

Christopher David Barratt

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Profile

Quantitative geneticist focusing on molecular (bioinformatic) and spatial (eco-informatic) analyses to understand environmental and anthropogenic impacts on species and populations, providing tools and insights to aid genetic management

Education

- Sep 2013–Apr 2017 **PhD** (Summa cum laude): Biodiversity patterns and conservation of the coastal forests of Eastern Africa. University of Basel, Switzerland, Advisor: Dr. S. Loader, External examiner: Prof. N. Burgess (WWF, UNEP-WCMC)
- Jul 2010–Jul 2012 **MSc by research** (Pass): Developing microsatellite markers for East African caecilian amphibians. University of Salford, UK, Advisor: Dr. R. Jehle, External Examiner: Dr. A. Pernatta (University of Brighton)
- Sep 2003–Jun 2007 **BSc** (1st class honours): Wildlife and Practical Conservation. University of Salford, UK, Advisor: Dr. P.A. Rees

Professional Experience

- April 2021–April 2024 **Postdoctoral Researcher**, sDiv (Synthesis Centre for Biodiversity Science), part of the German Centre for Integrative Biodiversity Research (iDiv), Halle-Jena-Leipzig, Germany. Individual Postdoc grant '[Life on the edge: a new informatic toolbox to conserve wildlife populations under threat from future global change](#)' (Main PI)
- Aug 2018–March 2021 **Postdoctoral Researcher**, German Centre for Integrative Biodiversity Research (iDiv), Halle-Jena-Leipzig, Germany. 'Dynamic aspects of chimpanzee diversification across Africa using paleoclimate and genomic data' (Main PI)
- Nov 2017–May 2018 **Desk editor** (Scientific journals) Brill publishers, Leiden, Netherlands.
- Sep 2016–Jun 2017 **Visiting scientist**, Biogeography and Macroecology group (Dr. W.D. Kissling), Institute for Biodiversity and Ecosystem Dynamics, University of Amsterdam, the Netherlands. 'Population genomics and historical distributions of East African amphibians' (Main PI, part of PhD)
- Dec 2011–Dec 2016 **Managing editor**, Herpetological Journal (freelance). **Production editor**, Wolters Kluwer publishing), London, UK (full time, Nov 2012–Sep 2013)
- Sep 2010–Nov 2012 **Teaching Assistant**, School of Environment and Life Sciences, University of Salford, UK
- Aug 2008–May 2009 **Research Officer**, Frontier Savannah Research Project, Kilombero valley, Tanzania
- Aug–Dec 2005 **Research officer**, Corlett Maritima bird project, Principe Island, West Africa

Periods of leave

Total parental leave taken (2 children): 18.55 months (total equivalent = 10.375 months full time)

Full time parental leave (working 0%): Jun-Jul 2018, Nov-Dec 2020, May 2021 (5 months)

Part time parental leave: 13.55 months part time leave – (Dec 2017-May 2018 80% PT, Aug 2018 – Apr 2019 75% PT, Oct 2020 – Jun 2021 62.5% PT, Jun – Oct 2021 75% PT)

Teaching (Design and teaching of 4 workshops (~ 50h), Practical leader, lecturer, exam assessor for MSc course (~60h), Teaching assistant for BSc (~200 hours), Field instructor and mentor for BTEC (9 months FT)

- Jun 2022 **Organiser and teacher** of 2 day yDiv workshop: "[Estimating genetic diversity and population information from short read \(ddRAD-seq\) type data](#)" iDiv, Leipzig (25 MSc, PhD, students technical staff)
- Jun 2020-2022 **Practical leader** (2 day) for Macroecology and Macroevolution under Global change MSc course: "SDMs and phylogenetic indices for biogeography and conservation" iDiv/University of Leipzig (10-15 MSc students)
- Jun 2020-2023 **Guest lecturer and exam assessor** for Macroecology and Macroevolution under Global change MSc course. Lecture topics: "Micro and Macro- evolution, Species Distribution Modelling, and Evolutionary data in biodiversity research" iDiv/University of Leipzig (10-15 MSc students)
- Oct 2019 **Organiser and teacher** of 2 day workshop: "Making sense of high-throughput sequencing (short read) data: population structure, coalescent theory, demographic modelling" iDiv, Leipzig (15 MSc, PhD, students technical staff)
- Mar 2019 **Organiser and teacher** of 1 day workshop: "Generating and processing high-throughput short read data (eg. RAD-seq, ddRAD) introduction: Important considerations for sampling design and some initial bioinformatics" iDiv, Leipzig (15 MSc, PhD, students technical staff)
- Oct 2015 **Organiser and teacher** of two half-day workshops: "Spatial analysis in R" and "An introduction to next generation sequencing in unix", at the Institute of Biogeography, University of Basel (8 students)
- Sep 2010–2012 **Teaching Assistant** over 5 semesters: Population genetics, Systematics, Statistical methods, Terrestrial and freshwater habitats, Hydrobiology, Laboratory techniques, University of Salford (~150 BSc students)
- Aug 08–May 09 **BTEC in tropical habitat conservation mentor**: Four lectures on biodiversity monitoring techniques for 20 students and field instructor for ecological data collection (amphibians, birds, butterflies, small mammals, carnivores and large mammal tracking). Mentoring and project supervision of 5 BTEC student projects Frontier Savannah Research Project, see past student supervision below

Student supervision

Ongoing (3 PhD and 1 MSc students whom I guide in developing hypotheses, and supervise conceptual and analytical work)

- Oct 2022 – [Anna Azeroth](#) (Main supervisor, MSc thesis 2022-2023) "What are the anthropogenic and environmental correlates of amphibian diversity and how well is it protected across East Africa?". University of Leipzig
- Oct 2022 – [François Darius Accrombessi](#) (External Advisor, PhD 2022-2025) "Effects of Climate Change together with Forest Fragmentation on the genetic diversity, feeding behaviour and dispersal patterns of *Colobus vellerosus* in central and southern Benin, West Africa, Main Supervisors: Prof. Inza Kone, (WASCAL, Université Félix Houphouët-Boigny, Centre Suisse de Recherches Scientifiques en Côte d'Ivoire) & Dr. (MC) S. Scholastique Mireille Toyi Alagbe (University of Abomey-Calavi, Benin)
- Nov 2021 – [Marilia Souza Lucas](#) (Co-supervisor, PhD, 2021–2024) "Harnessing the power of RADseq data to achieve a more mechanistic understanding of rapid evolution", Main supervisor: Prof. Isabell Hensen (MLU Wittenberg-Halle)
- Oct 2019– [Francisco V. Puentes](#) (Co-supervisor, PhD, 2019–2023) "Micro- and macro-evolutionary dynamics of seasonally dry neotropical forests", Main supervisor: Dr. Renske Onstein (iDiv, Leipzig)

Past (2 PhD students, 2 MSc student theses, 3 MSc student projects, 1 BSc lab project, 5 BTEC projects)

- Sep 2018–2023 [Laura Mendez Cuellar](#) (Co-supervisor, PhD, 2018–2023) "Genomic signatures of megafaunal palms on Madagascar", Main supervisor: Dr. Renske Onstein (iDiv, Leipzig)
- Feb 2019–2023 [Jeprianto Manurung](#) (Co-supervisor, PhD, 2018–2023), "Evolutionary ecology of *Lumnitzera racemosa* and *Lumnitzera littorea* (Combretaceae)", Main supervisor: Dr.

	Alexandra Muellner-Riehl (University of Leipzig)
Jan 2021–2022	Rebecca Strueber (Main supervisor, MSc thesis, 2021–2022) “Examining spatial shifts of species occurrences through time: Past and future climate change impacts on the geographic distribution of <i>Enterolobium</i> (Fabaceae) in the Neotropics”. MLU Wittenberg-Halle/iDiv, Leipzig
Apr–Jun 2021	Amelie Hauer, Anne Peter, Christian Weiss (Main supervisor, MSc student project 2021) “The impact of new genetic information on species vulnerability to global change: The African elephant as a case study”. University of Leipzig/iDiv
Nov 2014–2015	Marco Crotti (Co-supervisor, MSc thesis, 2014–2015) “Empirical data from a species of African frog support the negative consequences of excluding missing data from RADseq analyses”, Main supervisor: Dr. Jeffrey Streicher (Natural History Museum London)
Aug–Dec 2011	Jack Muskett (Co-supervisor, BSc lab project, 2011–2012) “Gene flow and metapopulation dynamics in <i>Triturus cristatus</i> ”, Main supervisor: Dr. Robert Jehle (University of Salford)
Apr–May 2009	Richard Saunders-Irving (Main supervisor, BTEC in Tropical Habitat Conservation) “The effects of the Kilombero Valley Teak Company Mavimba sawmill site on large mammal movement” (Frontier Tanzania Savannah Research Project)
Jan–Mar 2009	Fred Griffith (Main supervisor, BTEC in Tropical Habitat Conservation) “Effects of seasonal burning on birds in African dry forest” (Frontier Tanzania Savannah Research Project)
Jan–Mar 2009	Sebastian Ngasoma (Main supervisor, BTEC in Tropical Habitat Conservation) “Bird diversity in the Kilombero Valley” (Frontier Tanzania Savannah Research Project)
Sep–Dec 2008	Camilla Hassing (Main supervisor, BTEC in Tropical Habitat Conservation) “Hunting techniques of Carnivores” (Frontier Tanzania Savannah Research Project)
Sep–Dec 2008	Natalie Kay (Main supervisor, BTEC in Tropical Habitat Conservation) “How is butterfly diversity affected by burning in miombo woodland?” (Frontier Tanzania Savannah Research Project)

Publications (6 first authored, 3 first authored in review, [Google scholar](#) h-index = 12, citations = 546)

1. **Barratt CD**, Horsburgh GJ, Dawson, DA, Gower DJ, Wilkinson M, Loader SP, Jehle R (2012). Isolation and characterisation of nine polymorphic microsatellites for the caecilian amphibian *Boulengerula uluguruensis*, and cross-species amplification with four congeneric species. *Conservation Genetics Resources* 4, 225–229
2. O'Brien CD, Hall JE, Orchard D, **Barratt CD**, Arntzen JW, Jehle R. (2015). Extending the natural range of a declining species: Genetic evidence for native great crested newt (*Triturus cristatus*) populations in the Scottish Highlands. *European Journal of Wildlife Research* 61, 27–33
3. Sala-Bozano M, Mariani S, **Barratt CD**, Sacchi H, Boufana B, Coscia I. (2015). Spatio-temporal variability in the population structure in North-East Atlantic stocks of horse mackerel (*Trachurus trachurus*). *Proceedings of the Royal Irish Academy: Biology and Environment* 115, 211–220
4. Bwong BA, Nyamache JO, Malonza PK, Wasonga DV, JM Ngwava, **Barratt CD**, Nagel P, Loader SP (2017). Amphibian diversity in Shimba Hills National Reserve, Kenya: a comprehensive list of specimens and species. *Journal of East African Natural History* 106, 19–46
5. Zimkus B, Lawson L, Barej M, **Barratt CD**, Channing A, Dehling JM, Gehring S, Greenbaum E, Gvodzik V, Harvey J, Kielgast J, Kusamba C, Nagy Z, Pabijan M, Penner J, Du Preez L, Rödel MO, Vences M, Weber K, Lötters S. (2017). Leapfrogging into new territory: how Mascarene ridged frogs have diversified across Africa. *Molecular Phylogenetics and Evolution* 106, 254–269
6. Bittencourt-Silva GB, Tolley K, Lawson LP, Portik DM, **Barratt CD**, Nagel P, Loader SP (2017) Impact of species delimitation and sampling on niche models and phylogeographic inference: a case study of the East African reed frog *Hyperolius substriatus* Ahl 1931. *Molecular Phylogenetics and Evolution* 114, 261–270
7. **Barratt CD**, Lawson LP, Bittencourt-Silva GB, Doggart N, Morgan-Brown T, Nagel P, Loader SP (2017). A new, narrowly distributed, and critically endangered species of spiny-throated reed frog (Anura: Hyperoliidae) from a highly threatened coastal forest reserve in Tanzania. *Herpetological Journal* 27, 13–24
8. **Barratt CD**, Bwong BA, Onstein RE, Rosauer DF, Menegon M, Doggart N, Nagel P, Kissling WD, Loader SP (2017). Environmental correlates of phylogenetic endemism in amphibians and the conservation of refugia in the coastal forests of Eastern Africa. *Diversity and Distributions* 23, 875–887

9. Jongsma G, Barej M, **Barratt CD**, Burger M, Conradie W, Greenbaum E, Hirschfeld M, Leache A, Penner J, Portik DM, Rödel MO, Blackburn D (2018). Diversity and biogeography of frogs in the genus *Amnirana* (Anura: Ranidae) across sub-Saharan Africa. *Molecular Phylogenetics and Evolution* 120, 274–285
10. **Barratt CD**, Bwong BA, Jehle R, Liedtke HC, Onstein RE, Nagel P, Portik DM, Streicher JW, Loader SP (2018). Vanishing refuge? Testing the forest refuge hypothesis in coastal East Africa using genome-wide sequence data for seven amphibians. *Molecular Ecology* 27, 4289–4308
11. Crotti, M, **Barratt CD**, Loader SP, Gower DJ, Streicher JW (2019). Causes and analytical impact of missing data in RADseq phylogenetics: insights from an African frog (*Afraxalus*). *Zoologica Scripta* 48, 157–167
12. Portik DM, Bell RC, Blackburn DC, Bauer AM, **Barratt CD**, Branch WR, Burger M, Channing A, Colston TJ, Conradie W, Dehling JM, Drewes RC, Ernst R, Greenbaum E, Gvoždík V, Harvey J, Hillers A, Hirschfeld A, Jongsma GFM, Kielgast J, Kouete MT, Lawson LP, Leaché AD, Loader SP, Lötters S, van der Meijden A, Menegon M, Müller S, Nagy ZT, Ofori-Boateng C, Ohler A, Papenfuss TJ, Röbber D, Sinsch U, Rödel M-O, Veith M, Vindum J, Zassi-Boulou AG, McGuire JA (2019). Sexual Dichromatism Drives Diversification Within a Major Radiation of African Amphibians. *Systematic Biology* 68, 859–875
13. Onstein RE, Vink D, Veen J, **Barratt CD**, Flantua S, Wich S, Kissling D (2020). Fruit colours determine the broad-scale distribution and diversification of primate vision. *Proceedings of the Royal Society B* 287, 20192731
14. Kalan A, Kulik L, Arandjelovic M, Boesch C, Haas F, Dieguez P, **Barratt CD**, Abwed EE, Agbor A, Angedakin S, Aubert D, Ayimisin EA, Bailey E, Bessone M, Brazzola G, Buh VE, Rebecca Chancellor R, Cohen H, Coupland C, Curran B, Danquah E, Deschner T, Dowd D, Eno-Nku M, Fay JM, Goedmakers A, Granjon A-C, Head J, Hedwig D, Hermans V, Jeffery KJ, Jones S, Junker J, Kadam P, Kambi M, Kienast I, Kujirakwinja D, Langergraber KE, Lapuentea J, Larson B, Lee KC, Leinert V, Llana M, Marrocoli S, Meier AC, Morgand B, Morgan D, Neila E, Nicholl S, Normand E, Ormsby LJ, Pacheco L, Piel A, Preece J, Robbins M, Rundus A, Sanz C, Sommer V, Stewart F, Taggn N, Tennie C, Vergnes V, Welsh A, Wessling EG, Willie J, Wittig RM, Yuh YG, Zuberbühler K, Köhl HS (2020). Environmental variability supports chimpanzee behavioural diversity. *Nature communications* 11, 4451
15. Bwong BA, **Barratt CD**, Loader SP, Nyamache JO, Menegon M, Malonza PK, Nagel P, Lawson LP (2020) Systematics of *Hyperolius mitchelli* Loveridge, 1953 and *H. rubrovermiculatus* Schiøtz, 1975 (Anura: Hyperoliidae) and assignment of populations from northern Tanzania. *African Journal of Herpetology* 69, 165–181
16. Ngwava JM, **Barratt CD**, Bwong BA, Boakes E, Wasonga V, Muchai V, Nguku J, Nyamache J, Malonza PK, Channing A, Owen N, Couchman O, Loader SP (2021). Species-specific or assemblage-wide decline? The case of *Arthroleptides dutoiti* Loveridge, 1935 and the amphibian assemblage of Mount Elgon, Kenya. *African Journal of Herpetology* 70, 53–60
17. Lester JD, Vigilant L, Gratton P, **Barratt CD**, McCarthy MS, Boesch CD, Kuhl H, Dieguez P, Aebischer T, Agbor A, Álvarez-Varona P, Angedakin S, Assumang AK, Aubert F, Ayimisin EA, Bailey E, Bamba A, Barubiyo D, Bessone M, Bonnet M, Brazzola G, Chancellor R, Cipoletta C, Cohen H, Corogenes K, Coupland C, Curran B, Danquah E, Dengui JC, Deschner T, Dilambaka E, Dowd D, Dunn A, Dupai N J, Egbe VE, Eno-Nku M, Goedmakers A, Granjon AC, Head J, Heilman A, Hedwig D, Hermans V, Imong I, Jeffery KJ, Jones S, Junker J, Kadam P, Kaiser M, Kalan AK, Kambere M, Kambi M, Kehoe L, Kienast I, Kujirakwinja D, Langergraber KE, Lapeyre V, Lapuente J, Larson B, Laudisoit A, Lee K, Leinert V, Llana M, Manasseh EN, Maretti G, Marrocoli S, Martín R, Masozera M, Meier A, Morgan D, Muhanguzi G, Mulindahabi F, Murai M, Neil E, Nicholl S, Nixon S, Niyigaba P, Normand E, Ntare N, Nzeheke A, Orbell C, Ormsby LJ, Orume R, Pacheco L, Piel A, Preece J, Regnaut S, Robbins M, Rundus A, Sanz C, Sciaky L, Siaka AM, Sommer V, Städele V, Stewart F, Tagg N, Telfer P, Terrade E, Tickle A, Ton E, van Schijndel J, Vanleeuwe H, Vergnes V, Vyalengerera MK, Wessling EG, Willie J, Wittig RM, Ginath Y, Yurkiw K, Zuberbuehler K, Arandjelovic M (2021) Recent genetic connectivity and clinal variation in chimpanzees. *Nature Communications Biology* 283
18. Perino A, Pereira HM, Felipe-Lucia M, Kim H, Köhl HS, Marselle MR, Meya JN, Meyer C, Navarro LM, van Klink R, Albert G, **Barratt CD**, Bruehlheide H, Cao Y, Chamoin A, Darbi M, Dornelas M, Eisenhauer N, Essl F, Farwig N, Förster J, Freyhof J, Geschke J, Gottschall F, Guerra C Haase P, Hickler T, Jacob U, Kastner T, Kim H, Korell L, Kühn I, Lehmann GUC, Lenzner B, Maes J, Marques A, Motivans E, Quintero LC, Pacheco A, Popp A, Rouet-Leduc J, Schnabel F, Siebert J, Staude IR, Trogisch S, Švara V, Svenning JC, Pe'er G, Raab K, Rakosy D, Vandewalle M, Werner AS, Wirth C, Xu H, Yu D, Zinngrebe Y & Bonn A (2021). Biodiversity Post-2020: Closing the gap between global targets and national-level implementation. *Conservation Letters* e12848

19. **Barratt CD**, Lester JD, Gratton P, Onstein RE, Kalan AK, McCarthy MS, Bocksberger G, White LC, Vigilant L, Dieguez P, Abdulai B, Aebischer T, Agbor A, Assumang AK, Bailey E, Bessone M, Buys B, Carvalho JS, Chancellor R, Cohen H, Danquah E, Deschner T, Dongmo ZN, Doumbe O, Dupain J, Duvall CS, Eno-Nku M, Etoga G, Galat-Luong A, Garriga R, Gatti S, Ghiurghi A, Goedmakers A, Granjon A, Hakizimana D, Head J, Hedwig D, Herbinger I, Hermans V, Jones S, Junker J, Kadam P, Kambi M, Kienast I, Kouakou CI, Kouame PN, Langergraber KE, Lapuente J, Laudisoit A, Lee KC, Maisels F, Mirghani N, Moore D, Morgan B, Morgan D, Neil E, Nicholl S, Nkembi L, Ntongho A, Orbell C, Ormsby LJ, Pacheco L, Piel AK, Pintea L, Plumptre AJ, Rundus A, Sanz C, Sommer V, Sop T, Stewart FA, Sunderland-Groves J, Tagg N, Todd A, Ton E, van Schijndel J, Vanleeuwe H, Vendras E, Welsh A, Wenceslau JFC, Wessling EG, Willie J, Wittig R, Yoshihiro N, Yuh YG, Yurkiw K, Boesch C, Arandjelovic M, Kühl HS (2021). Quantitative estimates of glacial refugia for chimpanzees (*Pan troglodytes*) since the Last Interglacial (120,000 BP). *American Journal of Primatology*, e23320
20. **Barratt CD**, Zizka A, Duarte Ritter C, Joerger-Hickfang T, Zizka V (2022). Existing approaches and future directions to link macroecology, macroevolution and conservation prioritization. *Ecography* (<https://doi.org/10.1111/ecog.05557>, under consideration for the E4 award)
21. Manurung J, Andrés BMR, **Barratt CD**, Schnitzler J, Jönsson BF, Susanti R, Durka W, Muellner-Riehl AN (2023). Deep phylogeographic splits and limited mixing by sea surface currents govern genetic population structure in the mangrove genus *Lumnitzera* across the Indonesian Archipelago. *Journal of Systematics and Evolution*
22. Velásquez-Puentes FJ, Torke BM, **Barratt CD**, Dexter K, Pennington T, Pezzini F, Ringelberg J, Zizka A, Onstein RE (accepted). Both pre-adaptation and adaptation have shaped trait-environment matching in a Neotropical legume radiation. *Global Ecology and Biogeography*
23. Ramsay MS, Sgarlata G, **Barratt CD**, Salmona J, Andriatsitohaina B, Kiene F, Manzi S, Ramilison ML, Chikhi, Lehman SM, Radespiel (2023). Effects of forest fragmentation on connectivity and genetic diversity in an endemic and an invasive rodent in northwestern Madagascar. *Genes*

In review/revision

1. **Barratt CD**, Gratton P et al. Chimpanzee behavioural diversity is spatially structured and negatively associated with genetic variation. *Nature Ecology and Evolution*, [preprint](#).
2. **Barratt CD**, Onstein RE, Pinsky ML, Steinfartz S, Kühl HS, Forester BR, Razgour O. (in review). Life on the edge – a new toolbox for population-level climate change assessments. *Methods in Ecology and Evolution*, [preprint](#).
3. **Barratt CD**, Preissler K, Jennert P, Eckhardt F, Madjafzadeh M, Steinfartz S. (in review). Increasing the evolutionary potential of threatened species-genetic and genomic insights from the common midwife toad (*Alytes obstetricans*) at its range limits. *Heredity*, [preprint](#).
4. Souza Lucas M, Hensen I, **Barratt CD**, Callaway R, Durka W, Lekberg Y, Nagy D, Onstein RE, Shah M, van Dam N, Rosche (in review). Re-focusing sampling, design and experimental methods to assess rapid evolution by non-native plant species. *Biological Invasions*
5. Mendez-Cuellar L, **Barratt CD**, Durka W, Kissling WD, Eiserhardt WL, Baker WJ, Randrianasolo V, Onstein RE (in review). Genomic signatures of long-distance seed dispersal events in Malagasy palms mediated by past megafrugivores. *Journal of Ecology*
6. Ostridge H, Andres A, **Barratt CD**, ... (87 co-authors), Arandjelovic M, Kuehl H (in review). Local genetic adaptation to habitat in wild chimpanzees. *Science*

Grants

In preparation

Oct 2023 ERC Starting Grant: GENVAR - The good, the bad and the neutral: categorising and modelling the spread of functional and neutral genomic variants for biodiversity management (submitted Oct 2023) (€1.5M)

Under review

Apr 2023 National Geographic Society Level II funding grant “Empowering Central African Researchers: Building Capacity in Biodiversity Informatics for Climate Change Resilience” (As co-PI, main PI: Greg Jongsma, New Brunswick Museum, NB, Canada) (€974,000)

Awarded as main PI (>€600,000)

Apr 2022	iDiv (German Centre for Integrative Biodiversity Research) Halle-Jena-Leipzig – Flexpool Support Fund “ Cryptic diversity under global change: the case of the <i>Hyperolius mitchelli</i> African reed frog species complex ” (€10,000)
Jun 2020	iDiv (German Centre for Integrative Biodiversity Research) Halle-Jena-Leipzig – sDiv Individual postdoc grant [3 years]: “ Life on the edge: a new informatic toolbox to conserve wildlife populations under threat from future global change ” (€223,000)
May 2018	DFG (Deutsche Forschungsgemeinschaft) via iDiv Halle-Jena-Leipzig – Flexible pool postdoc grant [3 years]: “ Dynamic aspects of chimpanzee diversification across Africa using paleoclimate and genomic data ” (€210,000)
Apr 2018	Society for the Study of Evolution – Travel to Evolution 2018 in Montpellier (\$500 USD)
Oct 2016	FAG Basel – PhD extension grant [6 months] (12,000 CHF)
Feb 2016	Swiss Zoological Society – Travel grant to attend International Biogeography Society conference in Tucson, AZ, US (1000 CHF)
Jan 2015	Departement Umweltwissenschaften, University of Basel – Travel grant to attend International Biogeography Society conference in Bayreuth, Germany (600 CHF)
Aug 2014	European Science Foundation ConGenOmics short grant – Specimen work at Natural History Museum London and Museo Delle Scienze, Trento (€1350 EUR)
May 2014	Departement Umweltwissenschaften, University of Basel – Travel grant to attend 16th African Amphibian Working Group meeting, Bwindi, Uganda (800 CHF)
Apr 2014	FAG Basel – Fieldwork grant for Tanzania (3500 CHF)
Sep 2013	Humer Foundation for Academic Talent – PhD grant [3 years] (150,000 CHF)

As co-PI (>€260,000)

Apr 2022	iDiv (German Centre for Integrative Biodiversity Research) Halle-Jena-Leipzig – Flexpool Support Fund “ The suitability of road verges for protected grassland plant species assessed at the gene level ”. (co-PI, main PI: Sabrina Traeger, €10,000)
Apr 2022	iDiv (German Centre for Integrative Biodiversity Research) Halle-Jena-Leipzig – Flexpool Support Fund “ Human impact on biodiversity: How anthropogenic factors influence the genetic diversity and stress hormone levels of the critically endangered crested macaques across Indonesia ” (co-PI, main PI: Marlen Kuecklich, €10,000)
Nov 2020	iDiv (German Centre for Integrative Biodiversity Research) Halle-Jena-Leipzig - Flexible Pool PhD grant [4 years] “ Harnessing the power of RADseq data to achieve a more mechanistic understanding of rapid evolution ” – as co-PI, main applicant: Isabell Hensen, University of Halle (€240,000)

Scientific services

Editorships

- Associate editor for Herpetological Bulletin (2011-2017)

Reviews (>40 manuscripts, 3 competitive grant proposals, [here](#) is my Web of Science profile)

- Reviewer for: Molecular Ecology, Diversity and Distributions, Evolution, Ecography, Journal of Biogeography, Biological Conservation, Ecology and Evolution, Molecular Phylogenetics and Evolution, Nature Scientific Data, Conservation Genetics Resources, Biological Indicators, Current Zoology, Journal of Zoological Systematics and Evolutionary Research, Asian Herpetological Research, Ecological Indicators, Zootaxa, African Zoology
- Grant reviews for GEO-BON-Microsoft Joint call (EBVs on the cloud), Agence Nationale de la Recherche, iDiv Flexpool.

Conference Organisation

- Scientific committee member and symposium chair, Zoology 2023, Leiden
- Symposium organiser at the ATBC 2019 meeting in Antananarivo, Madagascar entitled “[Broad-scale determinants of tropical diversification and community assembly](#)”
- Symposium chair for ‘Historical and Paleobiogeography’ (Jan 2019 at IBS Malaga)

Boards and Committees

- Elected Society for Tropical Ecology board member (2023-)
- Elected iDiv [associate member](#) (2022-)
- yDiv (Graduate School for young researchers, iDiv) [postdoc rep board member](#) (2019-2022)
- iDiv Internationalization committee (2021-2023)
- Research area co-organiser – “Biodiversity as driven by evolutionary and adaptive processes – from species to populations” at the German Centre for Integrative Biodiversity Research. Together with Sebastian Steinfartz, Martin Schlegel, Ekatarina Shelest, and Renske Onstein (2019-2021)
- Research area contributor (“iM2M: integrating meso to macro scales”) at the German Centre for Integrative Biodiversity Research (2018-2021)

Working group memberships

- African Amphibian Working Group (2011-)
- Amphibian Specialist Group (2016-), IUCN red list assessment East African amphibians (2016)
- GEO-BON [Genetic Composition Working group](#) (2020-)
- [sEnigmas](#), sDiv working group (2021-2024)
- ESEB progress meeting (Sept 2023) – Advances in Macrogenetics/genomics (main PIs: Lesley Lancaster, Katalin Csillery)

Current society memberships

- Netherlands Society for Evolutionary Biology (2023-)
- European Society for Tropical Biology (2023-)
- Association for Tropical Biology and Conservation (2019-)
- International Biogeography Society (2014-)
- Society for the Study of Evolution (2016-)

Training and courses attended

Jun 2022	Teaching in Higher Education – improving didactic delivery (2 day workshop), Leipzig, DE
Sep 2021	Congen 2021: Conservation Genetics, Population Genomics, and Molecular Ecology. University of Montana (online)
Jan 2020	How can biodiversity science contribute to the CBD post-2020 framework? Leipzig, DE Germany
Sep 2019	Introduction to Transcriptomics, Helmholtz Centre for Environmental Research (UFZ), Leipzig, DE
Jan 2019	sdm: a reproducible and extensible R package for species distribution modeling. International Biogeography Society biennial, Malaga, Spain
Nov 2018	How to become a Junior Research Group Leader. iDiv (German Centre for Integrative Biodiversity Research), Leipzig, Germany
Jan 2017	Cleaning Biodiversity Data. International Biogeography Society biennial, Tucson, AZ, US
Jul 2016	Bioinformatics of long-read sequencing – getting ready for the third generation, Swiss Institute for Bioinformatics/University of Bern, Switzerland
Feb 2016	Bioinformatics for Adaptation Genomics Winter School, Swiss Federal Institute of Technology, Weggis, Switzerland
Oct 2015	Introduction to high performance computing cluster use. Swiss Institute for Bioinformatics/University of Basel, Switzerland
Jun 2015	Genotyping by Sequencing. The Genome Analysis Centre, Norwich, UK
Oct 2014	Genomics of the speciation continuum. University of Fribourg, Switzerland
Mar 2004	Short course in African wildlife management, Mweka college, Moshi, Tanzania

Current running projects (most recent first, funding amount details are found in Grants section above)

As main PI

Since	Project	Main collaborators	Funding
Apr 2022	Cryptic diversity under global change: the case of the <i>Hyperolius mitchelli</i> reed frog complex in East Africa - combining genomic diversity estimates with climate change forecasts and species distribution models to predict potential future population declines in a threatened species	Dr. Simon Loader (Natural History Museum, London), Dr. Beryl Akoth Bwong (National Museums of Kenya, Nairobi), Mr. John Lyakurwa (University of Dar es Salaam, Tanzania)	iDiv Flexpool support fund (1 year project)
Apr 2021	'Life on the edge: a new bioinformatic toolbox to conserve wildlife populations under threat from future global change' - Quantifying population vulnerability to global change across environmental and anthropogenic gradients and using genomic, ecological and environmental data for >100 species across Africa and Eurasia	Dr. Orly Razgour (University of Exeter), Dr. Brenna Forester (US Fish and Wildlife Service), Prof. Malin Pinsky (Rutgers University), Dr. Renske Onstein (Naturalis Biodiversity Center, Leiden), Dr. Hjalmar Kühl (Max Planck Institute for Evolutionary Anthropology, Leipzig), Prof. Sebastian Steinfartz (University of Leipzig)	iDiv sDiv Individual postdoc call (3 year project)
Mar 2021	Conservation genomics of the midwife toad in Germany - assessing population connectivity and local adaptation in <i>Alytes obstetricans</i> across Germany to inform conservation management (i.e. suitable donor populations)	Prof. Sebastian Steinfartz, Dr. Kathleen Preissler (University of Leipzig), Dr. Mirjam Nadjafzadeh (Naturschutzbund Deutschland, Lower Saxony)	Funded by the LIFE-BOVAR project of the Naturschutzbund Deutschland (1 year project)
Aug 2018	'Dynamic aspects of chimpanzee diversification across Africa using paleoclimate and genomic data' - Investigating chimpanzee genomic and behavioural diversity related to historical and recent climate change, as well as anthropogenic activities	Dr. Hjalmar Kühl, Dr. Mimi Arandjelovic, Prof. Christoph Boesch (Max Planck Institute for Evolutionary Anthropology, Leipzig), Dr. Renske Onstein (Naturalis Biodiversity Center, Leiden)	iDiv Flexpool regular call (3 year project)

As collaborator (or co-PI if stated)

Jun 2022	Amphibian diversification in West and Central Africa (Main PI: Gregor Jongsma)	Dr. Gregor Jongsma, Prof. David Blackburn (Florida Museum of Natural History), Dr. Dan Portik (Pacific Biosciences, CA)	PhD studentship G. Jongsma (Florida Museum of Natural History) (1 year follow up project)
Apr 2022	The suitability of road verges for protected grassland plant species assessed at the gene level (Main PI: S. Traeger, co-PI: C. Barratt)	Dr. Sabrina Traeger, Prof. Isabell Hensen (University of Halle), Dr. Sonja Knapp (Helmholz Centre for Environmental Research, Leipzig)	iDiv Flexpool support fund (1 year project)

Apr 2022	Human impact on biodiversity: How anthropogenic factors influence the genetic diversity and stress hormone levels of the critically endangered crested macaques across Indonesia (Main PI: M. Kuecklich, co-PI: C. Barratt)	Dr. Marlen Kuecklich, Prof. Anja Widdig, Mrs. Nora Neugebauer, Prof. Hannes Feilhauer (University of Leipzig)	iDiv Flexpool support fund (1 year project)
Dec 2021	Fine-scale local adaptation in wild chimpanzees across habitats (Main PI: H. Ostridge)	Dr. Aida Andres, Mr. Harrison Ostridge (University College London), Dr. Mimi Arandjelovic (Max Planck Institute for Evolutionary Anthropology, Leipzig)	PhD studentship H. Ostridge (University College London) (4 year project)
Nov 2021	The impact of new genetic information on species vulnerability to global change: The African elephant	Dr. Fiona Maisels (Wildlife Conservation Society, Gabon), Dr. Joana Carvalho (University of Derby)	Unfunded, currently seeking MSc student
Oct 2020	Identifying population connectivity and barriers in endemic Malagasy small mammals and primates (Main PI: M. Ramsay)	Prof. Ute Radespiel, Mr. Malcom Ramsay (University of Veterinary Medicine, Hannover), Dr. Jordi Salmons, Dr. Lounès Chikhi (Université Paul Sabatier, Toulouse)	PhD studentship M. Ramsay (University of Veterinary Medicine, Hannover) (3.5 year project)

Visits in other Labs and Fieldwork

Institute	Year	Duration	Purpose
University of Leipzig and iDiv (GEOBON) Essential Biodiversity Variables and Nature Futures Indicators for 2020 and beyond, Leipzig (Germany)	2020	1 week	Refining and selecting Essential Biodiversity Variables for the GEOBON inputs to the CBD post-2020 framework and Nature Futures
Xishuangbanna Tropical Botanical Garden and Kunming Institute of Botany, Chinese Academy of Sciences (China)	2017	2 weeks	Collaboration at Biogeography & Ecology group and data collection. Funded and invited by Prof. Yaowu Xing
Grenoble University, Grenoble (France)	2016	1 week	Workshop funded by French-Berkeley fund, invited by Prof. Brent Mishler and Dr. Wilfried Thuiller
University of Roehampton (UK)	2016	1 week	Invited talk and project proposal writing (invited by Dr. Simon Loader)
University of Basel (Walter Salzburger Lab)	2015	1 week	RAD-seq library preparation supervision of MSc student Marco Crotti
University of Basel (Walter Salzburger Lab)	2014	2 weeks	Library preparation for RAD-seq project (PhD)
Natural History Museum, London (UK)	2014	1 week	Data collection (museum sampling) funded by ESF ConGenomics grant
Museo Delle Scienze, Trento (Italy)	2014	1 week	Data collection (museum sampling) funded by ESF ConGenomics grant

Fieldwork in Tanzania (PhD project)	2014-2015	8 months	Data collection (amphibian sampling) - Coastal Forests of Eastern Africa
Tanzania Savannah Research Programme, Kilombero Valley, (Tanzania)	2008	9 months	Research officer to record and monitor biodiversity and mentor volunteers
Corlett Maritima, Santo Antonio (Principe Island)	2005	3 months	Data collection for BSc placement
Mweka Wildlife College, Moshi (Tanzania)	2004	2 weeks	Short course in African wildlife management and contribution to large mammal field surveys in Ngorongoro crater

Presentations

Invited/plenary talks

May 2023	Life on the edge: leveraging spatial and genomic data to make predictions of climate change vulnerability. Naturalis Biodiversity Center , Leiden, Netherlands
Sep 2022	Life on the edge: assessing intraspecific vulnerability to global change by integrating environmental, ecological and molecular data, Climate Change Genomics workshop: Vulnerability, adaptations & applications, British Ecological Society (Plenary), University of Exeter , UK
Feb 2022	Environmental genomics to understand past and future biodiversity responses to global change, Florida Museum of Natural History seminar series, USA (online)
Feb 2020	Long-term environmental stability, genomic diversity and demographic history of Pan-African chimpanzee populations, Laboratoire Evolution & Diversité Biologique, Université Paul Sabatier , Toulouse, France
Dec 2019	Using genomic data to understand biodiversity patterns and processes, Molecular Evolution and Systematics of Animals Research Group, University of Leipzig , Germany
Dec 2019	Population history and conservation of chimpanzees, Institute for Zoology, University of Veterinary Medicine , Hannover, Germany
Nov 2019	Chimpanzee population diversification using genomic and paleoclimate data, Molecular Evolution and Plant Systematics Research Group, University of Leipzig , Germany
Aug 2017	Spatial phylogenetics for biodiversity conservation in East Africa. Xishuangbanna Tropical Botanical Gardens , Xishuangbanna, Yunnan Province, China
Aug 2017	Spatial phylogenetics for biodiversity conservation in East Africa. Xishuangbanna Tropical Botanical Gardens, Kunming Institute of Botany , Kunming, Yunnan Province, China
Apr 2016	A phylogenetic approach to explain endemism in the East African coastal forests. Estación Biológica de Doñana , Seville, Spain
Apr 2016	Linking phylogenies and spatial data to explain amphibian endemism in the East African coastal forests. Natural History Museum of Bern , Switzerland
Mar 2016	Using Next Generation Sequencing and DNA barcoding to reveal the biodiversity value of the Coastal forests of Eastern Africa. Department of Life Sciences, University of Roehampton and Natural History Museum London , UK

Conference talks

Feb 2024	Combining genomics and spatial modelling to make multi-species population vulnerability predictions. European conference of Tropical Ecology , Lisbon, Portugal
Jun 2023	Life on the edge: a new informatic toolbox to predict population vulnerability to global change. European conference of Tropical Ecology , Ceske Budejovice, Czech. Republic
May 2023	Life on the edge: a new informatic toolbox to predict population vulnerability to global change. Zoology 2023 , Leiden, Netherlands
May 2023	Life on the edge: a new informatic toolbox to predict population vulnerability to global change. Netherlands Society for Evolutionary Biology , Ede, Netherlands

Apr 2022	Life on the edge: assessing intraspecific vulnerability to global change by integrating environmental, ecological and molecular data, iDiv annual conference , Leipzig (online)
Feb 2020	Long-term environmental stability, genomic diversity and demographic history of Pan-African chimpanzee populations, ConsGen2020 (4th Annual meeting in Conservation Genetics), Senckenberg World of Biodiversity, Frankfurt, Germany
Sep 2019	Afrotropical biodiversity and conservation using high throughput and genomic data, German Zoological Society annual meeting, Jena, Germany
Aug 2019	Elucidating diversification mechanisms in tropical biodiversity hotspots, Association for Tropical Biology and Conservation , Antananarivo, Madagascar
Jan 2019	Elucidating diversification mechanisms in tropical biodiversity hotspots, International Biogeography Society biennial, Malaga, Spain
Aug 2018	Elucidating intraspecific diversification processes in the Afrotropics, iDiv annual conference , Leipzig
Jan 2017	Drivers of phylogenetic endemism and the conservation of centres of endemism in the coastal forests of Eastern Africa. International Biogeography Society , Tucson, USA
Dec 2015	Phylogenetic Endemism of a highly threatened biodiversity hotspot. Young Systematists Forum , Natural History Museum, London, UK.
Mar 2014	Vanishing refuge: The Coastal Forests of Eastern Africa. 16th African Amphibian Working Group conference, Bwindi, Uganda
Apr 2011	Newly developed microsatellite markers for the East African caecilian, <i>Boulengerula uluguruensis</i> and their utility in congeneric species. British Herpetological Symposium , Bangor, Wales

Poster presentations

April 2022	Insights from the PanAf project: Long-term environmental stability, genomic diversity and demographic history of chimpanzee populations, iDiv annual conference , Leipzig
Aug 2018	Genome-wide data sheds light on amphibian diversification in the coastal forests of Eastern Africa. Evolution 2018, Montpellier, France
Jun 2017	Drivers of Phylogenetic Endemism and the Conservation of Centres of Endemism in the Coastal Forests of Eastern Africa. Evolution 2017, Portland, Oregon, US
Feb 2016	Are the Coastal forests of Eastern Africa a source area of diversity? Biology 16, Swiss Zoological Society , University of Lausanne, Switzerland
Aug 2015	Are the Coastal forests of Eastern Africa a source area of diversity? Systematics Association biennial, Oxford, UK
Jul 2015	Are the Coastal forests of Eastern Africa a source area of diversity? Amphibian Conservation Research Symposium , University of Cambridge, UK
Jun 2015	Are the Coastal forests of Eastern Africa a source area of diversity? Genotyping By Sequencing course, The Genome Analysis Centre , Norwich, UK
Feb 2015	Speciation patterns in the Coastal Forests of Eastern Africa. Biology 15, Swiss Zoological Society , Dubendorf, Switzerland
Jan 2015	Speciation patterns in the lowland forests of Eastern Africa. International Biogeography Society conference, University of Bayreuth, Germany
Sep 2014	Speciation patterns in the lowland forests of Eastern Africa. Genomics of the speciation continuum workshop, University of Fribourg, Switzerland

Skills

- Technical: Programming skills in R, bash and python, advanced HPC cluster use – see [here](#) for a list of tools that I regularly use in my work. Proficient in ecoinformatics (spatial data analysis, species distribution modelling, handling large environmental and remote sensing datasets). Wet laboratory skills for DNA extraction/PCR, genetic labwork (genetic, microsatellites), and genomic library preparation. Competence in bioinformatics (population genomics and phylogenomics, RRL, WES, WGS data)
- Communication: Strong communicator, presenting complex information in a simple and digestible manner to a wide audience (see teaching, presentations and posters). Additional experience in non-

academic roles (e.g. > 10 years total in publishing and software development). Open minded, optimistic and diplomatic, collaborative with strong problem-solving abilities. Native speaker in English, A2/B1 Dutch, A2 French, A1 Italian, A2 German, A2 Swahili

Additional skills: Driver's Licence for class B vehicles, Graphic design skills

Referees (further referees available upon request)

- Dr. Simon Loader. Principal Curator in charge of Vertebrates, Natural History Museum, Cromwell Road, London, UK, SW7 5BD (simon.p.loader@gmail.com)
- Dr. Hjalmar Kuehl. PanAf Project coordinator, Max Planck Institute for Evolutionary Anthropology, Leipzig, Deutscher Platz 5e, 04107 Leipzig, Germany (kuehl@eva.mpg.de)
- Dr. Orly Razgour. Senior Lecturer, University of Exeter, Hatherly Building, Prince of Wales Road, Exeter, UK, EX4 4PS (O.Razgour@exeter.ac.uk)