
Giuliano Colosimo, PhD

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PROFILE

Population and conservation biologist (PhD, 2016) studying how terrestrial vertebrates shape and respond to ecosystem structure and function, with field expertise in reptiles and quantitative methods that generalise across taxa. I integrate field ecology and animal-borne biologging with trophic (stable-isotope), demographic and population-genomic analyses, species-distribution modelling and remote sensing, in reproducible R. My work spans trophic interactions, movement ecology, and the demography and genetics of translocation, reintroduction and invasive-species removal, directly relevant to the restoration and rewilding of vertebrate-driven ecosystems. Author of more than 30 peer-reviewed papers, with competitive funding as principal and co-investigator and co-authored IUCN conservation and management plans; Deputy Chair of the IUCN SSC Iguana Specialist Group.

RESEARCH EXPERTISE

Vertebrate ecosystem ecology • trophic interactions & food-web dynamics • movement ecology & animal-borne biologging • restoration, reintroduction & rewilding • population & conservation genomics • species-distribution modelling & remote sensing (Sentinel, MODIS, DEMs) • Bayesian & spatial statistics • reproducible, open workflows.

EDUCATION

PhD in Conservation Genetics, Mississippi State University, USA **2016**

“Natural population dynamics of rock iguanas in the Bahama Archipelago”

MSc in Ecology and Evolution, University of Rome Tor Vergata, Italy **2010**

“Inferring phylogeny of the genus Maniola (Lepidoptera) through COI barcode sequence”

Incl. Erasmus exchange semester, Aarhus University, Denmark — Biogeography (Prof. J.-C. Svenning).

BSc in Ecology, University of Rome Tor Vergata, Italy **2007**

“Monitoraggio di alcune popolazioni di Bombina pachypus (Anfibi, Anuri) sui Monti Lepini”

ACADEMIC POSITIONS

Research Associate, University of Rome Tor Vergata **2022–present**

Research Associate, INSTM (Italian Interuniversity Consortium for Materials Science & Technology) **2026**

Postdoctoral Fellow, San Diego Zoo Wildlife Alliance **2017–2022**

GRANTS AND FUNDING

- **PI** — Remote monitoring of Sister Islands Rock Iguanas on Cayman Brac. Darwin Plus Local (DPL00026). £33,627. **2023**
- **PI** — Grant to support PhD research. Mohamed bin Zayed Species Conservation Fund (12054368). \$5,000. **2012**
- **Co-I** — MACRA: Measuring Animal Cardiac Rate with BCG and AI. University of Rome Tor Vergata (Ref. B1). €13,806. **2025**
- **Co-I** — Conservation of a flagship species: nest identification and protection of the Galápagos pink iguana. Segré Foundation. €53,000. **2022**
- **Co-I** — Locating and protecting nesting sites of a critically endangered Galápagos iguana. National Geographic Society (NGS68399C-20). \$36,000. **2019**
- **Co-I** — Postdoctoral Research Fellowship. San Diego Zoo Wildlife Alliance. \$500,000. **2017**

TEACHING AND SUPERVISION

Instructor of Record (MSc), University of Rome Tor Vergata, 2022–2026: *Conservation Biology*; *Animal Tracking in Conservation Biology*; *Bioinformatics Applications for Molecular Ecology*; examination commission for *Zoology and Parasitology*. Guest lecturer on R for genetic/genomic data (PhD seminar series, Tor Vergata, 2024–2025) and guest seminars for Conservation Biology at Columbia University (2022, 2024); teaching assistant and laboratory coordinator at Mississippi State University (2011–2016).

Supervision: 10+ bachelor's, master's and doctoral students (recently 1 PhD, 1 MSc and 1 BSc completed 2024, 1 MSc completed 2026, 1 MSc ongoing); external supervisor at Mississippi State University and the University of Leeds. (*Full details in the accompanying Teaching Portfolio.*)

LEADERSHIP AND PROFESSIONAL SERVICE

- **Deputy Chair** (2026–2029) and Steering Committee member (2022–2026), IUCN SSC Iguana Specialist Group.
- **Director**, and Board Chair & Secretary, Island Wildlife Alliance (2025–present).
- Co-author, IUCN conservation & management plans (*Conolophus marthae* 2022–2027; *Cyclura carinata* 2020–2024).
- Peer reviewer (~2/year since 2014) for *Biological Conservation*, *Conservation Genetics*, *Integrative Zoology*, *Herpetologica*, *Biological Invasions*, *PLoS* journals, *Animals*, and others.
- “Outstanding Research Assistant”, Mississippi State University (2013–2014).

OUTREACH AND SCIENCE COMMUNICATION

Documentary *Traquer de Serpentes — Sur les traces du mystérieux iguane rose des Galápagos* (One Planet Production, 2021); feature in *Popular Mechanics* (2023); articles for the San Diego Zoo Wildlife Alliance (2021–2022); interview in a leading Italian newspaper on conservation work in the Turks and Caicos (2019).

TECHNICAL SKILLS

- **Programming & reproducibility:** R, Python, C++, Bash; Git/GitHub; Quarto, LaTeX, Markdown.
- **Modelling & statistics:** species-distribution modelling; spatial statistics & geostatistics (kriging, interpolation, downscaling); regression, GAMs, mixed-effects models; frequentist & Bayesian inference.
- **Geospatial & large data:** multi-temporal raster/vector processing; remote sensing (Sentinel, MODIS) and DEMs; parallelised workflows; `terra/sf/raster/gstat` (R) and the Python geospatial stack.
- **Data & laboratory:** MySQL/SQL; DNA/RNA extraction, PCR/qPCR, next-generation sequencing (Illumina), eDNA from water and soil.

LANGUAGES

Language	Understanding	Speaking	Writing
Italian	Mother tongue	Mother tongue	Mother tongue
English	C2	C2	C2
Spanish	B2	B1	A1
French	A1	A1	A1

SELECTED PUBLICATIONS

Name in **bold**. A complete list of 30+ peer-reviewed publications is provided separately.

1. **Colosimo, G.**, et al. (2026). The impact of serial translocation bottlenecks on the genetic diversity of Anegada Rock Iguanas (*Cyclura pinguis*). *Conservation Genetics*, 27(3).
2. Gargano, M., Garizio, L., **Colosimo, G.**, et al. Why they move: breeding-site availability drives partial migration in a large terrestrial reptile. *Journal of Applied Ecology* (in review).
3. **Colosimo, G.**, et al. (2026) Quantifying endemic island species recovery following feral cat eradication. *Animal Conservation* (in review).
4. Paradiso, C., et al., **Colosimo, G.**, et al. (2025). Genomic insights into the biogeography and evolution of Galápagos iguanas. *Molecular Phylogenetics and Evolution*, 204, 108294.
5. De Luca, M., et al., **Colosimo, G.**, et al. (2025). Design of a LoRa-based multisensor device for the Internet of Animals. *IEEE Internet of Things Journal*, 12(15), 31588–31600.
6. Gargano, M., **Colosimo, G.**, et al. (2022). Nitrogen and carbon stable isotope analysis sheds light on trophic competition between two syntopic land iguana species. *Scientific Reports*, 12(1).
7. **Colosimo, G.**, et al. (2022). Remote tracking of Galápagos Pink Land Iguana reveals large elevational shifts in habitat use. *Journal for Nature Conservation*, 68, 126210.
8. Russo, T., et al., **Colosimo, G.**, et al. (2021). All is fish that comes to the net: metabarcoding for rapid fisheries catch assessment. *Ecological Applications*, 31(2).
9. Mariani, S., Baillie, C., **Colosimo, G.**, & Riesgo, A. (2019). Sponges as natural environmental DNA samplers. *Current Biology*, 29(11).