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EDUCATION

2009 – 2013 **Ph.D., Biodiversity and Global Change. Imperial College London, UK**
Supervisor: Dr. Andy Purvis

2005 – 2009 **MSci (undergraduate degree), Biology. Imperial College London, UK**
1st class honors

PROFESSIONAL EXPERIENCE

2023 – present **Founder and Chief Executive Officer. [Elimia](http://Elimia.com), CA, USA**

- Lead projects to support public, private, and non-profit sectors in three main areas of biodiversity data science: data integration and management, analytics and metrics, and visualization.
- Lead day-to-day operations, project management, and business development.

2021 – 2023 **Director of Applied Data Science. NatureServe, VA, USA**

- Lead NatureServe's Species Habitat Modeling Program
- Develop and lead projects to mobilize, analyze, and visualize biodiversity insights from NatureServe data and additional sources.
- Help lead the development and implementation of computational and cyberinfrastructure strategies to facilitate NatureServe's biodiversity data product delivery.

2018 – 2019 **Biodiversity Data Scientist. California Academy of Sciences, CA, USA**

2017 – 2018 **Postdoctoral Scholar. University of California Merced, CA, USA**
Supervisor: Dr. Jessica Blois

2015 – 2017 **Biodiversity Postdoctoral Associate. NatureServe, VA, USA**
Supervisor: Dr. Catherine Graham

2013 – 2015 **Postdoctoral Scholar. University of California Berkeley, CA, USA**
Supervisors: Dr. Charles Marshall, Dr. Rosemary Gillespie

GRANTS AND AWARDS

2023: \$200,000 **The Bureau of Land Management, USA**

2022: \$65,000 **Utah Division of Wildlife Resources, UT, USA**

2020: \$200,000 **State of California Natural Resources Agency, CA, USA**

2019 **[Ecography Award for Excellence in Ecology and Evolution, Winner](#). Nordic Society Oikos, SWE**

2015: \$5,000 **Socio-environmental Immersion Fellowship. [SESYNC](#), MY, USA**

SELECTED PUBLICATIONS (find full list on [Google Scholar](https://scholar.google.com))

Submitted Sayer S, *et al.* [and many others, including **Rapacciuolo G** as 5th author] Under water, under threat: extinction risk of the world's freshwater fauna. *Nature*.

2023 NatureServe (2023). Biodiversity in Focus: United States Edition. NatureServe: Arlington, VA. [Find full text.](#)

2022 Cox N, Young B [and 50 others, including **Rapacciuolo G** as 6th author] (2022). A global reptile assessment highlights shared conservation needs of tetrapods. *Nature* **605**: 285–290. [Find full text.](#)

- 2021** **Rapacciuolo G**, Young A, Johnson R (2021). Deriving indicators of biodiversity change from unstructured community-contributed data. *Oikos* **130**: 1225–1239. Editor's Choice. [Find full text](#).
- 2019** **Rapacciuolo G** & Blois J (2019) Understanding ecological change across large spatial, temporal and taxonomic scales: integrating data and methods in light of theory. *Ecography* **42**: 1247-1266. [Find full text](#).
Rapacciuolo G, et al. (2019). Species diversity as a surrogate for the conservation of phylogenetic and functional diversity in terrestrial vertebrates across the Americas. *Nature Ecology & Evolution* **3**: 53-61. [Find full text](#).
Rapacciuolo G. (2019). Strengthening the contribution of macroecological models to conservation practice. Invited contribution for the Macroecology 30th Anniversary Issue at *Global Ecology and Biogeography* **28**: 54-60. [Find full text](#).
- 2018** Yates KL [and 49 others, including **Rapacciuolo G**] (2018). Outstanding challenges in the transferability of ecological models. *Trends in Ecology and Evolution* **33**: 790-802. [Find full text](#).
- 2017** **Rapacciuolo G**, Ball-Damerow JE, Zeilinger A, Resh VH (2017). Detecting long-term occupancy changes in Californian odonates from natural history and citizen science records. *Biodiversity and Conservation* **26**: 2933-2949. [Find full text](#).
Rapacciuolo G, Marin J, Costa GC, Helmus MR, Behm JE, Brooks TM, Hedges SB, Radeloff VC, Young BE, Graham CH (2017). The signature of human pressure history on the biogeography of body mass in tetrapods. *Global Ecology and Biogeography* **26**: 1022-1034. [Find full text](#).
Zeilinger A, **Rapacciuolo G**, Turek D, Oboyski P, Almeida R, Roderick G (2017). Museum specimen data reveal emergence of a plant disease may be linked to increases in the insect vector population. *Ecological Applications* **27**: 1827-1837. [Find full text](#).
- 2016** Kelly M, Easterday K, **Rapacciuolo G**, Koo MS, McIntyre P, Thorne J. (2016). Rescuing and sharing historical vegetation data for ecological analysis: The California Vegetation Type Mapping project. *Biodiversity Data Journal* **11**: 40 - 62. [Find full text](#).
- 2014** **Rapacciuolo G**, et al. (2014). Beyond a warming fingerprint: individualistic biogeographic responses to heterogeneous climate change in California. *Global Change Biology* **20**: 2841 - 2855. [Find full text](#).
Rapacciuolo G, et al. (2014). Temporal validation plots: quantifying how well species distribution models predict species' range changes over time. *Methods in Ecology and Evolution* **5**: 407 - 420. [Find full text](#).
- 2012** **Rapacciuolo, G.** et al. (2012) Climatic associations of British species distributions show good transferability in time but low predictive accuracy for range change. *PLoS One* **7**: e40212. [Find full text](#).

TECHNICAL SKILLS

Biodiversity Informatics

- Expertise in modeling of species and ecosystem distributions using machine learning
- Expertise in analyses of taxonomic, functional, and phylogenetic diversity of ecological communities
- Expertise in geospatial analyses and Geographic Information Systems (GIS) using R; working knowledge of ArcGIS Pro and ArcPy
- Expertise in systematic spatial conservation planning

- Data Science**
 - Expertise in synthesis, management, and analysis of big datasets in R
 - Expertise in data visualization using ggplot2
 - Expertise in web-based interactive mapping and visualization applications using leaflet, plotly, R Shiny, HTML, and CSS
 - Expertise in reproducible workflows, code version control and management using R Markdown, Git, and GitHub (find [GitHub profile](#)).
 - Experience with cloud computing using AWS and Microsoft Azure.
 - Working knowledge of Python, SQL and JavaScript.
- Project Leadership and Management**
 - Expertise in the steering and coordination of large biodiversity science projects involving diverse collaborators, multiple disciplines, and cultures
 - Experience in needs assessment, building, and maintaining partnerships with biodiversity knowledge stakeholders, including policymakers, managers, academic researchers, and the public
 - Experience supervising full-time PhD-level staff
 - Experience with Jira Work Management software
- Languages**
 - English (native/trilingual knowledge), Italian (native/trilingual knowledge), French (native/trilingual knowledge).

PROFESSIONAL SERVICE AND OUTREACH

- Appointments**

2021 – present: Research Associate in Community Science, Institute for Biodiversity Science and Sustainability, at the California Academy of Sciences, San Francisco, CA, USA.

2020 – 2022: Associate Editor for *Ecological Solutions and Evidence*. British Ecological Society, London, UK.

2018 – 2019: Guest Editor for *Frontiers in Ecology and Evolution*. Lausanne, Switzerland.
- Media**

2023: [AI for Good Webinar, Virtual](#)
“Predicting where endangered animals and plants are via human-AI collaboration”.

2020: [Western Society of Naturalists 2020 Meeting, Virtual](#)
“A Community-Powered Early Warning System for Biodiversity Change on the California Coast”

2020: [California Academy Of Sciences, Virtual](#)
“Visits turned virtual: Building California’s coastal observatory”.

2020: [California Academy Of Sciences, Virtual](#)
“Monitoring California’s Coastal Biodiversity with Citizen Science”.
- Invited Talks**

2023: [Pepperdine University, Malibu, CA, USA](#)
“Predicting where endangered animals and plants are via human-AI collaboration”.

2021: [American Museum of Natural History, New York City, NY, USA](#)
“A library of collaborative species distribution models for rare and imperiled species to support management decisions in the US”.

2020: [University of California Berkeley, Berkeley, CA, USA](#)
“Detecting biodiversity change from unstructured citizen science data to inform coastal management”.

2020: [Sonoma State University, Santa Rosa, CA, USA](#)
“Detecting biodiversity change from unstructured citizen science data to inform coastal management”.