

# Curriculum Vitae

Robert Dudley  
Department of Integrative Biology  
University of California, Berkeley  
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## Personal

Year/place of birth: 1961/Edinburgh, Scotland  
Married to Han Junqiao; two children

## Education

1987. Ph.D. in Zoology, University of Cambridge, United Kingdom  
1983. B.S. *summa cum laude*, Duke University, North Carolina; graduation with  
Distinction in Zoology

## Professional Appointments

2017–present: Distinguished Professor, University of California, Berkeley  
2003–2017: Professor, Department of Integrative Biology, UC-Berkeley  
2003–present: Research Morphologist, Museum of Vertebrate Zoology, UC-Berkeley  
2003–present: Affiliate Faculty, Essig Museum of Entomology, UC-Berkeley  
1997–2002: Associate Professor, Section of Integrative Biology, University of Texas, Austin  
1992–1997: Assistant Professor, Department of Zoology, University of Texas, Austin  
1992–present: Research Associate, Smithsonian Tropical Research Institute, Panama

## Research Interests

1. Biomechanics, functional morphology, and evolution of animal flight
2. Physiological ecology of tropical insects, particularly flight energetics and migration
3. Evolutionary origins of human alcoholism in primate frugivory

## Foreign Languages

*Deutsch als Fremdsprache* certificate, Friedrich-Alexander-Universität, Erlangen  
reading and conversational knowledge of French and Spanish  
survival conversational Mandarin

## Fellowships, Research Grants, and Awards

2024–2025. Miller Institute Research Professorship, University of California, Berkeley  
2020. Fellow, California Academy of Sciences  
2019–2025. NSF DEB-1831833: "Dimensions: Convergent evolution of nectarivory and its  
association with high-altitude adaptation in hummingbirds and sunbirds", Co-PI with R.C.K.  
Bowie and J.A. McGuire (\$1,999,978; 5 years with one-year no-cost extension)  
2016–2022. Class of 1933 Chair in the Biological Sciences, University of California, Berkeley  
2013–2016. AFOSR Flow Interactions and Control #13RSA030: "Into turbulent air: hummingbird  
aerodynamic control in unsteady circumstances" (\$580,395; 3 years)  
2011–2012. NSF IBN-1110855: "The biomechanics and evolution of flight reduction in stick  
insects", Dissertation Improvement Grant with Y. Zeng and D. Wake (\$9,230; 16 months)  
2009–2016. NSF DGE-0903711: "IGERT: Biological and bio-inspired motion systems  
operating in complex environments", Co-PI with R.J. Full, R. Fearing and M.A.R. Koehl  
(\$3,195,091; 5 years with 2 one-year no-cost extensions)

- 2009–2013. NSF IOS-0837866/-0843120 (Collaborative research) and REU Supplements: "How to fall from trees: biomechanics and ecology of gliding flight in arthropods", Co-PI with S.P. Yanoviak (\$538,547; 4 years)
- 2008–2009. National Geographic Society Research Grant: "Toward a biogeography of salt", Co-Investigator with M. Kaspari and S. Yanoviak (\$21,700; 12 months)
- 2007–2012. John and Mary Gompertz Endowed Chair in Integrative Biology, University of California, Berkeley
- 2007–2008. National Geographic Society Research Grant: "Flight into thin air: the physiology and diversity of alpine bumblebees", Co-Investigator with M. Dillon (\$16,200; 1 year)
- 2006–2011. NSF DEB-0543556 and REU Supplements: "Phylogenetic and biogeographic history of high-altitude adaptation in hummingbirds", Co-PI with J.A. McGuire (\$485,698; 5 years)
- 2005–2006. National Geographic Society Research Grant: "Gliding flight in rainforest canopy ants", Co-Investigator with S.P. Yanoviak and M. Kaspari (\$20,000; 1 year)
- 2004–2005. NSF IOB-0437613: "SICB Symposium: Adaptation for life at high elevation (\$3000; 1 year), co-organized with D. Altshuler
- 2003–2004. NSF IBN-0335585: "SICB Symposium: The coevolution of frugivorous animals with the natural occurrence of ethanol in fermenting fruit" (\$11,550; 1 year), co-organized with M. Dickinson
- 2003–2005. National Geographic Society Research Grant: "Optimal migration in butterflies: quantifying the aerodynamic power curves for flight", Co-Investigator with R.B. Srygley (\$30,585; 2 years)
- 2002–2003. United States-Israel Binational Science Foundation: "Role of ethanol in the nutritional and sensory physiology of frugivores", Co-Investigator with C. Korine and B. Pinshow (\$50,000; 1 year)
- 2002–2004. Texas Advanced Research/Technology Program: "Dynamic models for flapping wing micro-air vehicles derived from hummingbird flight", Co-Investigator with M. Akella (\$241,340; 2 years)
- 2001–2005. NSF DEB-0108555: "Evolution of flight performance and the phylogeny of hummingbirds", Co-Investigator with J.A. McGuire (\$303,760; 4 years)
2001. National Geographic Society Research Grant: "Do migrating Neotropical butterflies use a magnetic compass to orient?", Co-Investigator with R.B. Srygley and E. Oliveira (\$22,680; 1 year)
2000. Association of American Publishers Award for Best Professional/Scholarly Book in Biological Science for *The Biomechanics of Insect Flight: Form, Function, Evolution*
- 2000–2003. NSF OPP-9980360: "Temperature compensation in Antarctic pteropods: an integrative approach" (\$174,180; 3 years)
- 1999–2002. NSF IBN-9817138: "Limits to hummingbird flight performance: ecological and comparative perspectives" (\$325,000; 3 years)
- 1999–2001. NSF IBN-9902155: "Hummingbird morphology and its influence on flight performance, competitive ability, and foraging behavior", Dissertation Improvement Grant with D. Altshuler (\$9880; 18 months)
1999. Invited participant, NSF Antarctic Biology Training Course (McMurdo)
1999. Study Visit, Deutscher Akademischer Austauschdienst, Erlangen Universität: "Hovering in glossophagine phyllostomid bats" (\$3100)
- 1998–2000. Earthwatch Institute: "Physiology and ecology of hummingbirds along an altitudinal gradient", Co-Investigator with D. Altshuler (\$58,145; 2 years)
1998. Short Term Visitor Award, Smithsonian Institution (\$1925)
- 1997–1999. NSF IBN-9601089: "Biomechanical and physiological limits to animal flight performance" (\$110,000; 2 years)

1997–1999. NIH NRSA MH11703: "Evolution of communication in anuran amphibians", (postdoctoral fellowship for W. Martin; \$74,024; 2 years)  
1997. Short Term Visitor Award, Smithsonian Institution (\$1875)  
1996–1999. National Geographic Society Research Grant: "Flying lizards (Genus *Draco*) and the evolution of vertebrate flight", Co-investigator with J.A. McGuire (\$40,765; 30 months)  
1996. Short Term Visitor Award, Smithsonian Institution (\$1875)  
1994–1997. National Geographic Society Research Grant: "Orientation of butterflies migrating across the Caribbean Sea and Panama", Co-Investigator with R.B. Srygley (\$59,500; 30 months)  
1994–1996. NIH NRSA AR008331: "Energetic limits to hummingbird flight performance (postdoctoral fellowship for P. Chai; \$69,100; 2 years)  
1994. Short Term Visitor Award, Smithsonian Institution (\$2000)  
1993. National Academy of Sciences Project Development Grant (\$2000)  
1993. Short Term Visitor Award, Smithsonian Institution (\$1900)  
1991–1992. Whitehall Foundation Grant-in-Aid (\$15,000)  
1988–1991. Smithsonian Institution Three-year Postdoctoral Fellowship for research at the Smithsonian Tropical Research Institute (\$75,000)  
1987–1988. Smithsonian Institution Postdoctoral Fellowship, STRI (\$21,000)  
1983–1987. Marshall Scholarship for doctoral studies at the University of Cambridge  
1983. Olney Fellowship at the Cold Spring Harbor Laboratory, Long Island  
1983. Horn Memorial Prize for Excellence in Zoology, Duke University

### **Teaching and Training Activities**

*Undergraduate courses:* Biomotion, Comparative Physiology, Entomology, Mechanics of Organisms (lecture and laboratory); Comparative and Human Biomechanics

*Graduate courses:* Air & Water, Animal Locomotion, Bio-inspired Design of Motion Systems, Biomechanics & Metabolic Physiology seminar

*Graduate student advisorship:*

Kun Do (2025–present; Biophysics Graduate Group, co-advised with Victor Ortega)

Leah Lee (2018–present)

Aleksey Maro (2017–present)

Erik Sathe (Ph.D., 2022); postdoctoral fellow, Oslo University

Leeann Louis (Ph.D., 2019); clinical data scientist, DeepHealth

Sofia Chang (M.S., 2018; co-advisor with Mimi Koehl); project manager, Logitech Gaming

Marc Badger (Ph.D., 2016); research engineer, Aescape

Erica Kim (Ph.D., 2014; Biophysical Graduate Group); proof.bwoc@gmail.com

Yu Zeng (Ph.D., 2013; co-advised with Dave Wake); postdoctoral fellow, Univ. of South Florida

Dennis Evangelista (Ph.D., 2013); science teacher, Morristown Beard School, New Jersey

Yonatan Munk (Ph.D., 2011; co-advised with Mimi Koehl)

Jose Maria Fernandez (Ph.D., 2010); Associate Governor, The Ladies' College, Guernsey

Greg Byrnes (Ph.D., 2009); Professor, Department of Biology, Siena College

Chris Clark (Ph.D., 2009); Associate Professor, Department of Biology, UC-Riverside

Matt Medeiros (Ph.D., 2009); postdoctoral researcher, University of Hawaii at Manoa

Ryan Hill (Ph.D., 2008); Professor, Dept. of Biological Sciences, University of the Pacific

Brendan Borrell (Ph.D., 2006); science journalist: [brendanborrell.com](http://brendanborrell.com)

Travis LaDuc (Ph.D., 2003; co-advisor with D. Cannatella); Curator of Herpetology, Texas Memorial Museum, University of Texas at Austin

Jennifer Yeh (Ph.D., 2001; co-advisor with D. Cannatella); science writer

Doug Altshuler (Ph.D., 2001); Professor, Department of Zoology, University of British Columbia, Vancouver

*Postdoctoral sponsorship:*

Adi Domer-Yechezkel (HFSP Postdoctoral Fellow, 2022–2025); Assistant Professor, School of Zoology, Tel Aviv University

Ammon Corl (NSF Postdoctoral Fellow, 2019–2025); Postdoctoral Fellow, Museum of Vertebrate Zoology, UC-Berkeley

Alejandro Rico-Guevara (UC-Berkeley Miller Fellow, 2017–2020); Associate Professor, Department of Biology, University of Washington

Victor Ortega-Jiménez (UC MEXUS-CONACYT Postdoctoral Fellowship, 2010–2012; AFOSR Postdoctoral Fellow, 2013–2016); Assistant Professor, Department of Integrative Biology, University of California, Berkeley

Marta Wolf (Swedish Research Council Postdoctoral Fellowship, 2010–2012)

Nir Sapir (Rothschild Foundation Postdoctoral Fellowship, 2010–2012); Senior Lecturer, Department of Evolutionary and Environmental Biology, University of Haifa

Michael Dillon (NSF Postdoctoral Research Fellowship, 2007–2009); Professor, Department of Zoology and Physiology, University of Wyoming

Robert Buchwald (NSF Postdoctoral Research Fellowship, 2006–2010); Biology Lecturer, University of Colorado, Boulder

Stacey Combes (UC-Berkeley Miller Fellow, 2004–2007); Professor, Department of Neurobiology, Physiology & Behavior, University of California, Davis

Chris Witt (NSF, 2004–2006; co-sponsor with J. McGuire); Professor, Department of Biology, University of New Mexico

Sagiri Horisawa (Texas Advanced Research Program, 2001–2004); Associate Professor, Graduate School of Engineering, Tokai University, Japan

Peng Chai (NIH NRSA, 1994–1998); statistician, Celerion

## **Reviewing Activities**

Journals: *Acta Biomaterialia*, *Aerospace Science & Technology*, *Alcoholism: Clinical and Experimental Research*, *American Journal of Physical Anthropology*, *American Journal of Physiology (Regulatory, Integrative and Comparative Physiology)*, *American Naturalist* (Associate Editor, 2005–2021), *Animal Behaviour*, *Animal Conservation*, *Annals of the Entomological Society of America*, *Arthropod Structure & Development*, *Austral Ecology*, *Australian Journal of Entomology*, *Behavioral Ecology*, *Behavioral Pharmacology*, *Behavioural Brain Research*, *Biochemical Genetics*, *Bioinspiration & Biomimetics*, *Biological Journal of the Linnean Society*, *Biological Reviews of the Cambridge Philosophical Society*, *Biology Letters*, *Biomimetics*, *Biotropica*, *Brain Behavior and Evolution*, *Bulletin of the American Museum of Natural History*, *Canadian Journal of Zoology*, *CEAS Aeronautical Journal*, *Condor*, *Comparative Biochemistry and Physiology*, *Current Biology*, *Current Zoology*, *Ecological and Evolutionary Physiology* (Editorial Board, 2024–present), *Ecological Entomology*, *Ecology*, *eLife*, *Entomological News*, *Entomological Science*, *Evolution* (Associate Editor, 2009–2012), *Experiments in Fluids*, *Functional Ecology*, *Geobiology*, *Geology*, *Integrative and Comparative Biology*, *Integrative Organismal Biology*, *Insect Conservation and Diversity*, *Insects*, *Insect Science*, *Journal of Aircraft*, *Journal of Animal Ecology*, *Journal of Anatomy*, *Journal of Avian Biology*, *Journal of Bionic Engineering*, *Journal of Comparative Physiology B*, *Journal of Economic Entomology*, *Journal of Experimental Biology*, *Journal of Experimental Zoology*, *Journal of Fluid Mechanics*, *Journal of Fluids Engineering*, *Journal of Herpetology*, *Journal of Insect Behavior*, *Journal of Insect Physiology*, *Journal of Mammalogy*, *Journal of Morphology*, *Journal of Natural History*, *Journal of Neuroscience Methods*, *Journal of the Kansas Entomological Society*, *Journal of Research on the Lepidoptera*, *Journal of the Royal*

*Society Interface, Journal of Theoretical Biology, Journal of Tropical Ecology, Methods in Ecology and Evolution, Movement Ecology, Nature, Naturwissenschaften, Oecologia, Paleobiology, Philosophical Transactions of the Royal Society of London B, Physics of Fluids, Physiological Entomology, Physiological and Biochemical Zoology* (Editorial Board, 2014–2023), *PLOS ONE, Proceedings of the Royal Society B, Proceedings of the National Academy of Sciences USA, Progress in Aerospace Sciences, Quarterly Review of Biology, Reviews of Modern Physics, Royal Society Open Science, Science, The Science of Nature, Scientific Reports, Smithsonian Contributions to Zoology, Studies on Neotropical Fauna and Environment, The Auk, Trends in Ecology and Evolution, Wilson Bulletin, Zoologia, Zoologica Scripta, Zoology*

Book publishers: University of Chicago Press, Johns Hopkins University Press, Oxford University Press, Princeton University Press, Rutgers University Press, University of California Press

Funding agencies: Academia Europaea, American Philosophical Society, Biotechnology and Biological Sciences Research Council (U.K.), Czech Science Foundation, Deutsche Forschungsgemeinschaft, European Research Council, European Research Council Advanced Grants, Israel Science Foundation, National Center for Biological Sciences (Bangalore), National Geographic Society Research Grants, National Environment Research Council (U.K.), National Science Foundation, National Science Center (Poland), National University of Singapore Academic Research Fund, Research Excellence Council of Hungary, Portuguese Foundation for Science and Technology, Smithsonian Institution Fellowship Program, United Arab Emirates University Research Office, USDA SBIR Program

## **University Service (UC-Berkeley)**

### *Department:*

2025–2026: Member, Promotions & Tenure Committee

2023–2024: Chair, Comparative Biomechanics Search Committee; Member, Human Evolutionary Biology Task Force (fall)

2022–2023: Chair, Space Committee; Chair, Development & Resources Task Force (spring)

2021–2022: Member, Strategic Planning Committee; Chair, Space Committee (spring)

2016–2021: Chair of Integrative Biology

2014–2016: Vice-Chair of Integrative Biology; Member, Executive Committee

2014–2015: Member, Adaptation Search Committee

2013–2014: Member, Curriculum Committee

2012–2013: Member, Animal Physiology Search Committee; Member, Curriculum Committee

2011–2012: Graduate Advisor for first-year Ph.D. students; Member, MVZ Director Search Committee; Member, Undergraduate Achievement Committee

2009–2010: Member, Space Committee; Graduate Advisor for fourth-year Ph.D. students

2008–2009: Member, Curriculum Committee; Graduate Advisor for third-year Ph.D. students

2007–2008: Chair, Departmental Retreat Planning Committee; Graduate Advisor for second-year Ph.D. students; Member, Grinnell Medal Award Committee, Museum of Vertebrate Zoology

2006–2007: Chair, Graduate Admissions Committee; Advisor for first-year Ph.D. students

2005–2006: Member, Graduate Admissions and Fellowships Committee; Member, Vertebrate Evolution (Mammalogy) Search Committee

2004–2005: Chair, Vertebrate Evolution Search Committee; Chair, Academic Program Committee; Member, Graduate Admissions and Fellowships Committee; Member, Executive Committee

2003–2004: Chair, Physiology Search Committee; Member, Executive Committee

### *Campus:*

2023–2026: Member, Animal Care and Use Committee

2013–2016: Member, Academic Senate Committee on Demonstrations and Student Actions  
2007–2025: Co-director (with R.J. Full), Center for Integrative Biomechanics, Education, and Research (*ciber.berkeley.edu*)  
2006–2010: Member, Academic Senate Committee on Academic Freedom

### **Organized Symposia**

- 2017: "Primates and dietary ethanol: evolutionary outcome, or modern accident?" (American Association of Physical Anthropology Annual Meeting, New Orleans; co-organized with Nate Dominy)
- 2016: "The physiological ecology of insect flight: from millisecond escape to long-distance migration" (XXV International Congress of Entomology, Orlando; co-organized with Jason Chapman)
- 2016: "Wings and powered flight: morphological core features in insect evolution" (XXV International Congress of Entomology, Orlando; co-organized with Günther Pass)
- 2012: "Insect flight and migration: aerial performance in a changing world" (XXIV International Congress of Entomology, Daegu, South Korea; co-organized with Jason Chapman)
- 2011: "The biomechanics and behavior of gliding animals" (Annual Meeting of the Society for Integrative and Comparative Biology, Salt Lake City; co-organized with Steve Yanoviak)
- 2005: "Adaptations to life at high elevation" (Annual Meeting of the Society for Integrative and Comparative Biology, San Diego; co-organized with Doug Altshuler)
- 2004: "*In Vino Veritas*: The comparative biology of ethanol consumption" (Annual Meeting of the Society for Integrative and Comparative Biology, New Orleans; co-organized with Michael Dickinson)

### **Extramural Presentations** (last five years)

2026. Animal Behavior Graduate Group, University of California, Davis
2025. Huck Distinguished Lecture in Life Sciences, Pennsylvania State University; Dept. of Entomology, Pennsylvania State University; "Physics for Everyone" symposium, American Physical Society Global Physics Summit (Anaheim); Beijing Aeronautics and Astronautics University; Dept. of Biology, Hebei Normal University (Shijiazhuang); School of Aerospace, Xihua University (Chengdu); Institute of Zoology, Chinese Academy of Sciences (Beijing)
- 2024: Beijing Aeronautics and Astronautics University (two seminars); Dept. of Biology, Hebei Normal University (Shijiazhuang); Kunming Institute of Zoology, Chinese Academy of Sciences; Southwest Forestry University (Kunming); Institute of Vertebrate Paleontology & Paleoanthropology (Beijing)
- 2023: School of Life Sciences, Chinese University of Hong Kong; 2nd International Pennaraptoran Dinosaur Symposium, Hong Kong; School of Biology & Ecology, University of Maine (two seminars); "Tipping Points in Human Evolution" seminar series, University of Bordeaux
- 2022: Applied Mathematics Seminar, Courant Institute, New York University; Smithsonian Tropical Research Institute, Panama; "Insect Flight" symposium, APS Comparative Physiology Meeting (San Diego)

### **Books**

- Dudley, R. (2014). *The Drunken Monkey: Why We Drink and Abuse Alcohol*. Berkeley: University of California Press. 154 pp.
- Dudley, R. (2000). *The Biomechanics of Insect Flight: Form, Function, Evolution*. Princeton: Princeton University Press. 476 pp.

## Research Publications

- Maro, A., Byrne, L.C., Namaganda, S. and R. Dudley. (2026). Urinary concentrations of a direct ethanol metabolite indicate substantial ingestion of fermenting fruit by chimpanzees. *Biology Letters* **22**:20250740. (7 pp.)
- Maro, A., Corl, A., Bowie, R.C.K, McGuire, J.A.M. and R. Dudley. (2026). Low-level ethanol is widespread within floral nectar. *Royal Society Open Science*, in press.
- Choi, J., Glassman, S.R.-Y. and R. Dudley. (2025). Influence of floral orientation on feeding behavior in Anna's hummingbirds. *Journal of Avian Biology* **2025**:e03449 (5 pp.)
- Domer, A., Misraje, T.R., Xing, D., Arango, B.G., Selleghin-Veiga, G., Corl, A., Bowie, R.C.K., McGuire, J.A., Sweazea, K.L., Vazquez-Medina, J.P. and R. Dudley. (2025). Myo-inositol is a key regulator of avian metabolism: from mechanisms to seasonal behavior. *Science Advances* **11**:eadv2794. (9 pp.)
- Maro, A., Sandel, A., Wittig, R., Blaiore, B.Z.A., Mitani, J. and R. Dudley. (2025). Ethanol ingestion via frugivory in wild chimpanzees. *Science Advances* **11**:eadw1665. (10 pp.)
- Sathe, E.A. and R. Dudley. (2025). Forelimb motion and reciprocation mediate aerodynamic control in a gliding lizard. *BMC Ecology and Evolution* **25**:117. (17 pp.)
- Wang-Claypool, C.Y., Corl, A., Jones, J., McGuire, J.A., Bowie, R.C.K. and R. Dudley. (2025). The proof is in the plumage: a method for detecting dietary ethanol exposure in birds by testing for ethyl glucuronide in feathers. *Ecological and Evolutionary Physiology* **98**:70-82.
- Glassman, S.R.-Y., Domer-Yechezkel, A. and R. Dudley. (2024). Vocal dimorphism in Anna's hummingbirds. *Journal of Avian Biology* **2024**:e03268. (6 pp.)
- Zeng, Y., Naing, G., Lu, V., Chen, Y. and R. Dudley. (2024). Biomechanics and ontogeny of gliding in wingless stick insect nymphs (*Extatosoma tiaratum*). *Journal of Experimental Biology* **227**:jeb247805. (12 pp.)
- Badger, M., McClain, K., Smiley, A., Ye, J. and R. Dudley. (2023). Sideways maneuvers enable narrow aperture negotiation by free-flying hummingbirds. *Journal of Experimental Biology* **226**:jeb245643. (10 pp.)
- Choi, J., Lee, L., Maro, A., Corl, A., McGuire, J.A., Bowie, R. and R. Dudley. (2023). Hummingbird consumption of low-concentration ethanol in artificial nectar. *Royal Society Open Science* **10**:230306. (8 pp.)
- Nachman, M.W. *et al.* [+118 co-authors]. (2023). Specimen collection is essential for modern biology. [Formal Comment]. *PLoS Biology* **21**:e3002318. (6 pp.)
- Ortega-Jimenez, V.M., Jusufi, A., Brown, C., Zeng, Y., Kumar, S., Siddall, R., Kim, B., Challita, E., Pavlik, Z., Priess, M., Umhofer, T., Koh, J.-S., Socha, J., Dudley, R. and M.S. Bhamla. (2023). The art of landing: from wingless animals and plant seeds to shuttlecocks and bio-inspired robots. *Bioinspiration & Biomimetics* **18**:051001. (22 pp.)
- Sathe, E.A., Chronister, N. and R. Dudley. (2023). Incipient wing flapping enhances aerial performance of a robotic paravian model. *Bioinspiration & Biomimetics* **18**:046017. (14 pp.)
- Srygley, R.B., Dudley, R., Hernandez, E.J., Kainz, F., Riveros, A.J. and C.P. Ellington. (2023) Quantifying the aerodynamic power required for flight and testing for adaptive wind drift in passion-vine butterflies *Heliconius sara* (Lepidoptera: Nymphalidae). *Insects* **14**:112. (12 pp.)
- Williamson, J.L., Linck, E.B., Bautista, E., Smiley, A., McGuire, J.A., Dudley, R. and C.C. Witt. (2023). Hummingbird blood traits track oxygen availability across space and time. *Ecology Letters* **26**:1223-1236.
- Zeng, Y., Park, S., Gonzales, C., Yom, S., Rahim, F. and R. Dudley. (2023). Beyond winglets: evolution of flight-related morphology in stick insects (Phasmatodea). *Biological Journal of the Linnean Society* **140**:176-195.
- Brown, C.E., Sathe, E.A., Dudley, R. and S.M. Deban. (2022a). Aerial maneuvering by plethodontid salamanders spanning an arboreality gradient. *Journal of Experimental Biology* **225**:jeb244598. (9 pp.)

- Brown, C., Sathe, E.A., Dudley, R. and S.M. Deban. (2022b). Gliding and parachuting by arboreal salamanders. *Current Biology* **32**:R453-454.
- Campbell, C., Maro, A., Weaver, V. and R. Dudley. (2022). Dietary ethanol ingestion by free-ranging spider monkeys (*Ateles geoffroyi*). *Royal Society Open Science* **9**:211729. (6 pp.)
- Kou, G., Wang, Y., Dudley, R., Wu, Y. and D. Li. (2022). Coping with captivity: takeoff speed and load-lifting capacity are unaffected by substantial changes in body condition for a passerine bird. *Journal of Experimental Biology* **225**, jeb244642. (7 pp.)
- Louis, L.D., Bowie, R.C.K. and R. Dudley. (2022). Wing and leg bone microstructure reflects migratory demands in resident and migrant populations of the Dark-eyed Junco (*Junco hyemalis*). *Ibis* **164**:132-150.
- Maro, A. and R. Dudley. (2022). Non-random distribution of ungulate salt licks relative to distance from North American oceanic margins. *Journal of Biogeography* **49**:254-260.
- Carn, D., Lanaspá, M.A., Benner, S.A., Andrews, P., Dudley, R., Andres-Hernando, A., Tolan, D.R. and R.J. Johnson. (2021). The role of thrifty genes in the origin of alcoholism: a narrative review and hypothesis. *Alcoholism: Clinical and Experimental Research* **45**:1519-1526.
- Dudley, R. (2021). A morphofunctional hypothesis for selection on EDAR V370A and associated elements of sinodonty. *Dental Anthropology* **34**:49-54.
- Dudley, R. and A. Maro. (2021). Human evolution and dietary ethanol. *Nutrients* **13**:2419 doi.org/10.3390/nu13072419 (9 pp.)
- Dudley, R. (2020). The natural biology of dietary ethanol, and its implications for primate evolution. In: *Alcohol and Humans: A Long and Social Affair* (eds. K. Hockings and R. Dunbar), pp. 10-23. Oxford: Oxford University Press.
- Ortega-Jimenez, V.M., Herbst, E.C., Leung, M. and R. Dudley. (2020). Natural barriers: waterfall transit by small flying animals. *Royal Society Open Science* **7**:201185. (9 pp.)
- Su, G., Dudley, R., Pan, T., Zheng, M., Peng, L. and Q. Li. (2020). Maximum aerodynamic force production by the wandering glider dragonfly (*Pantala flavescens*, Libellulidae). *Journal of Experimental Biology* **223**:218552. (8 pp.)
- Zeng, Y., Chang, S.W., Williams, J.Y., Nguyen, L.Y.-N., Tang, J., Naing, G., Kazi, C. and R. Dudley. (2020). Canopy parkour: movement ecology of post-hatch dispersal in a gliding nymphal stick insect (*Extatosoma tiaratum*). *Journal of Experimental Biology* **223**:226266. (12 pp.)
- Zeng, Y., O'Malley, C., Singhal, S., Rahim, F., Park, S., Chen, X. and R. Dudley. (2020). A tale of winglets: evolution of flight morphology in stick insects. *Frontiers in Ecology and Evolution* **8**:121 (15 pp.)
- Badger, M.A., Wang, H. and R. Dudley. (2019). Avoiding topsy-turvy: how Anna's Hummingbirds (*Calypte anna*) fly through upward gusts. *Journal of Experimental Biology* **222**:176263 (10 pp.)
- Dudley, R. and R.J. Wootton. (2019). Charles Porter Ellington (1952–2019). *Journal of Experimental Biology* **222**:218628. (2 pp.)
- Ortega-Jimenez, V.M. and R. Dudley. (2019). Superb autorotator: rapid decelerations in impulsively launched samaras. *Journal of the Royal Society Interface* **16**:20180456. (5 pp.)
- Rico-Guevara, A., Rubega, M.A., Hurme, K.J. and R. Dudley. (2019). Shifting paradigms in the mechanics of nectar extraction and hummingbird bill morphology. *Integrative Organismal Biology* 10.1093/iob/oby006 (15 pp.)
- Rico-Guevara, A., Sustaita, D., Gussekloo, S., Olsen, A., Bright, J., Corbin, C. and R. Dudley. (2019). Feeding in birds: thriving in terrestrial, aquatic, and aerial niches. In: *Feeding in Vertebrates: Evolution, Morphology, Behavior, Biomechanics* (eds. V.L. Bels and I.Q. Whishaw), pp. 643-693. Berlin: Springer Verlag.
- Wang, Y., Yin, Y., Ge, S., Li, M., Zhang, Q., Li, J., Wu, Y., Li, D. and R. Dudley. (2019). Limits to load-lifting performance in a passerine bird: the effects of intraspecific variation in morphological and kinematic parameters. *PeerJ* **7**:e8048. (12 pp.)

- Dudley, R. and G. Pass. (2018). Wings and powered flight: core novelties in insect evolution. *Arthropod Structure & Development* **47**:319-321.
- Ortega-Jimenez, V.M. and R. Dudley. (2018). Ascending flight and decelerating vertical glides in Anna's Hummingbirds. *Journal of Experimental Biology* **221**:191171. (5 pp.)
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