7204, pp. 630–633, 2008, doi: 10.1038/nature07178.

[293]

A. du Plessis, C. Broeckhoven, and S. G. le Roux, 'Snake Fangs: 3D Morphological and Mechanical Analysis by MicroCT, Simulation, and Physical Compression Testing', *GigaScience*, vol. 7, no. 1, 2018, doi: 10.1093/gigascience/gix126.

[294]

K. V. Kardong, "Protovipers" and the Evolution of Snake Fangs', *Evolution*, vol. 33, no. 1Part2, pp. 433-443, 1979, doi: 10.1111/j.1558-5646.1979.tb04696.x.

[295]

K. Jackson, 'How Tubular Venom-Conducting Fangs Are Formed', *Journal of Morphology*, vol. 252, no. 3, pp. 291-297, 2002, doi: 10.1002/jmor.1106.

[296]

F. J. Vonk, J. F. Admiraal, K. Jackson, R. Reshef, and M. A. G. de Bakker, 'Evolutionary Origin and Development of Snake Fangs', *Nature*, vol. 454, no. 7204, pp. 630-633, 2008, doi: 10.1038/nature07178.

[297]

Nat Geo WILD, 'Spitting Mad Cobra | YouTube'. 2014 [Online]. Available: <https://www.youtube.com/watch?v=ThKIHVmBpzg>

[298]

The Nature of Science, 'How Killer Cone Snails Kill | YouTube'. 2015 [Online]. Available: <https://www.youtube.com/watch?v=4wihKnARrAw>

[299]

BBC Earth, 'Snake Bites Compared in Slow Mo: Spectacled Cobra vs Saw Scaled Viper | YouTube'. 2018 [Online]. Available: <https://www.youtube.com/watch?v=PjXx8bdrw0A>

[300]

Smithsonian Channel, 'The Real Way Komodo Dragons Kill Prey | YouTube'. 2016 [Online]. Available: <https://www.youtube.com/watch?v=pFaSswGnT0I>

[301]

National Geographic, 'Platypus Parts | YouTube'. 2007 [Online]. Available: <https://www.youtube.com/watch?v=QNoQvjlmGdk>

[302]

BBC Earth, 'Deadly 60: Breathtaking! Slow Motion Puff Adder Attack | YouTube'. 2014 [Online]. Available: <https://www.youtube.com/watch?v=IPfG4OdGEyI>

[303]

'The Amazing Science Behind Fatal Snake Bites | BBC', 2015. [Online]. Available: <https://www.bbc.co.uk/news/health-34214029>

[304]

Ken Winkel, 'Mortal Poison: The Story of How Venom Works', The Conversation, 2016 [Online]. Available: <https://theconversation.com/mortal-poison-the-story-of-how-venom-works-50964>

[305]

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

[306]

D. J. Pierson, '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, vol. 54, no. 7, pp. 887–911, 2009 [Online]. Available: <http://rc.rcjournal.com/content/54/7/887/tab-pdf>

[307]

S. Hughes, J. Barry, J. Russell, R. Bell, and S. Gurung, 'Neck Length and Mean Arterial Pressure in the Sauropod Dinosaurs', The Journal of Experimental Biology, vol. 219, no. 8, pp. 1154–1161, 2016, doi: 10.1242/jeb.137448.

[308]

B. Laing, 'Thermoregulation in Dinosaurs: A Continued Controversy'. 2001 [Online]. Available: <http://scil.stanford.edu/research/learningcareers/capstones/brian/documents/biology06.pdf>

[309]

P. M. Sander, A. Christian, M. Clauss, R. Fehner, and C. T. Gee, 'Biology of the Sauropod Dinosaurs: The Evolution of Gigantism', *Biological Reviews*, vol. 86, no. 1, pp. 117–155, 2011, doi: 10.1111/j.1469-185X.2010.00137.x.

[310]

M. J. Wedel, 'Vertebral Pneumaticity, Air Sacs, and the Physiology of Sauropod Dinosaurs', *Paleobiology*, vol. 29, no. 2, pp. 243–255, 2003, doi: 10.1017/S0094837300018091. [Online]. Available: <https://www.jstor.org/stable/4096832>

[311]

R. A. Eagle, T. Tutken, T. S. Martin, A. K. Tripathi, and H. C. Fricke, 'Dinosaur Body Temperatures Determined from Isotopic (<sup>13</sup>C-<sup>18</sup>O) Ordering in Fossil Biominerals', *Science*, vol. 333, no. 6041, pp. 443–445, 2011 [Online]. Available: [https://www.jstor.org/stable/27978286?seq=1#metadata\\_info\\_tab\\_contents](https://www.jstor.org/stable/27978286?seq=1#metadata_info_tab_contents)

[312]

B. Ganse, A. Stahn, S. Stoinski, and T. Suthau, 'Body Mass Estimation, Thermoregulation, and Cardiovascular Physiology of Large Sauropods', in *Biology of the Sauropod Dinosaurs: Understanding the Life of Giants*, 2011, pp. 105–115 [Online]. Available: [https://www.researchgate.net/publication/242019333\\_Body\\_Mass\\_Estimation\\_Thermoregulation\\_and\\_Cardiovascular\\_Physiology\\_of\\_Large\\_Sauropods](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'. 2016 [Online]. Available: <https://www.youtube.com/watch?v=DPGL2240WL8>

[314]

BBC Earth, 'Biggest Dinosaur Ever! Argentinosaurus | YouTube'. 2013 [Online]. Available: <https://www.youtube.com/watch?v=3QUK8gN1oSY>

[315]

'How Did Giant Sauropods Such as Brachiosaurus Hold Their Necks? | YouTube'. 2012 [Online]. Available: [https://www.youtube.com/watch?v=StnR\\_2fbdul](https://www.youtube.com/watch?v=StnR_2fbdul)

[316]

BBC News, 'How Did Sauropods Support Their Weight? | YouTube'. 2013 [Online]. Available: <https://www.youtube.com/watch?v=mSyTgrcawGM>

[317]

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

[318]

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

[319]

M. Marshall, 'Sauropod Farts Warmed the Planet', 2012. [Online]. Available: <https://www.newscientist.com/article/dn21783-sauropod-farts-warmed-the-planet/>