
Personal data

Name	Rui Miguel Pires Bento da Silva Elias
Address	CE3C – Centre for Ecology, Evolution and Environmental Changes/Azorean Biodiversity Group and Faculdade de Ciências Agrárias e do Ambiente, Universidade dos Açores, Departamento de Ciências Agrárias, 9700-042 Angra do Heroísmo
Telephone	(+351) 295 402 200
Fax	(+351) 295 402 205
E-mail	rui.mp.elias@uac.pt
Webpage:	http://ce3c.ciencias.ulisboa.pt/member/ruielias
Scopus:	https://www.scopus.com/authid/detail.uri?authorId=7006549169
ORCID:	https://orcid.org/0000-0003-2397-2438
Google Scholar:	https://scholar.google.pt/citations?user=6AtJRN8AAAAJ&hl=en&oi=sra
Ciência ID:	https://www.cienciavita.pt/B816-7471-C4B4
Birthdate	24/01/1973
Birthplace	Lisbon, Portugal

Education

- 2007, Ph.D. Plant Ecology, Azores University, Portugal.
- 2001, M.Sc. Island Ecology and Evolution, Azores University, Portugal.
- 1997, B.Sc. Biology, Azores University, Portugal.

Career

- Assistant Professor at the Azores University
- Curator of the Azores University *Herbarium*
- Co-coordinator (for vascular plants) of the *Azorean Biodiversity Portal* (<http://azoresbiportal.uac.pt/>)
- Director of the BSc in Environmental Engineering and Management (2007-2012)
- Senior Researcher of the CE3C – Centre for Ecology, Evolution and Environmental Changes/Azorean Biodiversity Group and Azores University.
- Member of the Scientific Coordination Commission of the Azorean Biodiversity Group
- Member of the IUCN SSC Macaronesian Islands Plant Specialist Group.

Current teaching in BSc and MSc courses

Present course units

- Ecology and Ecosystem management (B.Sc.)
- Wetland Ecology and Management (B.Sc.)
- Forest and Forest Resources (B.Sc.)
- Wetland Management and Conservation (M.Sc.)
- Sustainability (M.Sc.)

Past course units

- Biology I (B.Sc.)

- Environmental Impact Assessment (B.Sc.)
- Natural History (B.Sc.)
- Environmental Impact Studies (M.Sc.)

Research interests

- Plant population and community ecology;
- Vegetation dynamics;
- Biogeography;
- Conservation biology;
- Impact and control of invasive species;
- Impact of climate change on biodiversity.

Main research projects

- 2019-2023: Coordinator of the project, *ACORES-01-0145-FEDER-000082 - PASTURCLIM- Impact of climate change on pasture productivity and nutritional composition in the Azores*. Financed by FEDER/Azorean Government's Science and Technology Direction.
- 2019-2023: Researcher in the project *ACORES-01-0145-FEDER-000072, AZORESBIOPORTAL – PORBIOTA*, financed by the Azorean Government's Regional Fund for Scientific Research.
- 2020-2022: Researcher in the project, *PID2019-109906RA-I00 - Reading wood to assess the vulnerability of Macaronesian laurel forests to global change (LAUREL)*. Financed by Spain's Ministry of Science and Innovation State Research Agency.
- 2019-2021: Researcher in the project *LIFE17 IPE/PT/000010, Regional strategy for the prevention and control of invasive alien species* (within the scope of the *LIFE IP AZORES NATURA*).
- 2016-2020: Researcher in the project *ACORES-01-0145-FEDER-000014, FOREST-ECO2 - Towards an Ecological and Economic valorization of the Azorean Forest*, financed by the Azorean Government's Regional Fund for Scientific Research.
- 2016-2020: Researcher in the project *ACORES-01-0145-FEDER-000007, eAZFlora - Electronic Flora of the Azores for Smartphones and Tablets*, financed by the Azorean Government's Regional Fund for Scientific Research.
- 2012-2015: Coordinator of the project, DRCTC M2.1.2/I/005/2011, *"Implications of climate change for Azorean Biodiversity-IMPACTBIO"*, financed by the Regional Fund for Scientific Research;
- 2012-2015: Researcher in the project FCT/NETBIOME/0003 - *ISLAND-BIODIV: Understanding biodiversity dynamics in tropical and subtropical islands in an aid to science based conservation action*, financed by the European Union's Consortium NetBiome Era-Net (Networking tropical and subtropical biodiversity research in Outermost regions and territories of Europe in support of sustainable development).
- 2012-2015: Researcher in the project M2.1.2/F/04/2011/NET - *MOVECLIM: MOnitane VEgetation as listening posts for CLIMate change*, financed by the European Union's Consortium

NetBiome Era-Net (Networking tropical and subtropical biodiversity research in Outermost regions and territories of Europe in support of sustainable development).

Selected publications

Papers

38. Pavão, D.C., Jevsenak, J., Borges Silva, L., Elias, R.B. & Silva, L. (2023) Climate–Growth Relationships in *Laurus azorica* - A Dominant Tree in the Azorean Laurel Forest. *Forests* 14, 166. DOI: 10.3390/f14020166 (IF2021 3,282; Q1 Forestry)
37. Pavão, D.C., Jevsenak, J., Engblom, J., Borges Silva, L., Elias, R.B. & Silva, L. (2023) Tree growth–climate relationship in the Azorean holly in a temperate humid forest with low thermal amplitude. *Dendrochronologia* 77, 126050. DOI: 10.1016/j.dendro.2022.126050 (IF2021 3,071; Q1 Forestry)
36. Tsafack, N., Gabriel, R., Elias, R.B., Boieiro, M., Ferreira, M.T. & Borges, P.A.V. (2022). Arthropods and other biota associated with the Azorean trees and shrubs: *Laurus azorica* (Seub) Franco (Magnoliophyta, Magnoliopsida, Laurales, Lauraceae). *Biodiversity Data Journal* 10: e80088. DOI: 10.3897/BDJ.10.e80088 (IF2020 1,225; Q3 Biodiversity Conservation)
35. Melo, C.D., Maduro Dias, C.S.A.M., Wallon, S., Borba, A.E.S., Madruga, J., Borges, P.A.V., Ferreira, M.T. & Elias, R.B. (2022). Influence of Climate Variability and Soil Fertility on the Forage Quality and Productivity in Azorean Pastures. *Agriculture* 12, 358. DOI: 10.3390/agriculture12030358 (IF2020 2,925; Q1 Agronomy)
34. Elias, R.B. & Pereira, F. (2022) New records of the critically endangered fern *Grammitis azorica* (Polypodiaceae). *Biodiversity Data Journal*, 10, e77948. DOI: 10.3897/BDJ.10.e77948 (IF2020 1,225; Q3 Biodiversity Conservation)
33. Silva, L.B., Pavão, D.C., Elias, R.B., Moura, M., Ventura, M.A. & Silva, L. (2022) Taxonomic, structural diversity and carbon stocks in a gradient of island forests. *Scientific Reports* 12, 1038. DOI: 10.1038/s41598-022-05045-w (IF2020 4,379; Q1 Multidisciplinary Sciences)
32. Elias, R.B., Connor, S.E., Góis-Marques, C.A., Schaefer, H., Silva, L., Sequeira, M.M., Moura, M., Borges, P.A.V. and Gabriel, R. (2022). Is there solid evidence of widespread landscape disturbance in the Azores before the arrival of the Portuguese? *PNAS - Proceedings of the National Academy of Sciences of the United States of America* 19, e2119218119. DOI: 10.1073/pnas.2119218119 (IF2020 11,205; Q1 Multidisciplinary Sciences)
31. Pavão, D.C., Jevsenak, J., Petrillo, M., Camarinho, R., Rodrigues, A., Borges Silva, L., Elias, R.B. & Silva, L. (2022) Dendrochronological potential of the Azorean endemic gymnosperm *Juniperus*

brevifolia (Seub.) Antoine. *Dendrochronologia*, 71, 125901. DOI: 10.1016/j.dendro.2021.125901 (IF2021 3,071; Q1 Forestry)

30. Silva, L.D., Elias, R.B. & Silva, L. (2021) Modelling invasive alien plant distribution: a literature review of concepts and bibliometric analysis. *Environmental Modelling & Software* 145, 105203. DOI: 10.1016/j.envsoft.2021.105203 (IF2021 5,471; Q1 Computer science, interdisciplinary applications)

29. Norder, S.J., Lima, R.F., De Nascimento, L., Lim, J.Y., Fernandez-Palacios, J.M., Romeiras, M.M., Elias, R.B., Cabezas, F.J., Catarino, L., Cerfaco, L.M.P., Castilla-Beltrán, A., Gabriel, R., Menezes de Sequeira, M., Kissling, W.D., Nogué, S., Hall, M., van Loon, E.E., Rijdsdijk, K., Matos, M. & Borges, P.A.V. (2020) Global change in microcosms: environmental and societal predictors of land cover change on the Atlantic Ocean Islands. *Anthropocene*, 30, 1-9. DOI: 10.1016/j.ancene.2020.100242 (IF2020 3,964; Q1 Geosciences, Multidisciplinary)

28. Elias, R.B., Brito, M.R., Pimentel, C.M.M., Nogueira, E.C. & Borges, P.A.V. (2019) Biota from the coastal wetlands of Praia da Vitória (Terceira, Azores, Portugal): Part 4 – Vascular plants. *Biodiversity Data Journal* 7: e38687. DOI: 10.3897/BDJ.7.e38687 (IF2019 1,331; Q3 Biodiversity Conservation)

27. Góis-Marques, C.A., Elias, R.B., Steinbauer, M., Nascimento, L., Fernández-Palacios, J.M., Menezes de Sequeira, M. & Madeira, J. (2019) The loss of a unique Palaeobotanical site in Terceira Island within the Azores UNESCO global Geopark (Portugal). *Geoheritage*, 11(4), 1817-1825. DOI:10.1007/s12371-019-00401-1 (IF2019 3,062; Q2 Geosciences, Multidisciplinary)

26. Silva, L.D., Azevedo, E.B., Reis, F.V., Elias, R.B. & Silva, L. (2019) Limitations of species distribution models based on available climate change data: a case study in the azorean forest. *Forests*, 10(7), 575. DOI:10.3390/f10070575 (IF2019 2,221; Q2 Forestry)

25. Ferreira M.T., Cardoso P., Borges P.A.V., Gabriel R., Azevedo E.B. & Elias R.B. (2019) Implications of climate change to the design of protected areas: The case study of small islands (Azores). *PLoS ONE* 14(6): e0218168. DOI: 10.1371/journal.pone.0218168 (IF2019 2,740; Q2 Multidisciplinary Sciences)

24. Pavão, D.C., Elias, R.B. & Silva, L. (2019) Comparison of discrete and continuum community models: Insights from numerical ecology and Bayesian methods applied to Azorean plant communities. *Ecological Modelling*, 402: 93–106. DOI: 10.1016/j.ecolmodel.2019.03.021 (IF2019 2,497; Q2 Ecology)

23. Câmara, S.C., Dapkevicius, A., Riquelme, C., Elias, R.B., Silva, C.C.G., Malcata F.X. & Dapkevicius, M.L.N.E (2019) Potential of lactic acid bacteria from Pico cheese for starter culture development. *Food Science and Technology International*. DOI:10.1177/1082013218823129 (IF2019 1,654; Q3 Food Science & Technology)
22. Liang, X.-J., Hinsinger, D.D., Elias, R.B. & Strijk, J.S. (2019) The plastome sequence of *Laurus azorica* (Seub.) Franco, an endemic tree species of the Azores islands. *Mitochondrial DNA Part B-Resources*, 4:1, 363-365 DOI:10.1080/23802359.2018.1545536 (IF2019 0,885; Q4 Genetics & Heredity)
21. Borges, P.A.V., Cardoso, P., Kreft, H., Whittaker, R.J., Fattorini, S., Emerson, B.C., Gil, A., Gillespie, R.G., Matthews, T.J., Santos, A.M.C., Steinbauer, M.J., Thébaud, C., Ah-Peng, C., Amorim, I.R., Aranda, S.C., Arroz, A.M., Azevedo, J.M., Boieiro, M., Borda-De-Água, L., Carvalho, J.C., Elias, R.B., Fernández-Palacios, J.M., Florencio, M., González-Mancebo, J.M., Heaney, L.R., Hortal, J., Kueffer, C., Lequette, B., Martín-Esquivel, J.L., López, H., Lamelas-López, L., Marcelino, J., Nunes, R., Oromí, P., Patiño, J., Pérez, A.J., Rego, C., Ribeiro, S.P., Rigal, F., Rodrigues, P., Rominger, A.J., Santos-Reis, M., Schaefer, H., Sérgio, C., Serrano, A.R.M., Sim-Sim, M., Stephenson, P.J., Soares, A.O., Strasberg, D., Vanderporten, A., Vieira, V. & Gabriel, R. (2018) A Global Island Monitoring Scheme (GIMS) for the long-term coordinated survey and monitoring of forest biota across islands. *Biodiversity and Conservation*, 27: 2567–2586. DOI:10.1007/s10531-018-1553-7 (IF2018 3,142; Q1 Biodiversity Conservation)
20. Aparício, B.A., Cascalho, J., Cruz, M.J., Borges, P.A.V., Azevedo, E.B., Elias, R.B. & Ascensão, F. (2018) Assessing the landscape functional connectivity using movement maps: a case study with endemic Azorean insects. *Journal of Insect Conservation*, 22: 257-265. DOI:10.1007/s10841-018-0059-7 (IF2018 1,330; Q2 Entomology)
19. Silva, L.B., Lourenço, P., Teixeira, A., Azevedo, E.B., Alves, M., Elias, R.B. & Silva, L. (2018) Biomass valorization in the management of woody plant invaders: The case of *Pittosporum undulatum* in the Azores. *Biomass and Bioenergy* 109: 155-165. DOI: 10.1016/j.biombioe.2017.12.025 (IF2018 3,537; Q1 Agricultural, Engineering)
18. Silva, L. D., Azevedo, E. B., Elias, R. B. & Silva, L. (2017) Species Distribution Modeling: Comparison of Fixed and Mixed Effects Models Using INLA. *ISPRS International Journal of Geo-Information* 6(12), 391. DOI:10.3390/ijgi6120391 (IF2017 1,723; Q3 Geography, Physical)
17. Rull, V., Connor, S.E. & Elias, R.B. (2017) Potential natural vegetation and pre-anthropogenic pollen records on the Azores Islands in a Macaronesian context. *Journal of Biogeography* 44: 2437-2440. DOI: 10.1111/jbi.13083 (IF2017 4,154; Q1 Ecology)

16. Silva, L.B., Teixeira, A., Alves, M., Elias, R.B. & Silva, L. (2017) Tree age determination in the widespread woody plant invader *Pittosporum undulatum*. *Forest Ecology and Management* 400: 457–467. DOI: 10.1016/j.foreco.2017.06.027 (IF2017 3,169; Q1 Forestry)
15. Elias, R.B., Gil, A., Silva, L., Fernández-Palacios, J.M., Azevedo, E.B. & Reis, F. (2016) Natural zonal vegetation of the Azores Islands: characterization and potential distribution. *Phytocoenologia* 46(2): 107-123. DOI: 10.1127/phyto/2016/0132 (IF2016 1,657; Q2 Plant Sciences)
14. Ferreira, M.T., Cardoso, P., Borges, P.A.V., Gabriel, R., Azevedo, E.B., Reis, F., Araújo, M.B. & Elias, R.B. (2016) Effects of climate change on the distribution of indigenous species in oceanic islands (Azores). *Climatic Change* 138: 603–615. DOI: 10.1007/s10584-016-1754-6 (IF2016 3,496; Q1 Atmospheric Science)
13. Vergílio, M., Fonseca, C., Calado, H., Elias, R. B., Gabriel, R., Borges, P.A.V., Martins, A.F., Azevedo, E.B. & Cardoso, P. (2016) Assessing the efficiency of protected areas to represent biodiversity: a small island case study. *Environmental Conservation* 43(4): 337-349. DOI: 10.1017/S037689291600014X (IF2016 1,826; Q1 Biodiversity Conservation)
12. Steinbauer, M.J., Field, R., Grytnes, J.-A., Trigas, P., Ah-Peng, C., Attorre, F., Birks, H.J.B., Borges, P.A.V., Cardoso, P., Chou, C.-H., De Sanctis, M., Sequeira, M.M., Duarte, M.C., Elias, R.B., Fernández-Palacios, J. M., Gabriel, R., Gereau, R.E., Gillespie, R.G., Greimler, J., Harter, D.E.V., Huang, T.-J., Irl, S.D.H., Jeanmonod, D., Jentsch, A., Jump, A.S., Kueffer, C., Nogué, S., Otto, R., Price, J., Romeiras, M.M., Strasberg, D., Stuessy, T., Svenning, J.-C., Vetaas, O.R., Beierkuhnlein, C. (2016) Topography-driven isolation, speciation and a global increase of endemism with elevation. *Global Ecology and Biogeography* 25: 1097–1107. DOI: 10.1111/geb.12469 (IF2016 6,045; Q1 Ecology)
11. Elias, R. B. & E. Dias. (2014) The recognition of infraspecific taxa in *Juniperus brevifolia* (Cupressaceae). *Phytotaxa* 188(5): 241-250. DOI: 10.11646/phytotaxa.188.5.1 (IF2014 1,318; Q3 Plant Sciences)
10. Rumeu, B., Caujapé-Castells, J., Blanco-Pastor, J.L., Jaén-Molina, R., Nogales, M., Elias, R.B. & Vargas, P. (2011) The Colonization History of *Juniperus brevifolia* (Cupressaceae) in the Azores Islands. *PLoS ONE* 6(11): e27697. DOI: 10.1371/journal.pone.0027697 (IF2011 4,092; Q1 Multidisciplinary Sciences)
9. Silva, L., Elias, R.B., Moura, M., Meimberg, H. & Dias, E. (2011) Genetic variability and differentiation among populations of the Azorean endemic gymnosperm *Juniperus brevifolia*: Baseline information for a conservation and restoration perspective. *Biochemical Genetics* 49:

715–734. DOI: 10.1007/s10528-011-9445-5 (IF2011 0,938; Q4 Biochemistry & Molecular Biology)

8. Elias, R. B., Dias, E. & Pereira, F. (2011) Disturbance, regeneration and the spatial pattern of tree species in Azorean mountain forests. *Community Ecology* 12(1): 23-30. DOI: 10.1556/ComEc.12.2011.1.4 (IF2011 1,679; Q3 Ecology)

7. Rumeu, B., Elias, R.B., Padilla, D.P., Melo, C. & Nogales, M. (2011) Differential seed dispersal systems of endemic junipers in two oceanic Macaronesian archipelagos: the influence of biogeographic and biological characteristics. *Plant Ecology* 212: 911-921. DOI: 10.1007/s11258-010-9875-x (IF2011 1,829; Q1 Forestry)

6. Rumeu, B., Nogales, M., Elias, R.B., Padilla, D.P., Resendes, T., Rodríguez, A.F. & Dias, E. (2009) Contrasting phenology and female cone characteristics of the two Macaronesian island endemic cedars (*Juniperus cedrus* and *J. brevifolia*). *European Journal of Forest Research* 128: 567-574. DOI: 10.1007/s10342-009-0304-4 (IF2009 1,867; Q1 Forestry)

5. Elias, R.B. & Dias, E. (2009) The effects of landslides on the mountain vegetation of Flores Island, Azores. *Journal of Vegetation Science* 20: 706-717. DOI: 10.1111/j.1654-1103.2009.01070.x (IF2009 2,376; Q1 Forestry; Q1 Plant sciences)

4. Elias, R.B. & Dias, E. (2009) Cyclic patch dynamics in a Macaronesian island forest. *Community Ecology* 10(1): 25-34. DOI: 10.1556/ComEc.10.2009.1.4 (IF2009 0,792; Q4 Ecology)

3. Elias, R.B. & Dias, E. (2009) Gap dynamics and regeneration strategies in *Juniperus-Laurus* forests of the Azores Islands. *Plant Ecology* 200: 179-189. DOI: 10.1007/s11258-008-9442-x (IF2009 1,567; Q1 Forestry)

2. Elias, R.B. & Dias, E. (2004) Primary succession on lava domes on Terceira (Azores). *Journal of Vegetation Science*, 15: 331-338. DOI: 10.1111/j.1654-1103.2004.tb02269.x (IF2004 1,845; Q1 Forestry; Q1 Plant sciences)

1. Dias, E., Elias, R.B. & Nunes, V. (2004) Vegetation mapping and nature conservation: a case study in Terceira Island (Azores). *Biodiversity and Conservation*, 13: 1519-1539. DOI: 10.1023/B:BIOC.0000021326.50170.66 (IF2004 1,197; Q2 Biodiversity Conservation)

1. Elias, R. B., Rodrigues, A. F. & Gabriel, R. (2021). *Guia prático da flora nativa dos Açores/Field Guide of the Azorean native flora*. R. Gabriel & P. A. V. (Eds.). Instituto Açoriano de Cultura (IAC), Angra do Heroísmo, 520 pp. ISBN 978-989-8225-74-0.
2. Borges, P.A.V., Santos, A.M.C., Elias, R.B. & Gabriel, R. (2019). The Azores Archipelago: Biodiversity Erosion and Conservation Biogeography. Encyclopedia of the World's Biomes- Earth Systems and Environmental Sciences. *Reference Module in Earth Systems and Environmental Sciences* (ed. by E. Scott et al.), pp. 1-18. Elsevier, Amsterdam, Netherlands. DOI:10.1016/B978-0-12-409548-9.11949-9.
3. Fernández-Palacios, J.M., Arévalo, J.R., Balguerías, E., Barone, R., de Nascimento, L., Delgado, J.D., Elias, R.B., Fernández-Lugo, S., Méndez, J., Naranjo, A., Sequeira, M., Otto, R., (2019). The Laurisilva. Canaries, Madeira and Azores. Macaronesia. Editorial, Santa Cruz de Tenerife, 417 pp. ISBN: 978-84-090-4754-3
4. García Criado, M., Väre, H., Nieto, A., Bento Elias, R., Dyer, R., Ivanenko, Y., Ivanova, D., Lansdown, R., Molina, J.A., Rouhan, G., Rumsey, F., Troia, A., Vrba, J. and Christenhusz, M.J.M. (2017). *European Red List of Lycopods and Ferns*. Brussels, Belgium: IUCN. iv + 59pp. ISBN: 978-2-8317-1855-2
5. Dias, E., R. B. Elias, C. Melo & C. Mendes. 2007. Biologia e ecologia das florestas das ilhas - Açores. In: Silva J. S. (ed.), *Árvores e florestas de Portugal* – Vol. 6, pp. 51-80. Público, Comunicação Social, SA/ Fundação Luso-Americana/ Liga para a Protecção da Natureza. ISBN: 978-989-619-103-0

Orientations

- 20 MSc students
- 5 PhD students
- 1 Post-Doc researcher

Science diffusion

- Participation in 31 national and international scientific meetings;
- Co-organization of 7 international scientific meetings.