

Curriculum Vitae et Studiorum

Personal information

Surname: Santini
First name: Luca
Address: Via Mogadiscio 12, 00199, Rome, Italy
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CV highlights

- PhD in Ecology (Sapienza University of Rome, July 2015); MSc cum laude in Ecology (October 2010); BSc cum laude in Ecology (July 2008);
- Postgraduate and Postdoctoral research experience in ecology and conservation biology in Sapienza University of Rome (IT) and Aberdeen University (UK);
- 9 prizes/grants/awards received from academic and non-academic institutions, both national and international;
- 15 articles published in ISI-ranked journals, 3 among book sections and technical reports;
- Google Scholar: H-index = 6, Total citations = 134 (start 2013); ORCHID ID: 0000-0002-5418-3688.
- Member of international scientific societies (SCB, ATIT); reviewer of 15 international scientific journals;
- Experience with academic teaching and supervision of students (2013-present);
- Collaboration with researchers from more than 20 institutions worldwide;
- Main research topics: Conservation Biology, Macroecology, Spatial Ecology, Behavioural Ecology
- Technical skills: R programming, GIS, statistical modelling, database management.

Current position

Postdoctoral research fellow at the Department of Biology and Biotechnology “Charles Darwin”, Sapienza University in Rome. I'm currently responsible for the analyses on mammals in the European project “How much biodiversity does Natura 2000 cover?” led by Alterra - Wageningen UR (NL).

Research consultancy

2015 - Two-months contract as research consultant for the Zoological Italian Union (UZI) for developing the methodology to be employed to estimate the species distribution and population size of the wolf (*Canis lupus*) for the Italian National Action Plan for the Wolf (2015).

Education

- PhD in Animal Biology, 27/3/2015, Department of Biology and Biotechnology “Charles Darwin”,

Sapienza University in Rome. Thesis: "Dispersal in large-scale conservation analyses on mammals: a trait-based approach". Supervisor: Dr. Carlo Rondinini.

- Masters degree in Natural Science "Nature conservation", 6/10/2010, La Sapienza University in Rome. Mark 110/110 cum laude. Thesis: "The activity pattern in *Lemur catta* and his ecological correlates in two gallery forests, south-east Madagascar". Supervisors: Dr. Giuseppe Donati (Oxford Brookes University and Pisa University) and Prof. Luigi Boitani (La Sapienza University, Rome).
- Bachelor degree in Natural Science, 7/07/2008, La Sapienza University in Rome. Mark 110/110. Thesis: "The Brachininae of Italian fauna: Corology and zoogeography". Supervisor: Prof. Augusto Vigna Taglianti.
- High school diploma, 2004, Liceo Virgilio, mark 90/100.

Spoken languages

- Italian: Mother tongue
- English: Advance written and spoken
- Spanish: Intermediate written, Advance spoken
- French: Elementary, written and spoken

Certificates:

- TOEFL IBT, score 107/120, 2011.
- First Certificate in English, British Institutes, 2010.
- Homologation certificate to spanish high school diploma (Homologación al Título de Bachiller), Ministerio de Educación y Ciencia, 2005.

Driving licence

- Driving licence A since 08/11/04
- Driving licence B since 29/12/03

Diving license

- NAUI Scuba since 7/2005
- NAUI Advance since 6/2006

Computer skills

- Advance knowledge of R programming, GRASS GIS, QGIS, Photoshop, Office, OpenOffice
- Good knowledge of PostgreSQL and BASH programming
- Elementary knowledge of Matlab and Python

Workshops

- HARMBIO workshop. 4rd meeting of WG1, 19 – 21 January 2015, German Centre for Integrative Biodiversity Research (iDIV) in Leipzig, Germany.
- BioScore 2.0 Workshop. 16 October 2014. Mundo-b, Bruxelles, Belgium.

- HARMBIO workshop. 3rd meeting of WG1, WG2, WG4, 2nd meeting of WG3. 8 – 10 April 2014, German Centre for Integrative Biodiversity Research (iDIVER) in Leipzig, Germany.
- “KBA Thresholds workshop”, IUCN Key Biodiversity Areas. 1-5 December 2013. Sapienza University at the Fondazione BioParco in Rome.
- “Modelling dispersal”, Biaowieża, Poland. 13-17 May, 2013. Organizer: Dr Kamil Bartoń and Dr. Justin Travis.
- HARMBIO workshop. 1st meeting of WG1 and WG2. 8 – 9 November 2012, Sapienza Università di Roma.

Postgraduate courses

- "International Summer School on Bayesian Modelling: An Introduction for Ecologists and Environmental Scientists", Heathland Centre, Island of Lygra, Norway. 15-19 Sept. 2014. Lecturers: Joe Chipperfield, Florian Hartig and Jörn Pagel. Course run in partnership with and supported by University of Bergen, University of Freiburg and University of Hohenheim.
- "Modelling dispersal and connectivity in fragmented landscapes", UFZ in Leipzig, Germany. 21-25 May, 2012. Lecturers: Guy Pe'er (organizer), Justin Travis, Greta Bocedi, Andreas Schmitz, Gunnar Oehmichen, Reinhard Klenke, Karin Frank, Karin Johst, Jenny Hodgson.

Events organization

- Symposium “The (macro)ecology of animal species decline” at the “Ecology at the interface” congress, 21-25th September 2015, Rome.

Congresses

- EEF/SitE Ecology at the Interface, 21-25th September 2015, Rome. Oral communication: “Modeling spread rate in terrestrial mammals and the ability to track a shifting climate: a trait space approach”. Oral communication: “Human driven body size reduction of terrestrial mammal communities”.
- ICCB : 27th International Congress for Conservation Biology / 4th European Congress for Conservation Biology, August 2-6 2015, Montpellier - France. Oral communication: “Modeling spread rate in terrestrial mammals and the ability to track a shifting climate: a trait space approach”. Poster: “Connectivity of the global network of protected areas”.
- XI ATIT Congress, Civitella Alfedena, Italy, 7-19 May 2014. Oral communication: “Biological determinants of spreading rate in terrestrial mammals”. Poster: “Connectivity of the global network of protected areas for terrestrial mammals”.
- XI INTECOL Congress (International Congress of Ecology) in London, England, 18-23 August 2013. Poster: “Shifting gap analysis goals from representation to persistence”.

- ECCB Congress (European Congress of Conservation Biology) in Glasgow, Scotland, from 28/8 to 1/9/2012. Oral communication: “New Methods to Define Spatially Discrete Mammal Populations”.
- 4th EFP Congress (European Federation for Primatology) in Almada, Portugal, 14-17 September 2011. Oral communication: “Cathemeral activity in Ring-tailed Lemurs, *Lemur catta*”.
- XX API's National congress (National primatological association) in Parco Natura Viva (VR), 10-13 April 2011. Oral communication: “An (Un)expected Nocturnal Life: 24h Activity in Ring-tailed Lemurs”.

Grants and Awards

- Brusarosco Award 2015 for best project of young researcher, supporting 5 months of research at Laboratoire d'Écologie Alpine in Grenoble under the supervision of Dr. Wilfried Thuiller.
- ECCB-ICCB Travel Reimbursement Award 2015 to attend ICCB-ECCB in Montpellier, France 2015.
- Grant from HarmBio for “Short Term Scientific Mission 2014” at Aberdeen University (UK)
- Money grant for young researchers project from Sapienza University of Rome (Italy). "Fondi di avvio alla ricerca 2014"
- ATIT Best paper award 2014. “Santini et al. 2013. Ecological correlates of dispersal distance in terrestrial mammals. *It J Mamm* 24(2): 1-6”
- Grant from HarmBio for “Short Term Scientific Mission 2013” at Aberdeen University (UK)
- API Money grant to attend the Conference "4th EFP 2011, Almada, Portugal"
- API award 2011 for best oral presentations
- "Borsa di collaborazione" 2005-2006, Department of Animal and Human Biology, Università “La Sapienza”
- "Borsa di collaborazione" 2006-2007, Department of Animal and Human Biology, Università “La Sapienza”

Teaching and Supervised thesis

- Gave lectures concerning animal dispersal, habitat connectivity and fragmentation in the Master course in Conservation Biology held by Dr. Carlo Rondinini (2012-2014). Sapienza University of Rome.
- Held a lecture on “Programming in R” to the PhD students of Environmental and Evolutionary Biology at Sapienza Università di Roma. 26 March 2014.
- Co-supervisor of Jacopo Pagani, bachelor student in Natural Science, Faculty of Sciences MM.FF.NN., Sapienza University of Rome. “The influence of biological traits on spreading rate in terrestrial mammals”. (*in Italian*). 2014.
- Co-supervisor of Giulia Cristallini, master student in Biology, Faculty of Sciences MM.FF.NN., Sapienza University of Rome. “The role of the global network of protected areas in the conservation

of terrestrial mammals”. (*in Italian*). 2013-2014.

- Co-supervisor of Simona Picardi, bachelor student in Biology, Faculty of Sciences MM.FF.NN., Sapienza University of Rome. “Dispersal in mammals and its implications for conservation” (*in Italian*). 2012.

Member of scientific societies:

2013-present: Society for Conservation Biology (SCB)

2014-present: Italian Theriological Society (ATIt)

Proceedings

- **Santini L.**, Palmer S., Bullock J., White S., Cornulier T., Rondinini C., Travis J. 2014. Biological determinants of spreading rate in terrestrial mammals. *Hystrix, Italian Journal of Mammalogy* 25(suppl.): 70
- **Santini L.**, Saura S., Rondinini C. 2014. Connectivity of the global network of protected areas for terrestrial mammals. *Hystrix, Italian Journal of Mammalogy* 25(suppl.): 135
- Cristallini G., **Santini L.**, Saura S., Rondinini C. 2014. Adequacy of the Italian network of protected areas in conserving populations of terrestrial mammals. *Hystrix, the Italian Journal of Mammalogy* 25(suppl.): 100
- **Santini L.**, Donati G. 2011. An (Un)expected Nocturnal Life: 24h Activity in Ring-tailed Lemurs. *Folia Primatologica* 82: 265–266
- **Santini L.**, Donati G. 2011. Cathemeral activity in Ring-tailed lemurs, *Lemur catta*. *Folia Primatologica* 82: 353

Publications

- **Santini L.**, Saura S., Rondinini C. 2015. Connectivity of the global network of protected areas. *Diversity & Distribution*. *Accepted*
- Sato H., **Santini L.**, Patel E.R., Campera M., Yamashita N., Colquhoun I.C., Donati G. 2015. Dietary plasticity and feeding strategy of *Eulemur*: a comparison with *Propithecus*. *International Journal of Primatology*. *Accepted*
- Donati G., Campera M., Balestri M., Serra V., Barresi M., Schwitzer C., Curtis D.J., **Santini L.** 2015. Ecological and Anthropogenic Correlates of Activity Patterns in *Eulemur*. *International Journal of Primatology*. *Accepted*
- Di Marco M., **Santini L.** 2015. Climatic tolerance or geographic breadth: what are we measuring? *Global Change Biology*. DOI: 10.1111/gcb.12984

- Maiorano L., Amori G., Montemaggiore A., Rondinini C., **Santini L.**, Saura S., Boitani L. How much biodiversity is covered in Europe by national protected areas and by the Natura 2000 network? Insights from terrestrial vertebrates. *Conservation Biology*. DOI: 10.1111/cobi.12535.
- Regan E.C., **Santini L.**, Ingwall-King L., Hoffmann M., Rondinini C., Symes A., Taylor J., Butchart S.H.M. Global trends in the status of bird and mammal pollinators. *Conservation Letters*. DOI: 10.1111/conl.12162.
- **Santini L.**, Rojas D., Donati, G. Evolving through day and night: origin and diversification of activity patterns in modern primates. *Behavioural Ecology* 26 (3): 789–796
- Visconti P., Baisero D., Brooks T., Butchart S.H.M., Joppa L., Alkamade R., Bakkenes M., Di Marco M., **Santini L.**, Hoffmann M., Maiorano L., Pressey R.L., Arponen A., Boitani L., Reside A., van Vuuren D., Rondinini C. Projecting global biodiversity indicators under future development scenarios. *Conservation Letters*. DOI: 10.1111/conl.2014.12159
- Di Marco M., **Santini L.** 2014. Human pressures predict species' geographic range size better than biological traits. *Global Change Biology* 21: 2169-2178
- Tittensor D.P., Walpole M., Hill S.L.L., Boyce D.G., Britten G.L., Burgess N.D., Butchart S.H.M., Leadley P.W., Regan E.C., Alkamade R., Baumung R., Bellard C., Bouwman L., Bowles-Newark N.J., Chenery A.M., Cheung W.W.L., Christensen V., Cooper H.D., Crowther A.R., Dixon M.J.R., Galli A., Gaveau V., Gregory R.D., Gutierrez N.L., Hirsch T., Hoft R., Januchowski-Hartley S.R., Karmann M., Krug C.B., Leverington F.J., Loh J., Lojenga R.K., Malsch K., Marques A., Morgan D.H.W., Mumby P.J., Newbold T., Noonan-Mooney K., Pagad S.N., Parks B.C., Pereira H.M., Robertson T., Rondinini C., **Santini L.**, Scharlemann J.P.W., Schindler S., Sumaila U.R., Teh L.S.L., van Kolck J., Visconti P., Ye Y. 2014. A mid-term analysis of progress towards international biodiversity targets. *Science* 346(6206): 241-244
- **Santini L.**, Di Marco M., Boitani L., Maiorano L., Rondinini C. Incorporating spatial population structure in gap analysis reveals inequitable assessments of species protection. *Diversity & Distribution*, 20(6): 698-707
- Wegman M., **Santini L.**, Leutner B., Safi K., Rocchini D., Bevanda M., Latifi H., Dech S., Rondinini C. Role of African Protected Areas in maintaining connectivity for large mammals. *Philosophical Transactions of the Royal Society of London series B*. 369: 20130193
- Pacifici M., **Santini L.**, Di Marco M., Baisero D., Francucci L., Grottolo Marasini G., Visconti P., Rondinini C. 2013. Generation length for mammals. *Nature Conservation* 5: 87-94
- **Santini L.**, Di Marco M., Visconti P., Baisero D., Boitani L., Rondinini C. 2013. Ecological correlates of dispersal distance in terrestrial mammals. *Italian Journal of Mammalogy* 24(2): 1-6
- Donati G., **Santini L.**, Boitani L., Borgognini-Tarli S.M. 2013. (Un-)expected nocturnal activity in “diurnal” *Lemur catta* supports cathemerality as one of the key adaptations of lemur radiation. *American Journal of Physical Anthropology* 150: 99-106.

- **Santini L.** 2011/2012. Conflictual behaviour in lemur mother toward dying infant. *Lemur News* 16: 26-27

Book sections

- **Santini L.**, Boitani L., Maiorano L., Rondinini C. Effectiveness of protected areas in conserving large carnivores in Europe. Protected areas: are they safeguarding biodiversity?. In press.

Technical reports

- Leadley P.W., et al. 2014. Progress towards the Aichi Biodiversity Targets: An Assessment of Biodiversity Trends, Policy Scenarios and Key Actions. Secretariat of the Convention on Biological Diversity, Montreal, Canada. Technical Series 78, 500 pages. (**Contributing author**)
- Hinsberg A.V., Hendriks M., Hennekens S, Sierdsema H., Swaay C.V., Rondinini C., **Santini L.**, Delbaere B., Knol O., Wiertz J. 2014. BioScore 2.0. A tool to assess the impacts of European Community policies on Europe's biodiversity (*In press*).

Reviewer for the following journals:

Biotropica, *Conservation Biology*, *Current Biology*, *Diversity and Distribution*, *European Journal of Wildlife Research*, *Ecology and Evolution*, *Global Change Biology*, *International Journal of Primatology*, *Journal of Applied Ecology*, *Landscape Ecology*, *Mammalian biology*, *Mammal Review*, *Movement Ecology*, *PLOS ONE*, *Scientific Report*.

Experiences in the field

- Between October 2008 and July 2010 I participated to several field activities on birds and mammals: 1) I recorded the reproductive behaviour of fallow deers (*Dama dama*) in the leks (Castel Porziano, 2008); 2) I collected biometric measurements on culled Fallow deers (*Dama dama*) and Boars (*Sus scrofa*), and analysed their dental formulas and reproductive organs (Castel Porziano, 2008-2009); 3) I researched the behavioural ecology of ring-tailed lemur (*Lemur catta*) (Master's thesis project - Madagascar 2009-2010); 4) I participated to the estimate of ungulate abundance in Castel Porziano (2010); 5) I monitored migratory bird species (Ponza, 2010); 6) I collected data on the habitat selection of the barbastelle (*Barbastella barbastellus*) (Atri, 2011).

Experiences in captivity

- Between March and December 2008 collaborates regularly as a volunteer with rescue centre of wild animals in Rome "Lipu".

- Works as an intern at the Unit of Cognitive Primatology and Primate Center of CNR (National Research Council) assisting Dr. Valentina Truppa in conducting two projects regarding visual cognition and implicit learning in Tufted capuchin monkeys (*Cebus apella*). December 2010 - May 2011.

Collaborations

During my research activity I have collaborated with the following institutions:

Oxford Brookes University (UK); Microsoft Research Computational Science Laboratory (UK); University of Aberdeen (UK); BirdLife International (UK); United Nations Environment Programme World Conservation Monitoring Centre (UK); Centre for Ecology & Hydrology (UK); University of Liverpool (UK); Stony Brook University (USA); Alterra (The Netherlands); Radboud University (The Netherlands); IUCN Species Survival Commission (Switzerland); Universidad Politécnica de Madrid (Spain); University of Aveiro (Portugal); Federico II University (Italy); University of Pisa (Italy); Tel Aviv University (Israel); University of Wuerzburg (Germany); German Centre for Integrative Biodiversity Research (iDiv) (Germany); Kyoto University (Japan), University of Helsinki (Fi); University of Queensland (AU).

Press and web coverage related to my work

Regan et al. 2015. Conservation Letters DOI: 10.1111/conl.12162.

<http://www.bbc.com/earth/story/20150304-global-pollinators-in-decline>

<http://www.ibtimes.co.uk/crucial-bird-mammal-pollinators-moving-extinction-iucn-1492045>

<http://ens-newswire.com/2015/03/13/pollinating-birds-mammals-falling-victim-to-extinction/>

<http://www.birdlife.org/worldwide/news/pollinating-birds-and-mammals-declining-reveals-first-global-assessment-trends-status>

Santini et al. 2015. Behavioural Ecology 26 (3): 789–796

<https://explore.researchgate.net/display/news/2015/05/19/Lemurs'+trick+to+stay+up+night+and+day>

Visconti et al. Conservation Letters. DOI: 10.1111/conl.12159

<http://www.iucn.org/?18805/Human-development-and-biodiversity-conservation-can-go-hand-in-hand-study-finds>

http://www.repubblica.it/ambiente/2015/01/15/news/estinzione_tigri_animali-105014925/

http://www.corriere.it/ambiente/15_gennaio_20/animali-specie-rischio-estinzione-87ba87fc-a0c6-11e4-b571-55218c79aee3.shtml

http://www.tgcom24.mediaset.it/green/tigri-panda-e-altre-440-specie-animali-a-rischio-estinzione-entro-il-2050_2089977-201502a.shtml

<http://www.lastampa.it/2015/01/15/societa/lazampa/animali/universit-sapienza-tigri-estinte-entro-il-sXTpIWcsmYn53sHS2Z8wvJ/pagina.html>

<http://www.intelligonews.it/articoli/15-gennaio-2015/22021/c-era-una-volta-la-tigre-era-una-fiaba-nel-2050-pu-essere-la-realt->

<http://www.agi.it/research-e->

sviluppo/notizie/animali_entro_2050_estinzione_per_tigri_panda_e_rinoceronti-201501151541-eco-rt10163

<http://vglobale.it/e-inoltre/pianeta-animali/17098-a-rischio-estinzione-440-specie.html>

<http://www.greenme.it/informarsi/natura-a-biodiversita/15441-estinzione-panda-tigri-rinoceronti-2050>

<http://www.ecoblog.it/post/141650/la-sapienza-entro-il-2050-a-rischio-440-specie-animali>

Tittensor et al. 2015. Science 346(6206): 241-244

http://www.footprintnetwork.org/en/index.php/GFN/page/science_article_biodiversity_targets

<http://www.birdlife.org/worldwide/news/more-investment-needed-reach-international-biodiversity-targets-2020>

<http://www.dal.ca/news/2014/10/02/world-falling-short-of-biodiversity-targets--dal-led-report.html>

<http://cienciaybiologia.com/biodiversidad-metas-aichi-2020/>

Pacifici et al. 2013. Nature Conservation 5: 87-94

<http://www.sciencedaily.com/releases/2013/11/131113130149.htm>