

Publications

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42 peer-reviewed research articles published; 49 publications in total
Google Scholar h index 28 (>8000 citations); Web of Science h index 24 (>4300 citations)
Profiles: [GoogleScholar](#) - [Publons / ResearcherID](#) - [OrcID](#)

Peer-reviewed research articles by year

2021

* A. Eyres, J. T. Eronen, O. Hagen, K. Böhning-Gaese, **S. A. Fritz** (2021) Climatic effects on niche evolution in a passerine bird clade depend on paleoclimate reconstruction method. *Evolution* 75: 1046-1060. [doi: 10.1111/evo.14209](https://doi.org/10.1111/evo.14209)

2020

* A. Eyres, K. Böhning-Gaese, C. D. L. Orme, C. Rahbek, **S. A. Fritz** (2020) A tale of two seasons: the link between seasonal migration and climatic niches in passerine birds. *Ecology and Evolution* 10: 11983-11997. [doi: 10.1002/ece3.6729](https://doi.org/10.1002/ece3.6729) - Press releases: [English](#) / [German](#)

Holt, B. G., F. G. Marx, **S. A. Fritz**, J.-P. Lessard, C. Rahbek (2020) Evolutionary diversification in the marine realm: a global case study with marine mammals. *Frontiers of Biogeography* 12: e45184. [doi: 10.21425/F5FBG45184](https://doi.org/10.21425/F5FBG45184) - [Video abstract](#)

* Leitão, P. J., C. J. Andrew, E. K. Engelhardt, C. H. Graham, C. Martinez-Almoyna, A. Mimet, S. Pinkert, B. Schröder, A. Voskamp, C. Hof, **S. A. Fritz** (2020) Macroecology as a hub between research disciplines: Opportunities, challenges and possible ways forward. *Journal of Biogeography* 47: 13-15. [doi: 10.1111/jbi.13751](https://doi.org/10.1111/jbi.13751)

* Phillips, A. G., T. Töpfer, K. Böhning-Gaese, **S. A. Fritz** (2020) Rates of ecomorphological trait evolution in passerine bird clades are independent of age. *Biological Journal of the Linnean Society* 129: 543-557. [doi: 10.1093/biolinnean/blz198](https://doi.org/10.1093/biolinnean/blz198)

Schleuning, M., E. L. Neuschulz, J. Albrecht, I. M.A. Bender, D. E. Bowler, D. M. Dehling, **S. A. Fritz**, C. Hof, T. Mueller, L. Nowak, M. C. Sorensen, K. Böhning-Gaese, W. D. Kissling (2020) Trait-based assessments of climate-change impacts on interacting species. *Trends in Ecology and Evolution* 35: 319-328. [doi: 10.1016/j.tree.2019.12.010](https://doi.org/10.1016/j.tree.2019.12.010)

* Vollstädt, M. G. R., J. Albrecht, K. Böhning-Gaese, A. Hemp, K. M. Howell, L. Kettering, A. Neu, E. L. Neuschulz, M. Quitián, V. E. Santillán, T. Töpfer, M. Schleuning, **S. A. Fritz** (2020) Direct and plant-mediated effects of climate on bird diversity in tropical mountains. *Ecology and Evolution* 10: 14196-14208. [doi: 10.1002/ece3.7014](https://doi.org/10.1002/ece3.7014)

Wüest, R. O., N. E. Zimmermann, D. Zurell, J. M. Alexander, **S. A. Fritz**, C. Hof, H. Kreft, S. Normand, J. S. Cabral, E. Szekely, W. Thuiller, M. Wikelski, D. N. Karger (2020) Macroecology in the age of Big Data – Where to go from here? *Journal of Biogeography* 47: 1-12. [doi: 10.1111/jbi.13633](https://doi.org/10.1111/jbi.13633)

2019

- Hanz, D. M., K. Böhning-Gaese, S. W. Ferger, **S. A. Fritz**, E. L. Neuschulz, M. Quitián, V. Santillán, T. Töpfer, M. Schleuning (2019) Functional and phylogenetic diversity of bird assemblages are filtered by different biotic factors on tropical mountains. *Journal of Biogeography* 46: 291-303. doi: [10.1111/jbi.13489](https://doi.org/10.1111/jbi.13489)
- * Huang‡, S., M. J. M. Meijers‡, A. Eyres, A. Mulch, **S. A. Fritz** (2019) Unravelling the history of biodiversity in mountain ranges through integrating geology and biogeography. *Journal of Biogeography* 46: 1777-1791. doi: [10.1111/jbi.13622](https://doi.org/10.1111/jbi.13622)
- Pontarp, M., L. Bunnefeld, J. Sarmiento Cabral, R. S. Etienne, **S. A. Fritz**, R. Gillespie, C. H. Graham, O. Hagen, F. Hartig, S. Huang, R. Jansson, O. Maliet, T. Münkemüller, L. Pellissier, T. F. Rangel, D. Storch, T. Wiegand, A. H. Hurlbert (2019) The latitudinal diversity gradient: novel understanding through mechanistic eco-evolutionary models. *Trends in Ecology and Evolution* 34: 211-223. doi: [10.1016/j.tree.2018.11.009](https://doi.org/10.1016/j.tree.2018.11.009)

2018

- Antonelli, A., W. D. Kissling, S. G. A. Flantua, M. A. Bermúdez, A. Mulch, A. N. Muellner-Riehl, H. Kreft, H. P. Linder, C. Badgley, J. Fjeldså, **S. A. Fritz**, C. Rahbek, F. Herman, H. Hooghiemstra, C. Hoorn (2018) Geological and climatic influences on mountain biodiversity. *Nature Geoscience* 11: 718-725. doi: [10.1038/s41561-018-0236-z](https://doi.org/10.1038/s41561-018-0236-z) – Press releases: [English](#) / [German](#)
- * Phillips, A. G., T. Töpfer, K. Böhning-Gaese, **S. A. Fritz** (2018) Evidence for distinct evolutionary optima in the morphology of migratory and resident birds. *Journal of Avian Biology* 49: e01807. doi: [10.1111/jav.01807](https://doi.org/10.1111/jav.01807)
- * Phillips, A. G., T. Töpfer, C. Rahbek, K. Böhning-Gaese, **S. A. Fritz** (2018). Effects of phylogeny and geography on ecomorphological traits in passerine bird clades. *Journal of Biogeography* 45: 2337-2347. doi: [10.1111/jbi.13383](https://doi.org/10.1111/jbi.13383)
- Pearse, W. D., A. M. Barbosa, **S. A. Fritz**, S. A. Keith, L. J. Harmon, J. Harte, D. Silvestro, X. Xiao, T. J. Davies (2018). Building up biogeography: pattern to process. *Journal of Biogeography* 45: 1223-1230. doi: [10.1111/jbi.13242](https://doi.org/10.1111/jbi.13242)
- Tucker, M. A., K. Böhning-Gaese, W. F. Fagan, J. M. Fryxell, B. Van Moorter, ... [34 authors], **S. A. Fritz**, ... [74 authors], T. Mueller (2018). Moving in the Anthropocene: Global reductions in terrestrial mammalian movements. *Science* 359: 466-469. doi: [10.1126/science.aam9712](https://doi.org/10.1126/science.aam9712) – Press release: [English](#) / [German](#)

2017

- * Eyres, A., K. Böhning-Gaese, **S. A. Fritz** (2017). Quantification of climatic niches in birds: adding the temporal dimension. *Journal of Avian Biology* 48: 1517-1531. doi: [10.1111/jav.01308](https://doi.org/10.1111/jav.01308)
- * Huang, S., J. T. Eronen, C. M. Janis, J. J. Saarinen, D. Silvestro, **S. A. Fritz** (2017). Mammal body size evolution in North America and Europe over 20 Myr: similar trends generated by different processes. *Proceedings of the Royal Society B: Biological Sciences* 284: 20162361. doi: [10.1098/rspb.2016.2361](https://doi.org/10.1098/rspb.2016.2361) – Press release: [English](#) / [German](#)
- Tucker, C. M., M. W. Cadotte, S. B. Carvalho, T. J. Davies, S. Ferrier, **S. A. Fritz**, R. Grenyer, M. R. Helmus, L. S. Jin, A. O. Mooers, S. Pavoine, O. Purschke, D. W. Redding, D. F. Rosauer, M. Winter, F. Mazel (2017). A guide to phylogenetic metrics for conservation, community ecology and macroecology. *Biological Reviews* 92: 698-715. doi: [10.1111/brv.12252](https://doi.org/10.1111/brv.12252)

2008 – 2016

- Beck, J., L. Ballesteros-Mejia, C. M. Buchmann, J. Dengler, **S. A. Fritz**, B. Gruber, C. Hof, F. Jansen, S. Knapp, H. Kreft, A.-K. Schneider, M. Winter, C. F. Dormann (2012) What's on the horizon for macroecology? *Ecography* 35: 673-683. doi: [10.1111/j.1600-0587.2012.07364.x](https://doi.org/10.1111/j.1600-0587.2012.07364.x)
- Davies, J. T., **S. A. Fritz**, R. Grenyer, C. D. L. Orme, J. Bielby, O. R. P. Bininda-Emonds, M. Cardillo, K. E. Jones, J. L. Gittleman, G. M. Mace, A. Purvis (2008) Phylogenetic trees and the future of mammalian biodiversity. *Proceedings of the National Academy of Sciences of the United States of America* 105: 11556-11563. doi: [10.1073/pnas.0801917105](https://doi.org/10.1073/pnas.0801917105)
- Dehling, D. M., **S. A. Fritz**, T. Töpfer, M. Päckert, P. Estler, K. Böhning-Gaese, M. Schleuning (2014) Functional and phylogenetic diversity and assemblage structure of frugivorous birds along an elevational gradient in the tropical Andes. *Ecography* 37: 1047-1055. doi: [10.1111/ecog.00623](https://doi.org/10.1111/ecog.00623)
- Fisher, D. O., C. N. Johnson, M. J. Lawes, **S. A. Fritz**, H. McCallum, S. P. Blomberg, J. VanDerWal, B. Abbott, A. Frank, S. Legge, M. Letnic, C. R. Thomas, A. Fisher, I. J. Gordon, A. Kutt (2014) The current decline of tropical marsupials in Australia: is history repeating? *Global Ecology and Biogeography* 23: 181-190. doi: [10.1111/geb.12088](https://doi.org/10.1111/geb.12088) – Press release: [English](#)
- * **Fritz, S. A.**, O. R. P. Bininda-Emonds, A. Purvis (2009) Geographical variation in predictors of mammalian extinction risk: big is bad, but only in the tropics. *Ecology Letters* 12: 538-549. doi: [10.1111/j.1461-0248.2009.01307.x](https://doi.org/10.1111/j.1461-0248.2009.01307.x) recommended by the Faculty of 1000 Biology
- * **Fritz†, S. A.**, K. A. Jønsson†, J. Fjeldså, C. Rahbek (2012) Diversification and biogeographic patterns in island radiations of passerine birds. *Evolution* 66: 179-190. doi: [10.1111/j.1558-5646.2011.01430.x](https://doi.org/10.1111/j.1558-5646.2011.01430.x) – Press release [no longer available online]
- * **Fritz, S. A.**, A. Purvis (2010) Phylogenetic diversity does not capture body size variation at risk in the world's mammals. *Proceedings of the Royal Society B: Biological Sciences* 277: 2435-2441. doi: [10.1098/rspb.2010.0030](https://doi.org/10.1098/rspb.2010.0030)
- * **Fritz, S. A.**, A. Purvis (2010) Selectivity in mammalian extinction risk and threat types: a new measure of phylogenetic signal strength in binary traits. *Conservation Biology* 24: 1042-1051. doi: [10.1111/j.1523-1739.2010.01455.x](https://doi.org/10.1111/j.1523-1739.2010.01455.x)
- * **Fritz, S. A.**, C. Rahbek (2012) Global patterns of amphibian phylogenetic diversity. *Journal of Biogeography* 39: 1373-1382. doi: [10.1111/j.1365-2699.2012.02757.x](https://doi.org/10.1111/j.1365-2699.2012.02757.x)
- * **Fritz, S. A.**, J. T. Eronen, J. Schnitzler, C. Hof, C. M. Janis, A. Mulch, K. Böhning-Gaese, C. H. Graham (2016). Twenty-million-year relationship between mammalian diversity and primary productivity. *Proceedings of the National Academy of Sciences of the United States of America* 113: 10908-10913. doi: [10.1073/pnas.1602145113](https://doi.org/10.1073/pnas.1602145113) – Press release: [English](#) / [German](#)
- * **Fritz†, S. A.**, J. Schnitzler†, J. T. Eronen†, C. Hof†, K. Böhning-Gaese†, C. H. Graham† (2013) Diversity in time and space: wanted dead and alive. *Trends in Ecology and Evolution* 28: 509-516. doi: [10.1016/j.tree.2013.05.004](https://doi.org/10.1016/j.tree.2013.05.004) – Press release: [German](#) [English version no longer available online]
- Holt†, B. G., J.-P. Lessard†, M. K. Borregaard, **S. A. Fritz**, M. B. Araújo, D. Dimitrov, P.-H. Fabre, C. H. Graham, G. R. Graves, K. A. Jønsson, D. Nogués-Bravo, Z. Wang, R. J. Whittaker, J. Fjeldså, C. Rahbek (2013) An update of Wallace's zoogeographic regions of the world. *Science* 339: 74-78. doi: [10.1126/science.1228282](https://doi.org/10.1126/science.1228282) – Press release: [German](#) [English version no longer available online]

- Jones, K. E., J. Bielby, M. Cardillo, **S. A. Fritz**, J. O'Dell, C. D. L. Orme, K. Safi, W. Sechrest, E. H. Boakes, C. Carbone, C. Connolly, M. J. Cutts, J. K. Foster, R. Grenyer, M. Habib, C. A. Plaster, S. A. Price, E. A. Rigby, J. Rist, A. Teacher, O. R. P. Bininda-Emonds, J. L. Gittleman, G. M. Mace, A. Purvis (2009) PanTHERIA: A species-level database of life-history, ecology and geography of extant and recently extinct mammals. *Ecology* 90: 2648. [doi: 10.1890/08-1494.1](https://doi.org/10.1890/08-1494.1)
- Jønsson, K. A., P.-H. Fabre, **S. A. Fritz**, R. S. Etienne, R. E. Ricklefs, T. B. Jørgensen, J. Fjeldså, C. Rahbek, P. G. P. Ericson, F. Woog, E. Pasquet, M. Irestedt (2012) Ecological and evolutionary determinants for the adaptive radiation of the Madagascan vangas. *Proceedings of the National Academy of Sciences of the United States of America* 109: 6620-6625. [doi: 10.1073/pnas.1115835109](https://doi.org/10.1073/pnas.1115835109) – Press release [no longer available online]
- Khaliq, I., **S. A. Fritz**, R. Prinzinger, M. Pfenninger, K. Böhning-Gaese, C. Hof (2015). Global variation in thermal physiology of birds and mammals: evidence for phylogenetic niche conservatism only in the tropics. *Journal of Biogeography* 42: 2187-2196. [doi: 10.1111/jbi.12573](https://doi.org/10.1111/jbi.12573)
- Lawes, M. J., D. O. Fisher, C. N. Johnson, S. P. Blomberg, A. S. K. Frank, **S. A. Fritz**, H. McCallum, J. VanDerWal, B. N. Abbott, S. Legge, M. Letnic, C. R. Thomas, N. Thurgate, A. Fisher, I. J. Gordon, A. Kutt (2015) Correlates of recent declines of rodents in northern and southern Australia: habitat structure is critical. *PLoS One* 10: e0130626. [doi: 10.1371/journal.pone.0130626](https://doi.org/10.1371/journal.pone.0130626)
- Meyer, C., W. Jetz, R. P. Guralnick, **S. A. Fritz**, H. Kreft (2016). Range geometry and socio-economics dominate species-level biases in occurrence information. *Global Ecology and Biogeography* 25: 1181-1193. [doi: 10.1111/geb.12483](https://doi.org/10.1111/geb.12483)
- Olalla-Tárraga†, M. Á., L. McInnes†, L. M. Bini, J. A. F. Diniz-Filho, **S. A. Fritz**, B. A. Hawkins, J. Hortal, C. D. L. Orme, C. Rahbek, M. Á. Rodríguez, A. Purvis (2011) Climatic niche conservatism and the evolutionary dynamics in species range boundaries: global congruence across mammals and amphibians. *Journal of Biogeography* 38: 2237-2247. [doi: 10.1111/j.1365-2699.2011.02570.x](https://doi.org/10.1111/j.1365-2699.2011.02570.x)
- Pecher, C., **S. A. Fritz**, L. Marini, D. Fontaneto, M. Pautasso (2010) Scale-dependence of the correlation between human population and the species richness of stream macro-invertebrates. *Basic and Applied Ecology* 11: 272-280. [doi: 10.1016/j.baae.2009.09.005](https://doi.org/10.1016/j.baae.2009.09.005)
- Purvis, A., **S. A. Fritz**, J. Rodríguez, P. H. Harvey, R. Grenyer (2011) The shape of mammalian phylogeny: patterns, processes and scales. *Philosophical Transactions of the Royal Society B: Biological Sciences* 366: 2462-2477. [doi: 10.1098/rstb.2011.0025](https://doi.org/10.1098/rstb.2011.0025)
- Schleuning, M., L. Ingmann, R. Strauß, **S. A. Fritz**, B. Dalsgaard, D. M. Dehling, M. Plein, F. Saavedra, B. Sandel, J.-C. Svenning, K. Böhning-Gaese, C. F. Dormann (2014) Ecological, historical and evolutionary determinants of modularity in weighted seed-dispersal networks. *Ecology Letters* 17: 454-463. [doi: 10.1111/ele.12245](https://doi.org/10.1111/ele.12245)
- * Turvey, S. T., **S. A. Fritz** (2011) The ghosts of mammals past: biological and geographical patterns of global mammalian extinction across the Holocene. *Philosophical Transactions of the Royal Society B: Biological Sciences* 366: 2564-2576. [doi: 10.1098/rstb.2011.0020](https://doi.org/10.1098/rstb.2011.0020)
- Weigelt, P., W. D. Kissling, Y. Kisel, **S. A. Fritz**, D. N. Karger, M. Kessler, S. Lehtonen, J.-C. Svenning, H. Kreft (2015). Global patterns and drivers of phylogenetic structure in island floras. *Scientific Reports* 5: 12213. [doi: 10.1038/srep12213](https://doi.org/10.1038/srep12213)

Other scientific publications with peer review

Fisher, D. O., C. N. Johnson, M. J. Lawes, **S. A. Fritz**, H. McCallum, S. P. Blomberg, J. VanDerWal, B. Abbott, A. Frank, S. Legge, M. Letnic, C. R. Thomas, A. Fisher, I. J. Gordon, A. Kutt (2015) Response to commentary by Woinarski (Critical-weight-range marsupials in northern Australia are declining: a commentary on Fisher et al. (2014) 'The current decline of tropical marsupials in Australia: is history repeating?'). *Global Ecology and Biogeography* 24: 123-125. [doi: 10.1111/geb.12252](https://doi.org/10.1111/geb.12252)

Hof, C., **S. A. Fritz**, R. Prinzing, M. Pfenninger, K. Böhning-Gaese, I. Khaliq (2017) Phylogenetic signals in thermal traits remain stronger in the tropics if we can believe published physiological data. A reply to McKechnie et al., "Data quality problems undermine analyses of endotherm upper critical temperatures". *Journal of Biogeography* 44: 2427-2431. [doi: 10.1111/jbi.13068](https://doi.org/10.1111/jbi.13068)

Holt‡, B. G., J.-P. Lessard‡, M. K. Borregaard, **S. A. Fritz**, M. B. Araújo, D. Dimitrov, P.-H. Fabre, C. H. Graham, G. R. Graves, K. A. Jønsson, D. Nogués-Bravo, Z. Wang, R. J. Whittaker, J. Fjeldså, C. Rahbek (2013) Response to comment on "An update of Wallace's zoogeographic regions of the world". *Science* 341: 343. [doi: 10.1126/science.1237541](https://doi.org/10.1126/science.1237541)

Scientific publications without peer review

Mazel, F., C. M. Tucker, M. W. Cadotte, S. B. Carvalho, T. J. Davies, **S. A. Fritz**, R. Grenyer, M. R. Helmus, A. O. Mooers, S. Pavoine, O. Purschke, D. F. Rosauer, M. Winter (2016) The forest, the trees, and the phylo-diversity jungle. *bioRxiv* July 15, 2016. [doi: 10.1101/063461](https://doi.org/10.1101/063461)

Orme, D., R. Freckleton, G. Thomas, T. Petzoldt, **S. Fritz**, N. Isaac, W. Pearse (2012) caper: comparative analyses of phylogenetics and evolution in R. *R package version 0.5*. <http://CRAN.R-project.org/package=caper>

Other publications

* **Fritz, S. A.**, S. Huang (2018) Die Vielfalt von Säugetieren erforschen – tot und lebendig | Studying the diversity of mammals – dead and alive. pp. 42-47 in *Senckenberg 2015-2017, Jahresbericht | Annual Report, Senckenberg Gesellschaft für Naturforschung, Frankfurt (Main), Deutschland | Germany*. [Link to article](#)

* **Fritz, S.**, J. Krohmer, K. Böhning-Gaese (2018) Alexander von Humboldt hätte sich gefreut – Internationale Senckenberg-Konferenz 2017: Geobiodiversität als integrativer Forschungsansatz. *Natur Forschung Museum* 148 (01-03 2018): 26-27. [Link to journal website](#) [article not available online]