azorean biodiversity group

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CENTER FOR ECOLOGY, EVOLUTION AND ENVIRONMENTAL CHANGES

AZOREAN BIODIVERSITY GROUP

GRUPO DA BIODIVERSIDADE DOS AÇORES (ABG/CE3C)

2017 ANNUAL REPORT

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Research Area: Biological Sciences

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Angra do Heroísmo & Ponta Delgada, January 2018

EXECUTIVE SUMMARY

In 2015 the Azorean Biodiversity Group was recognized by the University of Azores as a regional Research Centre. At a national level, Azorean Biodiversity Group is a regional sub-group of the **CENTRE FOR ECOLOGY, EVOLUTION AND ENVIRONMENTAL CHANGES** (cE3c), based in Lisbon and awarded with the Classification of EXCELLENT by FCT in December of 2014. cE3c's main objective is to perform research that addresses societal challenges in ecology, evolution and the environment, the three Es in the centre's name, for the 2015-2020 period covering the EU 2020 Horizon. The Azorean Biodiversity Group is subdivided in two main groups with specific objectives, the "Island Biodiversity, Biogeography & Conservation - IBBC" and the "Island Environmental Risks & Society - IERS".

In 2017, the main achievements of the 24 integrated members with Ph.D. of ABG-cE3c included 158 publications, 57 of which in International Indexed Journals with Impact Factor. The mean Impact Factor in 2017 in SCI Journals was 2.83 (max = 11.615; Biological Reviews); 28 publications are included in the first quartile, with a mean Impact Factor of 4.14 (49% of the SCI publications). Our 24 external collaborators published an additional 12 SCI publications with our affiliation.

Thirty-nine projects run in 2017, 10 of which were coordinated by integrated members (see detailed list in 6.1.): 18 received international funding, four were funded by National funds from FCT, eight by regional funds from DRCT and nine were funded by other Agencies. These 39 projects (some of them finishing in 2017) brought about 364,520.00 Euros to the research group members in 2017. In addition, in 2017 we secured a total of 280,720.00 Euros with Ph.D. Post Doc and other types of grants.

SUMÁRIO EXECUTIVO

Em 2015, o Grupo da Biodiversidade dos Açores - Centro de Ecologia, Evolução e Alterações Ambientais - (Azorean Biodiversity Group - Centre for Ecology, Evolution and Environmental Changes) (GBA-cE3c) foi reconhecido pela Universidade dos Açores como Unidade de Investigação e Desenvolvimento (UI&D). A nível nacional, 2015 marca ainda o início oficial da Grupo da Biodiversidade dos Açores como um sub- grupo regional do Centro de Ecologia, Evolução e Alterações Ambientais (cE3c), com sede em Lisboa e premiado com a classificação de EXCELENTE pela FCT, em dezembro de 2014.

O GBA-cE3c tem por missão produzir, integrar e comunicar conhecimento científico sobre a biodiversidade em sistemas insulares, determinando efeitos das alterações globais, da fragmentação dos habitats e das espécies exóticas nos ecossistemas. Dar resposta aos desafios societais implica avaliar esses impactos ao nível do ambiente, agricultura e saúde e conceber estratégias de os minimizar focadas na desconstrução de crenças e resistências das populações e na promoção de práticas pró-ambientais. O Grupo da Biodiversidade dos Açores está subdivididos em dois grupos principais com objectivos específicos, o "Island Biodiversity, Biogeography & Conservation - IBBC" e o "Island Environmental Risks & Society - IERS".

Durante o ano de 2017 gostaríamos de realçar a publicação de 158 trabalhos científicos, 57 dos quais em revistas internacionais indexadas com Fator de Impacto. O Fator de Impacto médio em 2017 em SCI Journals foi de 2.83 (max = 11.615; Biological Reviews), sendo 28 as publicações no primeiro quartil, com Fator de Impacto médio 4.14 (49% das publicações SCI). Os nossos 24 colaboradores externos publicaram ainda um total de 12 artigos em revistas com IF com a nossa afiliação.

Trinta e nove projectos decorreram em 2017, dos quais 10 foram coordenados por membros integrados (ver lista detalhada em 6.1.): 18 receberam financiamento internacional, quatro foram financiados por fundos nacionais da FCT, oito pelos fundos regionais da DRCT e nove financiados por outras agências. Estes 39 projectos (alguns deles terminados em 2017) renderam em 2017 cerca de 364520 Euros aos membros do grupo de investigação. Além disso, em 2017 garantimos um total de 280720 Euros com bolsas de doutoramento, pós-doutoramento e outros tipos de bolsas.

ABBREVIATIONS

ABG – Azorean Biodiversity Group /Grupo da Biodiversidade dos Açores

cE3c - Centre for Ecology, Evolution and Environmental Change /Centro de Ecologia, Evolução e Alterações Ambientais

FCAA-DCA – Faculdade de Ciências Agrárias e do Ambiente-Dep. de Ciências Agrárias

FCAA-DCEA – Faculdade de Ciências Agrárias e do Ambiente-Dep. de Ciências e Engenharia do Ambiente

FCSH-DP - Faculdade de Ciências Sociais e Humanas – Dep. de Psicologia

FCT – Portuguese Science Foundation / Fundação da Ciência e Tecnologia

FCT-DB- Faculdade de Ciências e Tecnologia-Dep. de Biologia

FCT-DCFQE- Faculdade de Ciências e Tecnologia-Dep. de Ciências da Física, Química e Engenharia

FRCT – Azorean Fund for Science and Technology / Fundo Regional da Ciência e Tecnologia

IF – Impact Factor / Factor de Impacto

IFCN - Institute of Forests and Nature Conservation, IP-RAM/ Instituto das Florestas e Conservação da Natureza, IP-RAM).

LNEC – National Laboratory of Civil Engineering / Laboratório Nacional de Engenharia Civil

SCI – Science Citation Index

UAC – University of Azores/ Universidade dos Açores

UMa - University of Madeira/ Universidade da Madeira.

CONTENTS

Executive summary 2

Sumário executivo 3

Abbreviations 4

1. RESEARCH GROUP DESCRIPTION AND ACHIEVEMENTS FOR 2017 8

1.1. Introduction 8

1.2. Members in 2017 9

1.2.1. Integrated members with Ph.D. 9

1.2.1.1. Director 9

1.2.1.2. Vice-Director 9

1.2.1.3. Other Scientists with contract 9

1.2.1.4. Post-Docs 10

1.2.2. Other members 10

1.2.2.1. Ph.D. Students 10

1.2.2.2. Grant Students: 12

1.2.2.3. Technicians: 12

1.2.2.4. Associate Research Fellows (External Collaborators): 12

2. PUBLICATIONS in 2017 15

2.1. By integrated members (Total = 158) 15

2.2. By Associate Research Fellows (Total = 49) 15

2.1. Selection of publications by thematics 20

2.1.1. BIODIVERSITY AND TAXONOMY 20

2.1.2. ISLAND BIOGEOGRAPHY 22

2.1.3. MACROECOLOGY 24

2.1.4. EVOLUTION AND GENETICS 25

2.1.5. COMMUNITY ECOLOGY 25

2.1.6. INVASION BIOLOGY 27

2.1.7. CONSERVATION BIOLOGY AND ECOSYSTEM RESTORATION 28

2.1.8. PEST MANAGEMENT 31

2.1.9. ENVIRONMENTAL RISKS 33

2.1.10. SCIENCE COMMUNICATION, CITIZEN SCIENCE POLICY AND OUTREACH 34

3. PROJECTS 36

3.1. Mobility projects and networks 38

3.2. Research contracts 39

4. OUTREACH ACTIVITY 41
4.1. Web-based resources in the Period 2008-2017 41
4.2. Public awareness activities 41
4.3. Radio/Journal news/Interviews 45
5. SCIENTIFIC MEETINGS ORGANIZATION 46
6. APPENDIX SECTION 47
6.1. DETAILED INFORMATION FOR 2017 PROJECTS 47
6.1.1. INTERNATIONAL PROJECTS 47
6.1.2. Funded by FCT (Portuguese Science Foundation) 52
6.1.3. Funded by DRCT (Azorean Science Foundation) 54
6.1.4. Other Funding Institutions 56
6.2. DETAILED INFORMATION FOR 2017 PUBLICATIONS 59
6.2.1. 59
6.2.2. INTERNATIONAL PEER REVIEWED PAPERS WITH IMPACT FACTOR (SCI) 59
6.2.2.1. By at least one integrated member (n=57) 59
6.2.2.2. By Associate Research Fellows only (n=12) 67
6.2.3. BOOKS 68
6.2.3.1. By at least one integrated member (n=2) 68
6.2.4. BOOK CHAPTERS 69
6.2.4.1. By at least one integrated member (n=9) 69
6.2.5. NATIONAL AND INTERNATIONAL PEER REVIEWED PAPERS (NO IMPACT FACTOR) 70
6.2.5.1. By at least one integrated member (n=19) 70
6.2.5.2. By Associate Research Fellows only (n=1) 72
6.2.6. PAPERS ON PROCEEDINGS OF SYMPOSIA 72
6.2.6.1. By at least one integrated member (n=4) 72
6.2.7. EDUCATION AND OUTREACH PUBLICATIONS 73
6.2.7.1. By at least one integrated member (n=7) 73
6.2.8. OTHER TYPE OF PUBLICATIONS 74
6.2.8.1. By at least one integrated member (n=60) 74
6.2.8.2. By Associate Research Fellows only (n=36) 80
6.3. PUBLISHED ABSTRACTS IN CONFERENCES 84
6.4. SCIENTIFIC MEETINGS PARTICIPTION 85

FIGURES

Figure 1 Number of publications on the year of 2017 in the several possible categories. 16
Figure 2 Number of papers in Journals of the SCI in the period 2008-2017 by integrated members. 19
Figure 3 Summed Impact Factor in Journals of the SCI in the period 2008-2017 by integrated members. 19
Figure 4 Funds executed in projects the period 2013-2017 by integrated members. 36
Figure 5 Funds obtained in grants (mostly for Ph.D and Post-Doc) in the period 2013-2017. 37
Figure 6 Funds executed in projects and grants in the period 2013-2017 by integrated members. 37

TABLES

Table 1 Number of publications for each researcher in 2017 for the different type of publication categories. PI – UA = Researcher with a contract with University of Azores; PI –LNEC = Researcher with a contract with LNEC; Inv-UA = Researcher from University of Azores with a Technical contract; Post_Doc = Post Doctoral researcher with integrated status; Ph.D. Student = student that is performing is Ph.D.; Ass. Res. = External collaborator (usually a past Post-Doc or Ph.D. student). The authors are ranked based on the number of SCI papers and in a second rank based on total number of indicators. 17
Table 2 Number of publications of different types in the period 2008-2017 by integrated members. 20
Table 3 Mobility projects and networks on ABG during 2017. 38
Table 4 Scientific meetings participation from some Azorean Biodiversity Members during the year of 2017. 85

1. RESEARCH GROUP DESCRIPTION AND ACHIEVEMENTS FOR 2017

1.1. Introduction

Researchers that compose the Azorean Biodiversity Group (ABG-cE3c) have complementary expertise that allow to address research questions framed in the study of biodiversity patterns (taxonomic, functional and phylogenetic diversity), and its changes under the impact of climatic changes, land use alterations, and species invasions, which is key for guidelines of management and conservation. Emphasis is also given on the implementation of communication strategies and instruments to be used in participated risk appraisal, characterization and evaluation processes intended to facilitate the governance of the risk of environmental hazards, climate change and to increase social efficacy in the regions' conservation of nature.

The ABG-cE3c has had a steady growth in the number of funded projects, publications and personnel over these last ten years (2008-2017), increasing from six integrated members in 2008 to the current 23. ABG-cE3c also included about 24 international and national collaborators as Associated Research Fellows that have been collaborating in several projects and publications.

The Group employed an integrated approach that combined multi-spatial and temporal scales (scale has a profound effect on detecting ecological and evolutionary patterns) with multi-metric measures of biodiversity (taxonomic, functional, phylogenetic) and their inter-relationships. It holds unique standardized databases for arthropods (BALA, ISLANDBIODIV and EDEN), bryophytes (MOVECLIM altitudinal gradients database), and vascular plants (ISLANDBIODIV).

Spreading its acquired knowledge both within the scientific community and to the general public has been important for the ABG-cE3c group in these last ten years. ABG-cE3c's interdisciplinary approach integrating science and education allowed the creation of eight web-based resources.

The research produced by the ABG-cE3c was crucial for wildlife conservation in Azorean natural terrestrial and marine habitats and the management of invasive species, some of which are useful for economic development. The Azorean government relied on ABG-cE3c for accurate information for the establishment of protected areas (Island Natural Parks).

In 2015 the Azorean Biodiversity Group was recognized by the University of Azores as a Regional Research Centre. Since 2015 the Azorean Biodiversity Group belongs to another FCT

centre, the **CENTRE FOR ECOLOGY, EVOLUTION AND ENVIRONMENTAL CHANGES** (cE3c), based in Lisbon. cE3c's main objective is to perform research that addresses societal challenges in ecology, evolution and the environment—the three Es in the centre's name, for the 2015-2020 period. Our current 23 integrated members with Ph.D., plus Ph.D. students and collaborators are now part of a larger research centre, with 122 integrated members in which research questions will be addressed at both the mainland and insular scales. In December 2014 FCT awarded the Classification of EXCELLENT to the Centre for Ecology, Evolution and Environmental Changes (cE3C), an evaluation that included 19 researchers from the Azorean Biodiversity Group, which was a great achievement for all of us.

The current report lists all main activity of the Azorean Biodiversity Group for the year of 2017.

1.2. Members in 2017

The ABG has had a steady growth in the number of funded projects, publications and personnel over these last seven years, increasing from eight integrated members with Ph.D. in 2008 to the current 23.

In 2017 the group was composed by in average 23 senior researchers with Ph.D. thirteen of whom have academic positions at the University of Azores, one a position in a State Laboratory (LNEC), nine hold post-doctoral grants (three funded by Azorean Government FRCT, six funded by FCT). The group included in 2017 a total of 24 Ph.D. students, 5 of which with either FRCT (15) or FCT (4) grants; and six research grant holders. In addition, 24 Associated Research Fellows (External Collaborators) from several countries collaborate on different projects, creating a network of Island research investigators.

1.2.1. Integrated members with Ph.D.

1.2.1.1. Director

1. Paulo A.V. Borges (Univ. Azores, FCAA-DCEA) - IBBC

1.2.1.2. Vice-Director

2. Patrícia Ventura Garcia (Univ. Azores, FCT-DB) - IERS

1.2.1.3. Other Scientists with contract

3. Ana Isabel de Melo Azevedo Neto (Univ. Azores, FCT-DB)

4. Ana Moura Arroz (Univ. Azores, FCSH-DP)

5. Ana Maria Loureiro da Seca (Univ. Azores, FCT-DCFQE)

6. António Onofre Soares (Univ. Azores, FCT-DB)

7. David Horta Lopes (Univ. Azores, FCAA-DCEA)

8. João Pedro Barreiros (Univ. Azores, FCAA-DCA)

9. José Manuel Viegas de Oliveira Neto Azevedo (Univ. Azores, FCT-DB)

10. Maria do Carmo Barreto (Univ. Azores, FCT-DCFQE)

11. Lina Nunes (LNEC)

12. Rosalina Gabriel (Univ. Azores, FCAA-DCEA)

13. Rui Bento Elias (Univ. Azores, FCAA-DCA)

14. Virgílio Vieira (Univ. Azores, FCT-DB)

1.2.1.4. Post-Docs

15. Artur Gil (Univ. Azores, FCT-DB), Funded by FCT

16. Carla Rego (Univ. Azores, FCAA-DCEA), Funded by FCT

17. Eva Cacabelos Reys (Univ. Azores, FCT-DB), Funded by DRCT

18. Gustavo Oliveira de Meneses Martins (Univ. Azores, FCT-DB), Funded by FCT

19. Isabel Amorim (Univ. Azores, FCAA-DCEA), Funded by FCT

20. Mário Boieiro (Univ. Azores, FCAA-DCEA) (Starting in 2013), Funded by FCT

21. Olga Ameixa (Univ. Azores, FCT-DB & CESAM, Univ. of Aveiro), Funded by FCT

22. Reinaldo Pimentel (Univ. Azores, FCAA-DCEA) Funded by DRCT

23. Catarina Drumond Melo (Univ. Azores, FCAA-DCEA) Funded by DRCT

1.2.2. Other members

1.2.2.1. Ph.D. Students

24. Afonso Costa Lucas Prestes (Univ. Azores, FCT-DB) Funded by FRCT

25. Ana Picanço (Univ. Azores, FCAA-DCEA), Funded by FRCT (M3.1.2/F/031/2011) waiting for the doctoral thesis defense

26. Ana Rita Ferreira Patarra (Univ. FCAA-DCEA), Funded by FRCT (M3.1.2/F/024/2011)

27. Antonio Pérez Delgado (Univ. of La Laguna) Self-funded

28. Arianna Cecchetti (Univ. Azores, FCT-DB), Funded by FRCT (M3.1.2/F/036/2011) waiting for the doctoral thesis defense

29. Carolina Parelho (Univ. Azores, FCT-DB), Funded by FRCT (M3.1.2/F/048/2011) defended the doctoral thesis on October 2017

30. Débora Henriques (Univ. Azores, FCAA-DCEA), Funded by FRCT (M3.1.2/F/051/2011) waiting for the doctoral thesis defense

31. Emanuel Dias Xavier (Univ. Azores, FCT-DB), Funded by FRCT (M3.1.2/F/027/2011) waiting for the doctoral thesis defense

32. Filipe Miguel Teixeira de Sousa Bernardo (Univ. Azores, FCT-DB) Funded by FRCT

33. João Faria de Oliveira Santos (Univ. Azores, FCT-DB), Funded by FRCT (M3.1.2/F/021/2011) waiting for the doctoral thesis defense

34. João Manuel Medeiros da Silva (Univ. Azores, FCAA-DCEA), Self-funded

35. Lucas Lamelas López (Univ. Azores, DCA) Funded by FCT (SFRH/BD/115022/2016)

36. Manuel Fernandez Urrutia (Self-funded)

37. Marc Fernandez Morron (Univ. Azores, FCT-DB), Funded by FRCT (M3.1.2/F/028/2011) waiting for the doctoral thesis defense

38. Márcia Coelho (Univ. Azores, FCAA-DCEA), Funded by FRCT (M3.1.2/F/007/2012) waiting for the doctoral thesis defense

39. Maria Luís Adrião do Vale (Univ. Azores, FCT-DB), Funded by FCT (SFRH/BD/70374/2010)

40. Mário Cesar Sedrez (Univ. Federal de São Carlos – UFSCAR) defended his doctoral thesis on February 2017

41. Orlando Guerreiro (Univ. Azores, FCAA-DCEA), Funded by FRCT (M3.1.5/F/003/2011)

42. Rita Godinho (Univ. Azores, FCAA-DCEA), Funded by FRCT (M3.1.2/F/030/2011)

43. Rui Miguel dos Santos Mendes Carvalho (Univ. Azores, FCAA-DCEA), Funded by FRCT Azores 2020

44. Rui Nunes (Univ. Azores, FCAA-DCEA), Funded by FRCT (M3.1.2/F/035/2011) waiting for the doctoral thesis defense

45. Sietze Johannes Norder (Univ. Lisbon, Faculty of Sciences) Funded by FCT - PD/BD/114380/2016

46. Sofia Terzopoulou (in collaboration with other research Center in Greece) defended her doctoral thesis on November 2017

47. Sónia Duarte (LNEC, Lisbon) Funded by FCT (FRH/BD/84920/2012) waiting for the doctoral thesis defense

1.2.2.2. Grant Students:

48. Cláudia Luísa Salvador Hipólito Lopes (Univ. Azores, DB) – IBBC, Funded by Grant 07.032700/2012/635752/SUB/B2

49. Enésima Mendonça (Univ. Azores, DCA) - IBBC (FCT)

50. Hugo Silva (Univ. Azores, DCA) - IERS ("Recuperar Progam - Azorean Government") finished in May 2017

51. Joana Lourenço (Univ. Azores, DCA) - IERS ("Recuperar Progam - Azorean Government") finished in May 2017

52. Luís Barcelos (Univ. Azores, DCA) – IBBC ("Recuperar Progam - Azorean Government") finished in May 2017

53. Sílvia Silva (Univ. Azores, DCA) - IERS ("Recuperar Progam - Azorean Government") finished in May 2017

1.2.2.3. Technicians:

54. Fernando Pereira (Univ. Azores, DCA) IBBC

1.2.2.4. Associate Research Fellows (External Collaborators):

55. Alain Vanderpoorten (University of Liege) – Collaboration in the Biogeography of Azorean Bryophytes

56. Ana Margarida Santos (Past Ph.D. Student), collaborator based in the University of Alcala (Spain)

57. Aristeidis Parmakelis (University of Athens)

58. Dinarte Nuno Freitas Teixeira (Instituto das Florestas e Conservação da Natureza, IP-RAM)

59. Fleur Visser (Behavioural Biology group of Leiden University) - Collaboration in the Island Marine Biology Sub-group led by J. Pedro Barreiros

60. François Rigal (Past Post-Doc) - Université de Pau et des Pays de l'Adour (France)

61. Gabor Lovei (Aarhus University)

62. Isabel Borges (Univ. Azores, FCT-DB)

63. Isadora Moniz (Univ. Azores, FCT-DB)

64. Jairo Patiño (University of Liege) – Collaboration in the Biogeography of Azorean Bryophytes

65. José A. P. Marcelino (Past Post-Doc) (Univ. Azores, FCT-DB)

66. José Carlos Carvalho, collaborator in Macroecology (Independent researcher)

67. Kostas Triantis (Past Post-Doc), collaborator in Island Biogeography and based in the University of Athens, Greece

68. Leila Bagaço (Univ. Azores, FCT-DB)

69. Margarita Patricia Florencio Diaz (Past Post-Doc) (Universidade Federal de Goiás, Brasil)

70. Maria Vale (Univ. Azores, FCT-DB)

71. Maria Teresa Bravo Ferreira (Past Ph.D. Student) (Univ. Azores, FCAA-DCEA)

72. Nídia Homem (Univ. Azores, FCAA-DCEA)

73. Pedro Cardoso (Past Post-Doc). collaborator in Macroecology and based in the Finish Museum of Natural History at Helsinky (Finland)

74. Pedro Miguel Reis Rodrigues (Universidad Austral de Chile) Collaboration in the Biogeography of Azorean Birds

75. Sérvio P. Ribeiro, collaborator in Canopy ecology and based in Universidade Federal de Ouro Preto (UFOP), Brasil

76. Simone Fattorini, collaborator in Island Biogeography (University of Aquila, Italy)

77. Tarso de Menezes Macedo Costa (Past Post-Doc) (Univ. Azores, FCT-DB)

78. Thomas Matthews (Past Ph.D. Student) (University of Birmingham, UK)

Further details may also be seen in the following web-pages:

Azorean Biodiversity Group ABG:

http://www.gba.uac.pt/

Island Biodiversity, Biogeography & Conservation – IBBC:

http://ce3c.ciencias.ulisboa.pt/team/IBBC

and

Island Environmental Risks & Society – IERS:

http://ce3c.ciencias.ulisboa.pt/team/IERS

2. PUBLICATIONS in 2017

2.1. By integrated members (Total = 158)

INTERNATIONAL PEER REVIEWED PAPERS (SCI Journals) = 57

BOOKS = 2

BOOK CHAPTERS = 9

OTHER PEER REVIEWED PAPERS = 19

PAPERS ON PROCEEDINGS OF SYMPOSIA = 4

EDUCATION & OUTREACH PUBLICATIONS = 7

OTHER TYPE OF PUBLICATIONS = 60

TECHNICAL REPORTS = 1

2.2. By Associate Research Fellows (Total = 49)

INTERNATIONAL PEER REVIEWED PAPERS (SCI Journals) = 12

OTHER PEER REVIEWED PAPERS = 1

OTHER TYPE OF PUBLICATIONS = 36

The main achievement performed by integrated members in 2017 was the **publication of 158 works, 57 of which were published in International Indexed Journals with Impact Factor.** In 2017, the mean Impact Factor of these publications was 2.83 (max = 11.615; Biological Reviews) with **28 of the publications included in the first quartile (49% of the SCI publications).** Among the other publications, it is noteworthy to mention two Books as authors, nine book chapters, seven outreach publications, 19 papers in peer-reviewed journals with no impact factor (dominanting the last edition of Arquipélago, Life and Marine Sciences with five articles), four papers in Proceedings of Symposia and 59 other type of publications (mostly IUCN assessments) (

Figure 1).

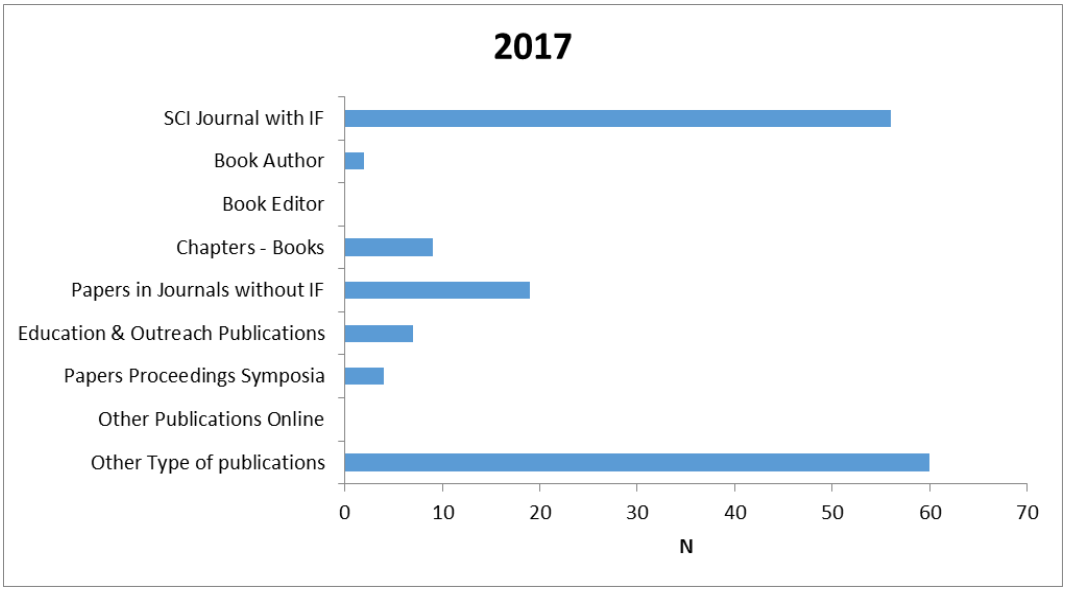

Figure 1 Number of publications on the year of 2017 in the several possible categories.

This makes an average of 6.82 publications and 2.43 SCI papers, per integrated member with a Ph.D. in 2017.

On top of those 158 publications we can add 16 more with the affiliation of the ABG (cE3c) published only by our Associate Research Fellows External Collaborators (namely 12 SCI papers). We must highlight the large contribution from our collaborators Simone Fattorini, François Rigal, Pedro Cardoso, Thomas Matthews, Jairo Patiño, Isabel Borges, Margarita Florencio, Kostas A. Triantis, Ana M.C. Santos, Marta Vale, Aris Parmakelis and Alain Vanderpoorten. The publications by collaborators are promoting the internationalization of the ABG (cE3c, University of Azores) and increasing the visibility of the group (Table 1). The detailed output of publications in 2017 for each member is given in Table 1 **Remarkably, 19 researchers had five or more indicators and a total of 29 researchers participated in at least two publications of the SCI (Table 1).**

Table 1 Number of publications for each researcher in 2017 for the different type of publication categories. PI – UA = Researcher with a contract with University of Azores; PI –LNEC = Researcher with a contract with LNEC; Inv-UA = Researcher from University of Azores with a Technical contract; Post_Doc = Post Doctoral researcher with integrated status; Ph.D. Student = student that is performing is Ph.D.; Ass. Res. = External collaborator (usually a past Post-Doc or Ph.D. student). The authors are ranked based on the number of SCI papers and in a second rank based on total number of indicators.

Authors	Author Status	SCI Papers	Books	Book Chapters	Non SCI Papers	Outreach Publ	Proc Symp	Reports	Other	Total
Borges, P.A.V.	PI- UA	19			6	3		1	34	63
Fattorini, S.	Ass. Res.	8			1				3	12
Neto, A.I.	PI- UA	8			1	2				11
Martins, G.M.	Post_Doc	8								8
Rigal, F.	Ass. Res.	7			1					8
Cardoso, P.	Ass. Res.	6			1	1				8
Matthews, T.J.	Ass. Res.	6								6
Amorim, I.R.	Post_Doc	5			1				3	9
Patiño, J.	Ass. Res.	5								5
Gabriel, R.	PI- UA	5			2	1				8
Soares, A.O.	PI- UA	4		1			1			6
Norder, S.J.	Ph.D. Student	4								4
Elias, R.B.	PI- UA	3	2	3	2	1			21	32
Nunes, L.	PI- LNEC	3		1	3	1	2			10
Gil, A.	Post_Doc	3					1		1	5
Picanço, A.	Ph.D. Student	3			1	1				5
Borges, I.	Ass. Res.	3								3
Triantis, K.A.	Ass. Res.	3								3
Lamelas-López, L.	Ph.D. Student	2			1				17	20
Seca, A.M.L.	PI- UA	2		2						4
Barreto, M.C.	PI- UA	2			1					3
Cacabelos, E.	Post_Doc	2				1				3
Duarte, S.	Ph.D. Student	2			1					3
Faria, J.	Ph.D. Student	2				1				3
Henriques, D.S.G.	Ph.D. Student	3			1					4
Pimentel, R.	Post_Doc	2			1					3
Florencio, M.	Ass. Res.	2								2
Lopes, D.H.	PI- UA	2								2
Santos, A.M.C.	Ass. Res.	2								2
Vieira, V.	Inv-UA	1			3				10	14
Barreiros, J.P.	PI- UA	1		1	5	1			3	11
Boieiro, M.	Post_Doc	1			2				2	5
Rego, C.	Post_Doc	1			1				2	4
Azevedo, J.M.N.	PI- UA	1			1					2

Authors	Author Status	SCI Papers	Books	Book Chapters	Non SCI Papers	Outreach Publ	Proc Symp	Reports	Other	Total
Garcia, P.V.	PI- UA	1		1						2
Pereira, F.	Technitian	1			1					2
Prestes, A.C.L.	Ph.D. Student	1				1				2
Arroz, A.M.	PI- UA	1								1
Álvaro, N.M.	Ph.D. Student	1								1
Fernandez, M.	Ph.D. Student	1								1
Melo, C.	Post_Doc	1								1
Parmakelis, A.	Ass. Res.	1								1
Patarra, R.F.	Ph.D. Student	1								1
Terzopoulou, S.	Ph.D. Student	1								1
Vale, M.	Ass. Res.	1								1
Vanderpoorten, A.	Ass. Res.	1								1
Teixeira, D.	Ass. Res.								33	33
Nunes, R.	Ph.D. Student				2					2
Carvalho, R.	Ph.D. Student				1					1
Coelho, M.C.M.	Ph.D. Student				1					1
Ferreira, M.T.	Ass. Res.							1		1
Marcelino, J.A.P.	Ass. Res.			1						1
Ros Prieto, A.	Grant Student				1					1
Xavier, E.D.	Ph.D. Student				1					1

There was a steady increase in the number of publications in the last nine years in Journals with Impact Factor of the SCI (Figure 2), with a maximum value in 2017 (57 papers). The years of 2011, 2012 and 2014-2017 were particularly productive.

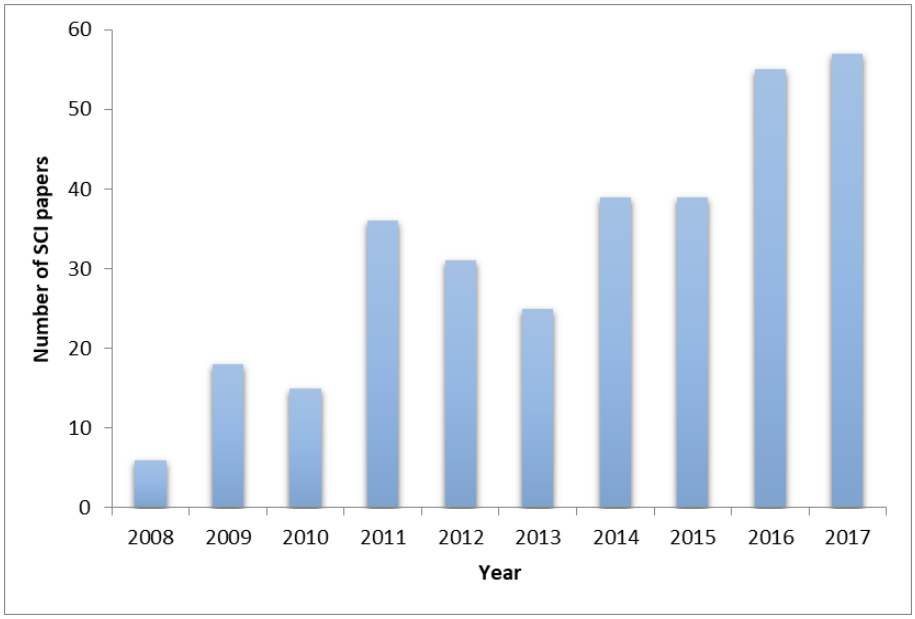

Figure 2 Number of papers in Journals of the SCI in the period 2008-2017 by integrated members.

Particularly relevant is the fact that the summed values of Jounals Impact Factor are increasing very fast (Figure 3), a demonstration that our researchers were successeful in having their papers accepted in more prestigious Journals. In fact, the mean IF increased from 1.94 in 2014 to 2.7 in 2015, 2.6 in 2016 and now 2.8 in 2017.

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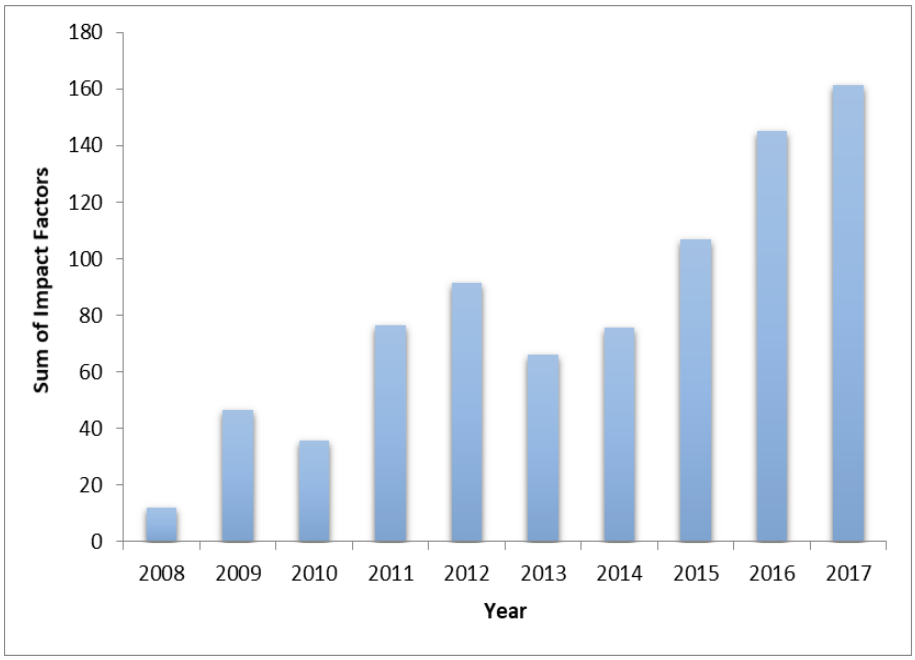

Figure 3 Summed Impact Factor in Journals of the SCI in the period 2008-2017 by integrated members.

Considering the period in which we will be evaluated by FCT in 2018 (the 2013-2017 period), we also increased very fast the number of indicators (Table 2), with a particular relevance in an increase in papers in IF journals and a constant high number of papers in national and international journals without IF (in particular in Arquipélago, Life and Marine Sciences and Biodiversity Data Journal). In the period 2013-2017 a total of 486 publications were generated, with 214 (44%) being articles in IF journals.

Table 2 Number of publications of different types in the period 2008-2017 by integrated members.

Type of Publications	2013	2014	2015	2016	2017	TOTAL
SCI Journal with IF	25	39	39	55	57	**215**
Book Author	1	1	3	0	2	**7**
Book Editor	1	2	1	4	0	**8**
Chapters - Books	3	3	4	14	9	**33**
Papers in Journals without IF	5	13	16	16	19	**69**
Education & Outreach Publications	5	15	2	12	7	**41**
Papers Proceedings Symposia	3	15	6	6	4	**34**
Other Publications Online	0	0	0	0	0	**0**
Other Type of publications	1	9	5	5	60	**80**
TOTAL	**44**	**97**	**76**	**112**	**157**	**486**

2.1. Selection of publications by thematics

In this period 2013-2017 we can highlight a group of 49 publications that made an important contribution to different thematics:

2.1.1. BIODIVERSITY AND TAXONOMY

Borges, P.A.V., Amorim, I.R., Terzopoulou, S., Rigal, F., Emerson, B. & Serrano, A.R.M. (2017) Cryptic diversity in Azorean beetle genus *Tarphius* Erichson, 1845 (Coleoptera: Zopheridae): An integrative taxonomic approach with description of four new species. *Zootaxa,* **4236**, 401-449. DOI: 10.11646/zootaxa.4236.3.1.

Reason: First description of arthropod species for Azores using an Integrative taxonomic approach. This paper focus on biodiversity and diversification of a group of insects, which are among the most diverse group of terrestrial organisms in the Azores. Biodiversity assessments and investigating diversification on fragile island ecosystems generate crucial knowledge that will be used towards a capable next generation of scientists, a better-informed public and adequately advised policy, in order to promote change aiming to a more sustainable future.

Cardoso, P., Rigal, F., Borges, P.A.V. & **Carvalho, J.C.** (2014) A new frontier in biodiversity inventory: a proposal for estimators of phylogenetic and functional diversity. *Methods in Ecology and Evolution,* **5**, 452-461. DOI:10.1111/2041-210X.12173.

Reason: Complete sampling of all dimensions of biodiversity is a formidable task, even for small areas. The framework now proposed combines estimation of taxonomic, phylogenetic and functional diversity into a single framework, offering a tool for future developments involving these different facets of biological diversity.

Cardoso, P., Rigal, F., Carvalho, J.C., Fortelius, M., **Borges, P.A.V.,** Podani, J. & Schmera, D. (2014) Partitioning taxon, phylogenetic and functional beta diversity into replacement and richness difference components. *Journal of Biogeography,* **41**, 749-761. DOI:10.1111/jbi.12239.

Reason: creation for the first time of a framework that allows partitioning beta taxonomic, phylogenetic and functional diversity into a single framework**.**

Cardoso, P., Rigal, F. & Carvalho, J.C. (2015) BAT - Biodiversity Assessment Tools, an R package for the measurement and estimation of alpha and beta taxon, phylogenetic and functional diversity. *Methods in Ecology and Evolution*, **6,** 232-236. DOI:10.1111/2041-210X.12310.

Reason: Creation of an innovative R-Package to measure and estimate alpha and beta taxon, phylogenetic and functional diversity.

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.

Reason: Innovative exercise presenting the first model of Azorean natural zonal vegetation and its potential distribution in the nine Azorean Islands. This information may be used for landscape planning and management, selection of sites and species for ecological restoration and evaluation of climate change effects.

Faustino, M., **Seca, A.M.L.**, Silveira, P., Silva, A.M.S. & Pinto, D.C.G.A. (2017) Gas chromatography–mass spectrometry profile of four *Calendula* L. taxa: A comparative analysis. *Industrial Crops and Products*, **104**, 91-98. DOI:10.1016/j.indcrop.2017.04.029.

Reason: the taxonomic differentiation of several species of the genus CALENDULA existing in Portugal is supported by the analysis of the chemical profile of each one, that is to say, a work about biodiversity and toxonomy supported by the chemical point of view.

Henriques, D.S.G., Ah-Peng C. & **Gabriel R.** (2017) Structure and applications of BRYOTRAIT-AZO, a trait database for Azorean bryophytes. *Cryptogamie Bryologie*, **38(2)**, 137-152. DOI:10.7872/cryb/v38.iss2.2017.137.

Reason: Innovative database was created for the first time for functional traits of Azorean bryophytes.

Martins, G.M., Faria, J., Furtado, M., **Neto, A.I.** (2014) Shells of *Patella aspera* as 'islands' for epibionts. *Journal of the Marine Biological Association of the United Kingdom*, **94**, 1027-1032. DOI:10.1017/S0025315414000447

Reason: A comprehensive sampling of the epibiota living on the shells of the limpet Patella aspera across the nine islands of the Azores. The study highlights the exceptional diversity of this assemblage (190 taxa), identifies a positive relationship between basibiont size and diversity and how this varies among islands. The study further identifies 17 new algae not previously recorded in the Azores.

2.1.2. ISLAND BIOGEOGRAPHY

Borregaard, M.K., **Amorim, I.R., Borges, P.A.V.,** Cabral, J.S., Fernández-Palacios, J.M., Field, R., Heaney, L.R., Kreft, H., **Matthews, T.J.,** Olesen, J.M., Price, J., **Rigal, F.,** Steinbauer, M., **Triantis, K.A.,** Valente. L., Weigelt, P. & Whittaker, R.J. (2017) Oceanic island biogeography through the lens of the General Dynamic Model: assessment and prospect. *Biological Reviews,* **92**, 830-853. DOI:10.1111/brv.12256.

Reason: This review paper on island biogeography includes the contribution of many island biogeographers, including experts on Portuguese islands, namely the Azores and Madeira. The critical review of the most recent knowledge gathered on island biogeography will contribute to tackle challenges posed by global change. By November 2017 this paper has reached "highly cited" status on the web of knowledge, attesting its potential high impact on future research in this field.

Carvalho, J.C., Cardoso, P., Rigal, F., Triantis, K. & Borges, P.A.V. (2015) Modeling directional spatio-temporal processes in island biogeography. *Ecology and Evolution,* **5,** 4671-4682. DOI:10.1002/ece3.1632.

Reason: For the first time, directional network models were constructed, representing putative connections among islands. Directional network models provide a way for evaluating the spatio-temporal signature of species dispersal. The method allows building scenarios against which hypotheses about dispersal within archipelagos may be tested. The new framework may help to uncover the pathways via which species have colonized the islands of a given archipelago and to understand the origins of insular biodiversity.

Whittaker, R., **Rigal, F., Borges, P.A.V., Cardoso, P., Terzopoulou, S.,** Casanoves, F., Pla, L., **Guilhaumon, F.,** Ladle, R. & **Triantis, K.A.** (2014) Functional biogeography of oceanic islands and the scaling of functional diversity in the Azores. *PNAS - Proceedings of the National Academy of Sciences,* **111**, 13709-13714. DOI:10.1073/pnas.1218036111.

Reason: Biogeographic theory builds upon a long history of analyzing species-diversity patterns of remote islands, but no previous studies have attempted to investigate corresponding patterns in functional traits on islands. Our analyses of functional diversity (FD) for spiders and beetles in the Azorean archipelago reveal that FD increases with species richness, which, in turn scales with island area regardless of the taxa and distributional group considered (endemics, natives, and exotics). Our results also support the hypothesis that each group contributes to FD in

proportion to their species richness and that, being dominant, exotic species have significantly extended the realized trait space of the Azorean islands.

2.1.3. MACROECOLOGY

Borda-de-Água, L., Whittaker, R., **Cardoso, P., Rigal, F., Santos, A.M.C., Amorim, I.R., Parmakelis, A., Triantis, K.A.,** Pereira, H. & **Borges, P.A.V.** (2017) Dispersal ability determines the scaling properties of species abundance distributions: a case study using arthropods from the Azores. *Scientific Reports*, **7**, 3899. DOI:10.1038/s41598-017-04126-5.

Reason: For the first time, demonstration that animal dispersal ability determines the scaling properties of species abundance distributions (SADs).

Fattorini, S., Cardoso, P., Rigal, F. & Borges, P.A.V. (2016) Using species abundance distribution models and diversity indices for biogeographical analyses. *Acta Oecologica-International Journal of Ecology,* **70**: 21-28. DOI:10.1016/j.actao.2015.11.003.

Reason: For the first time, demonstration that species abundance distributions (SADs) can be used to understand how species colonization status influences species community assembly on oceanic islands. We conclude that differences in the SAD models and diversity indices demonstrate that the study of these metrics is useful for biogeographical purposes.

Henriques, D., Borges, P.A.V., Ah-Peng, C. & **Gabriel, R.** (2016) Mosses and liverworts show contrasting elevational distribution patterns in an oceanic island (Terceira, Azores): the influence of climate and space. *Journal of Bryology*, **38**, 183-194. DOI:10.1080/03736687.2016.1156360.

Reason: Due to ongoing global changes, it is essential to establish a baseline record from which to determine future shifts in species distributions and community assembly patterns. In this context, we used digitised historical bryophyte distribution data along a 1021 m elevational gradient in Terceira Island (Azores) to determine how bryophyte species distribution varies with elevation and which spatial and climatic drivers contribute to this variation. Despite their inherent biases, our study shows that historically compiled data can be a valuable tool for preliminary assessment of macroecological patterns.

Matthews, T.J., Borregaard, M.K., Ugland, K., **Borges, P.A.V**., **Rigal, F., Cardoso, P.** & Whittaker, R.J. (2014). The gambin model provides a superior fit to species abundance distributions

with a single free parameter: evidence, implementation and interpretation. *Ecography,* **37,** 1002-1011. DOI:10.1111/ecog.00861.

Reason: For the first time, demonstration that with a single parameter (alpha GAMBIN) it is possible to use species abundance distributions (SADs) to characterize levels of disturbance at large scales.

Bertocci, I., Arenas, F., **Cacabelos, E., Martins, G.M.,** Seabra, M.I., **Álvaro, N.A.**, Fernandes, J.N., Gaião, R., Mamede, N., Mulas, M., **Neto, A.I.** (2017). Nowhere safe? Exploring the influence of urbanization across mainland and insular seashores in continental Portugal and the Azorean archipelago. *Marine Pollution Bulletin***, 114**, 644-655. DOI:10.1016/j.marpolbul.2016.10.045.

Reason: For the first time, a demonstration of the relevant scales of variation associated with the urbanization of coastal communities and how these vary between mainland and insular ecosystems.

2.1.4. EVOLUTION AND GENETICS

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., Sanctis, M. De, Duarte, M.C., **Elias, R.B.,** Fernández-Palacios, J.M., **Gabriel, R.,** Gereau, R., 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., 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.

Reason: This study demonstrated that Higher per-species speciation rates caused by increasing isolation with elevation are the most plausible and parsimonious explanation for the globally consistent pattern of higher endemism at higher elevations.

2.1.5. COMMUNITY ECOLOGY

Melo, C.D., Walker, C., Rodríguez-Echeverría, S., **Borges, P.A.V.** & Freitas, H (2014) Species composition of arbuscular mycorrhizal fungi differ in semi-natural and intensively pastures in an isolated oceanic island (Terceira, Azores). *Symbiosis*, **64**, 73-85. DOI: 10.1007/s13199-014-0303-1.

Reason: Nothing is published about the arbuscular mycorrhizal fungi (AMF) of the Azores archipelago, either with regard to individual species, or at the community level. This study, based on identification through spore morphological characteristics, compares the AMF community structure of semi-natural and intensively managed pasture. The results indicate that intensity of pasture management may not influence AMF richness but is probably an important factor influencing their composition and abundance.

Picanço, A., Rigal, F., Matthews, T.J., Cardoso, P. & **Borges, P.A.V.** (2017) Impact of land-use change on flower-visiting insect communities on an oceanic island. *Insect Conservation and Diversity*, **10**, 211-223. DOI:10.1111/icad.12216.

Reason: In this study, we investigated the distribution, abundance, richness and composition of flower-visiting insects to assess their response to land-use change in Terceira Island (Azores). Our results revealed that the Azorean flower-visiting insect communities are highly simplified across the entire gradient with little difference between habitats. In the absence of strong exotic competitors, indigenous flower-visiting insects expand their range and occupy new anthropogenic habitats, also facilitating the expansion of a large number of exotic plant species.

Gianni, F., Bartolini, F., Pey, A., Laurent, M., **Martins, G.M.**, Airoldi, L., Mangialajo, L. (2017) Threats to large brown algal forests in temperate seas: the overlooked role of native herbivorous fish. *Scientific Reports*, **7**, 6012. DOI: 10.1038/s41598-017-06394-7.

Reason: This study highlights the overlooked role that native herbivorous fish can have in determining the distribution and population structure of a key engineer canopy-forming algal species, which are globally declining due to multiple disturbances, and how this interaction is likely to increase with ocean warming.

Prestes, A.C.L., Cacabelos, E., Neto, A.I., Martins, G.M. (2017) Temporal stability in macroalgal assemblages standing stock despite high species turnover. *Marine Ecology Progress Series*, **567**, 249-256. DOI:10.3354/meps12039.

Reason: This study is one of few empirical evidences highlighting how, in diverse ecosystems, species' complementary response to environmental heterogeneity ensures the temporal stability in an ecosystem process.

2.1.6. INVASION BIOLOGY

Cicconardi, F., **Borges, P.A.V.**, Strasberg, D., Oromí, P., López, H., Perez-Delgado, A.J., Casquet, J., Caujape-Castells, J, Fernandez-Palacios, J.M., Thebaud, C. & Emerson, B.C. (2017) MtDNA metagenomics reveals large-scale invasion of belowground arthropod communities by introduced species. *Molecular Ecology*, **26**, 3104-3115. DOI: 10.1111/mec.14037.

Reason: Demonstration that the level of invasiveness is very high in soil organisms in Macaronesia.

Florencio, M., Rigal, F., Borges, P.A.V., Cardoso, P., Santos, A.M.C. & Lobo, J.M. (2016) The role of plant fidelity and land-use changes on island exotic and indigenous canopy spiders at local and regional scales. *Biological Invasions,* **18**, 2309-2324. DOI:10.1007/s10530-016-1162-x.

Reason: Understanding the processes that lead to successful invasions is essential for the management of exotic species. Our results revealed that the local effect of habitat type, plant origin and plant structure explain variations in the species richness observed at a regional scale. These results shed light on the mechanistic processes behind the role of habitat types in invasions, i.e., plant fidelity and plant structure are revealed as key factors, suggesting that native forests may act as physical barriers to the colonisation of exotic spiders.

Honěk, A., Dixon, A.F.G., **Soares, A.O.**, Skuhrovec, J. & Martinkova Z. (2017) Spatial and temporal changes in the abundance and composition of ladybird (Coleoptera: Coccinellidae) communities. *Current Opinion in Insect Science*, **20**, 61-67. DOI:10.1016/j.cois.2017.04.001.

Reason: Using the world's most invasive insect as model species we performed a critical analysis of factors at the basis of its invasive success in mainland habitats, and contrasted these with factors that explain the apparent resilience of island habitats for its introduction and spread.

Roy, H.E., Brown, P.M.J., Adriaens, T., Berkven, N., **Borges, I.**, Clusella-Trullas, S., De Clercq, P., Eschen, R., Estoup, A., Evans, E.W., Facon, B., Gardiner, M.M., **Gil, A.,** Grez, A., Guillemaud, T., Haelewaters, D., Honek, A., Howe, A.G. Hui, C., Hutchison, W.D., Kenis, M., Koch, R.L., Kulfan, J., Handley, L.L., Lombaert, E., Loomans, A., Losey, J., Lukashuk, A.O., Maes, D., Magro, A., Murray, K.M., Martin, G. S., Zdenka Martinkova, Z., Minnaar, I., Nedved, O., Orlova-Bienkowskaja, M.J., Rabitsch, W., Ravn, H.P., Rondoni, G. Rorke, S.L., Ryndevich, S.K., Saethre, M.G., Sloggett., **Soares, A.O.**, Stals, R., Tinsley, M.C., Vandereycken, A., Wielink, P.,Viglášová, S., Zach, P., Zaviezo, T. & Zihua

Zhao, Z. (2016) The harlequin ladybird, Harmonia axyridis: an inspiration for global collaborations on invasion biology. *Biological Invasions*, **18**, 997-1044. DOI:10.1007/s10530-016-1077-6.

Reason: Using the world's most invasive insect as model species we performed a critical analysis of factors at the basis of its invasive success in mainland habitats.

Soares, A.O., Honek, A., Martinkova, Z., Skuhrovec, J., **Cardoso, P.** & **Borges, I.** (2017) Harmonia axyridis failed to establish in the Azores: the role of species richness, intraguild interactions and resource availability*. Biocontrol*, **62(3)**, 423-434. DOI:10.1007/s10526-017-9794-z.

Reason: Using the world's most invasive insect as model species we performed a critical analysis of factors at the basis of its invasive success in mainland habitats, and contrasted these with factors that explain the apparent resilience of island habitats for its introduction and spread.

2.1.7. CONSERVATION BIOLOGY AND ECOSYSTEM RESTORATION

Barreiros, J.P. (2015) Overall Impact of Local and Recreational Fisheries: Approaching the Case in the NE Atlantic and Mediterranean. In book: Progressive Engineering Practices in Marine Resource Management. Edition: 1st, Chapter: 10, Publisher: IGI Global, Editors: Nikolov N., Raykov V., Zlateva I., pp. 327-347. DOI:10.4018/978-1-4666-8333-4.ch010

Reason: This chapter presents and discusses updated information related to fishing in the NE Atlantic and Mediterranean from a perspective that focuses on three main interchangeable and multidisciplinary issues: a) local/artisanal fisheries, b) recreational fishing and c) marine protected areas. A comprehensive introduction is followed by an updated literature review. Perspectives and solutions show that recreational and artisanal fisheries are clearly understudied and possibly have several impacts that are being unmeasured and often unknown. Another major issue is the lack of a serious long term European compromise to standardize these fisheries since a strong political interference does dominate the whole issue. No solution is possible without knowledge. No knowledge is possible if countries within the Mediterranean basin and NE Atlantic are not strongly and apolitically committed to a wider research scale with the overall interest of small fisheries sustainability and maintenance of healthy stocks as a major goal.

Borges, P.A.V., Crespo, L. & **Cardoso, P.** (2016) Species conservation profile of the cave spider Turinyphia cavernicola (Araneae, Linyphiidae) from Terceira Island, Azores, Portugal. *Biodiversity Data Journal*, **4**, e10274.

Reason: First assessment of a species conservation profile in a novel Biodiversity Data Journal platform.

Cacabelos, E., Martins, G.M., Thompson, R., **Prestes, A.C.L., Azevedo, J.M.N., Neto, A.I.** (2016) Material type and roughness influence structure of intertidal communities on coastal defences. *Marine Ecology*, **37**(4), 801-812, DOI: 10.1111/maec.12354

Martins, G.M., Jenkins, S.R., **Neto, A.I.**, Hawkins, S.J., Thompson, R.C. (2016) Long-term modifications of coastal defences enhances marine diversity. *Environmental Conservation*, **43**, 109-116. DOI:10.1017/S0376892915000284

Reason: Coastal urbanisation, whereby natural shores are replaced by hard coastal structures, is increasing worldwide and is associated with the loss of diversity in coastal ecosystems. These to papers explore some of the causes of this effect, and explore ways to compensate for them.

Cardoso, P., Rigal, F., Fattorini, S., Terzopoulou, S. & Borges, P.A.V. (2013) Integrating Landscape Disturbance and Indicator Species in Conservation Studies. *PLoS ONE*, **8**, e63294. DOI:10.1371/journal.pone.0063294.

Reason: These authors created an innovative Index that quantifies levels of disturbance in small islands using as example Azores, but with some applications already performed in Madeira island.

Fernandes, J.P., Guiomar, N. & **Gil, A.** (2015) Strategies for conservation planning and management of terrestrial ecosystems in small islands (exemplified for the Macaronesian islands). *Environmental Science and Policy*, **51**, 1-22. DOI:10.1016/j.envsci.2015.03.006.

Reason: This scientific article addresses the conservation planning and management issues of terrestrial ecosystems with particular insight to small islands (with examples of application in the Macaronesian archipelagos of Cape Verde, Canaries, Madeira and Azores). These examples involve possible land use and management changes and trade-off processes specific to each island that are listed and explained.

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.

Reason: First modeling exercise in Azores to predict the effects of climate change on the distribution of indigenous species of several taxonoimc groups.

García Criado, M., Väre, H., Nieto, A., **Elias, R.B.**, 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. IUCN, Brussels, Belgium, 59 pp.

Reason: First European Red List of Lycopods and Ferns.

Hawkins, S.J., Bohn, K., Sims, D.W., Ribeiro, P., **Faria, J.**, Presa, P., Pita, A., **Martins, G.M., Neto, A.I.,** Burrows, M.T. & Genner, M.J. (2016) Fisheries stocks from an ecological perspective: disentangling ecological connectivity from genetic interchange. *Fisheries Research*, **179**, 333-341. DOI:10.1016/j.fishres.2016.01.015.

Reason: This study builds on a number of case studies to highlight how ecological connectivity differs from genetic connectivity and how this distinction can be of paramount importance for the conservation of natural habitats, especially in the marine realm where Common Fisheries Policy often operates at scales divorced from ecological reality and actual stock definition. Researchers from the Azores Biodiveristy Group (IBBC)/cE3c provided much of background data that sustains this paper and actively engaged (via past and ongoing projects) in research aimed at fostering a more scientifically sound and sustainble exploitation of the sea.

Martins, G.M., Borges, C.D.G., **Vale, M.,** Ribeiro, P.A., Ferraz, R.R., Martins, H.R., Santos, R.S., Hawkins, S.J. (2017) Exploitation promotes earlier sex change in a protandrous patellid limpet, Patella aspera Roding, 1798. *Ecology and Evolution*, **7**, 3616-3622. DOI:10.1002/ece3.2925

Reason: Fishing can prompt the reduction in the number and size of target populations. This study shows how fishing can have much wider implications than those already documented via changes in the timing of sex change in a protandrous patellid limpet, an important resource in the Azores. These findings have wider implications for the conservation of Patella aspera in the Azores and support the enforcement of regulations that not only protect the small individuals but also the larger-sized animals to safeguard the replenishment of the population

Terzopoulou, S., Rigal, F., Whittaker, R.J., **Borges, P.A.V.** & **Triantis, K.A.** (2015) Drivers of extinction: the case of Azorean beetles. *Biology Letters*, **11**, 1-4. DOI:10.1098/rsbl.2015.0273.

Reason: Remote archipelagos are of outstanding importance in conservation biology due to the extensive loss of endemic species driven by anthropogenic disturbance. However, few, if any, studies have sought to determine drivers of extinction risk for highly threatened island invertebrates. By compiling and analyzing a unique dataset for endemic Azorean beetles, seven of which can be considered as extinct, we show that larger beetle species that are confined to the remaining 3% of original natural forest in the Azores are the most threatened with extinction. Our study provides a clear warning of the impact of habitat loss on island endemic biotas.

2.1.8. PEST MANAGEMENT

Borges, P.A.V., Guerreiro, O., Ponte, N.B., Borges, A., Ferreira, F., Ferreira, M.T., Nunes, L., Marcos, R.S., Arroz, A., Scheffrahn, R.H. & Myles, TG. (2014) *Cryptotermes brevis* (Isoptera: Kalotermitidae) in the Azores: Lessons after 2 yr of monitoring in the archipelago. *Journal of Insect Science*, **14(172)**, 1-7. DOI:10.1093/jisesa/ieu034.

Guerreiro, O., Cardoso, P., Ferreira, J.M., **Ferreira, M.T.** & **Borges, P.A.V.** (2014) Potential distribution and cost estimation of the damage caused by *Cryptotermes brevis* (Isoptera: Kalotermitidae) in the Azores. *Journal of Economic Entomology*, **107**, 1554-1562. DOI:10.1603/EC13501.

Reason: These two publications are important because describe a successful case of stakeholder participation in an ongoing monitoring study of 203 houses in five islands of the drywood termite Cryptotermes brevis (see Borges et al. 2014, J. Ins. Science) and a cost estimation for its control (Guerreiro et al. 2014, J. Econ. Entomol.).

Pimentel, R., Lopes, D.J.H., Mexia, A.M.M. & Mumford, J.D. (2017) Seasonality of the Mediterranean Fruit Fly (Diptera: Tephritidae) on Terceira and São Jorge Islands, Azores, Portugal. *Journal of Insect Science,* **17(1)**, 1-35. DOI:10.1093/jisesa/iew097.

Reason: Population dynamics studies are very important for any area-wide control program as they provide detailed knowledge about the relationship of Medfly [Ceratitis capitata (Wiedemann)] life cycle with host availability and abundance. The results from Sao Jorge Island indicate significantly lower male/female ratio than on Terceira Island. This is an important finding specially regarding when stablishing the scenario parameters for a sterile insect technique

application in each island. The population dynamics of C. capitata are generally linked with host fruit availability and abundance. However, on Terceira Island fruit infestation levels are not synchronized with the trap counts. For example, there was Medfly infestations in some fruits while in the nearby traps there were no captures at the same time. From this perspective, it is important to denote the importance of wild invasive plants, on the population dynamics of C. capitata, as well important to consider the possibility of having different densities of traps according to the characteristics of each area in order to improve the network of traps surveillance's sensitivity on Terceira Island.

Pimentel, R., Lopes, D.J.H., Mexia, A.M.M., & Mumford, J.D. (2016) Validation of a geographic weighted regression analysis as a tool for area-wide integrated pest management programs for *Ceratitis capitata* Wiedemann (Diptera: Tephritidae) on Terceira Island, Azores. *International Journal of Pest Management*, **63(2)**, 172-184. DOI:10.1080/09670874.2016.1256512.

Reason: Extrapolation from quantitative sampling to the surrounding areas is an essential feature of many aspects of real world applications in pest management decision-making. However, these decisions are only as good as the accuracy of the methods that provided the information. The problem of estimating Mediterranean fruit fly population densities from trap grids is a specific case. The efficiency of three methods to estimate fruit flies trapped per day values for nonsampled areas in Terceira Island is evaluated, the inverse distance weighted, ordinary Kriging and the geographic weighted regression (GWR). The results demonstrate that the GWR method is capable of estimating hotspots for the next season and can be used to identify ecological corridors over a non-sampled area. The high spatial heterogeneity and topographical conditions present on Terceira Island may explain why a more mathematically complex method is more reliable than simpler methods for use in possible future wide-area control program for medfly.

Pimentel, R., Lopes, D.J.H., Mexia, A. M. M. & Mumford, J. D. (2014) Spatial regression analysis of *Ceratitis capitata* Wiedemann (Diptera: Tephritidae) on Terceira Island, Azores. *International Journal of Pest Management,* **60**, 217-223. DOI:10.1080/09670874.2014.958603.

Reason: Knowing where pest populations are in time and space is indispensable information needed to effectively plan, implement and evaluate area-wide integrated pest management programmes. With this awareness, area-wide control measures, such as sterile insect technique, might have better performance and even reduced programme costs through more precise spatial

planning. The ordinary least squares estimation model calculated for each gender cannot provide a satisfactory general explanation for abundance of both genders of wild adults, yet it might generate some hypotheses about wild adult females of C. capitata fruit-seeking behaviour. Results from geographically weighted regression analysis can provide a satisfactory general explanation for abundance of both genders of wild adults. Both methods suggest that males are more dispersed than females, and because of that they might play an important role in scouting the surroundings for additional fruit hosts. The presence of some host-plants, even in places offering less protection (like pasture areas), provides an ecological corridor that supports the spread of wild adults of C. capitata.

2.1.9. ENVIRONMENTAL RISKS

Parelho, C., Bernardo, F., Camarinho, R., Rodrigues, A.S. & **Garcia, P.V.** (2016) Testicular damage and farming environments - an integrative ecotoxicological link. *Chemosphere*, **155**, 135-141. DOI:10.1016/j.chemosphere.2016.04.043.

Parelho, C., Rodrigues, A.S., **Barreto, M.C.**, Ferreira, N.G.C. & **Garcia, P.V.** (2016) Assessing microbial activities in metal contaminated agricultural volcanic soils - an integrative approach. *Ecotoxicology and Environmental Safety*, **129**, 242-249. DOI:10.1016/j.ecoenv.2016.03.019.

Parelho, C., Rodrigues, A.S., Cruz, J.V. & **Garcia, P.V.** (2014) Linking trace metals and agricultural land use in volcanic soils - a multivariate approach. *Science of the Total Environment* **496,** 241-247. DOI:10.1016/j.scitotenv.2014.07.053.

Reason: These three integrated publications are important because research was performed using integrative methodologies to evaluate soil health status in Azorean volcanic agricultural areas. Results provided knowledge about the health of volcanic soils, fundamental to design and implement strategies to sustainable use of volcanic soils for agriculture purposes. A bottom-up study, integrating soil physicochemical properties, biomarkers from belowground biota and small mammals, was carried to assess soil health. Research revealed that agricultural management practices in volcanic soils lead to stressful conditions to resident biota, compromising local soil health status and provision of soil-based ecosystem services. All biological endpoints measured in the selected biological indicators were sensitive to anthropogenic activities (land use type and soil management) and/or stressors (agrochemicals) present in soils, validating their applicability as tools

to assess soil health status in volcanic areas and highlighting the relevance of an integrative approach in soil health assessment.

2.1.10. SCIENCE COMMUNICATION, CITIZEN SCIENCE POLICY AND OUTREACH

Arroz, A.M., Gabriel, R., Amorim, I.R., São Marcos, R. & Borges, P.A.V. (2016) Bugs and society I: raising awareness about endemic biodiversity. *Biodiversity and Education for Sustainable Development* (ed. by P. Castro, U.M. Azeiteiro, P. Bacelar Nicolau, W. Leal Filho and A.M. Azul), pp. 68-89. Dordrecht, Springer, World Sustainability Series. DOI:10.1007/978-3-319-32318-3_6. ISBN: 978-3-319-32317-6.

Amorim, I.R., Arroz, A.M., São Marcos, R., Borges, P.A.V. & Gabriel, R. (2016) Bugs and society II: testing two communication strategies for public engagement in the Azores. *Biodiversity and Education for Sustainable Development* (ed. by P. Castro, U.M. Azeiteiro, P. Bacelar Nicolau, W. Leal Filho and A.M. Azul), pp. 125-153. Dordrecht, Springer, World Sustainability Series. DOI:10.1007/978-3-319-32318-3_9. ISBN: 978-3-319-32317-6.

Reason: These two publications descrive an Urban intervention "Açorianos há milhões de anos" (Azoreans for millions of years), Angra do Heroísmo, Terceira, Azores, which consisted of outdoors of macro photos of Azorean endemic insects accompanied by brief relevant species information. Actions to communicate scientific knowledge to the general public are critical, namely concerning biodiversity conservation on fragile island ecosystems, such as the Azores. This is relevant within the cE3c mission/vision, which includes combining research with action, and integrating science and education towards better informed citizens, to effectively promote change to achieve a more sustainable future.

Patiño, J., Whittaker, R.J., **Borges P.A.V.**, Fernández-Palacios, J.M., Ah-Peng, C., Araújo, M., Ávila, S., **Cardoso, P.,** Cornuault, J., Boer, E. de, Nascimento, Lea de, **Gil, A.,** Gonzáalez, A., Gruner, D.S., Heleno, R., Hortal, J., Illera, J.C., Kaiser-Bunbury, C., **Matthews, T.,** Papadopoulou, A., Pettorelli, N., Price, J., **Santos, A.M.C.,** Steinbauer, M., **Triantis, K.A.,** Valente, L., Vargas, P., Weigelt,

P. & Emerson, B.C. (2017) A roadmap for island biology: 50 fundamental questions after 50 years of The Theory of Island Biogeography. *Journal of Biogeography,* **44**, 963-983. DOI: 10.1111/jbi.1298.

Reason: The 50th anniversary of the publication of the seminal book, The Theory of Island Biogeography, by Robert H. MacArthur and Edward O. Wilson was a timely moment to review and identify key research foci that could advance island biology. Here we took a collaborative horizon-scanning approach to identify 50 fundamental questions for the continued development of the field. At a time when the current impact of invasive species and the future threat of climate change threatens the survival of endemic species of islands on a global scale, this publication will inspire a new generation of scientists to conduct fundamental and applied research in island systems. Researchers from the Azorean Biodiversity Group (IBBC; IERS) / cE3c are developing several strategic projects that will respond to some of these 50 issues, including the MACDIV, SLAM, BEST III, 2gether, MOMENTOS, PRAC projects.

Fernandez, M., Yesson, C., Gannier, A., Miller, P. I. & **Azevedo, J.** (2017). The importance of temporal resolution for niche modelling in dynamic marine environments. *Journal of Biogeography*, 44, 2816-2827.

Reason: The MONICET platform has been developed to guide the collection, to store and to disseminate information on cetacean observations made by whale watching companies. Operating since 2009 with support from cE3c, it now contains dozens of thousands of observations. This paper is the first of a series which aims to demonstrate the importance of these sources of information to the study of the ecological niche of animals which are notoriously difficult (and expensive) to monitor.

3. PROJECTS

A total of thirty nine projects run or were accepted in 2017, ten of which were coordinated by integrated members (see detailed list in 6.1.): 19 received international funding, five were funded by National funds from FCT, seven by regional funds from DRCT and nine were funded by other Agencies. In the period between 2013 and 2017 most of funds were obtained from nacional (FCT) and regional sources with a stable income of funds (Figure 4).

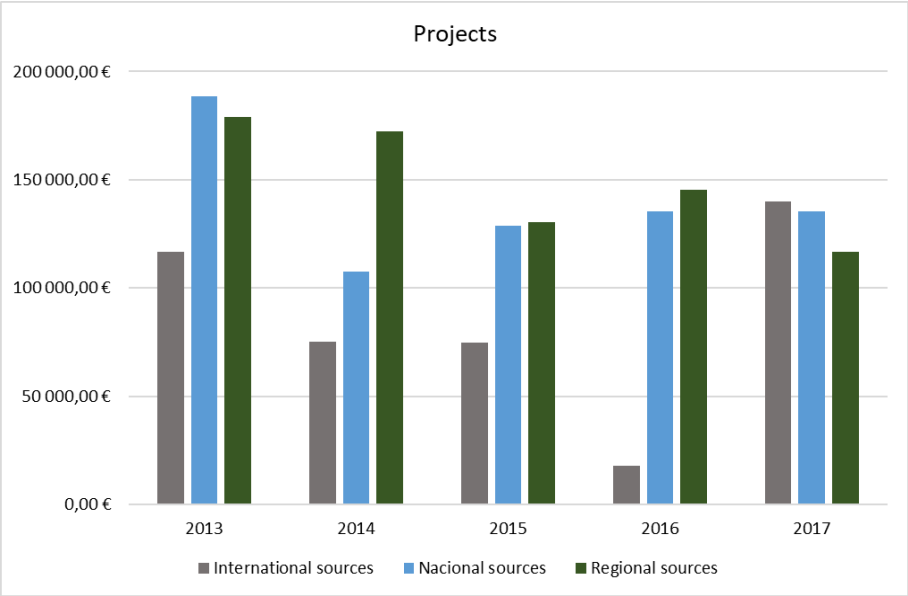

Figure 4 Funds executed in projects the period 2013-2017 by integrated members.

In the period between 2013 and 2017 a large quantity of funds were obtained for Ph.D. and Post-Doc grants mostly regional sources (Figure 5). Considering the global funds obtained in projects and grants there is a tendency for a decreasing in the last five years due to the fact that several regional and nacional funding programs will only start again in 2018.

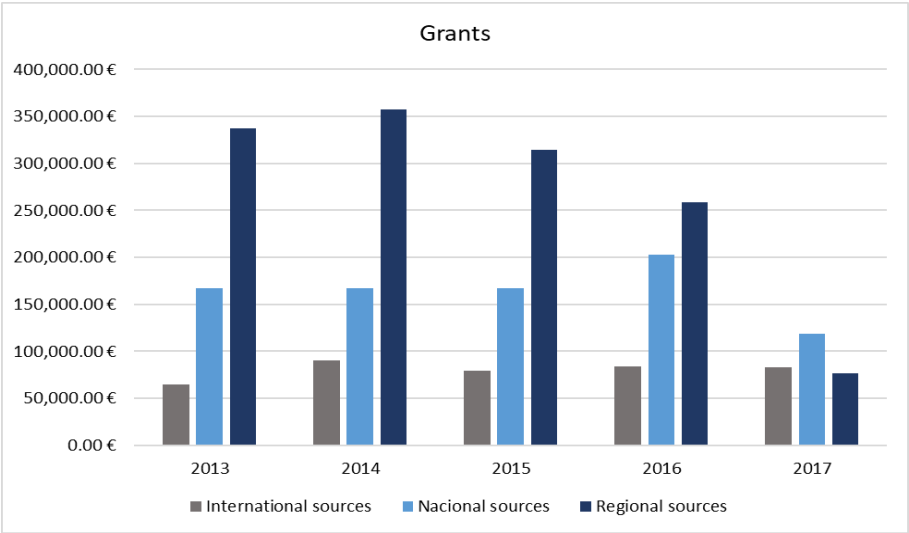

Figure 5 Funds obtained in grants (mostly for Ph.D and Post-Doc) in the period 2013-2017.

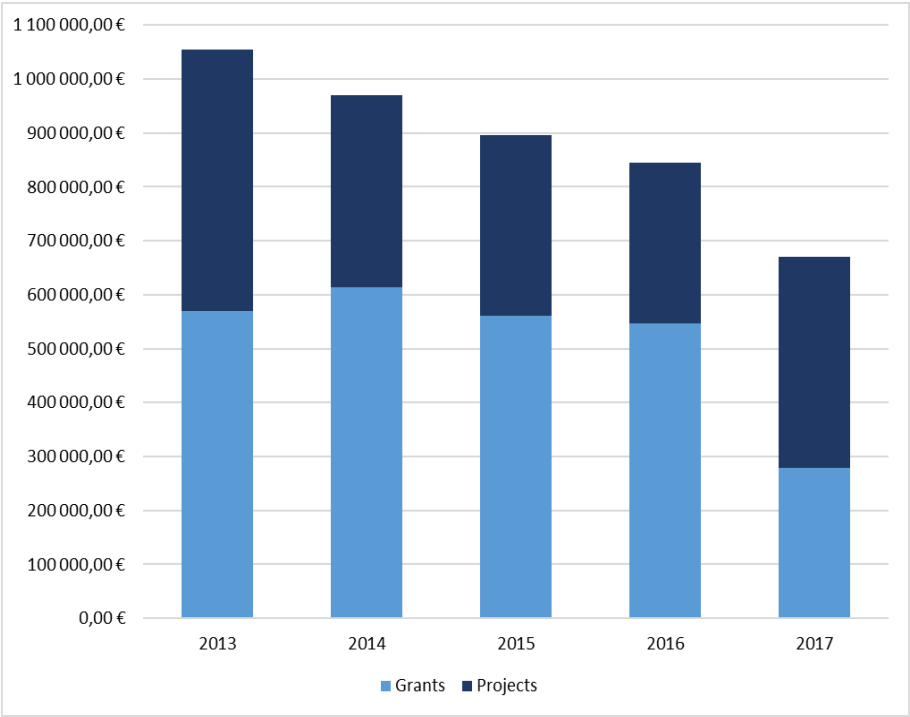

Figure 6 Funds executed in projects and grants in the period 2013-2017 by integrated members.

3.1. Mobility projects and networks

Table 3 shows the name and projects of the students working within the GBA, coming from different areas and projects.

Table 3 Mobility projects and networks on ABG during 2017.

Student	Project title	Scholarship type	Scholarship area	Surpervisor
Alessandro Dieste	Grazing preferences on *Asparagopsis armata* and native macroalgae.	Erasmus	Biodiversity; Ecology	Cacabelos, E. & Neto, A.I.
Juan Manuel Taboada Alvarez	Triagem de artrópodes de amostras de armadilhas SLAM para avaliação doimpacto de gradientes altitudinais na diversidade de artópodes.	Erasmus	Biodiversity; Ecology	Borges, P.A.V.
Leire Lopetegui	Spatial and temporal distribution of macroalgal assemblages associated with the invasive *Asparagopsis armata* on intertidal rocky shore in Azores	Erasmus	Biodiversity; Ecology	Cacabelos, E. & Neto, A.I.
Lidia Muñoz Sánchez	Developing field and laboratory work to (i) evaluate temporal changes in the structure of macroalgal communities in subtidal rocky shores of São Miguel Island and (ii) test if spatial variability in the distribution of microhabitats can affect snail behaviour.	Erasmus	Biodiversity; Ecology	Cacabelos, E. & Neto, A.I.
Merili Martverk	Monitoring of the Diversity of arthropods in Azorean Native Forests.	Erasmus	Biodiversity; Ecology	Borges, P.A.V.
Agustín Jiménez Fernández Palacios	Assessing the effectiveness of Landsat 8 OLI multispectral satellite imagery for vegetation mapping in Macaronesian Islands.	Erasmus	Remote Sensing	Borges, P.A.V. & Gil, A.
Michaela KUBOVÁ	Garden trees as hosts of biodiversity in the Azores.	Erasmus +	Biodiversity	Gabriel, R.
Eduardo de la ROSA-MERINO	Espécies invasoras na ilha Terceira	Erasmus +	Biodiversity and conservation	Gabriel, R.
Rebeca DÍAZ-RODRIGUEZ	Apreciação sazonal de invertebrados obtidos por armadilhas SLAM em áreas naturais dos Açores	Erasmus +	Biodiversity and conservation	Borges, P.A.V. & Gabriel, R.
Sophia Griese	Macroinvertebrate's early recruits at the Azorean rocky intertidal communities	Erasmus +	Life sciences	Neto, A.I.
Margarida Rodrigues Brito de Azevedo	Briófitos dos Açores: Recolha, Tratamento, Identificação, Organização e Gestão de Colecções Biológicas	Estagiar L	Biodiversity	Gabriel, R.
Celia López Cañizares	Biodiversidade dos Açores: Recolha e tratamento de dados sobre biodiversidade nativa dos Açores e perspetivas dos habitantes locais sobre a mesma.	Estagiar L	Biology, Biodiversity	Amorim, I.R. & Elias, R.B.

Student	Project title	Scholarship type	Scholarship area	Surpervisor
Alejandra Ros Prieto	Gestão da Entomoteca "Dalberto Teixeira Pombo" e identificação de Insectos de armadilhas SLAM.	Estagiar T	Biodiversity; Ecology	Borges, P.A.V.
Jose Vicente Pérez Santa Rita	Monitoring of the Diversity of arthropods in Azorean and Madeira Island Native Forests.	Eudodisseia	Biodiversity; Ecology	Borges, P.A.V.
Aurore Germaine G. Degraeve	Gestão de projetos, bases de dados e coleções biológicas	Eudodisseia	Business sciences; Administration	Neto, A.I.
Ignacio Moreu Badia	Distribuição espacial e temporal da alga invasora *A. armata*. Impacto nas comunidades litorais	Eudodisseia	Life sciences	Neto, A.I.
Laura Comes Aguilar	Comportamento reprodutor de peixes litorais nos Açores	Eurodisseia	Life sciences	Azevedo, J.M.N.
Laura Gonzales Retamero	Distribuição e conservação de cetáceos nos Açores	Eurodisseia	Life sciences	Azevedo, J.M.N.
Maria del Mar Villar de Pablo	Recrutamento e variação sazonal de invertebrados marinhos nos Açores	Eurodisseia	Life sciences	Neto, A.I.
Marie Laurence Lesenfants	Avaliação da biodiversidade química em macroalgas dos Açores	Eurodisseia	Life sciences	Seca, A.M.
Phuong Dat Tran	Distribuição e conservação de cetáceos nos Açores	Eurodisseia	Life sciences	Azevedo, J.M.N.
Marta De Benedictis	Bryophytes and gardens: inventory of underrecorded places and environmental education	Others	Biodiversity and environmental education	Gabriel, R.

3.2. Research contracts

We must highlight several research contracts with national and international entities:

1. PEERS – Platform for Enhancing Ecological Research & Sustainability, a consortium between the Center of Environmental Biology (University of Lisbon, Portugal), the Azorean Biodiversity Group (University of the Azores, Portugal) and the Center of Functional Ecology (University of Coimbra, Portugal).

2. NATURE PARKS OF AZORES – We started an unprecedented collaboration with several Azorean environmental organizations to perform a Long Term Ecological Study in the natural forest of several Azorean islands. This study is possible due to the collaboration with the Natural Parks of Santa Maria, Terceira, Faial and Pico islands, the Botanical Garden of Faial island and the Furnas Monitoring and Research Centre (São Miguel island);

3. BIG – Biodynamical Island Group – This is an International consortium research group implemented to model the General Dynamic Model of Island Biogeography. It includes 14 international Researchers, where five of them are either integrated members (P.A.V. Borges, F. Rigal), Ph.D. students (T. Matthews) or collaborators (K. Triantis, R. Whittaker) of the RG Island Biodiversity, Biogeography & Conservation.

4. Development and Coordination for "RCE Açores" - part of UN international education network Regional Centre of Expertise on Education for Sustainable Development, accredited by the United Nations University, Institute of Advanced Studies.

4. OUTREACH ACTIVITY

Besides the presentation of our research in multiple foruns, the ABG/cE3c, aims to share information with the public, keeping web-based resources, engaging in different initiatives and advertising them in the media.

4.1. Web-based resources in the Period 2008-2017

1. Azorean Biodiversity Group Page (http://www.gba.uac.pt/)
2. Azorean Biodiversity Portal (http://www.azoresbioportal.angra.uac.pt/)
3. Azorean Biodiversity Gallery (http://galeria.azoresbioportal.angra.uac.pt/)
4. ATLANTIS database (http://www.atlantis.angra.uac.pt/)
5. Azorean Spiders: (http://www.jorgenlissner.dk/azoreanspiders.aspx)
6. Termites of the Azores (http://sostermitas.angra.uac.pt)
7. E.D.E.N (Azores Habitats (http://www.eden-azores.com/)
8. IBBC and IERS Groups with cE3c

   (http://ce3c.ciencias.ulisboa.pt/teams/profile/?id=9)

   (http://ce3c.ciencias.ulisboa.pt/teams/profile/?id=10)
9. Azores Bioportal (http://azoresbioportal.uac.pt/pt/)
10. ISLAND LAB (http://islandlab.uac.pt/)
11. IBIG (http://www.ibigbiology.com/)
12. MAIISG - IUCN SSC MID-ATLANTIC ISLAND INVERTEBRATES SPECIALIST GROUP (http://www.maiisg.com/)

4.2. Public awareness activities

1. Albergaria, I.S., Porteiro, J.M., Trota, M.J., **Arroz, A.M., Gabriel, R.** & Santos, C. (2017) "Historic gardens of the Azores as a tourist attraction of the archipelago: A survey carried out by the European funded research project 'Green Gardens - Azores' (GreenGA)". Culture, Sustainability, and Place: Innovative Approaches for Tourism Development. Universidade dos Açores, Ponta Delgada, Ilha de São Miguel, Portugal.

2. **Amorim, I.R., Cañizares, C.L.** & **Borges, P.A.V.** (2017) prepared the Workshop "Insetos em ordem: vamos aprender a identificar" (Learning how to identify insects using a board game), Azorean Regional Teachers Meeting "Educação para o desenvolvimento sustentável nos Açores: valorização dos patrimónios natural, construído e imaterial" (Education towards a sustainable development in the Azores: promotion of the natural, built and intangible heritages), July 13-14th, Angra do Heroísmo, Azores, Portugal.
3. **Arroz, A.M.** & **Gabriel, R.** (2017) Espaços de natureza nas cidades como recurso educativo. Encontro Regional de Professores - Educação para o Desenvolvimento Sustentável nos Açores : Valorização do Património Natural, Construído e Imaterial. Escola Básica Integrada de Angra do Heroísmo. 12 de Junho, Angra do Heroísmo, Portugal.
4. **Arroz, A.M.** & **Gabriel, R.** (2017) Oficina 2: Como sobreviver à sua tese. VII FIPED Portugal - Fórum Internacional de Pedagogia: Stand up science. 6 a 11 de Novembro, Universidade dos Açores, Angra do Heroísmo, Ilha Terceira, Portugal.
5. **Arroz, A.M.** & **Gabriel, R.** (2017). Apropriação pedagógica de jardins. Encontro Regional de Professores - Educação para o Desenvolvimento Sustentável nos Açores : Valorização do Património Natural, Construído e Imaterial. Escola Básica Integrada de Angra do Heroísmo, Angra do Heroísmo, Portugal.
6. **Barreiros, J.P.** (2017) "A Ordem Crocodylia. Evolução e diversidade". Palestra na XV Semana da Ciência, organizada pelo Departamento de Ciências da Escola Básica e Integrada de Angra do Heroísmo. 27 a 31 de Março. Angra do Heroismo, Açores, Portugal.
7. **Barreiros, J.P.** (2017) "Extinções: Uma abordagem ecológica". Palestra na XV Semana da Ciência, organizada pelo Departamento de Ciências da Escola Básica e Integrada de Angra do Heroísmo. 27 a 31 de Março. Angra do Heroismo, Açores, Portugal.
8. **Barreiros, J.P.** (2017) "Uma história evolutiva dos répteis - dos Dinossáurios às Aves". Palestra na Biblioteca Pública e Arquivo de Angra do Heroísmo. 18 de Fevereiro. Angra do Heroismo, Açores, Portugal.

9. **Barreiros, J.P.** (2017) "Uma história evolutiva: Dos Dinossauros às Aves". Palestra no Clube de Leitura da Escola Básica e Integrada dos Biscoitos. 30 de Março. Praia da Vitória, Açores, Portugal.

10. **Barreiros, J.P.** (2017) Criação de uma rede de áreas marinhas protegidas e a venda directa de pescado. Telejornal Açores,Episódio 209, 28 de Julho.

11. **Barreiros, J.P.** (2017) Novas espécies de peixe começam a aparecer nos mares dos Açores. Telejornal Açores, 25 de Outubro.

12. **Barreiros, J.P.** (2017) Polvos usam águas vivas como arma de defesa. Telejornal Açores, Episódio 241, 29 de Agosto.

13. **Boieiro, M.** (2017) Fantastic beetles (and other amazing creatures) and where to find them in Madeira archipelago.

14. **Boieiro, M.** (2017) Ilhas Desertas. Madeira Natura. RTP Madeira. https://www.rtp.pt/play/p3661/e299135/madeiranature

15. **Borges, P.A.V.** & **Amorim, I.R.** (2017) "Impactos das alterações globais na biodiversidade de artrópodes dos Açores" (Global changes impacts on the Azorean arthropod biodiversity). Azorean Regional Teachers Meeting "Educação para o desenvolvimento sustentável nos Açores: valorização dos patrimónios natural, construído e imaterial" (Education towards a sustainable development in the Azores: promotion of the natural, built and intangible heritages), July 13-14th, Angra do Heroísmo, Azores, Portugal.

16. **Borges, P.A.V.** & **Gabriel, R.** (2017) "Vamos descobrir a biodiversidade de artrópodes no Jardim de Angra do Heroísmo". 29 de Setembro, Observatório do Ambiente dos Açores, Angra do Heroísmo, Portugal.

17. **Borges, P.A.V.** (2017) Padrões de biodiversidade dos artrópodes dos Açores. Ciclo de Palestras sobre Biodiversidade Terrestre organizado pela Universidade de Cabo Verde. 2 de Novembro.

18. **Cacabelos, E.** (2017) "Algas da orla costeira". 29 de Setembro. Noite Europeia dos Investigadores

19. **Cacabelos, E., Faria, J., Prestes, A.** & **Neto, A.I.** (2017) "Impacte para o ecossistema e benefícios socioeconómicos da alga exótica Asparagopsis armata nos Açores". 12 de Novembro. Açores Magazine.

20. **Cardoso, P.** (2017) Protocolo COBRA (Conservation Oriented Biodiversity Rapid Assessment) para amostragem da biodiversidade. Ciclo de Palestras sobre Biodiversidade Terrestre organizado pela Universidade de Cabo Verde. 2 de Novembro.

21. **Coelho, M.C.M., Gabriel, R., Arroz, A.M.** & **Amorim, I.R.** (2017) "Azorlinho". Observatório do Ambiente dos Açores. 29 de Setembro, Angra do Heroísmo, Portugal.

22. **Costa, T.** (2017) Protecção da Biodiversidade Costeira. Caloura, 22 de Abril das 16:30 às 18:30.

23. Ferreira, J.M., **Amorim, I.R.** & Vieira, M.H. (2017) Concurso de Comunicação de Ciência "Fala Ciência? - Comunicar CIência nos Açores", 13-14 Outubro, Universidade dos Açores, Terceira, Açores, Portugal.

24. **Gabriel, R.** (2017) A ciência na nossa vida. Semana da Ciência. Escola Básica Integrada 1,2,3/JI de Angra do Heroísmo. 27 de Março, Angra do Heroísmo, Ilha Terceira, Portugal.

25. **Gabriel, R., Arroz, A.M., Amorim, I.R., Sanchez, A.F., Borges, P.A.V.**, Porteiro, J.M., Trota, M.J., Santos, C. & Albergaria, I.S. (2017) "Usos dos jardins açorianos: um estudo preliminar em Angra do Heroísmo para o Projeto “GreenGardens – Azores”".Culture, Sustainability, and Place: Innovative Approaches for Tourism Development - Do património através de uma lente de turismo cultural (Heritage through a cultural tourism lens). Universidade dos Açores, Ponta Delgada, Ilha de São Miguel, Portugal.

26. **Neto, A.I.** (2017) A costa dos Açores em alturas de baixa-mar. Boletim Informativo, Associação de Solidariedade dos Professores, 204, 20-21.

27. **Neto, A.I.** (2017) Algas marinhas dos Açores em números e particularidades. III WORKSHOP “ALGAS AÇORIANAS NA CULINÁRIA, Associação das Mulheres de Pescadores e Armadores da Ilha Terceira, Centro Social de Paroquial de São Mateus da Calheta, Terceira, Açores, Portugal, 24 de junho.

28. **Neto, A.I.** (2017) Conceções de investigação científica em diferentes áreas do conhecimento: Investigação científica em Biologia Marinha, JOIN, Universidade dos Açores, Ponta Delgada, São Miguel, Açores, Portugal, 19 de abril.

4.3. Radio/Journal news/Interviews

1. **Barreiros, J.P.** (2017) Entrevista ao Programa da RDP Açores: Grande Entrevista. 10 de Maio. http://www.rtp.pt/play/p2903/grande-entrevista.
2. **Rego, C.** (2017) Entrevista ao Programa Ponto de Partida da Antena 1: Vidas com insectos. 30 de Maio. https://www.rtp.pt/play/p2063/e291616/ponto-de-partida.
3. **Rego, C.** (2017) Jogo X-Bugs, Noite Europeira dos Investigadores. Creation and demonstration of the interactive game X-BUGS during "Noite Europeia dos Investigadores".
4. **Soares, A.O.** (2017) “Ecosystems Services provided by ladydirds". 30 de Maio, ação de divulgação sobre agricultura biológica, junto dos alunos de Fresno, Califórnia.
5. **Soares, A.O.** (2017) “Serviços ecossistémicos prestados por auxiliares biológicos: as joaninhas como caso de estudo”. 26 de Maio, ação de divulgação sobre agricultura biológica, junto dos alunos do 12º ano do Colégio do Castanheiro.
6. **Vieira, V.** (2017) Entrevista sobre «Chá dos Açores». RTP A - Programa «Açores Hoje», 2 de Novembro.

5. SCIENTIFIC MEETINGS ORGANIZATION

Our group also participed, in 2017, on the organization of one international conference, one internacional symposium, two meetings and one forum.

1. 14th EMAPI (Ecology and Management of Alien Plant Invasions) – Syntheses, Challenges and New Opportunities. Lisbon, Portugal. 4-8 September (Organization: **Gil, A.**, Freitas, C., Crous, C., Máguas, C., Montesinhos, D., Marchante, E., Freitas, H., Marchante, H., Vicente, J., Correia, O., Silva, P. & **Elias, R.B.**).

2. Internacional Symposium (bio)Ethics, Science and Society: challenges for BioPolitics. Ponta Delgada, S. Miguel, Açores, Portugal. 24 November. Universidade dos Açores. (Organization: Patrão Neves, M., Martins, A., **Soares, A.O.**, Amaral, C., Andrade, L., Ventura, M.A. & Oliveira, H.).

3. Frontiers in E3: cE3c Annual Meeting. Ponta Delgada, S. Miguel, Açores, Portugal. 5-6 June. Center of Ecology, Evolution and Environmental Changes, Direção Regional da Ciência e Tecnologia dos Açores. (Organization: **Soares, A.O., Neto, A.I., Borges, P.A.V.**, Santos-Reis, M., **Mendonça, E**., Santos, M.D. & Almaça, I.).

4. Encontro Regional de Professores - Educação para o Desenvolvimento Sustentável nos Açores : Valorização do Património Natural, Construído e Imaterial. Angra do Heroísmo, Terceira, Açores. 4-8 September. University of the Azores & Escola Básica Integrada de Angra do Heroísmo. (Organization: **Gabriel, R., Arroz, A.M.**, Fael, M. & Ormonde, C.).

5. VII FIPED Portugal - Fórum Internacional de Pedagogia: Stand up Science. Angra do Heroísmo. 6-11 November. University of the Azores & Superior School of Health. (Organization: Rodrigues, A.F., Sousa, F., Frias, C., Gomes, L.M., Carvalhal, R., **Arroz, A.M.** & **Gabriel, R.**).

6. APPENDIX SECTION

6.1. DETAILED INFORMATION FOR 2017 PROJECTS

6.1.1. INTERNATIONAL PROJECTS

1. **(2008-2022) IUCN/SSC Grouper and Wrasse Specialist Group**

Coordinators: Dr. Yvonne Sadovy de Mitcheson - Co-Chair, University of Hong Kong (China) and Dr. Matthew Craig – Co-Chair, National Oceanic and Atmospheric Administration (USA).

Group members: João Pedro Barreiros (Universidade dos Açores- GBA – cE3c).

Budget for the ABG: not funded.

2. **(2009-2020) United Nations University - RCE-Azores, UNESCO Research Centre of Expertise**

Coordinator: Alison L. Neilson.

Members: Rosalina Gabriel, Ana Moura Arroz, Enésima Mendonça, Paulo A.V. Borges, Fernando Pereira (Universidade dos Açores- GBA – cE3c) and Ana Simões.

EU Leonardo DaVinci Programme for Vocational Training, Change Agents UK – support placement of interns with RCE Açores, two interns in 2011, three in 2012, two in 2013, two in 2014.

Budget for the ABG: 22.950,00 Euros.

3. **(2013-2018) LIFE - Project (Life12 bio7pt/000110) Restauro Ecológico e Conservação da Infra-Estrutura Verde Húmida Costeira da Praia da Vitória (LIFE-CWR)**

Coordinators: Paulo A.V. Borges, Rosalina Gabriel, João Pedro Barreiros, Rui Elias and José Azevedo (Universidade dos Açores- GBA – cE3c).

Budget for the ABG: 28.000,00 Euros.

4. **(2014-2017) Biodynamic Island Group (BIG) - 14 experts in island biogeography DFF – Individual Postdoctoral grant awarded to M.K.B. (grant number 0602-02109B)**

Coordinator: Michael Borregaard and Robert Whittaker (based at the University of

Oxford, UK).

Members: Paulo A.V. Borges, Isabel Amorim, François Rigal, Tom Matthews (Universidade dos Açores- GBA – cE3c) and Kostas A. Triantis.

Budget for the ABG: 10.000,00 Euros.

5. **(2014-2017) ESMERALDA - Enhancing ecoSysteM sERvices mApping for poLicy and Decision mAking**

Funding Institution: European Community (H2020-SC5-2014- CSA).

Participants: Paulo A.V. Borges, Ana Picanço and Artur Gil (Universidade dos Açores- GBA – cE3c).

Budget for the ABG: 2.500,00 Euros.

6. **(2014-2018) Distribution and potential negative effects of the recently arrived invasive coccinellid species Harmonia axyridis in agricultural, rural and urban landscapes in Chile: local to landscape and regional impacts**

Funding Institution: National Commission for Science & Technology (CONICYT), Government of Chile. FONDECYT 1140662.

Coordinator in Azores: António Onofre Soares (Universidade dos Açores- GBA – cE3c).

Budget for the ABG: 12.000,00 Euros.

7. **(2014-2020) IUCN - Spider and Scorpion Specialist Group**

Coordinator: Pedro Cardoso (Finnish Museum of Natural History, Univ. Helsinki, Helsinki, Finland).

Group members: Paulo A.V. Borges and Enésima Mendonça (Universidade dos Açores- GBA – cE3c).

Budget for the ABG: not funded.

8. **(2015-2020) - IUCN Mid-Atlantic Island Invertebrates Specialist Group**

Coordinators: Vicky Kindemba and Paulo A.V. Borges.

Group members: Carla Rego, Mário Boieiro, Virgílio Vieira, Isabel Amorim, Rosalina Gabriel, Ana M. Arroz (Universidade dos Açores- GBA – cE3c) Pedro Cardoso (Finnish Museum of Natural History, Univ. Helsinki, Helsinki, Finland) and Simone Fattorini.

Budget for the ABG: 6.000,00 Euros.

9. **(2016-2018) - Establishing a European Red List of Bryophytes, Pteridophytes, Saproxylic Beetles, Terrestrial Molluscs and Vascular Plants (LIFE European Red Lists)**

Funding Institution: European Union.

Participants from ABG: Rosalina Gabriel (Universidade dos Açores- GBA – cE3c).

Budget for the ABG: 1.200,00 Euros.

10. **(2016-2020) - Vertebrate Natural History**

Coordinators: Prof. Dr. Ivan Sazima (Universidade Estadual de Campinas, São Paulo, Brazil).

Group members: João Pedro Barreiros (Universidade dos Açores- GBA – cE3c).

Budget for the ABG: not funded.

11. **(2016-2026) IUCN/SSC Species Monitoring Specialist Group**

Coordinator: Peter J. Stephenson.

Group members: Paulo A.V. Borges (Universidade dos Açores- GBA – cE3c) and Pedro Cardoso (Finnish Museum of Natural History, Univ. Helsinki, Helsinki, Finland).

Budget for the ABG: not funded.

12. **(2017-2019) PERVEMAC II - Agricultura Sostenible y seguridade alimentaria en la Macaronesia: investigacion de los benefícios y riesgos por la ingesta de produtos vegetales para la salud de los consumidores y desarollo de estratégias de minimizacion de peligros**

Funding Institution: INTERREG V-A-MAC 2014-2020.

Participants from ABG: David João Horta Lopes (Universidade dos Açores- GBA – cE3c).

Coordinators: GMR Canarias.

Partners: Universidade dos Açores (UAC), Instituto Nacional de Investigação e Desenvolvimento Agrário (INIDA), Instituto Tecnológico de Canarias, S.A. (ITC), Dirección General de Agricultura del Gobierno de Canarias (DGA), Instituto Nacional de Saúdade Pública (INSP), Dirección General de Salud Pública del Gobierno de Canarias (DGSP), Direção Geral da Agricultura e Desenvolvimento Rural (DGADR), Universidad de Las Palmas de Gran Canaria (ULPGC), Secretaria Regional de Agricultura e Pescas (SRAP), Gestión del Medio Rural de Canarias, S.A.U. (GMR Canarias), Universidad de La Laguna (ULL), Agencia de Regulaçao e Supervisao dos Productos Farmaceuticos e Alimentares (ARFA).

Budget for the ABG: 103.488,95 Euros.

13. (2017-2020) MACBIOBLUE - Development of new products & processes derived from macroalgae in the context of Macaronesian Blue Biotechnology & Transfer to Enterprises

Coordinator: Eduardo Portillo Hahnefeld, Instituto Tecnológico de Canárias (Gran Canaria, Spain).

Group members: Maria do Carmo Barreto (Azores team leader), Ana Seca and Ana Neto (Universidade dos Açores- GBA – cE3c).

Partners: FEDER partners - Fundação Gaspar Frutuoso; FICIC (Fundación Canaria del Instituto Canario de Investigación del Cancer); Universidad de Las Palmas de Gran Canaria; Universidade da Madeira; Universidad de La Laguna. Instituto Canario de Investigaciones Agrarias; Non-FEDER Partners/Third countries - Universidade de Cabo Verde; Universidade de Ciências, de Tecnologia e de Medicina (Mauritania); Université Cheikh Anta DIOP (Senegal).

Other participants/enterprises - CEAMED SA (Canarias, Spain); Salinas Marinas de Fuertecaliente S.L. (Canarias, Spain); ECOS Estudos Ambientales y Ocenografia (Canarias, Spain); Natur Extracts S.A. (Madeira, Portugal); BRC Infraestructuras Hidráulicas (Canarias, Spain); Martell Lozano S.L.; (Canarias, Spain); Algalimento S.L. (Canarias, Spain); Ayuntamiento de Las Palmas de Gran Canaria (Canarias, Spain); COAG-Canarias (Coordinadora deOrganziaciones de

Agricultores y Ganaderos) (Canarias, Spain); IDEAQUA FISH & AQUAPONIC SL (Canarias, Spain); UBQ II Lda (Madeira, Portugal); Biocanarias scp (Canarias, Spain).

Budget for the ABG: 92.123,00 Euros.

14. (2017-2020) [BIOINVENT] Generic bio-inventory of functional soil microbial diversity in permanent grassland ecosystems across management and climate gradients

Coordinator: Luís Filipe Dias Silva (CIBIO-A).

Funding entity: FRCT (M1.1.C/2/001/2017) - BIODIVERSA ERA-NET

Group members: Patrícia V. Garcia, Maria do Carmo Barreto and Carolina Parelho (Universidade dos Açores- GBA – cE3c).

Budget for the ABG: 50.000 Euros of a total of 100.000 Euros.

15. (2017-2020) Ecofibras - Eco-sustainable valorisation of invasive vegetal species in Macaronesia to obtain fibers with industrial use

Funding Institution: FEDER – EU.

Participants from ABG: Rui Elias (Universidade dos Açores- GBA – cE3c).

Other participants from other Institutions: Alfredo Borba, Carlos Vouzela, Henrique José & Duarte Rosa (University of the Azores).

Coordinators: Universidad de Las Palmas de Gran Canaria.

Partners: Universidade da Madeira (Madeira Chemistry Research Centre), Cabildo de Gran Canaria (through Jardín Botánico Canario Viera y Clavijo), Universidade dos Açores and Fundaçao Gaspar Frutuoso.

Budget for the ABG: not funded.

16. (2016-2018) CAMBIO- Holocene insular biodiversity changes on the Macaronesian and Balearic Islands (II)

Funded by Ministerio de Economia, Industria & Competividad; Spain.

Coordinator: Josep Antoni Alcover Tomás (Departament de Biodiversitat i Conservació, Institut Mediterrani d'Estudis Avançats; Mallorca, Balearic Islands (Spain);

Members: Paulo A.V. Borges and Fernando Pereira (Universidade dos Açores- GBA –

cE3c).

Budget for the ABG: not funded.

17. (2018-2019) sEcoEvo - Biodiversity Dynamics – The Nexus Between Space & Time

Funded by German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig.

Coordinator: Rosemary Gillespie (University of Califormia, Berkeley) and Michael Hickerson (City College of New York, USA).

Members: Paulo A.V. Borges and Jairo Patiño (Azorean Biodiversity Group – cE3c).

Other participants: Brent C. Emerson; Rampal S. Etienne; Catherine Graham; Joaquin Hortal; Petr Keil; Tiffany Marie Knight; Luke Mahler; Francois Massol; Angela McGaughran; Brian McGill; Isaac Overcast; Christine Parent; Katie Wagner; James Rosindell; Dylan Craven; Harmon, Luke; Andy Rominger; Jonathan Chase.

Budget for the ABG: 2.000,00 Euros.

18. (2018-2020) DynaCom- Dynamics of oceanic island arthropod communities in space and Time

Funded by Ministerio de Economia, Industria & Competividad, Spain.

Coordinator: Brent Emerson (Instituto de Productos Naturales y Agrobiología (IPNA-CSIC), Tenerife, Canary Islands). Team: Marcelino del Arco Aguilar (Universidad de La Laguna); Jairo Patiño Llorente; Heriberto López Hernández, Paula Arribas Blazquez; Carmelo Andújar Fernández (IPNA-CSIC); Paulo A.V. Borges (Universidade dos Açores- GBA – cE3c).

Members: Paulo A.V. Borges and Jairo Patiño (Universidade dos Açores- GBA – cE3c).

Budget for the ABG: 10.000,00 Euros.

6.1.2. Funded by FCT (Portuguese Science Foundation)

19. (2015-2018) FCT- PTDC/EPH_PAT/4684/2014 - DB-Heritage - "Base de dados de materiais de construção com interesse histórico e patrimonial"

Coordinator: António Santos Silva (LNEC).

Other participants from ABG: Lina Nunes.

Budget for the ABG: 186.160,00 Euros.

20. **(2016-2018) FCT - PTDC/BIA-BIC/1013/2014 - 2gether "Threatened specialized interactions endemic to a biodiversity hotspot"**

Coordinator: Mário Boieiro.

Other participants from ABG: Paulo A.V. Borges, Carla Rego, Fernando Pereira (Universidade dos Açores- GBA – cE3c), José Carlos Carvalho and Pedro Cardoso (Finnish Museum of Natural History, Univ. Helsinki, Helsinki, Finland).

Other participants from other Institutions: Artur Serrano, Carlos Aguiar and Rui Rebelo (Univ. Lisbon, cE3c); Luisa Carvalheiro (University of Brasília) and Dília Menezes (SPNM – Serviço do Parque Natural da Madeira).

Project's consultants: Jens Mogens Olesen (Department of Bioscience - Genetics, Ecology and Evolution, Aarhus University) and Xavier Espadaler Gelabert (CREAF, Universitat Autònoma de Barcelona).

Budget for the ABG: 139.368,00€ (10.140,00 Euros for FGF).

21. **(2016-2018) FCT-PTDC/BIABIC/0054/2014 – MACDIV "Macaronesian Islands as a testing ground to assess biodiversity drivers at multiple scales"**

Coordinators: Paulo A.V. Borges (Universidade dos Açores- GBA – cE3c) and François Rigal.

Other participants from ABG: Pedro Cardoso (Finnish Museum of Natural History, Univ. Helsinki, Helsinki, Finland), Isabel Amorim, Mário Boieiro, Carla Rego, Rosalina Gabriel, Fernando Pereira (Universidade dos Açores- GBA – cE3c) and José Carlos Carvalho.

Other participants from other Institutions: Octávio Paulo (Univ. Lisbon, cE3c); Brent Emerson (Island Ecology and Evolution Research Group, Instituto de Productos Naturales y Agrobiología, Canary Islands, Spain) and Miquel Arnedo, Luís Crespo (Departament de Biologia Animal, Universitat de Barcelona, Barcelona, Spain); Jagoba Malumbres Olarte (University of Copenhagen); Maria Romeiras (ISA, Univ of Lisbon).

Project's consultants: Robert Whittaker (Biodiversity Research Group, Oxford University Centre for the Environment); Kostas Triantis (Department of Ecology and Taxonomy, Faculty of

Biology, University of Athens); Rosemary Gillespie (University of California, Berkeley) and José María FernándezPalacios (University of La Laguna).

Budget for the ABG: 197.628,00 Euros.

22. (2016-2019) FCT- PTDC/BIA-BIC/5558/2014 - MOMENTOS "Spatial scaling of species diversity"

Coordinator: Luis Borda-de-Água (CIBIO).

Other participants from ABG: Paulo A.V. Borges, Rosalina Gabriel (Universidade dos Açores- GBA – cE3c) and Pedro Cardoso (Finnish Museum of Natural History, Univ. Helsinki, Helsinki, Finland).

Other participants from other Institutions: Henrique Pereira (Biodiversity Conservation, iDiv, Leipzig) and Francisco Dionísio (cE3c).

Budget for the ABG: 7.290,00 Euros of a total of 98.574,00 Euros.

6.1.3. Funded by DRCT (Azorean Science Foundation)

23. (2016-2020) FCT- Azores Bioportal - PORBIOTA

Coordinator: Paulo A.V. Borges (Universidade dos Açores- GBA – cE3c).

Other participants from ABG: Rosalina Gabriel, Ana M. Arroz, Isabel Amorim, António Onofre Soares, Enésima Mendonça, Rui Elias (Universidade dos Açores- GBA – cE3c) and Pedro Cardoso (Finnish Museum of Natural History, Univ. Helsinki, Helsinki, Finland).

Budget for the ABG: 300.000,00 Euros.

24. (2016-2018) PO Açores - eAZFlora - Electronic Flora of the Azores for Smartphones and Tablets

Coordinator: Mónica Maria Tavares de Moura (Universidade dos Açores).

Members: Luís Filipe Dias e Silva (Universidade dos Açores), Maria Teresa Pinheiro de Melo Borges Tiago (Universidade dos Açores) and Rosalina Gabriel, Rui Elias (Universidade dos Açores- GBA – cE3c).

Budget for the ABG: not funded.

25. (2016-2018) PO AÇORES - ECOSYSTEM IMPACTS AND SOCIOECONOMIC BENEFITS OF

ASPARAGOPSIS ARMATA IN THE AZORES

Coordinator: Ana Neto (Universidade dos Açores- GBA – cE3c)

Members: Afonso Prestes, Ana Seca, Eva Cacabelos, João Santos, Marc Morron and Maria Carmo Barreto (Universidade dos Açores- GBA – cE3c).

Budget cE3c: 150.000,00 Euros.

26. (2016-2018) PO Açores - FOREST-ECO2 - Towards an Ecological and Economic valorization of the Azorean Forest

Coordinator: Luís Filipe Dias e Silva (Universidade dos Açores)

Members: Mónica Maria Tavares de Moura (Universidade dos Açores), Maria Anunciação Mateus Ventura (Universidade dos Açores), João José Monteiro Mora Porteiro (Universidade dos Açores), Rui Elias (Universidade dos Açores- GBA – cE3c), Ana Isabel Damião de Serpa Arruda Moniz (Universidade dos Açores), Fernando Rosa Rodrigues Lopes (Universidade dos Açores), Francisco José Ferreira Silva (Universidade dos Açores)

Budget for the ABG: not funded.

27. (2016-2019) PO Açores - SMART ► TOURISM

Coordinator: Maria Teresa Pinheiro de Melo Borges Tiago (Universidade dos Açores)

Members: João Pedro de Almeida Couto (Universidade dos Açores), Artur Gil (Universidade dos Açores- GBA – cE3c), Flávio Gomes Borges Tiago (Universidade dos Açores), Sandra Dias Faria (Universidade dos Açores), Maria Luz Paramio Martin (CEEAplA), Francisco Amaral (Universidade dos Açores)

Budget for the ABG: not funded.

28. (2016-2018) PO Açores - Green Gardens - Azores

Coordinator: Maria Isabel Whitton Terra Soares de Albergaria (Universidade dos Açores)

Members: Maria Isabel Whitton Terra Soares de Albergaria (Universidade dos Açores), Ana Moura Arroz (cE3c-GBA), Rosalina Gabriel (Universidade dos Açores- GBA – cE3c), João Porteiro (Universidade dos Açores), Maria João Pereira (Universidade dos Açores), Carlos Santos (Universidade dos Açores), Paulo A.V. Borges ((Universidade dos Açores- GBA – cE3c); Consultor)

Budget for the ABG: 12.000,00 Euros.

29. **(2016-2018) PO Açores - PROAAcXXIs - Projecções das alterações climática nos açores para o século XXI: Implicações hidrológicas de interesse agronómico e ambiental**

Coordinator: Eduardo Brito de Azevedo (Universidade dos Açores)

Members: Eduardo Brito de Azevedo (Universidade dos Açores), Paulo A.V. Borges, Rosalina Gabriel and Rui Elias (Universidade dos Açores- GBA – cE3c), Joana Barcelos Ramos (Universidade dos Açores), Jorge Pinheiro, João S. Madruga, Luís Santos Pereira (Instituto Superior de Agronomia, Lisboa, Portugal; Consultor), Pedro M. Miranda (Faculdade de Ciências da Universidade de Lisboa, Portugal; Consultor)

Budget for the ABG: not funded.

30. **(2016-2019) PO Açores - TU-SÉNIOR 55+ - Turismo sénior e bem-estar no destino Açores: criação de um produto cultural**

Coordinator: Maria Teresa Pires de Medeiros

Members: Carlos Alberto da Silva Melo Santos (CEEAplA), Ana Isabel Damião de Serpa Arruda Moniz (CEEAplA), Licínio Manuel Vicente Tomás (Departamento de História, Filosofia e Ciências Sociais da Universidade dos Açores & CICS.NOVA.UAC), Osvaldo Dias Lopes Silva (Departamento de Matemática da Universidade dos Açores & CICS.NOVA.UAC), Virgilio Fernando Ferreira Vieira (Departamento de Biologia da Universidade dos Açores & (GBA – cE3c)) e o Consultor Joaquim Armando Gomes Alves Ferreira (IPCDVS e Unidade de Investigação FCT da Faculdade de Psicologia e Ciências da Educação da Universidade de Coimbra).

Budget for the ABG: not funded.

6.1.4. Other Funding Institutions

31. **(2012-2017) Long Term Ecological Study of the Impacts of Climate Change in the natural forest of Azores**

Coordinator: Paulo A.V. Borges (Universidade dos Açores- GBA – cE3c).

Members: Rui Nunes and Rui Carvalho (Universidade dos Açores- GBA – cE3c).

Partners: Natural Parks of Santa Maria, Terceira, Faial, Pico, Flores, Graciosa, SPEA, the Botanical Garden of Faial and the Furnas Monitoring and Research Centre.

Budget for the ABG: Grants from Erasmus and Eurodisseia (see mobility projects and networks).

32. (2014-2017) Control of the Termite *Reticulitermes flavipes* in Praia da Vitória (Terceira)

Funded by Mayor of Praia da Vitória and DRAM – Azores – Contract S_257_2013

Coordinator: Paulo A.V. Borges (Universidade dos Açores- GBA – cE3c).

Members: Lina Nunes (LNEC) and Orlando Guerreiro (Universidade dos Açores- GBA – cE3c).

Budget for the ABG: 50.000,00 Euros.

33. (2014-2018) LIFE Recover Natura

Funded by Programa LIFE+, Natura2000, Região Autónoma da Madeira - Governo Regional, Secretaria Regional do Ambiente e Recursos Naturais, Parque Natural da Madeira, Sociedade Portuguesa para o Estudo das Aves.

Coordinator: Madeira Natural Park.

Members: José carvalho & Mário Boieiro (Universidade dos Açores- GBA – cE3c).

Budget for the ABG: not funded.

34. (2015-2017) GestAqua-Desenvolvimento de metodologias para a recuperação e melhoria de gestão de ecossistemas aquáticos insulares no âmbito da implementação da Diretiva Quadro da Água

Funded by DRAM – Azores.

Coordinator: CIBIO Azores.

Members: José M. Azevedo (Universidade dos Açores- GBA – cE3c).

Budget for the ABG: not funded.

35. (2015-2019) DRAM- Direcção Regional do Ambiente (Secretaria Regional da Agricultura e Ambiente) "Control of the Termite *Reticulitermes* species in Praia da

Vitória (Terceira) and Horta (Faial)" SAI-DRA-2015/2614 -P009.07.01/193

Funded by DRAM – Azores.

Coordinator: Paulo A.V. Borges (Universidade dos Açores- GBA – cE3c).

Members: Lina Nunes (LNEC)and Orlando Guerreiro (Universidade dos Açores- GBA – cE3c).

Budget for the ABG: 14.950,00 Euros.

36. **(2015-2020) DRAM- Direcção Regional do Ambiente (Secretaria Regional da Agricultura e Ambiente) "Control and Erradication plan for of the drywwod termite *Cryptotermes brevis* in Azores" - SAI-DRA-2015/3713 -P009.07.01/250**

Funded by DRAM – Azores.

Coordinator: Paulo A.V. Borges (Universidade dos Açores- GBA – cE3c).

Members: Lina Nunes (LNEC) and Orlando Guerreiro (Universidade dos Açores- GBA – cE3c).

Budget for the ABG: 29.994,00 Euros.

37. **(2016-2018) Monitoring the presence of large sized Taeniura grabata (Myliobatiformes: Dasyatidae) in Praia da Vitória's Marina, Terceira Island, Azores, Portugal**

Funded by Azores Regional Government, Praia da Vitória City Council & Portuguese Navy.

Coordinator: João Pedro Barreiros (Universidade dos Açores- GBA – cE3c).

Members: Vidal Haddad Jr., Madaíl Ávila, Juergen Pollerspock.

Budget for the ABG: not funded.

38. **(2016-2020) Investigating the influence of environmental boundaries on the population structure of Yellowmouth Barracuda, *Sphyraena viridensis***

Funded by Natural Environmental Research Council (NERC).

Coordinator:

Members: João Pedro Barreiros (Universidade dos Açores- GBA – cE3c).

Budget for the ABG: not funded.

39. (2014-2018) DRAM- Direcção Regional do Ambiente (Secretaria Regional da Agricultura e Ambiente) "Drywood Termite Monitoring in Azores 2017"

Funded by DRAM – Azores.

Coordinator: Paulo A.V. Borges (Universidade dos Açores- GBA – cE3c).

Members: Maria Teresa Ferreira (Universidade dos Açores- GBA – cE3c).

Budget for the ABG: 30.250,00 Euros.

6.2. DETAILED INFORMATION FOR 2017 PUBLICATIONS

6.2.1.

6.2.2. INTERNATIONAL PEER REVIEWED PAPERS WITH IMPACT FACTOR (SCI)

6.2.2.1. By at least one integrated member (n=57)

Bertocci, I., Arenas, F., **Cacabelos, E., Martins, G.M.**, Seabra, M.I., **Álvaro, N.V.**, Fernandes, J.N., Gaião, R., Mamede, N., Mulas, M. & **Neto, A.I.** (2017) Nowhere safe? Exploring the influence of urbanization across mainland and insular seashores in continental Portugal and the Azorean Archipelago. *Marine Pollution Bulletin*, **114**, 644-655. DOI:10.1016/j.marpolbul.2016.10.045 **(IF2016 3,146; Q1 Environmental Sciences) (P0880)**

Borda-de-Água, L., Whittaker, R., **Cardoso, P., Rigal, F., Santos, A.M.C., Amorim, I.R., Parmakelis, A., Triantis, K.A.,** Pereira, H. & **Borges, P.A.V.** (2017) Dispersal ability determines the scaling properties of species abundance distributions: a case study using arthropods from the Azores. *Scientific Reports*, **7**, 3899. DOI:10.1038/s41598-017-04126-5 **(IF2016 4,259; Q1 Multidisciplinary Sciences) (P0731)**

Borges, I., Canepari, C., Rodriguez, I. & **Soares, A.O.** (2017) First record of Rhyzobius forestieri (Mulsant) (Coleoptera: Coccinellidae) for the Azores archipelago and for Portugal. *The Coleopterists Bulletin*, **71(4)**, 796-797. DOI:10.1649/0010-065X-71.4.796 **(IF2016 0,496; Q4 Entomology) (P1025)**

Borges Silva, L., Teixeira, A., Alves, M., **Elias, R,B.** & Silva, L. (2017) Tree age determination in the widespread woody plant invader Pittosporum undulatum. *Forest Ecology and Managment*, **400**, 457-467. DOI:10.1016/j.foreco.2017.06.027 **(IF2016 3,064; Q1 Forestry) (P0966)**

Borges, P.A.V., Amorim, I.R., Terzopoulou, S., Rigal, F., Emerson, B. & Serrano, A.R.M. (2017) Cryptic diversity in Azorean beetle genus *Tarphius* Erichson, 1845 (Coleoptera: Zopheridae): An integrative taxonomic approach with description of four new species. *Zootaxa,* **4236**, 401-449. DOI: 10.11646/zootaxa.4236.3.1 **(IF2016 0,972; Q2 Zoology) (P0482)**

Borregaard, M.K., **Amorim, I.R., Borges, P.A.V.,** Cabral, J.S., Fernández-Palacios, J.M., Field, R., Heaney, L.R., Kreft, H., **Matthews, T.J.,** Olesen, J.M., Price, J., **Rigal, F.,** Steinbauer, M., **Triantis, K.A.,** Valente. L., Weigelt, P. & Whittaker, R.J. (2017) Oceanic island biogeography through the lens of the General Dynamic Model: assessment and prospect. *Biological Reviews,* **92**, 830–853. DOI:10.1111/brv.12256 **(IF2016 11,615; Q1 Biology) (P0732)**

Branco, B., Dalmau, L., **Borges, I.** & **Soares, A.O.** (2017) Life-history traits of the predator Rhyzobius lophanthae reared on the scale Chrysomphalus dictyospermi. *Bulletin of Insectology*, **70(2**), 231-235. **(IF2016 1,051; Q2 Entomology) (P1008)**

Cicconardi, F., **Borges, P.A.V.**, Strasberg, D., Oromí, P., López, H., Perez-Delgado, A.J., Casquet, J., Caujape-Castells, J, Fernandez-Palacios, J.M., Thebaud, C. & Emerson, B.C. (2017) MtDNA metagenomics reveals large-scale invasion of belowground arthropod communities by introduced species. *Molecular Ecology*, **26**, 3104-3115. DOI:10.1111/mec.14037 **(IF2016 6,089; Q1 Ecology) (P0874)**

Duarte, S., Duarte, M., **Borges, P.A.V.** & **Nunes, L.** (2017) Dietary-driven variation effects on the symbiotic flagellate protists communities of the subterranean termite *Reticulitermes grassei* Clément. *Journal of Applied Entomology*, **141**, 300-307. DOI:10.1111/jen.12331 **(IF2016 1,641; Q2 Entomology) (P0805)**

Emerson, B.C., Casquet, J., López, H., **Cardoso, P., Borges, P.A.V**., Mollaret, N., Oromí, P., Strasberg, D. & Thébaud, C. (2017) A combined field survey and molecular identification protocol for comparing forest arthropod biodiversity across spatial scales. *Molecular Ecology Resources,* **17**, 694-707. DOI:10.1111/1755-0998.12617 **(IF2016 7,332; Q1 Ecology) (P0835)**

Esteves, B., Ribeiro, F., Cruz-Lopes, L., Ferreira, J., Domingos, I., Duarte, M., **Duarte, S.** & **Nunes, L.** (2017) Densification and heat treatment of maritime pine wood. *Wood Research,* **62(3)**, 373-388. **(IF2016 0,629; Q3 Materials Science, Paper & Wood) (P0985)**

Faria, J., Martins, G.M., Pita, A., Ribeiro, P.A., Hawkins, S.J., Presa, P. & **Neto, A.I.** (2017) Disentangling the genetic and morphological structure of Patella candei complex in Macaronesia (NE Atlantic). *Ecology and Evolution*, **7(16)**, 6125-6140. DOI:10.1002/ece3.3121 **(IF2016 2,440; Q2 Ecology) (P1013)**

Faria, J., Pita, A., **Martins, G.M.**, Ribeiro, P.A., Hawkins, S.J., Presa, P. & **Neto, A.I.** (2017) Inbreeding in the exploited limpet Patella aspera across the Macaronesia archipelagos (NE Atlantic): implications for conservation. *Fisheries Research*, **198**, 180-188. DOI:10.1016/j.fishres.2017.09.003 **(IF2016 2,185; Q1 Fisheries) (P0995)**

Fattorini, S., Borges, P.A.V., Dapporto, L. & Strona G. (2017) What can the parameters of the species-area relationship (SAR) tell us? Insights from the Mediterranean islands. *Journal of Biogeography*, **44**, 1018-1028. DOI:10.1111/jbi.12874 **(IF2016 4,248; Q1 Ecology) (P0836)**

Fattorini, S., Gabriel, R., Arroz, A.M., Amorim, I.R., Borges, P.A.V. & Cafaro, P. (2017) Children preferences for less diverse green spaces do not disprove biophilia. *PNAS - Proceedings of The National Academy of Sciences of The United States of America*, **114(35)**, E7215. DOI:10.1073/pnas.1711505114 (IF2016 9,661; Q1 Multidisciplinary Sciences) **(P0974)**

Faustino, M., **Seca, A.M.L.**, Silveira, P., Silva, A.M.S., Pinto, D.C.G.A. (2017) Gas chromatography–mass spectrometry profile of four Calendula L. taxa: a comparative analysis. *Industrial Crops and Products,* 104, 91-98. DOI:10.1016/j.indcrop.2017.04.029 **(IF2016 3,181; Q1 Agronomy) (P0964)**

Fernandes, J.P., Freire, M., Guiomar, N. & **Gil, A.** (2017) Using modeling tools for implementing feasible land use and nature conservation governance systems in small islands – The Pico Island (Azores) case-study. *Journal of Environmental Management*, **189**, 1-13. DOI:10.1016/j.jenvman.2016.12.034 **(IF2016 4,010; Q1 Environmental Sciences) (P0903)**

Fernandez, M., Yesson, C., Gannier, A., Miller, P.I. & **Azevedo, J.M.N.** (2017) The importance of temporal resolution for niche modelling in dynamic marine environments. *Journal of Biogeography*, **44(12)**, 2816-2827. DOI:10.1111/jbi.13080 **(IF2016 4,248; Q1 Ecology) (P1070)**

Gianni, F., Bartolini, F, Pey, A., Laurent, M., **Martins, G.M.**, Airoldi, L. & Mangialajo, L. (2017) Threats to large brown algal forests in temperate seas: the overlooked role of native herbivorous fish. *Scientific Reports*, 7(6012), 1-13. DOI:10.1038/s41598-017-06394-7 **(IF2016 4,259; Q1 Multidisciplinary Sciences**) **(P0965)**

Gosling, W.D., de Kruif, J., **Norder, S.J.**, de Boer, E.J., Hooghiemstra, H., Rijsdijk, K.F. & McMichael, C.N.H. (2017) Mauritius on fire: tracking historical human impacts on biodiversity loss. *Biotropica*, **49(6)**, 778-783. DOI:10.1111/btp.12490 **(IF2016 1,730; Q3 Ecology) (P1003)**

Hansen, D.M., Austin, J.J., Baxter, R.H., de Boer, E.J., Fálcon, W., **Norder, S.J.**, Rijsdijk, K.F., Thébaud, C., Bunbury, N.J. & Warren, B.H. (2017) Origins of endemic island tortoises in the western Indian Ocean: a critique of the human-translocation hypothesis. *Journal of Biogeography*, **44(6)**, 1430-1435. DOI:10.1111/jbi.12893 **(IF2016 4,248; Q1 Ecology) (P0904)**

Henriques, D.S.G., Ah-Peng C. & **Gabriel R.** (2017) Structure and applications of BRYOTRAIT-AZO, a trait database for Azorean bryophytes. *Cryptogamie Bryologie*, **38(2)**, 137-152. DOI:10.7872/cryb/v38.iss2.2017.137 **(IF2016 1,062; Q2 Plant Sciences) (P0866)**

Henriques, D.S.G., Rigal, F., Borges, P.A.V., Ah-Peng, C. & **Gabriel, R.** (2017) Functional diversity and composition of bryophyte water-related traits in Azorean native vegetation. *Plant Ecology and Diversity*, **10(2-3**), 127-137. DOI:10.1080/17550874.2017.1315839 (IF2016 1,809; Q2 Plant Sciences) **(P0867)**

Hernandez, R.H., **Borges, P.A.V., Gabriel, R., Rigal, F.**, Ah-Peng, C. & Gonzalez-Mancebo, J.M. (2017) Scaling alpha and beta diversity: bryophytes along an elevational gradient on a sub-tropical oceanic island (La Palma, Canary Islands). *Journal of Vegetation Science*, **28(6)**, 1209-1219. DOI:10.1111/jvs.12573 **(IF2016 2,924; Q1 Plant Sciences) (P0972)**

Honěk, A., Dixon, A.F.G., **Soares, A.O.**, Skuhrovec, J. & Martinkova Z. (2017) Spatial and temporal changes in the abundance and composition of ladybird (Coleoptera: Coccinellidae) communities. *Current Opinion in Insect Science*, **20**, 61-67. DOI:10.1016/j.cois.2017.04.001 **(IF2016 6,660; Q1 Biology) (P0958)**

Hudson, L.N., Newbold, T., … **Borges, P.A.V., Cardoso, P.**, … Purvis, A. (2017) The database of the PREDICTS (Projecting Responses of Ecological Diversity In Changing Terrestrial Systems) project. *Ecology and Evolution*, **7**, 145–188. DOI:10.1002/ece3.2579 **(IF2016 2,440; Q2 Ecology) (P0864)**

Lamelas-López, L., Florencio, M., Borges, P.A.V. & Cordero Rivera, A. (2017) Larval development and growth ratios of Odonata of the Azores. *Limnology*, **18**, 71–83. DOI:10.1007/s10201-016-0490-y **(IF2016 0,913; Q3 Limnology) (P0811)**

Lamelas López, L., Raposeiro, P., **Borges, P.A.V.** & **Florencio, M.** (2017) Annotated checklist of aquatic beetles (Coleoptera) and true bugs (Heteroptera) in the Azores Islands: new records and corrections of colonization status. *Zootaxa*, 4353(1), 117-132. DOI:10.11646/zootaxa.4353.1.7 **(IF2016 0,972; Q2 Zoology) (P1000)**

Linhares, D., **Garcia, P.**, Amaral, L., Ferreira, T. & Rodrigues, A.S. (2017) Safety evaluation of fluoride content in tea infusions consumed in the Azores-a volcanic region with water springs naturally enriched in fluoride. *Biological Trace Elements Research*, **179(1)**, 158-164. DOI:10.1007/s12011-017-0947-9 **(IF2016 2,399; Q3 Biochemistry & Molecular Biology) (P1093)**

Martins, G.M., Matias, M.G., Moniz, I., Rius, C., Sanderson, J., **Neto, A.I.** & Jenkins, S.R. (2017) Post-settlement dispersal ability determines structure of marine benthic metacommunities. *Marine Ecology Progress Series*, **569**, 15-23. DOI:10.3354/meps12108 **(IF2016 2,292; Q1 Marine & Freshwater Biology) (P0954)**

Martins, G.M., Borges, C.D.G., **Vale, M.**, Ribeiro, P.A., Ferraz, R.R., Martins, H.R., Santos, R.S. & Hawkins, S.J. (2017) Exploitation promotes earlier sex change in a protandrous patellid limpet, Patella aspera Röding, 1798. *Ecology and Evolution*, **7**, 3616-3622. DOI:10.1002/ece3.2925 **(IF2016 2,440; Q2 Ecology) (P0946)**

Matthews, T.J., Borges, P.A.V., Azevedo, E.B. & Whittaker, R.J. (2017) A biogeographical perspective on species abundance distributions: recent advances and opportunities for future research. *Journal of Biogeography*, **44**, 1705–1710.DOI: 10.1111/jbi.13008 **(IF2016 4,248; Q1 Ecology) (P0950)**

Melo, C.D., Luna, S.D., Krüger, C., Walker, C., Mendonça, D., Fonseca, H.M.A.C., Jaizme-Veja, M.C. & Câmara Machado, A. (2017) Arbuscular mycorrhizal fungal community composition associated with Juniperus brevifolia in native Azorean forest. *Acta Oecologica-International Journal of Ecology*, **79**, 48-51. DOI:10.1016/j.actao.2016.12.006 **(IF2016 1,652; Q3 Ecology) (P0910)**

Norder, S., Seijmonsbergen, A., Rughooputh, S., van Loon, E., Tatayah, V., Kamminga, A. & Rijsdijk, K. (2017) Assessing temporal couplings in social–ecological island systems: historical

deforestation and soil loss on Mauritius (Indian Ocean). *Ecology and Society*, **22(1)**, 1-16. DOI:10.5751/ES-09073-220129 **(IF2016 2,842; Q2 Ecology) (P0951)**

Nunes, N., Ferraz, S., Valente, S., **Barreto, M.C.** & Pinheiro de Carvalho, M.A.A. (2017) Biochemical composition, nutritional value, and antioxidant properties of seven seaweed species from the Madeira Archipelago. *Journal of Applied Phycology*, **29(5)**, 2427-2437. DOI:10.1007/s10811-017-1074-x **(IF2016 2,616; Q1 Marine & Freshwater Biology) (P0924)**

Paiva, L., Lima, E., **Neto, A.I.** & Baptista, J. (2017) Angiotensin I-converting enzyme (ACE) inhibitory activity, antioxidant properties, phenolic content and amino acid profiles of Fucus spiralis L. protein hydrolysate fractions. *Marine Drugs*, **15(10)**, 1-18. DOI:10.3390/md15100311 **(IF2016 3,503; Q1 Chemistry, Medicinal) (P1030)**

Paiva, L., Lima, E., **Neto, A.I.** & Baptista, J. (2017) Nutritional and functional bioactivity value of selected Azorean macroalgae: Ulva compressa, U. rigida, Gelidium microdon and Pterocladiella capillacea. *Journal of Food Science*, **82(7)**, 1757-1764. DOI:10.1111/1750-3841.13778 **(IF2016 1,815; Q2 Food Science & Technology) (P1031)**

Patarra, R.F., Carreiro, A.S., Lloveras, A.A., Abreu, M.H., Buschmann, A.H. & **Neto, A.I.** (2017) Effects of light, temperature and stocking density on *Halopteris scoparia* growth. *Journal of Applied Phycology*, **29(1),** 405-411. DOI:10.1007/s10811-016-0933-1 **(IF2016 2,616; Q1 Marine & Freshwater Biology) (P0840)**

Patiño, J., Whittaker, R.J., **Borges P.A.V.**, Fernández-Palacios, J.M., Ah-Peng, C., Araújo, M., Ávila, S., **Cardoso, P.,** Cornuault, J., Boer, E. de, Nascimento, Lea de, **Gil, A.,** Gonzáalez, A., Gruner, D.S., Heleno, R., Hortal, J., Illera, J.C., Kaiser-Bunbury, C., **Matthews, T.,** Papadopoulou, A., Pettorelli, N., Price, J., **Santos, A.M.C.,** Steinbauer, M., **Triantis, K.A.,** Valente, L., Vargas, P., Weigelt, P. & Emerson, B.C. (2017) A roadmap for island biology: 50 fundamental questions after 50 years of The Theory of Island Biogeography. *Journal of Biogeography,* **44**, 963-983. DOI: 10.1111/jbi.12986. **(IF2016 4,248; Q1 Ecology) (P0921)**

Picanço, A., Gil. A., Rigal, F. & **Borges, P.A.V.** (2017) Pollination services mapping and economic valuation from insect communities: a case study in the Azores (Terceira Island). *Nature Conservation*, **18**, 1-25. DOI:10.3897/natureconservation.18.11523 **(IF2016 1,355; Q3 Biodiversity Conservaton) (P0957)**

Picanço, A., Rigal, F., Matthews, T.J., Cardoso, P. & **Borges, P.A.V.** (2017) Impact of land-use change on flower-visiting insect communities on an oceanic island. *Insect Conservation and Diversity*, **10**, 211-223. DOI:10.1111/icad.12216 **(IF2016 1,840; Q1 Entomology) (P0869)**

Pimentel, R., Lopes, D.H., Mexia, A.M.M. & Mumford, J. (2017) Seasonality of the Mediterranean fruit fly on Terceira and São Jorge Islands, Azores, Portugal. *Journal of Insect Science*, **17(1)**, 1-35. DOI:10.1093/jisesa/iew097 **(IF2016 0,843; Q2 Entomology) (P0890)**

Pimentel, R., **Lopes, D.H.**, Mexia, A.M.M. & Mumford, J. (2017) Validation of a geographic weighted regression analysis as a tool for area-wide integrated pest management programs for Ceratitis capitata Wiedemann (Diptera: Tephritidae) on Terceira Island, Azores. *International Journal of Pest Management*, **63(2)**, 172-184. DOI:10.1080/09670874.2016.1256512 **(IF2016 0,640; Q3 Entomology) (P0891)**

Pires, A.E., **Amorim, I.R.**, Borges, C., Simões, F., Teixeira, T., Quaresma, A., Petrcci-Fonsecca, F. & Matos, J. (2017) New insights into the genetic composition and phylogenetic relationship of wolves and dogs in the Iberian Peninsula. *Ecology and Evolution*, **7**, 4404–4418. DOI:10.1002/ece3.2949 **(IF2016 2,440; Q2 Ecology) (P0962)**

Prestes, A.C.L., Cacabelos, E., Neto, A.I. & **Martins, G.M.** (2017) Temporal stability in macroalgal assemblage standing stock despite high species turnover. *Marine Ecology Progress Series*, **567,** 249-256. DOI:10.3354/meps12039 **(IF2016 2,292; Q1 Marine & Freshwater Biology) (P0917)**

Rando, J.C., Pieper, H., Olson, S.L., **Pereira, F.** & Alcover, J.A. (2017) A new extinct species of large bullfinch (Aves: Fringillidae: Pyrrhula) from Graciosa Island (Azores, North Atlantic Ocean). *Zootaxa*, **4282(3)**, 567-583. **DOI:10.11646/zootaxa.4282.3.9 (IF2016 0,972; Q2 Zoology) (P0959)**

Raposeiro, P.M., Ferreira, V., Guri, R., Gonçalves, V. & **Martins, G.M.** (2017) Leaf litter decomposition on insular lenthic systems: effects of macro invertebrates presence, leaf species, and environmental conditions. *Hydrobiologia*, **784(1)**, 65-79. DOI:10.1007/s10750-016-2852-1 **(IF2016 2,056; Q1 Marine & Freshwater Biology) (P0777)**

Rego, C., Aguiar, A.M.F., Cravo, D. & **Boieiro, M.** (2017) Invasive fruit flies (Diptera: Drosophilidae) meet in a biodiversity hotspot. *Journal of the Entomological Research Society,* **19**, 61-69. **(IF2016 0,266; Q4 Entomology) (P0831)**

Ribeiro, P.A., Gonçalves, J.M., Chavan, G., Fricke, R., García-Mederos, A.M., Tuset, V.M. & **Barreiros, J.P.** (2017) First record of the cubera snapper Lutjanus cyanopterus (Cuvier, 1828) from the Azores (NE Atlantic) and possible extension range for the West Atlantic. *Acta Ichthyologica et Piscatoria*, **47(3)**, 259-263. DOI:10.3750/AIEP/02238 **(IF2016 0,670; Q3 Zoology) (P0983)**

Rosa, G.P., **Seca, A.M.L., Barreto, M.C.** & Pinto, D.C.G.A. (2017) Chalcone: a valuable scaffold upgrading by green methods. *ACS Sustainable Chemistry & Engineering*, **5(9)**, 7467-7480. DOI:10.1021/acssuschemeng.7b01687 **(IF2016 5,951; Q1 Green & Sustainable Science & Technology) (P0973)**

Rull, V., Connor, S.E. & **Elias, R.B**. (2017) Potential natural vegetation and pre-anthropic pollen records on the Azores Islands in a Macaronesian context. Journal of Biogeography, **44(11)**, 2437-2440. DOI:10.1111/jbi.13083 **(IF2016 4,248; Q1 Ecology) (P0998)**

Santos, T., **Nunes, L.** & Faria, P. (2017) Production of eco-efficient earth-based plasters: influence of composition on physical performance and bio-susceptibility. *Journal of Cleaner Production*, **167**, 55-67. DOI:10.1016/j.jclepro.2017.08.131 (IF2016 5,715; Q1 Green & Sustainable Science & Technology) **(P0986)**

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)**, 1-35. DOI:10.3390/ijgi6120391 **(IF2016 1,502; Q3 Geography, Physical) (P1032)**

Simaiakis, S.M., Rijsdijk, K.F., Koene, E.F.M., **Norder, S.J.**, Van Boxel, J.H., Stocchi, P., Hammoud, C., Kougioumoutzis, K., Georgopouloug, E., Van Loon, E., Tjørve, K.M.C., Tjørve, E. (2017) Geographic changes in the Aegean Sea since the Last Glacial Maximum: postulating biogeographic effects of sea-level rise on islands. *Palaeogeography, Palaeoclimatology, Palaeoecology*, **471**, 108-119. DOI:10.1016/j.palaeo.2017.02.002 **(IF2016 2,578; Q2 Geography, Physical) (P0952)**

Soares, A.O., Honek, A., Martinkova, Z., Skuhrovec, J., **Cardoso, P.** & **Borges, I.** (2017) Harmonia axyridis failed to establish in the Azores: the role of species richness, intraguild interactions and resource availability. *Biocontrol*, **62(3)**, 423-434. DOI: 10.1007/s10526-017-9794-z **(IF2016 1,918; Q1 Entomology) (P0923)**

Weissmann, J.A., **Picanço, A., Borges, P.A.V.** & Schaeffer, H. (2017) Bees (Apidae, Hymenoptera) of the Azores: an annotated checklist. *ZooKeys*, **642**, 63-95. DOI:10.3897/zookeys.642.10773 **(IF2016 1,031; Q3 Zoology**) **(P0868)**

Vieira, V. (2017) Vanessa virginiensis (Drury, 1773) in the Azores islands (Lepidoptera: Nymphalidae). *SHILAP-Revista De Lepidopterologia*, **45(177)**, 75-81. **(IF2016 0,264; Q4 Entomology) (P0906)**

6.2.2.2. By Associate Research Fellows only (n=12)

Chiarucci, A., **Fattorini, S.**, Foggi, B., Landi, S., Lazzaro, L., Podani, J. & Simberloff, D. (2017) Plant recording across two centuries reveals dramatic changes in species diversity of a Mediterranean archipelago. *Scientific Reports*, **7(5415)**, 1-11. DOI:10.1038/s41598-017-05114-5 (IF2016 4,259; Q1 Multidisciplinary Sciences (P0971)

Fattorini, S. (2017) The Watson–Forbes biogeographical controversy untangled 170 years later. *Journal of the History of Biology*, **50**, 473-496. DOI:10.1007/s10739-016-9454-7 **(IF2016 0,737; Q1 History & Philosophy of Science) (P0875)**

Fattorini, S., Bergamaschi, D., Galassi, D.M.P., Biondi, M., Acosta, A.T.R. & Di Giulio, A. (2017) Spatial organization of an insect ensemble in a Mediterranean ecosystem: the tenebrionid beetles (Coleoptera Tenebrionidae) inhabiting an Adriatic coastal sand dune area. *Acta Zoologica Bulgarica*, **69(2),** 201-208. **(IF2016 0,413; Q4 Zoology) (P0752)**

Fattorini, S., Lombardo, P., Fiasca, B., Di Cioccio, A., Di Lorenzo, T. & Galassi, D.M.P. (2017) Earthquake-Related changes in species spatial niche overlaps in spring communities. *Scientific Reports*, **7(443)**, 1-9. DOI:10.1038/s41598-017-00592-z (IF2016 4,259; Q1 Multidisciplinary Sciences) **(P0970)**

Galassi, D.M.R., Fiasca, B., Di Lorenzo, T., Porfirio, S., Montanari, S. & **Fattorini, S.** (2017) Groundwater biodiversity in a chemoautotrophic cave ecosystem: how geochemistry regulates microcrustacean community structure. *Aquatic Ecology*, **51(1)**, 75-90. DOI:10.1007/s10452-016-9599-7 **(IF2016 1,500; Q2 Marine & Freshwater Biology) (P0873)**

Garcia-Olivares, V., Lopez, H., **Patiño, J.**, Alvarez, N., Machado, A., Carracedo, J.C., Soler, V. & Emerson, B.C. (2017) Evidence for mega-landslides as drivers of island colonization. *Journal of Biogeography*, **44(5)**, 1053-1064. DOI:10.1111/jbi.12961 **(IF2016 4,248; Q1 Ecology) (P0993)**

Matthews, T.J., Cottee-Jones, H.E.W., Bregman, T.P. & Whittaker, R.J. (2017) Assessing the relative importance of isolated Ficus trees to insectivorous birds in an Indian human-modified

tropical landscape. *Biodiversity and Conservation*, **26(12)**, 2803-2819. DOI:10.1007/s10531-017-1387-8 **(IF2016 2,265; Q1 Biodiversity Conservation) (P0969)**

Montano, S., **Fattorini, S.**, Parravicini, V., Berumen, M.L., Galli, P., Maggioni, D., Arrigoni, R., Seveso, D. & Strona, G. (2017) Corals hosting symbiotic hydrozoans are less susceptible to predation and disease. *Proceedings of The Royal Society B-Biological Sciences*, **284**, 20172405. DOI:10.1098/rspb.2017.2405 **(IF2016 4,940; Q1 Biology) (1095)**

Patiño, J., Hedenäs, L., Dirkse, G.M., Ignatov, M.S., Papp, B., Müller, F., González-Mancebo, J.M. & **Vanderpoorten, A.** (2017) Species delimitation in the recalcitrant moss genus Rhynchostegiella (Brachytheciaceae). *Taxon*, **66(2)**, 293-308. DOI:10.12705/662.1 **(IF2016 2,447; Q1 Plant Sciences) (P0740)**

Patiño, J., Wang, J., Renner, M., Gradstein, S.R., Laenen, B., Devos, N., Shaw, J.A. & Vanderpoorten, A. (2017) Range size heritability and diversification patterns in the liverwort genus Radula. *Molecular Phylogenetics and Evolution*, **106**, 73-85. DOI:10.1016/j.ympev.2016.09.020 **(IF2016 4,419; Q1 Evolutionary Biology) (P0741)**

Rodríguez-Romero, A., Hernández, M., **Patiño, J.**, Werner, O. & González-Mancebo, J.M. (2016) Characterization of ten polymorphic microsatellite loci for the threatened species Grimmia curviseta Bouman (Grimmiaceae, Musci). *Journal of Bryology*, **39(1)**, 16-22. DOI:10.1080/03736687.2016.1183331 **(IF2016 0,975; Q3 Plant Sciences) (P0758)**

Whittaker, R.J., Fernández-Palácios, J.M., **Matthews, T.J.**, Borregaard, M.K. & Triantis, K.A. (2017) Island biogeography: taking the long view of nature's laboratories. *Science*, **357(6354)**, 1-7.DOI:10.1126/science.aam8326 **(IF2016 37,2015; Q1 Multidisciplinary Sciences) (P0994)**

6.2.3. BOOKS

6.2.3.1. By at least one integrated member (n=2)

Fernández-Palacios, J.M., Arévalo, J.R., Balguerías, E., Barone, R., de Nascimento, L., **Elias, R.B.**, Delgado, J.D., Fernández-Lugo, S., Méndez, J., Naranjo Cigala, A., Menezes de Sequeira, M. & Otto, R. (2017) *La Laurisilva. Canarias, Madeira y Azores*. Macaronesia Editorial, Santa Cruz de Tenerife, 420 pp. **(P1009)**

García Criado, M., Väre, H., Nieto, A., **Elias, R.B.**, 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*. IUCN, Brussels, Belgium, 59 pp. **(P1012)**

6.2.4. BOOK CHAPTERS

6.2.4.1. By at least one integrated member (n=9)

Barreiros, J.P. (2017) Marine Biodiversity. *Sete Cidades Volcano - A Natural History Guide* (ed. by Forjaz, V.H.). pp. 65-84. Observatório Vulcanológico e Geotérmico dos Açores & Câmara Municipal de Ponta Delgada. ISBN:978-989-8164-19-3. **(P0947)**

Elias, R.B. (2017) Flora e Vegetação do vulcão das Sete-cidades. *Sete Cidades Volcano - A Natural History Guide* (ed. by Forjaz, V.H.). pp. 119-144. Observatório Vulcanológico e Geotérmico dos Açores & Câmara Municipal de Ponta Delgada. ISBN:978-989-8164-19-3. **(P0948)**

Ferreira, D., Pinto, D.C.G.A., Silva, A.M.S. & **Seca, A.M.L.** (2017) *Olea europaea*: facts and myths regarding cardiovascular health. *Herbal Medicine: Back to the Future* (ed. by F. Atta-ur-Rahman, F. Murad and K. Bian), pp. 57-128. Vol 1, Chapter 3. Bentham Science Publishers. DOI:10.2174/97816810848931170101. **(P1023)**

Linhares, L., **Garcia, P.** & Rodrigues, A. (2017) Radon exposure and human health: what happens in volcanic environments? *Radon* (ed. by F. Adrovic). pp. 80-91. InTech. DOI:10.5772/intechopen.71073. ISBN 978-953-51-5482-2. **(P1094)**

Nunes, L., Réh, R., Barbu, M. C., Walker, P., Thomson, A., Maskell, D., Knapic, S., Bajraktari, A., Greef, J.M., Brischke, C., Mansour, E., Ormondroyd, G.A., Teppand, T., Palumbo, M., Lacasta, A. M. (2017) Nonwood biobased materials. *Performance of bio-based building materials* (ed. by D. Jones & C. Brischke), pp. 97-186. WoodHead Publishing, Cambridge and Kidlington. **(P0976)**

Seca, A.M.L., Silva, A.M.S. & Pinto, D.C.G.A. (2017) Parthenolide and parthenolide-like sesquiterpene lactones as multiple targets drugs: current knowledge and new developments. *Studies in Natural Products Chemistry (Bioactive Natural Products)* (ed. by Atta-Ur-Rahman), pp. 337-372. Vol 52, Chapter 9. Elsevier Science Publishers, Amsterdam, The Netherlands. **(P0944)**

Silva, L.D., Lourenço, P., Ponte, N.B., Medeiros, V., **Elias, R.B.**, Alves, M. & Silva, L. (2017) Development of allometric equations for estimating above-ground biomass of woody plant

invaders: the case of Pittosporum undulatum in the Azores archipelago. *Modeling, Dynamics, Optimization and Bioeconomics II* (ed. by A. Pinto and D. Zilberman). pp. 463-484. Vol. 195. Springer Proceedings in Mathematics & Statistics, Springer. DOI:10.1007/978-3-319-55236-1; eBook ISBN:978-3-319-55236-1; Hardcover ISBN:978-3-319-55235-4. **(P0678)**

Silva, L., Le Jean, F., **Marcelino, J.** & **Soares, A.O.** (2017) Using Bayesian inference to validate plant community assemblages and determine indicator species. Modeling, Dynamics, Optimization and Bioeconomics II (ed. by A. Pinto and D. Zilberman), pp. 445-461. Vol. 195. Springer Proceedings in Mathematics & Statistics, Springer. DOI: 10.1007/978-3-319-55236-1_21. **(P0681)**

Silva, L.D., Costa, H., Azevedo, E.B. De, Medeiros, V., Alves, M., **Elias, R.B.**, & Silva, L. (2017) Modelling native and invasive woody species: acomparison of ENFA and MaxEnt applied to the Azorean forest. *Modeling, Dynamics, Optimization and Bioeconomics II* (ed. by A. Pinto and D. Zilberman). pp. 415-444. Vol. 1985. Springer Proceedings in Mathematics & Statistics, Springer. DOI:10.1007/978-3-319-55236-1; Springer. eBook ISBN:978-3-319-55236-1; Hardcover ISBN:978-3-319-55235-4. **(P0677)**

6.2.5. NATIONAL AND INTERNATIONAL PEER REVIEWED PAPERS (NO IMPACT FACTOR)

6.2.5.1. By at least one integrated member (n=19)

Bajraktari, A., Cunaku, I., Petutschnigg, A., **Nunes, L.** & Pereira, H. (2017) Wood industry is an important factor for the Kosovo's development – the role of higher education. *International Journal of Current Engineering and Technology*, **7(1)**, 157-160. **(P0990)**

Barreiros, J.P. (2017) Interacções entre polvos e meros: de predador nuclear a presa preferencial. *Portugala*, **20**, 12-13. **(P1010)**

Barreiros, P., Haddad Jr., V. & **Barreiros, J.P.** (2017) Description of an eye barotrauma in scuba diving with clinical discussion. *Journal of Coastal Life Medicine*, **5(3)**, 126-128. DOI:10.12980/jclm.5.2017J6-264. **(P0953)**

Barreiros, J.P. (2017) Invasions Changing Marine Biodiversity. *Journal of Aquaculture & Marine Biology*, **5(2)**, 00111. DOI:10.15406/jamb.2017.05.00111 **(P0922)**

Barreiros, J.P. (2017) Why Flightless Birds are 'Condemned' to Lay Eggs. *Journal of Biodiversity Management & Forestry*, **6(1)**, 1-2. DOI:10.4172/2327-4417.1000172 **(P0925)**

Borges, P.A.V., Lamelas-López, L., Amorim, I.R., Danielczak, A., **Nunes, R.,** Serrano, A.R.M., **Boeiro, M., Rego, C.,** Hochkirch, A. & **Vieira, V.** (2017) Conservation status of the forest beetles (Insecta, Coleoptera) from Azores, Portugal. *Biodiversity Data Journal,* **5**, e14557. DOI:10.3897/BDJ.5.e14557. **(P1007)**

Borges, P.A.V., Pimentel, R., Carvalho, R., Nunes, R., Wallon, S. & **Ros-Prieto, A.** (2017) Seasonal dynamics of arthropods in the humid native forests of Terceira Island (Azores). *Arquipélago Life and Marine Sciences*, **34**, 105-122. **(P0980)**

Borges, P.A.V., Pimentel, C., Brito, M., Borda-de-Água, L. & **Gabriel, R.** (2017) Arthropod diversity patterns in three coastal marshes in Terceira Island (Azores). *Arquipélago Life and Marine Sciences*, **34**, 61-84. **(P0981)**

Cardoso, P., Crespo, L., Silva, I., **Borges, P.A.V.** & **Boeiro, M.** (2017) Species conservation profiles of endemic spiders (Araneae) from Madeira and Selvagens, Portugal. *Biodiversity Data Journal,* **5**, e20810. DOI:10.3897/BDJ.5.e20810. **(P1006)**

Duarte, S., Nunes, L., Borges, P.A.V., Fossdal, C.G. & Nobre. T. (2017) Living inside termites: an overview of symbiotic interactions, with emphasis on flagellate protists. *Arquipélago Life and Marine Sciences,* **34**, 21-43. **(P0560)**

Henriques, D.S.G., Borges, P.A.V. & **Gabriel, R.** (2017) Regional processes drive bryophyte diversity and community composition in a small oceanic island. *Community Ecology*, *18*, 193-202. DOI:10.1556/168.2017.18.2.9 (IF2016 0,782; Q4 Ecology) **(P1018)**

Henriques, D.S.G., **Elias, R. B.**, **Coelho, M.C.M**, Hernández-Hernández, R., **Pereira, F.** & **Gabriel, R.** (2017) Long–term monitoring across elevational gradients (III): Vascular plants on Terceira Island (Azores) transect. *Arquipelago. Life and Marine Sciences*, **34**, 1-20. **(P0801)**

Picanço, A., Rigal, F. & Borges, P.A.V. (2017) Area prioritization for insect pollinator communities on an oceanic island. *Arquipélago Life and Marine Sciences*, **34**, 85-104. **(P0979)**

Rashed, K. & **Barreto, M.C.** (2017) Biological Activities of Plants used in Egyptian Ethnopharmacology. *Journal of Applied Pharmaceutical Sciences*, **7**, 46-50. DOI:10.7324/JAPS.2017.70508 **(P1020)**

Silva, L., Alves, M., **Elias, R.** & Silva, L. (2017) Comparison of T-Square, Point Centered Quarter and N-Tree sampling methods in *Pittosporum undulatum* invaded woodlands. *International Journal of Forestry Research*, **2818132**, 1-13. DOI:10.1155/2017/2818132 **(P0898)**

Sinopoli, M., Battaglia, P. & **Barreiros, J.P.** (2017) Unusual presence of *Coryphaena hippurus* Linnaeus, 1758 (Perciformes: Coryphaenidae) under an offshore oil platform in Southern Brazil. *Journal of Coastal Life Medicine*, **5(6)**, 239-241. DOI: 10.12980/jclm.5.2017J7-48. **(P0967)**

Vieira, V. (2017) Teratologia alar em *Colias croceus* (fourcroy, 1758) e *Utetheisa pulchella* (linnaeus, 1758) (Insecta: Lepidoptera) dos Açores. *Açoreana*, **11(1)**, 125-129. **(P0876)**

Vieira, V. & Cordero-Rivera, A. (2017) *Ischnura hastata* - a new species for the fauna of Graciosa Island, Azores. *Notulae Odonatologicae*, **8(9)**, 319-374. **(P0908)**

Xavier, E.D., Azevedo, J.M.N., Reis, A. & **Neto, A.I.** (2017) Screening indigenous microalgae strains for outdoor production of secondary carotenoids and fatty acids. *International Journal of Current Multidisciplinary Studies*, **3(6)**, 760-765. **(P1033)**

6.2.5.2. By Associate Research Fellows only (n=1)

Fattorini, S. (2017) Endemism in historical biogeography and conservation biology: concepts and implications. *Biogeographia – The Journal of Integrative Biogeography*, **32**, 47-75. DOI:10.21426/B632136433 **(P1096)**

6.2.6. PAPERS ON PROCEEDINGS OF SYMPOSIA

6.2.6.1. By at least one integrated member (n=4)

Gil, A., Fonseca, C. & Benedicto-Royuela, J. (2017) Mapping the spatial impact of livestock grazing activity in Pico Island (Azores, Portugal) in a 15-year period (1998-2013). *Proceedings of the European Geosciences Union General Assembly 2017*. Vienna, Austria. **(P1021)**

Grez, A.A., Zaviezo, T., González, C., **Soares, A.O.** & Poch, T. (2017) Native coccinellids and biological control: A positive partnership that can be threatened by the Invasion of an alien species. *Proceedings of the 5th International Symposium on Biological Control of Arthropods*. Langkawi, Malásia, 76-78. **(P2026)**

Stephan, I., Kutnik, M., Conti, E., Klamer, M., **Nunes, L.**, van Acker, J. & Plarre, R. (2017) Guidance on the European Biocidal Products Regulation concerning efficacy of wood preservatives. *Proceedings of the 48th IRG Annual Meeting*. Ghent, Belgium, IRG/WP 17-20627. 16 pp. **(P0988)**

Westin, M., Conti, E., Creemers, J., Flæte, P-O., Gellerich, A., Irbe, I., Klamer, M., Melcher, E., Moeller, R., **Nunes, L.**, Palanti, S., Reinprecht, L., Suttie, E. & Viitanen, H. (2017) 10 year Report on COST E37 Round Robin Tests – Comparison of results from laboratory and field tests. *Proceedings of the 48th IRG Annual Meeting*. Ghent, Belgium, IRG/WP 17-20627. 12 pp. **(P0989)**

6.2.7. EDUCATION AND OUTREACH PUBLICATIONS

6.2.7.1. By at least one integrated member (n=7)

Barreiros, J.P. (2017) O cachalote – um emblema dos Açores/ The sperm whale – an Azorean symbol. *My Plan Magazine*, **6,** 34-35. Bilingual (Português/English). **(P0955)**

Borges, P.A.V. (2017) Grupo da Biodiversidade dos Açores (cE3c) - Estratégias de investigação em Biologia Insular a largo prazo. *UAciência, Açores Magazine*, 26-27. Junho. **(P0968)**

Cacabelos, E., Faria, J., Prestes, A. & **Neto, A. I.** (2017) Impacte para o ecossistema e benefícios socioeconómicos da alga exótica. *UAciência, Açores Magazine*, 28-29. Novembro. **(P1029)**

Fevereiro, M., Ferreira, J.G. & **Nunes, L.** (2017) Métodos antigos de tratamento de madeiras em Portugal. *Construção Magazine*, **80**, 16-20. **(P0996)**

Neto, A.I. (2017) Propriedades bioativas de macroalgas comuns nos Açores. *UAciência, Açores Magazine*, 28-29. Fevereiro. **(P0949)**

Picanço, A. & **Borges, P.A.V.** (2017) Os insectos que espalham pólen nos Açores. *Pingo de Lava*, **41**, 16-19. **(P2027)**

Vergílio, M., Fonseca, C., Calado, H., **Borges, P.A.V., Elias, R.B., Gabriel, R.**, Martins, A., Azevedo, E. & **Cardoso, P.** (2017) Avaliar a eficiência das áreas protegidas para representar a biodiversidade: o caso de estudo de uma pequena ilha. UAciência, Açores Magazine, 26-27. Março. **(P0956)**

6.2.8. OTHER TYPE OF PUBLICATIONS

6.2.8.1. By at least one integrated member (n=60)

Borges, P.A.V. (2017) *Atheta azorica*. The IUCN Red List of Threatened Species 2017: e. T97179599A99166704. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T97179599A99166704.en **(P1036)**

Borges, P.A.V. (2017) *Atheta floresensis*. The IUCN Red List of Threatened Species 2017: e. T97633244A99167034. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T97633244A99167034.en **(P1039)**

Borges, P.A.V. (2017) *Phytosus schatzmayri*. The IUCN Red List of Threatened Species 2017: e. T97213241A99166744. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T97213241A99166744.en **(P1058)**

Borges, P.A.V. & **Amorim, I.R.** (2017) *Trechus jorgensis*. The IUCN Red List of Threatened Species 2017: e. T97120924A99166569 http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T97120924A99166569.en **(P1066)**

Borges, P.A.V. & **Amorim, I.R.** (2017) *Trechus oromii*. The IUCN Red List of Threatened Species 2017: e. T97122456A99166579 http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T97122456A99166579.en **(P1067)**

Borges, P.A.V. & **Amorim, I.R.** (2017) *Thalassophilus azoricus*. The IUCN Red List of Threatened Species 2017: e. T97118594A99166559 http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T97118594A99166559.en **(P1064)**

Borges, P.A.V. & **Lamelas-López, L.** (2017) *Aleochara freyi*. The IUCN Red List of Threatened Species 2017: e. T97634472A99167044. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T97634472A99167044.en **(P1037)**

Borges, P.A.V. & **Lamelas-López, L.** (2017) *Atheta caprariensis*. The IUCN Red List of Threatened Species 2017: e. T97180194A99166709. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T97180194A99166709.en **(P1038)**

Borges, P.A.V. & **Lamelas-López, L.** (2017) *Athous azoricus*. The IUCN Red List of Threatened Species 2017: e. T97167398A99166679 http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T97167398A99166679.en **(P1069)**

Borges, P.A.V. & **Lamelas-López, L.** (2017) *Calacalles azoricus*. The IUCN Red List of Threatened Species 2017: e. T97157927A99166614. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T97157927A99166614.en **(P1041)**

Borges, P.A.V. & **Lamelas-López, L.** (2017) *Catops velhocabrali*. The IUCN Red List of Threatened Species 2017: e. T97170461A99166699 http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T97170461A99166699.en **(P1043)**

Borges, P.A.V. & **Lamelas-López, L.** (2017) *Cryptolestes azoricus*. The IUCN Red List of Threatened Species 2017: e. T97169951A99166689 http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T97169951A99166689.en **(P1046)**

Borges, P.A.V. & **Lamelas-López, L.** (2017) *Gietella faialensis*. The IUCN Red List of Threatened Species 2017: e. T97169500A99166684 http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T97169500A99166684.en **(P1049)**

Borges, P.A.V. & **Lamelas-López, L.** (2017) *Medon varamontis*. The IUCN Red List of Threatened Species 2017: e. T97213213A99166734. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T97213213A99166734.en. **(P1053)**

Borges, P.A.V. & **Lamelas-López, L.** (2017) *Mniophilosoma obscurum*. The IUCN Red List of Threatened Species 2017: e. T97127598A99166609 http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T97127598A99166609.en **(P1054)**

Borges, P.A.V. & **Lamelas-López, L.** (2017) *Nesotes azoricus*. The IUCN Red List of Threatened Species 2017: e. T97213262A99166749. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T97213262A99166749.en **(P1056)**

Borges, P.A.V. & **Lamelas-López, L.** (2017) *Sphaericus velhocabrali*. The IUCN Red List of Threatened Species 2017: e. T97488857A99167004. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T97488857A99167004.en **(P1059)**

Borges, P.A.V. & **Lamelas-López, L.** (2017) *Tarphius gabrielae*. The IUCN Red List of Threatened Species 2017: e. T112214981A112214991.http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T112214981A112214991.en **(P1060)**

Borges, P.A.V. & **Lamelas-López, L.** (2017) *Tarphius relictus*. The IUCN Red List of Threatened Species 2017: e. T112214780A112214784. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T112214780A112214784.en. **(P1061)**

Borges, P.A.V. & **Lamelas-López, L.** (2017) *Tarphius serranoi*. The IUCN Red List of Threatened Species 2017: e. T112215669A112215674. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T112215669A112215674.en **(P1062)**

Borges, P.A.V. & **Lamelas-López, L.** (2017) *Tarphius wollastoni*. The IUCN Red List of Threatened Species 2017: e. T112216738A112216755. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T112216738A112216755.en **(P1063)**

Borges, P.A.V. & **Lamelas-López, L.** (2017) *Donus multifidus*. The IUCN Red List of Threatened Species 2017: e. T97160451A99166634 http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T97160451A99166634.en **(P1047)**

Borges, P.A.V., Rego, C. & **Boieiro, M.** (2017) *Cixius azomariae*. The IUCN Red List of Threatened Species 2017: e. T97217787A99166769 http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T97217787A99166769.en **(P1044)**

Borges, P.A.V. & **Vieira, V.** (2017) *Bembidion derelictus*. The IUCN Red List of Threatened Species 2017: e. T97633856A99167039 http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T97633856A99167039.en **(P1040)**

Borges, P.A.V. & **Vieira, V.** (2017) *Calathus carvalhoi*. The IUCN Red List of Threatened Species 2017: e. T97102905A99166524 http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T97102905A99166524.en **(P1042)**

Christenhusz, M., **Elias, R.B.**, Dyer, R., Ivanenko, Y., Rouhan, G., Rumsey, F. & Väre, H. (2017) *Hymenophyllum maderense*. The IUCN Red List of Threatened Species 2017: e. T161904A85429667. http://dx.doi.org/10.2305/IUCN.UK.2017-2.RLTS.T161904A85429667.en. **(P1072)**

Christenhusz, M., Lansdown, R.V., **Elias, R.B.**, Dyer, R., Ivanenko, Y., Rouhan, G., Rumsey, F. & Väre, H. (2017) *Isoetes heldreichii*. The IUCN Red List of Threatened Species 2017: e.

T175294A85430949. http://dx.doi.org/10.2305/IUCN.UK.2017-2.RLTS.T175294A85430949.en. **(P1073)**

Christenhusz, M., **Elias, R.B.**, Dyer, R., Ivanenko, Y., Rouhan, G., Rumsey, F. & Väre, H. (2017) *Isoetes malinverniana*. The IUCN Red List of Threatened Species 2017: e. T162124A85431493. http://dx.doi.org/10.2305/IUCN.UK.2017-2.RLTS.T162124A85431493.en. **(P1074)**

Christenhusz, M., **Elias, R.B.**, Dyer, R., Ivanenko, Y., Rouhan, G., Rumsey, F. & Väre, H. (2017) *Isoetes sabatina*. The IUCN Red List of Threatened Species 2017: e. T83515150A83515211. http://dx.doi.org/10.2305/IUCN.UK.2017-2.RLTS.T83515150A83515211.en. **(P1075)**

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Rego, C., Boieiro, M. & **Borges, P.A.V.** (2017) *Cixius azopifajo*. The IUCN Red List of Threatened Species 2017: e. T97218110A99166779 http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T97218110A99166779.en **(P1045)**

Vieira, V. & **Borges, P.A.V.** (2017) *Eupithecia ogilviata*. The IUCN Red List of Threatened Species 2017: e. T97236499A99166874 http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T97236499A99166874.en **(P1048)**

Vieira, V. & **Borges, P.A.V.** (2017) *Hadena azorica*. The IUCN Red List of Threatened Species 2017: e. T97237575A99166889. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T97237575A99166889.en **(P1050)**

Vieira, V. & **Borges, P.A.V.** (2017) *Homoeosoma miguelensis*. The IUCN Red List of Threatened Species 2017: e. T97238829A99166929 http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T97238829A99166929.en **(P1051)**

Vieira, V. & **Borges, P.A.V.** (2017) *Homoeosoma picoensis*. The IUCN Red List of Threatened Species 2017: e. T97238857A99166934. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T97238857A99166934.en **(P1052)**

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Vieira, V. & **Borges, P.A.V.** (2017) *Phlogophora kruegeri*. The IUCN Red List of Threatened Species 2017: e. T97238633A99166924. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T97238633A99166924.e **(P1057)**

Vieira, V. & **Borges, P.A.V.** (2017) *Tinea poecilella*. The IUCN Red List of Threatened Species 2017: e. T97239786A99166959. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T97239786A99166959.e **(P1065)**

Vieira, V. & **Borges, P.A.V.** (2017) *Udea azorensis*. The IUCN Red List of Threatened Species 2017: e. T97226785A99166859. http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T97226785A99166859.en **(P1068)**

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6.3. PUBLISHED ABSTRACTS IN CONFERENCES

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Westin, M., Conti, E., Creemers, J., Flæte, P-O., Gellerich, A., Irbe, I., Klamer, M., Melcher, E., Moeller, R., **Nunes, L.**, Palanti, S., Reinprecht, L., Suttie, E. & Viitanen, H. (2017) 10 year Report on COST E37 Round Robin Tests – Comparison of results from laboratory and field tests. *Proceedings of the 48th IRG Annual Meeting*. Ghent, Belgium, IRG/WP 17-20627. 12 pp.

6.4. SCIENTIFIC MEETINGS PARTICIPTION

In Table 4 it is possible to see some data on the scientific meetings attended by the members of the Azorean Biodiversity Group. A total of 23 events were international and 11 were national.

Table 4 Scientific meetings participation from some Azorean Biodiversity Members during the year of 2017.

Title of Presentation	Authors (ABG members underlined)	Type	Name of the Meeting	Local	Date(s)
A importância do projeto Pervemac II no uso sustentável de pesticidas e seu impacto na saúde humana na Macaronésia. O caso dos Açores.	Lopes, D.H., Aguiar, A., Dias, A., Bettencourt, M., Fernandes, P., Dutra, R. & Pimentel, R.	Oral	Proteção das Plantas 2017	Santarém, Portugal	26-27 October
A roadmap for island biology: 50 fundamental questions after 50 years of the theory of island biogeography	Borges, P.A.V.	Oral	CIÊNCIA 2017 - FCT	Lisbon, Portugal	3-5 July
Biological activity of extracts of cyanobacteria isolated from lakes and thermal waters from the Azores islands. Abstrart S3-O6, p. 22.	Luz, R., Cordeiro, R., Rosa, G., Barreto, M.C. & Gonçalves, V.	Oral	5º Congresso Ibérico de Cianotoxinas y 1er Congresso Iberoamericano de Cianotoxinas	Lugo, Spain	17-19 July
Conceptual framework underlying the strategic plan for the prevention and management of exotic and invasive arthropod species in the Azores	Soares, A.O., Vieira, V., Lopes, D. H. & Borges, P. A.V.	Oral	Frontiers in E3: cE3c Annual Meeting	Ponta Delgada, S. Miguel, Azores	5-6 June
Evaluation of kits of traps and lures for monitoring Ceratitis capitata Wiedemann (Diptera: Tephritidae) in Terceira Island, Azores	Pimentel, R., Rebelo, J., Soares, P., Lupi, E., Bevilacqua, R. & Lopes, D.H.	Oral	IOBC/WPRS Meeting on Citrus Pests, Diseases and Weeds	Valencia, Spain	25-27 September

Title of Presentation	Authors (ABG members underlined)	Type	Name of the Meeting	Local	Date(s)
Farmácia Marinha: o potencial das Macroalgas	Barreto, M.C.	Oral	Conferências - Investigação Aplicada em Macroalgas	Funchal, Madeira	8 February
Fish trophic chains in the Indo-Pacific	Barreiros, J.P. & Viviani, J.	Oral	The 10th Indo-Pacific Fish Conference	Tahiti	2-6 October
Inovação como fator crítico de sucesso	Soares A.O.	Oral	Seminário: Fórum Triple Hélix 2017	Ponta Delgada, S. Miguel, Azores	15 March
Island biogeography in the late quaternary and anthropocene: changing environments, ecosystems, and societies	Norder, S.J., Borges, P.A.V. & Rijsdijk, K.F.	Oral	Frontiers in E3: cE3c Annual Meeting	Ponta Delgada, S. Miguel, Azores	5-6 June
Native coccinellids and biological control: A positive partnership that can be threatened by the Invasion of an alien species.	Grez, A.A., Zaviezo, T., González, C., Soares, A.O. & Poch,T.	Oral	5th International Symposium on Biological Control of Arthropods.	Langkawi, Malásia	11-15 September
PICA - Projeto de Investigação para o Combate de Afídeos em Viveiros Florestais	Meseguer R., Borges I., Vieira V., Pons G., Ruiz M., Arruda P., Eleutério T., Cabral J., Nóbrega C., Quintela, C. & Soares A.O.	Oral	Seminário "Gestão Florestal Certificada: novos desafios para a floresta dos Açores"	Nordeste, S. Miguel, Azores	20-30 May
Red list of azorean endemic insects: ecological and conservation overview	Borges, P.A.V., Lamelas-Lopez, L., Nunes, R., Rego, C., Boieiro, M., Amorim, I.R. & Vieira, V.	Oral	Frontiers in E3: cE3c Annual Meeting	Ponta Delgada, S. Miguel, Azores	5-6 June
Temporal analysis (1998-2013) of pastureland trade-offs in Pico Island (Azores, Portugal)	Gil, A.	Oral	III Insula International Conference - Beyond Nature | Artifice	Funchal, Portugal	8-12 November
The path to excellence: is ce3c	Santos-Reis M., Matos M.,	Oral	Frontiers in E3: cE3c Annual	Ponta Delgada, S.	5-6 June

Title of Presentation	Authors (ABG members underlined)	Type	Name of the Meeting	Local	Date(s)
keeping the right track?	Magalhães S., Máguas C., Rebelo R., Bentz J. & Borges, P.A.V.		Meeting	Miguel, Azores	
Transversal topic on biological invasions: what have we been doing since 2014?	Soares, A.O., Máguas, C., Magalhães, S. & Rebelo, R.	Oral	Frontiers in E3: cE3c Annual Meeting	Ponta Delgada, S. Miguel, Azores	5-6 June
Un nouveau prédateur des pucerons en serre: Leucopis annulites	Barriault, S., Soares, A.O. & Lucas, E,	Oral	Formation Phytoprotection: Groupe d'Experts «Culture en Serre	Saint-Bruno-de-Montarville, Canada	14 February
Usos dos jardins açorianos: um estudo preliminar em Angra do Heroísmo para o Projeto "GreenGardens – Azores" (Azorean gardens usage: a preliminar study in Angra do Heroísmo, within the project "GreenGardens – Azores")	Gabriel, R., Arroz, A.M., Amorim, I.R., Sanchez, A.F., Borges, P. A.V., Porteiro, J.M., Trota, M.J., Santos, C. & Soares de Albergaria, I.	Oral	Interdisciplinary, International Conference Culture, Sustainability, and Place: Innovative Approaches for Tourism Development	Ponta Delgada, S. Miguel, Azores	11-13 October
Vacaloura.pt	Rego, C.	Oral	Encontro Nacional de Ciência Cidadã	Lisbon, Portugal	26 October
Valorization of exotic woodland resources in the Azores: the case of widespread invader Pittosporum undulatum	Elias, R.B., Silva, L.B., Teixeira, A., Alves, M. & Silva, L.	Oral	14th EMAPI (Ecology and Management of Alien Plant Invasions) – Syntheses, Challenges and New Opportunities	Lisbon, Portugal	4-8 September
Associações ecológicas entre cefalópodes e peixes: do oportunismo à predação	Barreiros, J.P.	Oral (Invited)	Colacmar 2017 – Congresso Latino-americano de Ciências do Mar	Santa Catarina, Brazil	13-17 November
Desafios para a conservação da fauna cavernícola	Borges, P.A.V.	Oral (Invited)	Colóquio "10 Anos da Abertura da Gruta do	Ponta Delgada, S. Miguel, Azores	6-7 October

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dos Açores			Carvão ao Público		
Impactos das alterações globais na biodiversidade de artrópodes dos Açores	Borges, P.A.V.	Oral (Invited)	Encontro regional de Professores – Educação para o Desenvolvimento Sustentável nos Açores	Angra do Heroísmo, Terceira, Azores	10-13 July
Micronuclei in oral epithelial cells as sensitive and non-invasive biomarkers of occupational exposure to low doses of ionizing radiation	Torres, L., Rodrigues, A., Camarinho, R., Pásco, Z. & Garcia P.	Oral (Invited)	Global Summit on Clinical Research & Biomarkers	Dalas, EUA	21-24 August
A chemometric study on the chemical and nutritional profile of Fucus spiralis L. juvenile and mature life-cycle phases	Pinto, D.C.G.A., Gouveia, V.L.M., Barreto, M.C., Silva, A.M.S. & Seca, A.M.L.	Oral present ation	XXIII Encontro Galego-Portugues de Quimica	Ferrol, Spain	15-17 November
Application of an enzymatic extract obtained from Brassica rapa L. as catalyst in transformation of aromatic compounds	Rosa, G. P., Barreto, M. C. & Seca, A. M. L.	Poster	International Symposium on Synthesis and Catalysis 2017 (ISySyCat2017)	Évora, Portugal	5-8 September
Assessment of total iodine in seven seaweed species from Madeira Archipelago and development of a biorefiner ystrategy to produce an iodine rich bioactive extract from red seaweed Asparagopsis taxiformisD. and other valuable products	Nunes, N., Ferraz, S., Valente, S., Barreto, M.C. & Pinheiro de Carvalho, M.A.A.	Poster	6th Congress of the International Society for Applied Phycology	Nantes, France	18-23 June

Title of Presentation	Authors (ABG members underlined)	Type	Name of the Meeting	Local	Date(s)
Avaliação dos hábitos alimentares e o seu impato na saúde dos habitantes das ilhas da Macaronésia: o caso dos Açores	Aguiar, A., Dias, A., Bettencourt, M., Dutra, R., Pimentel, R. & Lopes, D.H.,	Poster	XV Congresso de Endocrinologia e Nutrição dos Açores	Ponta Delgada, S. Miguel, Azores	24-27 October
Community structure of canopy arthropods in an azorean native forest and their resilience do disturbances: a defaunation experiment	Nunes, R., Cardoso, P. Soares, A.O. & Borges, P.A.V.	Poster	Frontiers in E3: cE3c Annual Meeting	Ponta Delgada, S. Miguel, Azores	5-6 June
Evaluation of Scymnus nubilus Mulsant (Coleoptera: Coccinellidae) as biological control agent against Aphis spiraecola (Patch) and Cinara juniperi (De Geer) (Hemiptera: Aphididae)	Meseguer, R., Vieira, V., Borges, I., Arruda, P., Eleutério, T., Cabral, J., Pons, G., Nóbrega, C., Quintela, C. & Soares, A.O.	Poster	Frontiers in E3: cE3c Annual Meeting	Ponta Delgada, S. Miguel, Azores	5-6 June
Flavonols isolated from Hedychium gardnerianum leaves.	Oliveira, M., Barreto, M.C., Silva, A.M.S., Pinto, D.C.G.A. & Seca, A.M.L.	Poster	XXV Encontro Nacional da Sociedade Portuguesa de Química	Lisbon, Portugal	16-19 July
Litíase renal na ilha de São Miguel: possíveis fatores de risco	Goulart, S., Linhares, D., Garcia, P., Mota Preto, P. & Rodrigues, A.	Poster	II Jornadas da Saúde	Ponta Delgada, S. Miguel, Azores	28-29 April
Mapping alien plant species in Terceira Island (Azores): a collaborative effort between researchers and citizens.	López Cañizares, C., Gabriel, R., Valentín, N., Linares, J., Mendonça E., Amorim, I.R., Barcelos, L., Henriques, D. & Elias, R.B.	Poster	14th EMAPI (Ecology and Management of Alien Plant Invasions) – Syntheses, Challenges and New Opportunities	Lisbon, Portugal	4-8 September

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Mapping alien plant species in Terceira Island (Azores): a collaborative effort between researchers and citizens.	López Cañizares, C., Gabriel, R., Valentín, N., Linares, J., Mendonça E., Amorim, I.R., Barcelos, L., Henriques, D. & Elias, R.B.	Poster	Frontiers in E3: cE3c Annual Meeting	Ponta Delgada, S. Miguel, Azores	5-6 June
Mapping the spatial impact of livestock grazing activity in Pico Island (Azores, Portugal) in a 15-year period (1998-2013)	Gil, A.	Poster	EGU General Assembly 201	Vienna, Austria	23-28 April
Mortalité du prédateur furtif aphidiphage Leucopis annulipes et comparaison avec celle du prédateur commercial Aphidoletes aphidimyza	Barriault, S., Soares, A. O. & Lucas, E.	Poster	Congrès de la société d'entomologie du Québec	Longueuil, Montréal, Canada	23-24 November
Phylogenetic relationships and biogeographic patterns of the bryophyte genera Ptychomitrium and Exormotheca in Macaronesia	Rodrigues, A.S.B., Martins, A., Garcia, C.A., González-Mancebo, J.M., Porley, R.D., Peralta, D.F., Gabriel, R., Fontinha, S., Stech, M. & Sim-Sim, M.	Poster	XXI Simposio de Botánica Criptogámica 2017	Aranjuez, Spain	20-24 June
Polyhydroxy chalcones and flavanones: synthesis and evaluation of their potential as antioxidant and anticholinesterasic agents	Rosa, G.P., Barreto, M. C., Pinto, D.C.G.A. & Seca, A.M.L.	Poster	International Symposium on Synthesis and Catalysis 2017 (ISySyCat2017)	Évora, Portugal	5-8 September
Presença de Drosophila suzukii (Matsumura)(Diptera : Drosophilidae) na	Melo, M., Carvalho, C., Pimentel, R. & Lopes, D.H.	Poster	Proteção das Plantas 2017	Santarém, Portugal	26-27 October

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ilha Terceira, Açores					
Sensitivity of two biomarkers for biomonitoring fluoride exposure in children and women: a study in a volcanic area	Linhares, D., Garcia, P., Amaral, L., Ferreira, T., Cury, J. & Rodrigues A.	Poster	Global Summit on Clinical Research & Biomarkers	Dalas, EUA	21-24 August
The Importance of the Pervermac II Project in the Sustainable Use of Pesticides and its Impact on Human Health in the Macaronesian Area: The Azores Case	Lopes, D.H., Aguiar, A., Dias, A., Bettencourt, M., Dutra, R. & Pimentel, R.	Poster	Third FAO/IAEA International Conference on Area-Wide Management of Insect Pests: Integrating the Sterile Insect and Related Nuclear and Other Techniques	Vienna, Austria	22-26 May
The Importance of the Pervermac II Project in the Sustainable Use of Pesticides on fruit production in Azores	Lopes, D.H., Aguiar, A., Dias, A., Bettencourt, M., Dutra, R. & Pimentel, R.	Poster	IOBC/WPRS Meeting on Citrus Pests, Diseases and Weeds	Valencia, Spain	25-27 September
Total lipids and fatty acids composition of macroalgae Asparagopsis taxiformis D., Ulva lactuca L. and Zonaria tournefortii L. of Madeira Archipelago	Nunes, N., Ferraz, S., Valente, S., Barreto, M.C. & Pinheiro de Carvalho, M.A.A.	Poster	6th Congress of the International Society for Applied Phycology	Nantes, France	18-23 June
Vegetation Mapping in European Outermost Regions by using Rapideye high-resolution multispectral imagery - the case study of Madeira Island (Portugal)	Gil, A.	Poster	ESA World Cover 2017 Conference	Frascati, Italy	14-16 March