MARIE SKŁODOWSKA-CURIE POSTDOCTORAL FELLOWSHIPS 2025

EXPRESSION OF INTEREST FOR HOSTING MARIE CURIE FELLOWS

HOST INSTITUTION

MARE-NOVA, NOVA School of Science and Technology, NOVA University Lisbon

RESEARCH GROUP AND URL

Environmental Risk
Technological Tools for Exploration and Monitoring
https://www.mare-centre.pt/en/user/25178
https://www.ab.mpg.de/person/98273/2736

SUPERVISOR (NAME AND E-MAIL)

Carlos David Santos
cdsantos@fct.unl.pt

SHORT CV OF THE SUPERVISOR

Carlos David Santos

NOVA School of Science and Technology

Universidade NOVA de Lisboa

Education

PhD, Ecology, University of Lisbon, 2009

BSc, Biology, University of Lisbon, 2001

Academic appointments

2023-present: Assistant Professor. Universidade Nova de Lisboa.

2014-present: Affiliated Scientist. Max Planck Institute of Animal Behavior

2021-2023: Researcher. Faculdade de Ciências, Universidade de Lisboa.

2017-2022: Assistant Professor. NTPC, Federal University of Pará.

2014-2017: Visiting Professor. Biology Dept. Federal University of Maranhão

2010-2014: Post-doctoral fellow. Max Planck Institute for Ornithology

Academic quantitative indicators

Peer-reviewed articles: 48

WOS citations: 1082

WOS h-index: 18

Students Supervised: 22

Research grants

2025-present: SadoTrace: Tracing ecosystemic impacts of sea level rise in the Sado estuary, Fundação para a Ciência e a Tecnologia (Portugal) grant LISBOA2030-FEDER-00679100. Role: PI. Funding: €249.955.

2020-present: Applying new bio-logging and analytical tools to study the movement ecology and conservation of birds in the Caatinga biome, Fundação de Amparo à Pesquisa do Estado de São Paulo (Brasil) grant 2018/19389-9. Role: Co-I. Funding: R$300,632 + $229,796

2018-2022: ENVMETAGENOMICS - eDNA: from rare species detection to whole-community diversity using high-throughput sequencing, Fundação para a Ciência e a Tecnologia (Portugal) grant 031644-02/SAICT/2017. Role: Co-I. Funding: €239,955.

2018-2019: Optimizing conservation outcomes and investments for semipalmated sandpiper using full life cycle migratory network models, U.S Fish and Wildlife Service, and National Fish and Wildlife Foundation. Role: Co-I. Funding: $207,000

2015-2017: The mechanisms of social navigation in Scarlet Ibis *Eudocimus ruber*, FAPEMA (Brazil) grant 00060/15. Role: PI. Funding: R$38,599.

2015-2016: Evaluation of population trends and genetic diversity of the critically endangered Lisbon Arched-mouth Nase *Iberochondrostoma olisiponensis*, Mohamed Bin Zayed - Species Conservation Fund. Role: Co-I. Funding: $12,000.

2012-2016: The gateway to Africa: How do soaring birds overcome the Strait of Gibraltar? Max Planck Institute for Ornithology (Germany). Role: PI. Funding: €10,000.

2008-2012: Migra-Tagis - Wintering and migrating shorebirds as indicators of the quality of estuarine environments, Fundação para a Ciência e Tecnologia (Portugal) grant PTDC/MAR/66319/2006. Role: Co-I. Funding: €163,000

2007-2009: Spatial variation in Amazonian bat and bird assemblages under contrasting flooding regimes: implications for nature reserve management, Fundação para a Ciência e Tecnologia (Portugal) grant POCI/BIA-BDE/60710/2004. Role: Co-I. Funding: €50,000

2003-2006: Pred-Tagis - Birds as predators of invertebrates in intertidal habitats: role in estuarine environments and scale-dependent processes, Fundação para a Ciência e Tecnologia (Portugal) grant POCTI/BSE/47569/2002. Role: Co-I. Funding: €63,000

2000-2004: Sat-Tagis - Modelling the habitats of primary producers, invertebrates and birds in intertidal flats of the Tagus estuary, using satellite images and GIS, Fundação para a Ciência e Tecnologia (Portugal) grant POCTI/BSE/47569/2002. Role: Co-I. Funding: €360,000

5 SELECTED PUBLICATIONS

Santos, C.D., Paludo, D., Silvestro, P., Monteiro, J.O., Pachelle, P.P.G., Oliveira, V., Mobley, J.A. (2025). Sea-level rise causes feeding habitat loss for migratory shorebirds in remote coastal wetlands of Brazilian Amazon. *Environmental Research Letters*, 20(3): 034038. https://doi.org/10.1088/1748-9326/adb444

Santos, C.D., Catry, T., Dias, M.P., Granadeiro, J.P. (2023). Global changes in coastal wetlands of importance for non-breeding shorebirds. *Science of The Total Environment*, 858: 159707. https://doi.org/10.1016/j.scitotenv.2022.159707

Merchant, D., Lathrop, R.G., **Santos, C.D.**, Paludo, D., Niles, L., Smith, J.A.M., Feigin, S., Dey, A. (2023). Distribution Modeling and Gap Analysis of Shorebird Conservation in Northern Brazil. Remote Sensing. 15: 452. https://doi.org/10.3390/rs15020452

Lathrop, R.G., Merchant, D., Niles, L., Paludo, D., **Santos, C.D.**, Larrain, C.E., Feigin, S., Smith, J., Dey, A. (2022). Multi-Sensor Remote Sensing of Intertidal Flat Habitats for Migratory Shorebird Conservation. Remote Sensing. 14: 5016. https://doi.org/10.3390/rs14195016

Visschers, L.L.B., **Santos, C.D.**, Franco, A.M.A. (2022). Accelerated migration of mangroves indicate large-scale saltwater intrusion in Amazon coastal wetlands. Science of the Total Environment 836:155679. https://doi.org/10.1016/j.scitotenv.2022.155679.

PROJECT TITLE AND SHORT DESCRIPTION

CoastTrace: Tracing the Consequences of Sea Level Rise on Coastal Wetlands

We invite a postdoctoral researcher to lead the remote sensing component of CoastTrace, an ambitious international research project that investigates how sea level rise is reshaping coastal wetlands and impacting biodiversity and human livelihoods across Brazil, Guinea-Bissau, and Portugal. CoastTrace integrates ecological monitoring, spatial modeling, animal tracking, and social science to provide a comprehensive understanding of ecosystem responses to rising seas. The postdoctoral researcher will be responsible for mapping historical and recent changes in coastal wetland ecosystems—such as tidal flats, mangroves, saltmarshes, and freshwater wetlands—using time series satellite imagery and geospatial analysis. The successful candidate will work to quantify long-term trends in wetland migration, habitat loss, and vegetation shifts, and to assess how human infrastructure and land use influence these patterns. The researcher will also contribute to the development of predictive models that simulate future wetland responses under different sea level rise scenarios, helping to identify vulnerable areas and inform conservation and climate adaptation strategies. The position offers the opportunity to engage in comparative research across a unique set of study sites ranging from heavily modified estuaries in Europe to largely intact systems in the Amazon and West Africa. This role is ideal for a candidate with a strong background in environmental remote sensing and spatial ecology, a keen interest in global change science, and a desire to work in a transdisciplinary, collaborative setting.

SCIENTIFIC AREA WHERE THE PROJECT FITS BEST*

Environment and Geosciences (ENV) or Life Sciences (LIF)