

**PERSONAL DATA**

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**Birthdate** 21.VIII.1976  
**Birthplace** Braga, Portugal

**CURRENT POSITION**

**2012 - Present** *Finnish Museum of Natural History, Finland*  
 Curator (Arachnida, Myriapoda & Mollusca).  
**2014 - Present** *University of Helsinki, Finland*  
 Docent (Ecology).

**OTHER POSITIONS OF RELEVANCE**

**2015 - Present** *European Association of Zoos and Aquaria.*  
 Advisor of the Terrestrial Invertebrate Taxon Advisory Group.  
**2014 – 2018** *International Union for Conservation of Nature*  
 Chair of the Spider & Scorpion Specialist Group.  
**2013 - Present** *International Union for Conservation of Nature*  
 Member of the Species Survival Commission.  
**2012 - Present** *Azorean Biodiversity Group, University of the Azores, Portugal*  
 Research Associate.

**DEGREES / EDUCATION**

**2014** *Faculty of Biological and Environmental Sciences, University of Helsinki, Finland*  
**Docentship (=Habilitation/Aggregation) in Ecology**  
**2011 - 2012** *University of Azores, Portugal & National Museum of Natural History, Smithsonian Institution, USA*  
**Postdoc** (SFRH/BPD/40688/2007)  
 Theme: "Dealing with uncertainty in species and reserve prioritization for conservation".  
**2011 - 2012** *Open University, Portugal*  
**Attending BSc in Computer Science** (completed 36 ECTS)  
**2009 - 2011** *National Museum of Natural History, Smithsonian Institution, USA & University of Azores, Portugal*  
**Postdoc** (SFRH/BPD/40688/2007)  
 Theme: "Towards a global invertebrate conservation framework".  
**2007 - 2009** *University of Azores, Portugal*  
**Postdoc** (M112/F/014/2007)  
 Theme: "Agriculture, habitat fragmentation, indicator species and conservation of endemic fauna and flora in the Azores – the 2010 Target".  
**2005 - 2007** *Natural History Museum and Center for Macroecology, University of Copenhagen, Denmark*  
**Postdoc** (SFRH/BPD/17351/2004)  
 Theme: "Towards a conservation oriented biodiversity rapid assessment protocol for Mediterranean spiders".  
**2000 - 2005** *Faculty of Sciences, University of Lisbon, Portugal*  
**PhD in Biology - ecology and biosystematics** (SFRH/BD/1195/2000)

Thesis: "The use of arachnids (class Arachnida) in biodiversity assessment and monitoring of natural areas".

Grade: Summa Cum Laude (Maximum grade)

**1993 - 1998**

*Faculty of Sciences, University of Lisbon, Portugal*

**BSc in Biology**

Grade: 16 (0-20)

Thesis: "Spiders of Arrábida mountain chain".

Grade: 19 (0-20)

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## RESEARCH INTERESTS

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Artificial intelligence / Evolutionary computation.

Biodiversity assessment and monitoring.

Biodiversity informatics.

Ecological modelling.

Island biogeography and macroecology.

Prioritisation of areas and species for conservation.

Spider taxonomy.

Subterranean biology / biospeleology.

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## PUBLICATIONS

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**Google Scholar**

[https://scholar.google.fi/citations?user=WyB\\_hggAAAJ&hl=en](https://scholar.google.fi/citations?user=WyB_hggAAAJ&hl=en), h-index = 30, citations = 3469.

**Papers in  
refereed journals  
(130 Total)  
(98 ISI)**

*Submitted*

- Borges, P.A.V., Lamelas-Lopez, L., Amorim, I.R., Danielczak, A., Boieiro, M., Rego, C., Wallon, S., Nunes, R., **Cardoso, P.** & Hochkirch, A. (subm.) Species conservation profiles of cave-dwelling arthropods from Azores, Portugal.
- Branco, V.V., Morano, E. & **Cardoso, P.** (subm.) An update to the Iberian spider checklist.
- Brown, P., ..., **Cardoso, P.**, ... & Zhou, Y. (subm.) RELISH-DB a large expert-curated database for benchmarking biomedical literature search.
- **Cardoso, P.**, Borges, P.A.V., Carvalho, J.C., Rigal, F., Gabriel, R., Cascalho, J., Correia, L. (subm.) Automated discovery of relationships, models and principles in ecology. bioRxiv doi: <http://dx.doi.org/10.1101/027839>
- **Cardoso, P.**, Macías-Hernández, N., Carvalho, J.C., Crespo, L.C. & Arnedo, M.A. (subm.) Optimal inventorying and monitoring of taxon, phylogenetic and functional diversity. bioRxiv doi: <http://dx.doi.org/10.1101/060400>
- Carvalho, J.C. & **Cardoso, P.** (subm.) Decomposing the causes for niche and functional differentiation between species using hypervolumes.
- Carvalho, J.C., Malumbres-Olarte, J., Arnedo, M.A., Crespo, L.C., Domenech, M. & **Cardoso, P.** (subm.) Taxonomic divergence and functional convergence in Iberian spider forest communities: insights from beta diversity partitioning.
- Chichorro, F., Juslén, A. & **Cardoso, P.** (subm.) A systematic review of the relation between species traits and extinction risk. bioRxiv doi: <https://doi.org/10.1101/408096>
- Ferreira, M.T., **Cardoso, P.**, Borges, P.A.V., Gabriel, R., Azevedo, E.B. & Elias, R.B. (subm.) Implications of climate change to the design of protected areas: the case of small islands (Azores).
- Fukushima, C., Mendonza, J., West, R., Longhorn, S., Henault, Y., Rivera, E., Henriques, S. & **Cardoso, P.** (subm.) Species conservation profiles of the spiders listed in CITES.
- Hochkirch, A., Samways, M.J., Gerlach, J., Böhm, M., Williams, P., **Cardoso, P.**, Cumberlidge, N., Stephenson, P.J., Seddon, M.B., Clausnitzer, V., Borges, P.A.V., Mueller, G.M., Rudolf, E., Pearce-Kelly, P., Raimondo, D.C. & Dijkstra, K.B. (subm.) Preserving neglected biodiversity: a strategy against data deficiency in conservation.
- Malumbres-Olarte, J., **Cardoso, P.**, Crespo, L.C., Gabriel, R., Pereira, F., Carvalho, R., Rego, C., Nunes, R., Ferreira, M.T., Amorim, I.R., Rigal, F. & Borges, P.A.V. (subm.) Standardised inventories of spiders (Arachnida, Araneae) of Macaronesia I: The native forests of the Azores (Pico and Terceira islands).
- Malumbres-Olarte, J., Crespo, L.C., Domènech Andreu, M., **Cardoso, P.**, Moya-Laraño, J., Ribera, C. & Arnedo, M.A. (subm.) How Iberian are we? Mediterraneanity determines structure and endemism of spider communities in Iberian oak forests of Spanish National Parks.
- Mammola, S., **Cardoso, P.**, Culver, D.C., Ferreira, R.L., Fišer, C., Galassi, D.M.P., Griebler, C., Halse, S., Humphreys, W.F., Isaia, M., Komerički, A., Malard, F., Martinez, A.,

Moldovan, O.T., Niemiller, M.L., Pavlek, M., Reboleira, A.S.P.S., Souza-Silva, M., Wynne, J.J. & Zagmajster, M. (subm.) Scientists' warning on the conservation of subterranean ecosystems.

- Mammola, S., Piano, E., **Cardoso, P.**, Vernon, P., Domínguez-Villar, D., Culver, D., Pipan, T. & Isaia, M. (subm.) Climate change going deep: eco-evolutionary responses of subterranean organisms in a changing world.
- Miličić, M., Popov, S., Vujić, A., Ivošević, B., **Cardoso, P.** (subm.) Come to the dark side! The role of functional traits in shaping dark diversity patterns of Southeast European hoverflies.
- Rego, C., Boieiro, M., Rigal, F., Ribeiro, S.P., **Cardoso, P.** & Borges, P.A.V. (subm.) Taxonomic and functional diversity of insect herbivore assemblages associated to the canopy-dominant trees of the Azorean native forest.
- Shirey, V. & **Cardoso, P.** (subm.) Assessment of roadside spatial bias in observational biodiversity data.
- Shirey, V., Seppälä, S. & **Cardoso, P.** (subm.) Current promise and limitations of GBIF occurrence data for Red Listing of spider species.

#### 2018

- Boieiro, M., Matthews, T.J., Rego, C., Crespo, L.C., Aguiar, C.A.S., **Cardoso, P.**, Rigal, F., Silva, I., Pereira, F., Borges, P.A.V. & Serrano, A.R.M. (2018) A comparative analysis of terrestrial arthropod assemblages from a relict forest unveils historical extinctions and colonization differences between two oceanic islands. *PLoS One*, e0195492.
- Borges, P.A.V., **Cardoso, P.**, Fattorini, S., Rigal, F., Matthews, T.J., Biase L., Amorim, I.R., Florencio, M., Borda-de-Água, L., Rego, C., Pereira, F., Nunes, R., Carvalho, R., Ferreira, M.T., López, H., Pérez Delgado, A.J., Otto, R., Fernández Lugo, S., Nascimento, L., Caujapé-Castells, J., Casquet, J., Danflous, S., Fournel, J., Sadeyen, A.-M., Elias, R.B., Fernández-Palacios, J.M., Oromí, P., Thébaud, C., Strasberg, D., Emerson, B.C. (2018) Community structure of woody plants on islands along a bioclimatic gradient. *Frontiers of Biogeography*, 10. <http://dx.doi.org/10.21425/F5FBG40295>.
- Borges, P.A.V., **Cardoso, P.**, Whittaker, R.J., Kreft, H., Emerson, B.C., Gil, A., Gillespie, R.G., Matthews, T.J., Santos, A.M.C., Steinbauer, M.J., Thébaud, C., Ah-Peng, C., Amorim, I.R., Aranda, S.C., Arroz, A.M., Azevedo, J.M., Boieiro, M., Borda-de-Água, L., Carvalho, J.C., Elias, R.B., Fattorini, S., Fernández-Palacios, J.M., Florencio, M., González-Mancebo, J.M., Heaney, L.R., Hortal, J., Kueffer, C., Lequette, B., Esquivel, J.L.M., López, H., Marcelino, J., Nunes, R., Oromí, P., Patiño, J., Pérez, A.J., Rego, C., Ribeiro, S.P., Rigal, F., Rodrigues, P., Rominger, A.J., Santos-Reis, M., Schaefer, H., Sérgio, C., Serrano, A.R.M., Sim-Sim, M., Stephenson, P.J., Soares, A.O., Strasberg, D., Vanderporten, A., Vieira, V. & Gabriel, R. (2018) A Global Island Monitoring Scheme (GIMS) for the long-term coordinated survey and monitoring of forest biota across islands. *Biodiversity and Conservation*, 27: 2567–2586.
- Crespo, L.C., Domènech, M., Enguídanos, A., Malumbres-Olarte, J., **Cardoso, P.**, Moya-Laraño, J., Frías-López, C., Macías-Hernández, N., de Mas, E., Mazzuca, P., Mora, E., Opatova, V., Planas, E., Ribera, C., Roca-Cusachs, M., Ruiz, D., Sousa, P., Tonzo, V. & Arnedo, M.A. (2018) A DNA barcode-assisted annotated checklist of the spider (Arachnida, Araneae) communities associated to white oak woodlands in Spanish National Parks. *Biodiversity Data Journal*, 6: e29443.
- Malumbres-Olarte, J., Crespo, L.C., **Cardoso, P.**, Szuts, T., Fannes, W., Pape, T. & Scharff, N. (2018) The same but different: equally megadiverse but taxonomically variant spider communities along an elevational gradient. *Acta Oecologica*, 88: 19-28.
- Mammola, S., **Cardoso, P.**, Ribera, C., Pavlek, M. & Isaia, M. (2018) A synthesis on cave-dwelling spiders in Europe. *Journal of Zoological Systematics and Evolutionary Research*, 56: 301-316.
- Miličić, M., Vujić, A. & **Cardoso, P.** (2018) Effects of climate change on the distribution of hoverfly species (Diptera: Syrphidae) in Southeast Europe. *Biodiversity and Conservation*, 27: 1173-1187.
- Rigal, F., **Cardoso, P.**, Lobo, J.M., Triantis, K.A., Whittaker, R.J., Amorim, I.R. & Borges, P.A.V. (2018) Functional traits of indigenous and exotic ground-dwelling arthropods show contrasting responses to land-use change in an oceanic island, Terceira, Azores. *Diversity and Distributions*, 24: 36-47.
- Seppälä, S., Henriques, S., Draney, M.L., Foord, S., Gibbons, A.T., Gomez, L.A., Kariko, S., Malumbres-Olarte, J., Milne, M., Vink, C.J. & **Cardoso, P.** (2018) Species conservation profiles of a random sample of world spiders I: Agelenidae to Filistatidae. *Biodiversity Data Journal*, 6: e23555.
- Seppälä, S., Henriques, S., Draney, M.L., Foord, S., Gibbons, A.T., Gomez, L.A., Kariko, S., Malumbres-Olarte, J., Milne, M., Vink, C.J. & **Cardoso, P.** (2018) Species conservation profiles of a random sample of world spiders II: Gnaphosidae to Nemesiidae. *Biodiversity Data Journal*, 6: e26203.
- Seppälä, S., Henriques, S., Draney, M.L., Foord, S., Gibbons, A.T., Gomez, L.A., Kariko,

- S., Malumbres-Olarte, J., Milne, M., Vink, C.J. & **Cardoso, P.** (2018) Species conservation profiles of a random sample of world spiders III: Oecobiidae to Salticidae. *Biodiversity Data Journal*, 6: e27004.
- Seppälä, S., Henriques, S., Draney, M.L., Foord, S., Gibbons, A.T., Gomez, L.A., Kariko, S., Malumbres-Olarte, J., Milne, M., Vink, C.J. & **Cardoso, P.** (2018) Species conservation profiles of a random sample of world spiders IV: Scytodidae to Zoropsidae. *Biodiversity Data Journal*, 6: e30842.
- 2017
- Borda-de-Água, L., Whittaker, R.J., **Cardoso, P.**, Rigal, F., Santos, A.M.C., Amorim, I.R., Parmakelis, A., Triantis, K.A., Pereira, H.M. & 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: e3899.
  - **Cardoso, P.** (2017) Red - an R package to facilitate species red list assessments according to the IUCN criteria. *Biodiversity Data Journal*, 5: e20530.
  - **Cardoso, P.**, Crespo, L.C., Silva, I., Borges, P.A.V. & Boieiro, M. (2017) Species conservation profiles of endemic spiders (Araneae) from Madeira and Selvagens archipelagos, Portugal. *Biodiversity Data Journal*, 5: e20810.
  - **Cardoso, P.**, Heikkinen, L., Jalkanen, J., Kohonen, M., Leponiemi, M., Mattila, L., Ollonen, J., Ranki, J.-P., Virolainen, A., Zhou, X. & Pajunen, T. (2017) Standardized spider (Arachnida, Araneae) inventory of Hankoniemi, Finland. *Biodiversity Data Journal*, 5: e21010.
  - Emerson, B.C., Casquet, J., López, H., **Cardoso, P.**, Borges, P.A.V., Mollaret, N., Oromí, P., Strasberg, D. & Thébaud, C. (2017) A robust field survey protocol for comparing forest arthropod biodiversity across spatial scales. *Molecular Ecology Resources*, 17: 694-707.
  - Ferreti, N., Pompozzi, G. & **Cardoso, P.** (2017) Species conservation profile of the rare and endemic trapdoor spider *Calathotarsus simoni* (Araneae, Migidae) from Central Argentina. *Biodiversity Data Journal*, 5: e14790.
  - Henriques, S., **Cardoso, P.**, Cardoso, I., Laborde, M., Cabral, H.N. & Vasconcelos, R.P. (2017) Processes underpinning fish species composition patterns in estuarine ecosystems worldwide. *Journal of Biogeography*, 44: 627-639.
  - Hudson, L.N., Newbold, T., et al. (2017). The database of the PREDICTS (Projecting Responses of Ecological Diversity In Changing Terrestrial Systems) Project. *Ecology and Evolution*, 7: 145-188.
  - Malumbres-Olarte, J., Scharff, N., Pape, T., Coddington, J.A. & **Cardoso, P.** (2017) Gauging megadiversity with optimized and standardized sampling protocols: A case for tropical forest spiders. *Ecology and Evolution*, 7: 494-506.
  - Miličić, M., Vujić, A., Jurca, T. & **Cardoso, P.** (2017) Designating conservation priorities for Southeast European hoverflies (Diptera: Syrphidae) based on species distribution models and species vulnerability. *Insect Conservation and Diversity*, 10: 354-366.
  - Patiño, J., Whittaker, R.J., Borges, P.A.V., Fernandez-Palacios, J.M., Ah-Peng, C., Araujo, M.B., Avila, S., **Cardoso, P.**, Cornuault, J., de Boer, E.J., de Nascimento, L., Gil, A., Gonzalez-Castro, A., Gruner, D., Heleno, R., Hortal, J., Illera, J.C., Kaiser-Bunbury, C., Matthews, T.J., Papadopoulou, A., Pettoelli, N., Price, J.P., Steinbauer, M.J., 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.
  - Picanço, A., Rigal, F., Matthews, T.J., **Cardoso, P.** & Borges, P.A.V. (2017) Habitat effects on flower-visiting insect communities on an oceanic island (Terceira, Azores). *Insect Conservation and Diversity*, 10, 211-223.
  - Soares, A.O., Honek, A., Martinkova, Z., Skuhrovek, 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: 423-434.
  - Tromas, N., Fortin, N., Bedrani, L., Terrat, Y., **Cardoso, P.**, Bird, D., Greer, C.W. & Shapiro, B.J. (2017) Characterizing and predicting cyanobacterial blooms in an 8-year amplicon sequencing time course. *ISME Journal*, 11: 1746-1763.
- 2016
- Borges, P.A.V., **Cardoso, P.**, Gabriel, R., Ah-Peng, C. & Emerson, B.C. (2016) Challenges, advances and perspectives in island biogeography. *Frontiers of Biogeography*, 8: e29136.
  - Borges, P.A.V., Crespo, L.C. & **Cardoso, P.** (2016) Species conservation profile of the cave spider *Turinyphia cavernicola* (Araneae, Linyphiidae) from Terceira Island, Azores, Portugal. *Biodiversity Data Journal*, 4: e10274.
  - Borges, P.A.V., Gaspar, C., Crespo, L.C., Rigal, F., **Cardoso, P.**, Pereira, F., Rego, C., Amorim, I.R., Melo, C., Aguiar, C., André, G., Mendonça, E.P., Ribeiro, S., Hortal, J., Santos, A.M., Barcelos, L., Enghoff, H., Mahnert, V., Pita, M.T., Ribes, J., Baz, A., Sousa, A.B., Vieira, V., Wunderlich, J., Parmakelis, A., Whittaker, R.J., Quartau, J.A., Serrano, A.R.M., Triantis, K.A. (2016) The Azorean arthropods: new records and detailed distribution and abundance of species collected between 1999 and 2011 in Azorean native

- forests. *Biodiversity Data Journal*, 4: e10948.
- **Cardoso, P.**, Stoev, P., Georgiev, T., Senderov, V. & Penev, L. (2016) Species conservation profiles compliant with the IUCN Red List of Threatened Species. *Biodiversity Data Journal*, 4: e10356.
  - Fattorini, S., Rigal, F., **Cardoso, P.** & Borges, P.A.V (2016) Using species abundance distribution models and diversity indices for biogeographical analyses. *Acta Oecologica*, 70: 21-28.
  - 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.
  - 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.
  - Juslén, A. **Cardoso, P.**, Kullberg, J., Saari, S. & Kaila, L. (2016) Trends of extinction risk for Lepidoptera in Finland: the first national Red List Index of butterflies and moths. *Insect Conservation and Diversity*, 9: 118-123.
  - Juslén, A., Pykälä, J., Kuusela, S., Kaila, L., Kullberg, J., Mattila, J., Muona, J., Saari, S. & **Cardoso, P.** (2016) Application of the Red List Index as an indicator of habitat change. *Biodiversity and Conservation*, 25: 569-585.
  - Mammola, S., Milano, F., **Cardoso, P.** & Isaia, M. (2016) Species conservation profile of the alpine stenoendemic spider *Vesubia jugorum* (Araneae, Lycosidae) from the Maritime Alps. *Biodiversity Data Journal*, 4: e10527.
  - Steinbauer, M., Field, R., Grytnes, J.-A., Trigas, P., Ah-Peng, C., Attorre, F., Birks, J., Borges, P., **Cardoso, P.**, Chou, C.-H., De Sanctis, M., Duarte, M., Elias, R., Fernandez-Palacios, J.-M., Gabriel, R., Gereau, R., Gillespie, R., Greimler, J., Harter, D., Huang, T.-J., Irl, S., Jeanmonod, D., Jentsch, A., Jump, A., Kueffer, C., Nogué, S., Otto, R., Price, J., Romeiras, M., Strasberg, D., Stuessy, T., Vetaas, O. & Beierkuhnlein, C. (2016) Topography-driven isolation, speciation and a global increase of endemism with elevation. *Global Ecology and Biogeography*, 25: 1097-1107.
  - Ståhls, G., Vujic, A., Petanidou, T., **Cardoso, P.**, Radenkovic, S., Acanski, J., Pérez-Bañón, C., Rojo, S. (2016) Phylogeographic patterns of *Merodon* hover flies in the Eastern Mediterranean region: revealing connections and barriers. *Ecology and Evolution*, 6: 2226-2245.
  - Vergílio, M., Fonseca, C., Elias, R.B., Gabriel, R., Borges, P.A.V., Martins, A.F., Calado, H., Azevedo, E.B. & **Cardoso, P.** (2016) Assessing the efficiency of protected areas to represent biodiversity: a small island case study. *Environmental Conservation*, 43: 337-349.
  - Vujić, A., Petanidou, T., Tscheulin, T., **Cardoso, P.**, Radenković, S., Ståhls, G., Baturan, Ž., Mijatović, G., Rojo, S., Pérez-Bañón, C., Devalez, J., Andrić, A., Jovičić, S., Krašić, D., Markov, Z., Radišić, D. & Tataris G. (2016) Biogeographical patterns of the genus *Merodon* Meigen, 1803 (Diptera: Syrphidae) in islands of the eastern Mediterranean and adjacent mainland. *Insect Conservation and Diversity*, 9: 181-191.
- 2015
- Ahteensuu, M.T., Aikio, S., **Cardoso, P.**, Hyvärinen, M., Hällfors, M., Lehvävirta, S., Schulman, L. & Vaara, E. (2015) Quantitative tools and simultaneous actions needed for species conservation under climate change - reply to Shoo et al. (2013). *Climatic Change*, 129: 1-7.
  - **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.
  - Carvalho, J.C., **Cardoso, P.**, Rigal, F., Triantis, K.A. & Borges, P.A.V. (2015) Modelling directional spatio-temporal processes in island biogeography. *Ecology and Evolution*, 5: 4671-4682.
  - Florencio, M., Lobo, J.M., **Cardoso, P.**, Almeida-Neto, M. & Borges, P.A.V. (2015) The colonisation of exotic species does not have to trigger faunal homogenisation: lessons from the assembly patterns of arthropods on oceanic islands. *PLoS One*, 10: e0128276.
  - Nunes, R., Gabriel, R., Elias, R., Rigal, F., Soares, A.O., **Cardoso, P.** & Borges, P.A.V. (2015) Arthropods and other biota associated with Azorean trees & shrubs: *Juniperus brevifolia*. *Arquipélago - Life and Marine Sciences*, 32: 19-48.
- 2014
- **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.
  - **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.
  - Carvalho, J.C. & **Cardoso, P.** (2014) Drivers of beta diversity in Macaronesian spiders in

relation to dispersal ability. *Journal of Biogeography*, **41**: 1859-1870.

- Crespo, L.C., Boieiro, M., **Cardoso, P.**, Aguiar, C., Amorim, I.R., Barrinha, C., Borges, P.A.V., Menezes, D., Pereira, F., Rego, C., Ribeiro, S., Silva, I. & Serrano, A.R.M. (2014) Spatial distribution of Madeira Island Laurisilva endemic spiders (Arachnida: Araneae). *Biodiversity Data Journal*, **2**: e1051.
- Crespo, L.C., Bosmans, R., **Cardoso, P.** & Borges, P.A.V. (2014) On three endemic species of the linyphiid spider genus *Canariphantes* Wunderlich, 1992 (Araneae: Linyphiidae) from the Azores archipelago. *Zootaxa*, **3841**: 403-417.
- Crespo, L.C., Silva, I., Borges, P.A.V. & **Cardoso, P.** (2014) Assessing the conservation status of the strict endemic Desertas wolf spider *Hogna ingens* (Araneae, Lycosidae). *Journal for Nature Conservation*, **22**: 516-524.
- Gaspar, C., **Cardoso, P.**, Borges, P.A.V. & Gaston, K.J. (2014) Efficiency of sampling methods and effort to assess arthropod diversity in Azorean native forests. *Arquipélago - Life and Marine Sciences*, **31**: 21-36.
- Gerlach, J., Samways, M.J., Hochkirch, A., Seddon, M., **Cardoso, P.**, Clausnitzer, V., Cumberlidge, N., Daniel, B.A., Black, S.H., Ott, J. & Williams, P.H. (2014) Prioritizing non-marine invertebrate taxa for red listing. *Journal of Insect Conservation*, **18**: 573-586.
- Guerreiro, O., **Cardoso, P.**, Ferreira, 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.
- Matthews, T., Borregaard, M., 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.
- Whittaker, R.J., 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. *Proceedings of the National Academy of Sciences USA*, **111**: 13709-13714.

#### 2013

- Boieiro, M., Carvalho, J.C., **Cardoso, P.**, Aguiar, C., Rego, C., Silva, I.F., Amorim, I.R., Pereira, F., Azevedo, E.B., Borges, P.A.V. & Serrano, A.R.M. (2013) Spatial factors play a major role as determinants of endemic ground beetle beta diversity of Madeira Island Laurisilva. *PLoS One*, **8**: e64591.
- Borges, P.A.V., Reut, M., Ponte, N.B., Quartau, J.A., Fletcher, M., Bivar de Sousa, A., Pollet, M., Soares, A.O., Marcelino, J.A.P., Rego, C. & **Cardoso, P.** (2013) New records of exotic spiders and insects to the Azores, and new data on recently introduced species. *Arquipélago - Life and Marine Sciences*, **30**: 57-70.
- **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.
- Carvalho, J.C., **Cardoso, P.**, Borges, P.A.V., Schmera, D. & Podani, J. (2013) Measuring fractions of beta diversity and their relationships to nestedness: a theoretical and empirical comparison of novel approaches. *Oikos*, **122**: 825-834.
- Crespo, L.C., Bosmans, R., **Cardoso, P.** & Borges, P.A.V. (2013) On the endemic spider species of the genus *Savigniorrhypis* Wunderlich, 1992 (Araneae: Linyphiidae) in the Azores (Portugal), with description of a new species. *Zootaxa*, **3745**: 330-342.
- Crespo, L.C., Silva, I., Borges, P.A.V. & **Cardoso, P.** (2013) Rapid biodiversity assessment, faunistics and description of a new spider species (Araneae) from Desertas Islands and Madeira (Portugal). *Revista Ibérica de Aracnología*, **23**: 11-23.
- Florencio, M., **Cardoso, P.**, Lobo, J.M., Azevedo, E.B. & Borges, P.A.V. (2013) Arthropod assemblage homogenisation in oceanic islands: the role of exotic and indigenous species under landscape disturbance. *Diversity and Distributions*, **19**: 1450-1460.

#### 2012

- Boieiro, M., Aguiar, C.A.S., Barrinha, C., Faria e Silva, I., Amorim, I.R., Borges, P.A.V., **Cardoso, P.**, Pereira, F., Rego, C., Menezes, D., Ribeiro, S. & Serrano, A.R.M. (2012) New data on the spatial distribution of endemic ground beetles (Coleoptera: Carabidae) from Madeira Island. *Arquipélago - Life and Marine Sciences*, **29**: 15-23.
- Borges, P.A.V., **Cardoso, P.**, Amorim, I.R., Pereira, F., Constância, J.P., Nunes, J.C., Barcelos, P., Costa, P., Gabriel, R. & Dapkevicius, M.L. (2012) Volcanic caves: priorities for conserving the Azorean endemic troglobiont species. *International Journal of Speleology*, **41**: 101-111.
- **Cardoso, P.** (2012) Diversity and community assembly patterns of epigean vs. troglobiont spiders in the Iberian Peninsula. *International Journal of Speleology*, **41**: 83-94.
- **Cardoso, P.** (2012) Habitats Directive species lists: urgent need of revision. *Insect Conservation and Diversity*, **5**: 169-174.
- **Cardoso, P.**, Borges, P.A.V., Triantis, K.A., Ferrández, M.A. & Martín, J.L. (2012) The

underrepresentation and misrepresentation of invertebrates in the IUCN Red List. *Biological Conservation*, 149: 147-148.

- Carvalho, J.C., **Cardoso, P.**, Crespo, L.C., Henriques, S., Carvalho, R. & Gomes, P. (2012) Determinants of spider species richness in coastal dunes along a gradient of mediterraneity. *Insect Conservation and Diversity*, 5: 127-137.
- Carvalho, J.C., **Cardoso, P.** & Gomes, P. (2012) Determining the relative roles of species replacement and species richness differences in generating beta-diversity patterns. *Global Ecology and Biogeography*, 21: 760-771.
- Fattorini, S., **Cardoso, P.**, Rigal, P. & Borges, P.A.V. (2012) Use of arthropod rarity for area prioritisation: insights from the Azorean islands. *PLoS One*, 7: e33995.
- Feest, A. & **Cardoso, P.** (2012) The comparison of site spider "biodiversity quality" in Portuguese protected areas. *Ecological Indicators*, 14: 229-235.
- Pekár, S., Šmerda, J., Hrušková, M., Šedo, O., Muster, C., **Cardoso, P.**, Zdráhal, Z., Korenko, S., Bureš, P., Líznarová, E. & Sentenská, L. (2012) Prey-race drives differentiation of biotypes in ant-eating spiders. *Journal of Animal Ecology*, 81: 838-848.
- Triantis, K.A., Hortal, J., Amorim, I., **Cardoso, P.**, Santos, A.M.C., Gabriel, R. & Borges, P.A.V. (2012) The Azorean diversity is not enigmatic: resolving the Azorean knot. A response to Carine & Schaefer (2010). *Journal of Biogeography*, 39: 1179-1184.

#### 2011

- Borges, P.A.V., **Cardoso, P.**, Cunha, R., Gabriel, R., Gonçalves, V., Hortal, J., Martins, A.F., Melo, I., Rodrigues, P., Santos, A.M., Silva, L., Triantis, K.A., Vieira, P. & Vieira, V. (2011) Macroecological patterns of species distribution, composition and richness of the Azorean terrestrial biota. *Ecologi@*, 1: 22-35.
- **Cardoso, P.**, Borges, P.A.V., Triantis, K.A., Ferrández, M.A. & Martín, J.L. (2011) Adapting the IUCN Red List criteria for invertebrates. *Biological Conservation*, 144: 2432-2440.
- **Cardoso, P.**, Erwin, T.L., Borges, P.A.V. & New, T.R. (2011) The seven impediments in invertebrate conservation and how to overcome them. *Biological Conservation*, 144: 2647-2655.
- **Cardoso, P.**, Pekár, S., Jocqué, R. & Coddington, J.A. (2011) Global patterns of guild composition and functional diversity of spiders. *PLoS One*, 6: e21710.
- Carvalho, J.C., **Cardoso, P.**, Crespo, L.C., Henriques, S., Carvalho, R. & Gomes, P. (2011) Biogeographic patterns of spiders in coastal dunes along a gradient of mediterraneity. *Biodiversity and Conservation*, 20: 873-894.
- Carvalho, J.C., **Cardoso, P.**, Crespo, L.C., Henriques, S., Carvalho, R. & Gomes, P. (2011) Determinants of beta diversity of spiders in coastal dunes along a gradient of mediterraneity. *Diversity and Distributions*, 17: 225-234.
- Gaspar, C., Gaston, K.J., Borges, P.A.V. & **Cardoso, P.** (2011) Selection of priority areas for arthropod conservation in the Azores archipelago. *Journal of Insect Conservation*, 15: 671-684.
- Pekár, S., **Cardoso, P.**, Barriga, J. & Carvalho, J.C. (2011) Update to the zodariid spider fauna of the Iberian Peninsula and Madeira (Araneae: Zodariidae). *Zootaxa*, 2814: 19-32.

#### 2010

- Borges, P.A.V., Gabriel, R., Arroz, A., Costa, A., Cunha, R., Silva, L., Mendonça, E., Martins, A. F., Reis, F. & **Cardoso, P.** (2010) The Azorean Biodiversity Portal: an internet database for regional biodiversity outreach. *Systematics and Biodiversity*, 8: 423-434.
- Bosmans, R., **Cardoso, P.** & Crespo, L.C. (2010) A review of the Linyphiid spiders of Portugal, with the description of six new species (Araneae: Linyphiidae). *Zootaxa*, 2473: 1-67.
- **Cardoso, P.** & Almeida, A.P.G. (2010) Spider envenomation in Portugal: fact or myth? *Acta Médica Portuguesa*, 23: 33-38.
- **Cardoso, P.** & Morano, E. (2010) The Iberian spider checklist (Araneae). *Zootaxa*, 2495: 1-52.
- **Cardoso, P.**, Arnedo, M.A., Triantis, K.A. & Borges, P.A.V. (2010) Drivers of diversity in Macaronesian spiders and the role of species extinctions. *Journal of Biogeography*, 37: 1034-1046.
- Hrušková-Martišová, M., Pekár, S. & **Cardoso, P.** (2010) Natural history of the Iberian solifuge *Gluvia dorsalis* (Solifuges, Daesiidae). *Journal of Arachnology*, 38: 466-474.
- Martín, J.L., **Cardoso, P.**, Arechavaleta, M., Borges, P.A.V., Faria, B.F., Abreu, C., Aguiar, A.F., Carvalho, J.A., Costa, A.C., Cunha, R.T., Fernandes, F.M., Gabriel, R., Jardim, R., Lobo, C., Martins, A.M.F., Oliveira, P., Rodrigues, P., Silva, L., Teixeira, D., Amorim, I.R., Homem, N., Martins, B., Martins, M. & Mendonça, E. (2010) Using taxonomically unbiased criteria to prioritize resource allocation for oceanic island species conservation. *Biodiversity and Conservation*, 19: 1659-1682.
- Triantis, K.A., Borges, P.A.V., Ladle, R.J., Hortal, J., **Cardoso, P.**, Gaspar, C., Dinis, F., Mendonça, E., Silveira, L.M.A., Gabriel, R., Melo, C., Santos, A.M.C., Amorim, I.R., Ribeiro, S.P., Serrano, A.R.M., Quartau, J.A. & Whittaker, R.J. (2010) Extinction debt on

- oceanic islands. *Ecography*, **33**: 285-294.
- 2009
- Bolzern, A., Crespo, L. & **Cardoso, P.** (2009) Two new *Tegenaria* species (Araneae: Agelenidae) from Portugal. *Zootaxa*, **2068**: 47-58.
  - **Cardoso, P.** (2009) Standardization and optimization of arthropod inventories – the case of Iberian spiders. *Biodiversity and Conservation*, **18**: 3949-3962.
  - **Cardoso, P.** & Scharff, N. (2009) First record of the spider family Symphytognathidae in Europe and description of *Anapistula ataecina* sp. n. (Araneae). *Zootaxa*, **2246**: 45-57.
  - **Cardoso, P.**, Aranda, S.C., Lobo, J.M., Dinis, F., Gaspar, C. & Borges, P.A.V. (2009) A spatial scale assessment of habitat effects on arthropod communities of an oceanic island. *Acta Oecologica*, **35**: 590-597.
  - **Cardoso, P.**, Borges, P.A.V. & Veech, J.A. (2009) Testing the performance of beta diversity measures based on incidence data: the robustness to undersampling. *Diversity and Distributions*, **15**: 1081-1090.
  - **Cardoso, P.**, Crespo, L.C., Carvalho, R., Rufino, A.C. & Henriques, S.S. (2009) Ad-hoc vs. standardized and optimized arthropod diversity sampling. *Diversity*, **1**: 36-51.
  - **Cardoso, P.**, Henriques, S.S., Gaspar, C., Crespo, L.C., Carvalho, R., Schmidt, J.B., Sousa, P. & Szűts, T. (2009) Species richness and composition assessment of spiders in a Mediterranean scrubland. *Journal of Insect Conservation*, **13**: 45-55.
  - Crespo, L.C., **Cardoso, P.**, Carvalho, R., Henriques, S.S., Rufino, A.C. (2009) Spiders (Arachnida: Araneae) from the Paúl de Arzila Natural Reserve (Portugal). *Boletín de la Sociedad Entomológica Aragonesa*, **44**: 305-313.
  - Crespo, L.C., **Cardoso, P.**, Henriques, S.S. & Gaspar, C. (2009) Spiders (Araneae) from Porto Santo (Portugal, Madeira): additions to the current knowledge. *Boletín de la Sociedad Entomológica Aragonesa*, **45**: 471-475.
  - Crespo, L.C., **Cardoso, P.**, Silva, I. & Menezes, D. (2009) Spiders (Arachnida: Araneae) from the Selvagens Islands (Portugal): additions to the current knowledge. *Boletín de la Sociedad Entomológica Aragonesa*, **45**: 343-348.
- 2008
- **Cardoso, P.** (2008) Biodiversity and conservation of Iberian spiders: past, present and future. *Boletín de la Sociedad Entomológica Aragonesa*, **42**: 487-492.
  - **Cardoso, P.**, Gaspar, C., Pereira, L.C., Silva, I., Henriques, S.S., Silva, R.R. & Sousa, P. (2008) Assessing spider species richness and composition in Mediterranean cork oak forests. *Acta Oecologica*, **33**: 114-127.
  - **Cardoso, P.**, Nguyen Duy-Jacquemin, M. & Rasteiro, F. (2008) New and first records of Polyxenida (Diplopoda: Penicillata) from Portugal. *Boletín de la Sociedad Entomológica Aragonesa*, **42**: 360.
  - **Cardoso, P.**, Scharff, N., Gaspar, C., Henriques, S.S., Carvalho, R., Castro, P.H., Schmidt, J.B., Silva, I., Szűts, T., Castro, A. & Crespo, L.C. (2008) Rapid biodiversity assessment of spiders (Araneae) using semi-quantitative sampling: a case study in a Mediterranean forest. *Insect Conservation and Diversity*, **1**: 71-84.
- 2007
- Barrientos, J.A. & **Cardoso, P.** (2007) The genus *Malthonica* Simon, 1898 in the Iberian Peninsula (Araneae: Agelenidae). *Zootaxa*, **1460**: 59-68.
  - **Cardoso, P.**, Borges, P.A.V. & Gaspar, C. (2007) Biotic integrity of the arthropod communities in the natural forests of Azores. *Biodiversity and Conservation*, **16**: 2883-2901.
  - **Cardoso, P.**, Silva, I., Oliveira, N.G. & Serrano, A.R.M. (2007) Seasonality of spiders (Araneae) in Mediterranean ecosystems and its implications in the optimum sampling period. *Ecological Entomology*, **32**: 516-526.
  - Decae, A.E., **Cardoso, P.** & Selden, P.A. (2007) Taxonomic review of the Portuguese Nemesiidae (Araneae, Mygalomorphae). *Revista Ibérica de Aracnología*, **14**: 1-18.
- 2006
- Decae, A.E. & **Cardoso, P.** (2006) *Iberesia*, a new genus of trapdoor spiders (Araneae, Nemesiidae) from Portugal & Spain. *Revista Ibérica de Aracnología*, **12**: 3-11.
- 2005
- Pekár, S. & **Cardoso, P.** (2005) Ant-eating spiders (Araneae, Zodariidae) of Portugal: additions to the current knowledge. *Zootaxa*, **1009**: 51-60.
- 2004
- **Cardoso, P.**, Silva, I., Oliveira, N.G. & Serrano, A.R.M. (2004) Higher taxa surrogates of spider (Araneae) diversity and their efficiency in conservation. *Biological Conservation*, **117**: 453-459.
  - **Cardoso, P.**, Silva, I., Oliveira, N.G. & Serrano, A.R.M. (2004) Indicator taxa of spider (Araneae) diversity and their efficiency in conservation. *Biological Conservation*, **120**: 517-524.
- 2003
- Pekár, S., **Cardoso, P.** & Meierrose, C. (2003) Additions to the Portuguese zodariid



spiders (Araneae: Zodariidae). *Bulletin of the British Arachnological Society*, **12**:385-395.

**Papers in  
conference  
proceedings  
(11)**

- 2018
- Alirezazadeh, S., Borda-De-Água, L., Borges, P.A.V., Gabriel, R., Dionisio, F., Pereira, H. M., & **Cardoso, P.** (2018). Theoretical approach for how species abundance distributions change across scales. In 2018 13th APCA International Conference on Control and Soft Computing (CONTROLO) (pp. 131-136). IEEE DOI: 10.1109/CONTROLO.2018.8514272
- 2013
- Borges, P.A.V., **Cardoso, P.**, Guerreiro, O., Rigal, F., Florencio, M., Amorim, I.R., Borda-de-Agua, L., Cascalho, J. & Ferreira, M. (2013) Perspectives and progress of ecology and conservation science in the Azores: the possible contribution of Artificial Intelligence. *Advances in Artificial Intelligence*. CMATI - University of the Azores, Ponta Delgada, Portugal, pp. 11-14.
  - **Cardoso, P.**, Carvalho, R., Carreira, J. & Batista, J. (2013) Automation of species identification and description. *Advances in Artificial Intelligence*. CMATI - University of the Azores, Ponta Delgada, Portugal, pp. 568-570.
  - **Cardoso, P.** & Gomes, L.M. (2013) Biodiversity data compilation. *Advances in Artificial Intelligence*. CMATI - University of the Azores, Ponta Delgada, Portugal, pp. 571-572.
  - **Cardoso, P.**, Rigal, F. & Mendes, A. (2013) Cluster analysis optimization. *Advances in Artificial Intelligence*. CMATI - University of the Azores, Ponta Delgada, Portugal, pp. 573-574.
  - Monjardino, P., Rocha, S. & **Cardoso, P.** (2013) Automation of organelle identification in developing maize endosperm transfer cells. *Advances in Artificial Intelligence*. CMATI - University of the Azores, Ponta Delgada, Portugal, pp. 577-578.
  - Riquelme, C., **Cardoso, P.**, Rigal, F. & Dapkevicius, M.L.E. (2013) Challenges in assessing color and spatial distribution of bacterial mats in lava cavities. *Advances in Artificial Intelligence*. CMATI - University of the Azores, Ponta Delgada, Portugal, pp. 579-580.
- 2006
- Ribeiro, C., **Cardoso, P.** & Franco, J.C. (2006) Abundance and diversity of spiders in lemon orchards with different weed management systems. In Garcia-Marí, F. (ed.), *International Conference on Integrated Control in Citrus Fruit Crops. IOBC wprs Bulletin*, **29**: 167-177.
- 2004
- **Cardoso, P.**, Oliveira, N.G., Silva, I. & Serrano, A.R.M. (2004) Higher taxa surrogates versus surrogate groups of spider biodiversity. In F. Samu & Cs. Szinetar (eds.), *European Arachnology 2002 - Proceedings of the 20th European Colloquium of Arachnology*. pp. 19-29.
- 2000
- **Cardoso, P.** (2000) Portuguese spiders (Araneae): a preliminary checklist. In P. Gajdos & S. Pekár (eds.), *Proceedings of the 18th European Colloquium of Arachnology*. *Ekológia*, **19**: 19-29.
  - **Cardoso, P.** (2000) Description of the supposed male *Nemesia hispanica* L. Koch in Ausserer, 1871 (Araneae, Nemesiidae). In P. Gajdos & S. Pekár (eds.), *Proceedings of the 18th European Colloquium of Arachnology*. *Ekológia*, **19**: 31-36.

**Books  
(6)**

- 2016
- NECA (2016) *Arrábida – inside and out*. NECA, Sesimbra, Portugal, 80pp.
  - NECA (2016) *Sistema do Frade*. NECA and AMRS, Setubal, Portugal, 332pp. (*in Portuguese*)
- 2014
- Boieiro, M., Aguiar, A.F., Aguiar, C.A.S., Borges, P.A.V., **Cardoso, P.**, Crespo, L., Menezes, D., Pereira, F., Rego, C., Silva, I., Silva, P.M. & Serrano, A.R.M. (2014). Madeira, the biodiversity pearl - valuing the native habitats and endemic life forms. Sociedade Portuguesa de Entomologia, Lisboa, Portugal.
- 2013
- Correia, L., Reis, L.P., Cascalho, J., Gomes, L.M., Guerra, H. & **Cardoso, P.** (Eds.) (2013) *Advances in Artificial Intelligence*. CMATI - University of the Azores, Ponta Delgada, Portugal, 584pp.
- 2009
- **Cardoso, P.**, Gaspar, C., Borges, P.A.V., Gabriel, R., Amorim, I.R., Frias Martins, A., Maduro-Dias, F., Porteiro, J., Silva, L. & Pereira, F. (2009) *Azores – a natural portrait*. Veraçor, Ponta Delgada, Portugal, 240pp.
- 2000
- **Cardoso, P.** (2000) *Spiders of Arrábida Nature Park*. Parque Natural da Arrábida - Instituto de Conservação da Natureza, Lisboa, Portugal, 24pp. (*in Portuguese*)

**Book chapters  
(13)**

- 2012
- Borges, P.A.V., Gaspar, C.S., Santos, A.M.C, Ribeiro, S.P., **Cardoso, P.**, Triantis, K. & Amorim, I.R. (2012) Patterns of colonization and species distribution for Azorean arthropods: evolution, diversity, rarity and extinction. In: Martins, A.M.F. & Carvalho, M.C. (eds.) *Celebrating Darwin: Proceedings of the Symposium "Darwin's Mistake and what we are doing to correct it"*, Ponta Delgada, 19-22 September, 2009. Açoreana, **7**: 89-119.
- 2011
- **Cardoso, P.**, Gaspar, C., Dinis, F. & Borges, P.A.V. (2011) Patterns of alpha and beta diversity of epigeal arthropods at contrasting land-uses of an oceanic island (Terceira, Azores). In: Serrano, A.R.M., Borges, P.A.V., Boieiro, M. & Oromí, P. (eds.) *Terrestrial arthropods of Macaronesia - Biodiversity, ecology and evolution*. Sociedade Portuguesa de Entomologia, Lisboa, pp. 73-88.
- 2010
- **Cardoso, P.**, Wunderlich, J. & Borges, P.A.V. (2010) Araneae. In: Borges, P.A.V., Costa, A., Cunha, R., Gabriel, R., Gonçalves, V., Martins, A.F., Melo, I., Parente, M., Raposeiro, P., Rodrigues, P., Santos, R.S., Silva, L., Vieira, P. & Vieira, V. (eds.) *A list of the terrestrial and marine biota from the Azores*. Princípiã, Oeiras, pp. 202-205.
  - **Cardoso, P.** & Pinto, H. (2010) Acari (Astigmata; Oribatida; Prostigmata; Mesostigmata). In: Borges, P.A.V., Costa, A., Cunha, R., Gabriel, R., Gonçalves, V., Martins, A.F., Melo, I., Parente, M., Raposeiro, P., Rodrigues, P., Santos, R.S., Silva, L., Vieira, P. & Vieira, V. (eds.) *A list of the terrestrial and marine biota from the Azores*. Princípiã, Oeiras, pp. 198-201.
- 2009
- **Cardoso, P.**, Borges, P.A.V. & Pereira, F. (2009) Volcanoes and lava flows. In: Cardoso, P., Gaspar, C., Borges, P.A.V., Gabriel, R., Amorim, I.R., Frias Martins, A., Maduro-Dias, F., Porteiro, J., Silva, L. & Pereira, F. (eds.) *Azores - a natural portrait*. Veraçor, Ponta Delgada, pp. 36-53.
  - Gaspar, C. & **Cardoso, P.** (2009) Introduction. In: Cardoso, P., Gaspar, C., Borges, P.A.V., Gabriel, R., Amorim, I.R., Frias Martins, A., Maduro-Dias, F., Porteiro, J., Silva, L. & Pereira, F. (eds.) *Azores - a natural portrait*. Veraçor, Ponta Delgada, pp. 8-27.
- 2008
- **Cardoso, P.**, Borges, P.A.V. & Macías, N. (2008) *Dysdera crocata* C.L. Koch, 1838. In: Silva, L., Ojeda, E.L. & Rodriguez-Luengo, J.L. (eds.) *Invasive Terrestrial Flora & Fauna of Macaronesia. TOP 100 in Azores, Madeira and Canaries*. ARENA, Ponta Delgada, pp. 415-417.
  - **Cardoso, P.**, Borges, P.A.V., Costa, A.C., Cunha, R.T., Gabriel, R., Martins, A.M.F., Silva, L., Homem, N., Martins, M., Rodrigues, P., Martins, B. & Mendonça, E. (2008) The archipelago perspective - Azores. In: Martín, J.L., Arechavaleta, M., Borges, P.A.V. & Faria, B. (eds.) *TOP 100 - The 100 threatened species priority for management in Macaronesia*. Consejería de Medio Ambiente y Ordenación Territorial, Gobierno de Canarias, Santa Cruz de Tenerife, pp. 421-449. (in Portuguese and Spanish)
  - **Cardoso, P.** & Crespo, L. (2008) Araneae. In: Borges, P.A.V., Abreu, C., Aguiar, A.M.F., Carvalho, P., Jardim, R., Melo, I., Oliveira, P., Sérgio, C., Serrano, A.R.M. & Vieira, P. (eds.) *A list of the terrestrial fungi, flora and fauna of Madeira and Selvagens archipelagos*. Direcção Regional do Ambiente da Madeira and Universidade dos Açores, Funchal and Angra do Heroísmo, pp. 283-286.
  - **Cardoso, P.** (2008) Opiliones. In: Borges, P.A.V., Abreu, C., Aguiar, A.M.F., Carvalho, P., Jardim, R., Melo, I., Oliveira, P., Sérgio, C., Serrano, A.R.M. & Vieira, P. (eds.) *A list of the terrestrial fungi, flora and fauna of Madeira and Selvagens archipelagos*. Direcção Regional do Ambiente da Madeira and Universidade dos Açores, Funchal and Angra do Heroísmo, pp. 279.
  - **Cardoso, P.**, Pinto, H. & Brazão, C. (2008) Acari. In: Borges, P.A.V., Abreu, C., Aguiar, A.M.F., Carvalho, P., Jardim, R., Melo, I., Oliveira, P., Sérgio, C., Serrano, A.R.M. & Vieira, P. (eds.) *A list of the terrestrial fungi, flora and fauna of Madeira and Selvagens archipelagos*. Direcção Regional do Ambiente da Madeira and Universidade dos Açores, Funchal and Angra do Heroísmo, pp. 279-283.
- 2006
- Ribeiro, C., **Cardoso, P.** & Franco J.C. (2006) Aranhas. In: Franco, J.C., Ramos, A.P. & Moreira, I. (eds.) *Infra-estruturas ecológicas e protecção biológica: caso dos citrinos*. ISA Press, Lisboa, pp. 75-78. (in Portuguese)
- 2005
- Borges, P.A.V., **Cardoso, P.** & Dinis, F. (2005) Acari. In: Borges, P.A.V., Cunha, R., Gabriel, R., Martins, A. F., Silva, L. & Vieira, V. (eds.) *A list of the terrestrial fauna (Gastropoda and Arthropoda) and flora from the Azores*. Direcção Regional de Ambiente e do Mar dos Açores, Horta, pp. 173-178.

**Software &**

Software

**databases  
(5)**

- **Cardoso, P.** (2018) red: IUCN Redlisting Tools. R package version 1.4.0. Available online at: <http://cran.r-project.org/web/packages/red/index.html>
- **Cardoso, P.**, Rigal, F. & Carvalho, J.C. (2018) BAT: Biodiversity Assessment Tools. R package version 1.6.0. Available online at: <http://cran.r-project.org/web/packages/BAT/index.html>
- **Cardoso, P.** (2015) PRION – PRIority Optimization aNalysis v0.11. Available online at: <https://drive.google.com/file/d/0B-d-Ke9zaQUTbUhudjVfYnVGVIk/view?usp=sharing>
- **Cardoso, P.** (2010) *Cobra - Sampling Optimization (v1.0)*. Available online at: [http://www.ennor.org/pro\\_software.html](http://www.ennor.org/pro_software.html)

*Databases***Other  
publications  
(11)**

- Morano, E., Branco, V.V., Carrillo, J. & **Cardoso, P.** (2018) Iberian spider catalogue (v4.0). Available online at <http://biodiversityresearch.org/research/biogeography/iberia/>
- 2018
  - Fukushima, C., Mendoza, J., West, R., Longhorn, S., Rivera Téllez, E., Henriques, S. & **Cardoso, P.** (2018) 21 species of Theraphosidae listed in CITES In: IUCN 2018. IUCN Red List of Threatened Species. Version 2018.2. [www.iucnredlist.org](http://www.iucnredlist.org)
  - **Cardoso, P.**, Crespo, L.C., Silva, I., Borges, P.A.V. & Boieiro, M. (2018) 54 species of spiders endemic to Madeira (Portugal) In: IUCN 2018. IUCN Red List of Threatened Species. Version 2018.2. [www.iucnredlist.org](http://www.iucnredlist.org)
- 2017
  - Kuntner, M., Rudolf, E. & **Cardoso, P.** (2017) 37 species of Nephilidae In: IUCN 2017. IUCN Red List of Threatened Species. Version 2017.1. [www.iucnredlist.org](http://www.iucnredlist.org)
- 2015
  - Borges, P.A.V., **Cardoso, P.**, Amorim, I.R., Pereira, F., Constância, J.P., Nunes, J.C., Barcelos, P., Costa, P. & Gabriel, R. (2015) Valoração das cavidades vulcânicas dos Açores para conservação da sua fauna troglóbia. *Pingo de Lava*, 38, 73-76.
  - **Cardoso, P.** & Hilton-Taylor, C. (2015) *Nothopantes horridus* In: IUCN 2015. IUCN Red List of Threatened Species. Version 2015.1. [www.iucnredlist.org](http://www.iucnredlist.org)
- 2014
  - Boieiro, M., Aguiar, A.F., Aguiar, C., Borges, P.A.V., **Cardoso, P.**, Crespo, L., Farinha, A., Hortal, J., Silva, P.M., Menezes, D., Palma, C., Pereira, F., Prado e Castro, C., Rego, C., Silva, P.R., Santos, A.M.C., Silva, I., Sousa, J.P. & Serrano, A.R.M. (2014) Conflict between human activities and endemic insular species conservation in an area of high biodiversity (in portuguese). *Ecologi@*, 7: 85-88.
  - Boieiro, M., Aguiar, C., Antunes, S., Bivar de Sousa, A., Borges, P.A.V., **Cardoso, P.**, Conde, J., Figueiredo, H., Garcia-Pereira, P., Monteiro, E., Rego, C., Soares, A. & Serrano, A.R.M. (2014) Biodiversity, endemisms and protected species associated with lagoons and water courses of Serra da Estrela: valuing one century of hydroelectric power (in portuguese). *Ecologi@*, 7: 92-94.
  - **Cardoso, P.** (2014) *Hogna ingens*. In: IUCN 2014. IUCN Red List of Threatened Species. Version 2014.2. [www.iucnredlist.org](http://www.iucnredlist.org)
- 2010
  - **Cardoso, P.** (2010) *Anapistula ataecina*. In: IUCN 2010. IUCN Red List of Threatened Species. Version 2010.2. [www.iucnredlist.org](http://www.iucnredlist.org)
- 2007
  - Rasteiro, F.L., **Cardoso, P.** et al. (2007) Speleological Chart of Arrábida. Núcleo de Espeleologia da Costa Azul. DVD.
  - Rasteiro, F.L., **Cardoso, P.** et al. (2007) Speleology and the Natural Heritage. Núcleo de Espeleologia da Costa Azul. DVD.

**Editorial board**

Biodiversity Data Journal (<http://biodiversitydatajournal.com/>; ISSN 1314-2828)  
 Zookeys (<http://www.pensoft.net/journals/zookeys>; ISSN 1313-2970)

**Reviewer  
(155 reviews)  
(87 journals)**

Acta Oecologica (1x), Acta Zoologica Academiae Scientiarum Hungaricae (1x), Acta Zoologica Bulgarica (1x), African Journal of Ecology (2x), African Zoology (1x), Agriculture, Ecosystems and Environment (1x), Animal Biodiversity and Conservation (1x), Animal Conservation (1x), Arachnologische Mitteilungen (2x), Arachnology (1x), Arid Land Research and Management (1x), Austral Entomology (1x), Basic & Applied Ecology (1x), Belgian Journal of Zoology (1x), Biodiversity and Conservation (5x), Biodiversity Data Journal (3x), Biological Conservation (9x), Biological Journal of the Linnean Society (1x), Biota Neotropica (1x), Biotropica (1x), Bulletin of the British Arachnological Society (1x), Canadian Journal of Zoology (1x), Community Ecology (1x), Conservation Biology (2x), Current Zoology (1x), Diversity (5x), Ecography (3x), Ecological Indicators (1x), Ecological Informatics (1x), Ecological Modelling (1x), Ecological Research (1x), Ecology (1x), Ecology Letters (1x), Ecoscience (1x), Ecosphere (1x), Ecosystems (1x), Environmental Conservation (1x), Environmental Entomology (1x), Environmental Management (1x), Environmental Pollution (1x), European Journal of Entomology (1x), Experimental and Applied Acarology (1x), Forest Ecology and Management (1x), Global Ecology and Biogeography (4x),

Iberian Journal of Arachnology (7x), Insect Conservation and Diversity (8x), Insect Science (1x), International Journal of Ecology (1x), Italian Journal of Zoology (1x), Journal for Nature Conservation (1x), Journal of Applied Ecology (1x), Journal of Arachnology (9x), Journal of Biodiversity & Endangered Species (1x), Journal of Biogeography (5x), Journal of Biology and Nature (1x), Journal of Insect Biodiversity (1x), Journal of Insect Conservation (5x), Journal of Insect Science (1x), Journal of Integrated Coastal Zone Management (1x), Journal of Plant Ecology (1x), Journal of Plant Interactions (1x), Koedoe: African Protected Area Conservation and Science (1x), Marine Ecology (1x), Methods in Ecology and Evolution (4x), Molecular Ecology (1x), Munibe (2x), Natura Croatica (1x), Nature Conservation (1x), Neobiota (1x), North-Western Journal of Zoology (1x), Pacific Conservation Biology (1x), Peerage of Science (2x), Phytoparasitica (1x), PLoSOne (5x), Proceedings of the Royal Society – Biological Sciences (1x), Restoration Ecology (1x), Science of the Total Environment (1x), Scientific Research and Essays (1x), Society & Natural Resources (1x), Systematics and Biodiversity (1x), Tropical Zoology (1x), Turkish Journal of Zoology (1x), Zookeys (4x), Zoologia (1x), Zoologia Caboverdiana (1x), Zoosystema (1x), Zootaxa (2x).

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#### PROJECTS (AS PRINCIPAL INVESTIGATOR)

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- 2018** PI of the project "IUCN Red List Assessment of 15 priority tarantula species", *Finnish Museum of Natural History, University of Helsinki, Finland*. Funded by Commission for Environmental Cooperation – 28 500€.
- 2018 - 2021** PI of the project "Global trade of live tarantulas and scorpions: analysis through social media of its impact on wild populations of endangered species.", *Finnish Museum of Natural History, University of Helsinki, Finland*. Funded by Kone Foundation – 128 000€.
- 2016 – 2019** PI of the project "Biodiversity drivers on islands and continents", *Finnish Museum of Natural History, University of Helsinki, Finland*. Funded by European Union Horizon 2020 – 191 326€.
- 2016 – 2019** PI of the project "Trait-based prediction of extinction risk", *Finnish Museum of Natural History, University of Helsinki, Finland*. Funded by Kone Foundation – 99 910€.
- 2016 – 2020** Co-PI of the project "Macaronesian Islands as a testing ground to assess biodiversity drivers at multiple scales", *University of Azores, Portugal*. Funded by Portuguese Foundation for Science and Technology - 197 628€.
- 2015 – 2018** PI of the project "Ecology and conservation of the critically endangered Frade Cave Spider (*Anapistula ataecina*)", *Finnish Museum of Natural History, University of Helsinki, Finland*. Funded by the Mohamed bin Zayed Species Conservation Fund - 5000\$US.
- 2015 – 2018** PI of the project "Towards a sampled red list index for arachnids at a global level", *Finnish Museum of Natural History, University of Helsinki, Finland*. Funded by Chicago Zoological Society's Chicago Board of Trade Endangered Species Fund - 2000\$US.
- 2010 –** Coordinator of the biodiversity data portal Naturdata (<http://www.naturdata.com>), *Prodata - Associação para o Conhecimento e Promoção da Biodiversidade, Portugal*.
- 2007 –** PI of the project "Iberian Spider Catalogue", *GBIF.es - Global Biodiversity Information Facility, Spain*.
- 2011 – 2012** PI of the project "Conservation of the Desertas tarantula", *ITB, Portugal*. Funded by Direcção Regional do Ambiente da Madeira - 6000€.
- 2008 – 2011** Co-PI of the project "Consequences of land use change to the arthropod fauna of Azores – the 2010 target", *University of Azores, Portugal*. Funded by Direcção Regional da Ciência e Tecnologia dos Açores - M212/F/003/2008 - 25 000€.
- 2008 – 2009** PI of the project "Conservation of endemic tarantulas of Porto Santo", *ITB, Portugal*. Funded by Sociedade de Desenvolvimento de Porto Santo - 8000€.
- 2008 – 2009** PI of the project "Azores - a natural portrait", *University of Azores, Portugal*. Funded by Direcção Regional da Ciência e Tecnologia dos Açores - M323/I/020/2008 - 5000€.
- 2008** PI of the project "Taxonomy and conservation of a new species of *Anapistula* (Araneae, Symphytognathidae)", *Natural History Museum, University of Copenhagen, Denmark*. Funded by European Union Synthesis Program - DK/TAF/4426 - 3000€.
- 2004** PI of the project "Development of an Index of Biotic Integrity for Azorean natural forests arthropods", *University of Azores, Portugal*. Funded by Centro de Investigação em Tecnologias Agrárias dos Açores - 4000€.
- 2000** PI of the project "Inventory and characterization of the arachnids of Vale do Guadiana Nature Park", *Institute for Nature Conservation, Portugal*. Funded by Instituto de Conservação da Natureza - 3200€.

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#### PROJECTS (AS COLLABORATOR)

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- 2016 – 2020** *University of Lisbon, Portugal*  
Collaboration with the project "Threatened specialized interactions endemic to a biodiversity hotspot".

- 2016 – 2018**  
 Funded by Fundação para a Ciência e Tecnologia - 139 368€.  
*University of Porto, Portugal*  
 Collaboration with the project "Spatial scaling of species diversity".
- 2014 – 2016**  
 Funded by Fundação para a Ciência e Tecnologia – 98 574€.  
*University of Copenhagen, Denmark*  
 Collaboration with the project "Eastern Arc biodiversity programme: discovering, documenting and explaining the smaller majority of the Udzungwa Mountains".
- 2013 – 2016**  
*University of Barcelona, Spain*  
 Collaboration with the project "An integrative approach to solve the species problem: lessons from the spider world".
- 2013 – 2016**  
 Funded by Ministerio de Educación y Ciencia de España.  
*University of Barcelona, Spain*  
 Collaboration with the project "Reconciling semi-quantitative bioinventorying with DNA barcoding to infer diversity and biogeographical patterns in the Spanish National Parks network".  
 Funded by the Spanish National Parks network.
- 2012 – 2015**  
*University of Azores, Portugal*  
 Collaboration with the project "Implications of climate change for Azorean Biodiversity".
- 2012 – 2015**  
 Funded by Direcção Regional da Ciência e Tecnologia dos Açores - 67 000€.  
*University of Azores, Portugal*  
 Collaboration with the project "Mapping coastal and marine biodiversity of the Azores – Atlantis-Mar".
- 2012 – 2015**  
 Funded by Direcção Regional da Ciência e Tecnologia dos Açores - 67 000€.  
*University of Azores, Portugal*  
 Collaboration with the project "Island-Biodiv: understanding biodiversity dynamics in tropical and subtropical islands in an aid to science based conservation action".  
 Funded by Net-Biome (European Union).
- 2010 –**  
*University of Azores, Portugal*  
 Azorean Biodiversity Portal (<http://www.azoresbioportal.angra.uac.pt>).
- 2011 – 2016**  
 Funded by Direcção Regional da Ciência e Tecnologia dos Açores – 186 160€.  
*University of Azores, Portugal*  
 Collaboration with the project "Smartparks - planning and management system for small islands protected areas".
- 2012 – 2015**  
 Funded by Fundação para a Ciência e Tecnologia.  
*University of Lisbon, Portugal*  
 Collaboration with the project "Biodiversity, endemics and protected species connected with lagoons and streams of Serra da Estrela (Portugal)".  
 Funded by EDP - 70 000€.
- 2012 – 2015**  
*University of Azores, Portugal*  
 Collaboration with the project "Biodiversity on oceanic islands: towards a unified theory".  
 Funded by Fundação para a Ciência e Tecnologia - 99 000€.
- 2011 – 2015**  
*PESI - Pan-European Species directories Infrastructure*  
 Focal partner in Portugal.
- 2010 – 2015**  
*University of Azores, Portugal*  
 Collaboration with the project "Predicting extinction risk of island endemics: integrating ecology and conservation genetics in a multiple scale approach".  
 Funded by Fundação para a Ciência e Tecnologia - 200 000€.
- 2010 – 2015**  
*University of Lisbon, Portugal*  
 Collaboration with the project "Conflict between human activities and the conservation of insular endemics in a global biodiversity hotspot".  
 Funded by Fundação para a Ciência e Tecnologia - 150 000€.
- 2008 – 2013**  
*University of Azores, Portugal*  
 Collaboration with the project "Island native and invasive species: the functional perspective".  
 Funded by Fundação para a Ciência e Tecnologia - 200 000€.
- 2009 – 2012**  
*University of Barcelona, Spain*  
 Collaboration with the project "The ecosystem watchers: Mygalomorph spiders as bioindicators for monitoring ecological changes and evolutionary potential of terrestrial ecosystems".  
 Funded by Ministerio de Educación y Ciencia de España - 170 000€.
- 2008 – 2011**  
*University of Azores, Portugal*  
 Collaboration with the project "Understanding underground diversity in Azores"  
 Funded by Fundação para a Ciência e Tecnologia - 200 000€.
- 2005 – 2010**  
*University of Prague, Czech Republic*  
 Collaboration with the project "Dysderids of the Iberian Peninsula".
- 2005 – 2010**  
*Speleology Nucleus of Costa Azul, Portugal*  
 Collaboration with the project "Research Project of the Frade Cave System".  
 Funded by Programa Operacional do Ambiente - 400 000€.
- 2008**  
*Images from the Edge Photography, Scotland*  
 Collaboration with the educational project "Rewilding Childhood".

<b>2007 – 2008</b>	<i>University of Lisbon, Portugal</i> Collaboration with the project "High Endemism Areas in the Archipelago of Madeira - Establishing priorities for the conservation of the endemic insect fauna" Funded by Fundação para a Ciência e Tecnologia - 200 000€.
<b>2007 – 2008</b>	<i>"Ciência Viva" - Scientific outreach facility, Portugal</i> Collaboration with the educational project "Sair da casca" Funded by Ciência Viva.
<b>2007 – 2008</b>	<i>Environment Bureau of Canary Islands, Spain and University of Azores, Portugal</i> Collaboration with the project "BIONATURA – Cooperation and synergy towards the knowledge and conservation of the biodiversity in Macaronesia and management of the Natura 2000 network" Funded by European Union Interreg IIIB.
<b>2006 – 2007</b>	<i>Madeira Nature Park, Portugal</i> Collaboration with the project "Arthropod communities after vegetation recovery in the Salvage Islands" Funded by Madeira Nature Park.
<b>2005</b>	<i>Natural History Museum, University of Copenhagen, Denmark</i> Collaboration with the Danish Spider Atlas.
<b>2004</b>	<i>Masaryk University, Czech Republic</i> Collaboration with the project "Study of biological control of ant pests using ant-eating spiders". Funded by NATO.
<b>2003 – 2004</b>	<i>University of Azores, Portugal</i> Collaboration with the project "Arthropod Biodiversity of the Azorean Laurissilva". Funded by Direcção Regional dos Recursos Florestais.
<b>2003</b>	<i>Masaryk University, Czech Republic</i> Collaboration with the project "Predation characteristics of two zodariid spiders". Funded by OECD.
<b>2003</b>	<i>Copenhagen Biosystematics Centre (COBICE), Denmark</i> Working visit to COBICE and the Zoological Museum, University of Copenhagen.
<b>2003</b>	<i>University of Ouro Preto, Brazil</i> Collaboration with the project "TEAM - Tropical Ecology, Assessment and Monitoring" at Rio Doce State Park (Mato Grosso, Brazil).
<b>2002</b>	<i>Copenhagen Biosystematics Centre (COBICE), Denmark</i> Working visit to COBICE and the Zoological Museum, University of Copenhagen.
<b>2002</b>	<i>Entomological Museum of León, Nicaragua</i> Fieldwork at Bartola Field Station, San Carlos, Nicaragua.
<b>2001</b>	<i>Masaryk University, Czech Republic</i> Collaboration with the project "Biology and ecology of Portugal zodariid spiders (Araneae: Zodariidae)".
<b>2000</b>	<i>Impactest - Environmental consulting, Portugal</i> Environmental consulting referring to insecticides effects on auxiliary fauna.
<b>Reviewer for</b>	European Union H2020-MSCA (26x) Hungarian Scientific Research Fund (2x) Polish National Science Centre (1x) Romanian National Council for Research and Development (7x) Regional Secretariat for Science and Technology of the Azores (19x) South Africa's National Research Foundation (2x) UK Engineering and Physical Sciences Research Council (1x) Uruguayan National Agency for Research and Innovation (1x)

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**TAXONOMIC EXPERTISE**


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<b>Main interests</b>	Spiders, mainly families with high percentages of Iberian endemics. Troglobiont arthropods, especially arachnids.
<b>Described genera (1)</b>	<i>Iberesia</i> Decae & Cardoso, 2006 (Araneae: Nemesiidae)
<b>Described species (15)</b>	<i>Amphiledorus ungoliantae</i> Pekár & Cardoso, 2005 (Araneae: Zodariidae) <i>Anapistula ataecina</i> Cardoso & Scharff, 2009 (Araneae: Symphytognathidae) <i>Diplocephalus machadoi</i> Bosmans & Cardoso, 2010 (Araneae: Linyphiidae) <i>Eratigena barrientosi</i> (Bolzern, Crespo & Cardoso, 2009) (Araneae: Agelenidae) <i>Eratigena incognita</i> (Bolzern, Crespo & Cardoso, 2009) (Araneae: Agelenidae) <i>Iberesia machadoi</i> Decae & Cardoso, 2006 (Araneae: Nemesiidae) <i>Malthonica oceanica</i> Barrientos & Cardoso, 2007 (Araneae: Agelenidae) <i>Maso douro</i> Bosmans & Cardoso, 2010 (Araneae: Linyphiidae)

*Nemesia bacelarae* Decae, Cardoso & Selden, 2007 (Araneae: Nemesiidae)  
*Nemesia ungoliant* Decae, Cardoso & Selden, 2007 (Araneae: Nemesiidae)  
*Zodarion atlanticum* Pekár & Cardoso, 2005 (Araneae: Zodariidae)  
*Zodarion bosmansii* Pekár & Cardoso, 2005 (Araneae: Zodariidae)  
*Zodarion duriense* Cardoso, 2003 (Araneae: Zodariidae)  
*Zodarion guadianense* Cardoso, 2003 (Araneae: Zodariidae)  
*Zodarion lusitanicum* Cardoso, 2003 (Araneae: Zodariidae)

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**COURSES & WORKSHOPS (CHAired)**


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**2016** *National University of Colombia, Colombia*  
IUCN Redlisting – concepts and tools, 24h.

**2016** *National University of Colombia, Colombia*  
BAT - Biodiversity Assessment Tools, 4h.

**2016** *Denver Museum of Natural History, USA*  
IUCN Redlisting – concepts, tools and the Sampled Red List Index for Arachnids, 24h.

**2016** *University of Helsinki, Finland*  
BAT - Biodiversity Assessment Tools, 16h.

**2016** *University of Helsinki, Finland*  
Spider taxonomy and ecology, 48h.

**2015** *University of Brno, Czech Republic*  
IUCN Redlisting – concepts and tools, 16h.

**2015** *Portuguese Society of Entomology, Portugal*  
IUCN Redlisting – concepts and tools, 24h.

**2015** *University of Lisbon, Portugal*  
Applied methods in Biogeography, 36h.

**2014** *University of Brno, Czech Republic*  
Eureqa (automated discovery of relations in ecological data), 2h.

**2012** *University of the Azores, Portugal*  
Prion – Priority Optimization Analysis (spatial conservation planning), 5h.

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**COURSES & WORKSHOPS (ATTENDED)**


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**2016** *International Union for the Conservation of Nature, Cambridge, UK*  
IUCN Redlisting - Trainer certification workshop, 40h.

**2009** *Smithsonian Institution, National Museum of Natural History, USA*  
Advanced ArcGIS with Spatial Analyst and ModelBuilder extensions, 14h.

**2009** *Smithsonian Institution, National Museum of Natural History, USA*  
Introduction to Geographic Information Systems (GIS) with ArcGIS, 14h.

**2008** *University of Azores, Portugal*  
Lichen taxonomy, 40h.

**2007** *2nd International Conservation Photography Symposium, Lindau, Germany*  
Nature Photography with Art Wolfe, 5h.

**2005** *GBIF / UNAM / CONABIO / University of Kansas, Mexico City, Mexico*  
GBIF Data Modeling, 40h.

**2005** *University of Azores, Portugal*  
Introduction to techniques and applications of Geographic Information Systems (GIS) in Ecology, 50h.

**2004** *University of Coimbra, Portugal*  
Development and implementation of bioindicators in impact assessment and biodiversity monitoring schemes, 80h.

**2003** *Zoological Garden of Jerez, Spain*  
1<sup>st</sup> Arachnology Taxonomical Course, 20h.

**2002** *Associação Amigos da Vida Selvagem, Alcanena, Portugal*  
Introduction to scientific illustration, 20h.

**2002** *CONABIO / Universidad Autónoma del Estado de Hidalgo, Mexico*  
Concepts and strategies in biodiversity estimation and assessment, 96h.

**2000** *Fundação Antero de Quental, Lisbon, Portugal*  
Pedagogic formation of teachers in urban rehabilitation and environmental requalification, 498h.

**1997** *University of Évora, Portugal*  
1<sup>st</sup> Arachnology course, 40h.

**SUPERVISION EXPERIENCE****Postdoc  
(4 ongoing)  
(1 finished)**

- Núria Macías-Hernández, "Biodiversity drivers on islands and continents", *University of Helsinki, Finland*, 2017-2019.
- Caroline Fukushima, "Global trade of live tarantulas and scorpions: analysis through social media of its impact on wild populations of endangered species", *University of Helsinki, Finland*, 2018-2021.
- Stefano Mammola, "Testing macroecological theory using simplified systems", *University of Helsinki, Finland*, 2019-2020.
- Jagoba Malumbres-Olarte, "MACDIV - Macaronesian Islands as a testing ground to assess biodiversity drivers at multiple scales", *University of the Azores, Portugal*, 2018-2019.
- Marco Girardello, "MACDIV - Macaronesian Islands as a testing ground to assess biodiversity drivers at multiple scales", *University of the Azores, Portugal*, 2017-2018.

**PhD  
(8 ongoing)  
(3 finished)**

- *University of Helsinki, Finland*  
Filipe Carvalho, "Trait-based prediction of extinction risk", in progress
- *National University of Córdoba, Argentina & University of Helsinki, Finland*  
Ana Munévar, "Taxonomic and functional effects of disturbance to the structure and composition of Atlantic Forest spider assemblages: the effect of environmental filters", in progress.
- *Georgetown University, USA*  
Vaughn Shirey, "TBA", in progress.
- *University of Edinburgh, UK & University of Helsinki, Finland*  
Joana Ferreira, "Arthropod conservation in agricultural landscapes: modelling farmer decision-making and biodiversity outcomes", in progress.
- *University of the Azores, Portugal & University of Helsinki, Finland*  
Rui Carvalho, "An integrative approach to evaluate the impact of nature touristic trails on Biodiversity", in progress.
- *University of Madeira, Portugal & University of Helsinki, Finland*  
Dinarte Teixeira, "Biogeography and conservation of Madeira land snails", in progress.
- *University College London, UK & University of Helsinki, Finland*  
Sérgio Henriques, "Streamlining the Sampled Red List Index approach to assess trends of extinction risk in megadiverse groups", in progress.
- *University of Barcelona, Spain & University of Helsinki, Finland*  
Luis Carlos Crespo, "Adaptive radiations as windows to the evolution of diversity: the case of the spider genus *Dysdera* (Araneae: Dysderidae) in the Madeira archipelago", in progress.
- *University of the Azores, Portugal*  
Rui Nunes, "Whole Azorean Arthropod diversity: understanding the trophic relations and functional diversity at a plot scale", concluded in 2018 (*cum laude*).
- *University of Novi Sad, Serbia*  
Marja Miličić, "Functional traits and species distribution modelling in assessment of extinction risk in hoverflies (Diptera: Syrphidae)", concluded in 2017 (with success, no grade attributed).
- *University of Minho, Portugal*  
José Carlos Carvalho, "The arachnids as bioindicators in the monitoring and conservation of coastal areas", concluded in 2011 (with success, no grade attributed).

**MSc/BSc  
(2 ongoing)  
(7 finished)**

- *University of Helsinki, Finland*  
Sini Seppälä, "The global spider sampled red list index", in progress.
- *University of Lisbon, Portugal*  
Vasco Branco, "Red List of Portuguese endemic spiders", in progress.
- *University of Helsinki, Finland*  
Jon Rikberg, "Red List Index dimensions for Finnish vascular plants", concluded in 2018.
- *New University of Lisbon, Portugal & University of Helsinki, Finland*  
Cátia Gouveia, "Predicting the impacts of climate change on the distribution and conservation of endemic forest snails in Madeira", concluded in 2014 with grade 19 (0-20).
- *University of the Azores, Portugal & University of Helsinki, Finland*  
Luis Carlos Crespo, "Biodiversity and conservation of spiders in the Desertas Islands", concluded in 2013 with grade 19 (0-20).
- *University of Coimbra, Portugal*  
Dinarte Teixeira, "Ecological modeling of the distribution of terrestrial molluscs in Madeira", concluded in 2010 with grade "Very Good" (maximum grade).
- *New University of Lisbon, Portugal*  
Ana Cristina Cardoso, "Nature conservation through financial benefits for stakeholders in the Vale do Guadiana Nature Park", concluded in 2008 with grade "Very Good" (maximum grade).
- *University of Lisbon, Portugal*



- Ana Filipa Gouveia, "Araneofauna (Arachnida: Araneae) of the Serra de S. Mamede Natural Park: faunistics and species richness assessment methods", concluded in 2004 with grade 18 (0-20).
- *Institute of High Studies in Agronomy, Portugal*  
Carla Ribeiro, "The spider fauna of integrated pest management orchards", concluded in 2004 with grade 19 (0-20).
  - *University of Helsinki, Finland*  
Fernando Urbano, "Cross-taxa trait database for prediction of extinction risk", in progress.
  - *University of Helsinki, Finland*  
Candida Ramos, "Functional diversity of Iberian spiders", finished 2018.
  - *University of Helsinki, Finland*  
Vaughn Shirey, "The importance of citizen science in natural history records", finished 2018.
  - *Université Blaise Pascal, France*  
Claire Vincent, "Testing the accuracy of species richness estimators", finished 2016.
- Other postgrads**  
**(1 ongoing)**  
**(3 finished)**
- PhD Committees**  
**(8)**
- Laila Mestre, Autonomous University of Barcelona, Spain, 2012; Vera Opatova, University of Barcelona, Spain, 2014; Enric Planas, University of Barcelona, Spain, 2014; Sílvia Calvo Aranda, University of Alcalá de Henares, Spain, 2014; Mustafa Soliman, University of Cairo, Egypt, 2017; Leonardo Carvalho, Federal University of Minas Gerais, Brazil, 2017; Anna Suuronen, University of Jyväskylä, Finland, 2017; Débora Henriques, University of the Azores, Portugal, 2018.

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### ORGANIZATION OF CONFERENCES

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- 2018** *Tarantula Trinational Trade and Enforcement Workshop, Guadalajara, Mexico*  
Chair
- 2016** *2<sup>nd</sup> International Conference on Island Evolution, Ecology, and Conservation, Angra do Heroísmo, Portugal*  
Member of the scientific committee.
- 2013** *16<sup>th</sup> Portuguese Conference on Artificial Intelligence, Angra do Heroísmo, Portugal*  
Member of the organizing committee.
- 2012** *15<sup>th</sup> Iberian Congress of Entomology, Angra do Heroísmo, Portugal*  
Member of the scientific committee.
- 2006** *23<sup>rd</sup> European Colloquium of Arachnology, Barcelona, Spain*  
Member of the scientific committee.

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### PRESENTATIONS (INVITED)

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- 2017** *Workshops Uni-CV, Mindelo, Cabo Verde.*  
**Cardoso, P.**  
"Protocolo COBRA (Conservation Oriented Biodiversity Rapid Assessment) para amostragem da biodiversidade"
- 2017** *5<sup>th</sup> Latino- American Congress of Arachnology, Caeté, Brazil.*  
**Cardoso, P.**  
"Biogeography, macroecology and conservation of arachnids at a global scale, what future?"
- 2016** *International Conference on Invertebrate Evolution and Conservation, National University of Colombia*  
**Cardoso, P.**  
"The seven sins of invertebrate conservation"
- 2016** *II International Conference on Island Evolution, Ecology, and Conservation, University of the Azores, Portugal*  
**Cardoso, P.**  
"Applications of artificial intelligence to island ecology and biogeography"
- 2016** *II International Conference on Island Evolution, Ecology, and Conservation, University of the Azores, Portugal*  
**Cardoso, P.**  
"IUCN Red Lists - adaptations to invertebrates and new tools under development"
- 2015** *2<sup>nd</sup> Portuguese Meeting on Biodiversity and Conservation of Invertebrates, Seia, Portugal*  
**Cardoso, P.**  
"IUCN Red Lists - adaptations to invertebrates and new tools under development"
- 2014** *Biology of Spiders Workshop, Brno, Czech Republic*  
**Cardoso, P.**  
"Automated discovery of relations from ecological data"
- 2014** *Biology of Spiders Workshop, Brno, Czech Republic*  
**Cardoso, P.**  
"The IUCN Spider & Scorpion Specialist Group"

- 2014** *Arachnoseminar, Turku, Finland*  
**Cardoso, P.**
- 2013** "The IUCN Spider & Scorpion Specialist Group"  
*1<sup>st</sup> Portuguese Meeting on Biodiversity and Conservation of Invertebrates, Lisbon, Portugal*  
**Cardoso, P.**
- 2013** "The seven sins of invertebrate conservation"  
*Arachnoseminar, Turku, Finland*  
**Cardoso, P.**
- 2012** "Sampling global spider diversity"  
*15<sup>th</sup> Iberian Congress of Entomology, Angra do Heroísmo, Terceira, Portugal*  
**Cardoso, P.**
- 2012** "Conservation and evolutionary algorithms: mimicking nature to protect it"  
*13<sup>th</sup> Iberian Meeting of Arachnology, Olot, Spain*  
**Cardoso, P.**
- 2011** "Spider sampling, large-scale pattern analysis and species conservation"  
*International Meeting "Experiences and Successes in Protected Areas Management", Madalena, Pico, Portugal*  
**Cardoso, P.** & Borges, P.A.V.
- 2010** "Optimizing reserve selection using evolutionary computing methods"  
*To know and protect nature: 2010 International Year of Biodiversity, Angra do Heroísmo, Portugal*  
**Cardoso, P.**
- 2009** "The seven sins of invertebrate conservation"  
*Symposium "Darwin's mistake and what we are doing to correct it", Ponta Delgada, Portugal*  
**Cardoso, P.**, Arnedo, M.A., Triantis, K.A. & Borges, P.A.V.
- 2008** "Diversity drivers of Macaronesian spiders and the role of species extinctions"  
*1<sup>st</sup> Bionatura Workshop - management and conservation of biodiversity in Macaronesia, Angra do Heroísmo, Portugal*  
**Cardoso, P.**, Borges, P.A.V., Costa, A.C., Cunha, R.T., Gabriel, R., Martins, A.M.F., Silva, L., Homem, N., Martins, M., Rodrigues, P., Martins, B. & Mendonça, E.
- 2008** "The Top 100 priority species for conservation in the Azores".  
*2<sup>nd</sup> Bionatura Workshop - management and conservation of biodiversity in Macaronesia, Ponta Delgada, Portugal*  
**Cardoso, P.**, Borges, P.A.V., Costa, A.C., Cunha, R.T., Gabriel, R., Martins, A.M.F., Silva, L., Homem, N., Martins, M., Rodrigues, P., Martins, B. & Mendonça, E.
- 2008** "The Top 100 priority species for conservation in the Azores".  
*Sustainability of Milk Production in the Azores Workshop, Angra do Heroísmo, Portugal*  
**Cardoso, P.** & Borges, P.A.V.
- 2008** "Consequences of land-use change in the arthropod communities of an oceanic island".  
*1<sup>st</sup> Portuguese Federation of Speleology Scientific Meeting, Leiria, Portugal*  
**Cardoso, P.**, Henriques, S.S. & Rasteiro, F.L.
- 2007** "Protection of troglobiont species – a case study".  
*Conference "Biodiversidad a la Valenciana", Valencia, Spain*  
**Cardoso, P.**
- 2006** "Biodiversity and conservation of Iberian spiders: past, present and future".  
*23<sup>rd</sup> European Colloquium of Arachnology, Barcelona, Spain*  
**Cardoso, P.**
- 2006** "Spiders, labels, bits and maps: an overview on the process of producing, validating and sharing biogeographic data".  
*GBIF Portugal Workshop, Braga, Portugal*  
**Cardoso, P.**
- 2005** "Arthropods, labels, bits and maps: an overview on the process of producing, validating and sharing biogeographic data".  
*Landscape scale biodiversity assessment, the problem of scaling - European Platform for Biodiversity Research Strategy (EPBRS), Electronic conference*  
**Cardoso, P.**
- 2004** "Biodiversity surrogates and the challenges of scale".  
*Methods for selection of protected areas: their management and nature conservation Workshop, Angra do Heroísmo, Portugal*  
**Cardoso, P.**, Silva, I., Oliveira, N.G., Scharff, N. & Serrano, A.R.M.
- "The importance of testing and standardizing biodiversity assessment protocols".

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**PRESENTATIONS (OTHER)**


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- 2019** *9th Biennial Conference of the International Biogeography Society, Malaga, Spain.*  
Malumbres-Olarte, J., Rigal, F., Girardello, M., **Cardoso, P.**, Crespo, L., Amorim, I.R., Arnedo, M., Boeiro, M., Carvalho, J.C., Carvalho, R., Gabriel, R., Lamelas-Lopez, L., López, H., Paulo, O.,

- Pereira, F., Pérez Delgado, A.J., Rego, C., Romeiras, M., Ros-Prieto, A., Oromí, P., Emerson, B.C., Borges, P.A.V.  
 "From forest to drier: The multi-scale role of habitat heterogeneity in shaping spider communities on oceanic islands".  
**2019** *9th Biennial Conference of the International Biogeography Society, Malaga, Spain.*  
 Rigal, F., Girardello, M., Malumbres-Olarte, J., **Cardoso, P.**, Crespo, L., Amorim, I.R., Arnedo, M., Boieiro, M., Carvalho, J.C., Carvalho, R., Gabriel, R., Lamelas-Lopez, L., López, H., Paulo, O., Pereira, F., Pérez Delgado, A.J., Rego, C., Romeiras, M., Ros-Prieto, A., Oromí, P., Emerson, B.C., Borges, P.A.V.  
 "Dispersal ability shapes the strength of diversity-environment relationships in spider communities on oceanic islands".  
**2019** *9th Biennial Conference of the International Biogeography Society, Malaga, Spain.*  
 Crespo, L., Silva, I., Enguidanos, A., **Cardoso, P.**, & Arnedo, M.  
 "The Atlantic connection: an unexpected finding in the radiation of the genus *Dysdera* (Araneae, Dysderidae) in the Madeira archipelago".  
**2018** *9th International Conference on Monitoring and Management of Visitors in Recreational and Protected Areas (MMV), Bordeaux, France.*  
 Carvalho, R., **Cardoso, P.**, Gil, A. & Borges, P.A.V.  
 "Evaluating and modelling impacts of recreational trails in the Azorean native forests".  
**2018** *18th Iberian Congress of Arachnology, Barcelona, Spain.*  
 Crespo, L., Silva, I., **Cardoso, P.**, Enguidanos, A. & Arnedo, M.  
 "The Atlantic connection: when spiders dare to swim across the ocean".  
**2018** *13th International Conference on Automatic Control and Soft Computing, Ponta Delgada, Portugal.*  
 Alirezazadeh, S., Borda-d'Água, L., Borges, P., Dionísio, F., Gabriel, R., Pereira, H.M. & **Cardoso, P.**  
 "Theoretical Approach for How Species Abundance Distributions Change Across Scales"  
**2017** *5th Latino- American Congress of Arachnology, Caeté, Brazil.*  
**Cardoso, P.**  
 "Species conservation plan for the Desertas Wolf Spider"  
**2017** *1st International Conference on Community Ecology, Budapest, Hungary.*  
 Carvalho, F., Juslén, A. & **Cardoso, P.**  
 "Which traits predispose species to extinction? A review"  
**2017** *9th International Symposium on Syrphidae, Curitiba, Brazil.*  
 Milicic, M., Vujic, A., Jurca, T. & **Cardoso, P.**  
 "Trait-based extinction risk in Southeast European hoverflies (Diptera, Syrphidae)".  
**2017** *30th European Congress of Arachnology, Nottingham, UK.*  
 Mammola, S., Gasparo, F., Komenov, M., Růžička, V., Déjean, S., Danflous, S., Brustel, H., Vargovitch, R.S., Rozwałka, R., Moldovan, O., Pavlek, M., Deltshev, C., Petrov, B., Naumova, M., Čurčić, S., Mock, A., Kovac, L., Cardoso, P., Dányi, L., Angyal, D., Balázs, G., Ribera, C., Prieto, C.E., Fernández, J., Komposch, C., Carter, J. & Isaia, M.  
 "Spiders in caves: the CAWEB project".  
**2016** *20th International Congress of Arachnology, Golden, Colorado, USA.*  
**Cardoso, P.**  
 "The sampled red list index of spiders".  
**2016** *20th International Congress of Arachnology, Golden, Colorado, USA.*  
 Arnedo, M.A., Domenech-Andreu, M., Crespo, L.C., **Cardoso, P.**, Moya-Larano, J. & Ribera, C.  
 "Diversity patterns of spider communities in white oak forests of the Spanish National Parks" (poster).  
**2016** *20th International Congress of Arachnology, Golden, Colorado, USA.*  
 Malumbres-Olarte, J., Henriksen, C.B., Crespo, L.C., **Cardoso, P.**, Szuts, T., Fannes, W., Pape, T. & Scharff, N.  
 "How far is far? Spatial variation in the structure of spider communities in the Udzungwa Mountains, Tanzania".  
**2016** *II International Conference on Island Evolution, Ecology, and Conservation, University of the Azores, Portugal.*  
 Rigal, F., Carvalho, J.C. & **Cardoso, P.**  
 "Functional diversity on islands: challenges and opportunities for future research".  
**2016** *II International Conference on Island Evolution, Ecology, and Conservation, University of the Azores, Portugal.*  
 Gabriel, R., Borges, P.A.V., **Cardoso, P.**, Flores, O., González-Mancebo, J., Hedderson, T., Aranda, S.C., Coelho, M.C.M., Henriques, D.S.G., Hernandez-Hernandez, R., Marline, L., Wilding, N. & Ah-Peng, C.  
 "Mosses and liverworts growing on bark in different archipelagos: a study of alpha and beta diversity patterns".  
**2016** *II International Conference on Island Evolution, Ecology, and Conservation, University of the Azores, Portugal.*  
 Emerson, B., López, H., Perez-Delgado, A., Oromí, P., Fernández-Palacios, J.M., Caujapé-Castells, J., **Cardoso, P.**, Strasberg, D., Thébaud, C. & Borges, P.A.V.

- 2016 "An ecological and evolutionary framework for the analysis of insular biomes".  
*II International Conference on Island Evolution, Ecology, and Conservation, University of the Azores, Portugal.*  
Borges, P.A.V., **Cardoso, P.**, Oromí, P., Thébaud, C., Strasberg, D. & Emerson, B.C.
- 2016 "Planning for a long-term monitoring program for island forest mountain spiders and beetles – a simplified COBRA Protocol for monitoring beta diversity".  
*II International Conference on Island Evolution, Ecology, and Conservation, University of the Azores, Portugal.*  
Penev, L., Stoev, P., Georgiev, T., Senderov, V. & **Cardoso, P.**
- 2016 "Species Conservation Profile (SCP): A streamlined workflow for collaborative authoring, peer-review and scholarly publication serving the IUCN Red Data List".  
*II International Conference on Island Evolution, Ecology, and Conservation, University of the Azores, Portugal.*  
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)".  
*II International Conference on Island Evolution, Ecology, and Conservation, University of the Azores, Portugal.*  
Picanço, A., Rigal, F., Matthews, T.J., **Cardoso, P.**, Olesen, J.M. & Borges, P.A.V.
- 2016 "Non-modular systems, dissimilarity and homogenization in Azorean pollinator communities".  
*II International Conference on Island Evolution, Ecology, and Conservation, University of the Azores, Portugal.*  
Soares, A.O., Honěk, A., Martinkova, Z., Skuhrovec, J., **Cardoso, P.** & Borges, I.
- 2016 "*Harmonia axyridis* did not establish in the Azores: The role of species richness, intraguild interactions and resource availability".  
*II International Conference on Island Evolution, Ecology, and Conservation, University of the Azores, Portugal.*  
Florencio, M., Rigal, F., Borges, P.A.V., **Cardoso, P.**, Santos, A.M.C. & Lobo, J.M.
- 2016 "The role of plant fidelity and habitat disturbance on the species richness of indigenous and exotic canopy spiders on an oceanic island".  
*II International Conference on Island Evolution, Ecology, and Conservation, University of the Azores, Portugal.*  
Nunes, R.M., **Cardoso, P.**, Rigal, F. & Borges, P.A.V.
- 2016 "The impact of edge effects on arthropod Beta spatial and temporal variation in an Azorean native forest".  
*II International Conference on Island Evolution, Ecology, and Conservation, University of the Azores, Portugal.*  
Nunes, R.M., **Cardoso, P.**, Soares, A.O. & Borges, P.A.V.
- 2016 "Testing neutral vs. niche species assembly in Azorean canopy arthropod communities after defaunation: preliminary results" (poster).  
*II International Conference on Island Evolution, Ecology, and Conservation, University of the Azores, Portugal.*  
Rego, C., Boieiro, M., Rigal, F., Ribeiro, S.P., **Cardoso, P.** & Borges, P.A.V.
- 2016 "Taxonomic and functional diversity of phytophagous insects associated with trees from the Azorean native laurel forests" (poster).  
*XXV International Congress of Entomology, Florida, USA.*  
Guerreiro, O., **Cardoso, P.**, Ferreira, M., Ferreira, M.T. & Borges, P.A.V.
- 2015 "Potential distribution and cost estimation of the damage caused by *Cryptotermes brevis* (Isoptera: Kalotermitidae) in the Azores".  
*1<sup>st</sup> CE3C Annual Meeting, Lisbon, Portugal.*  
Borges, P.A.V., Matthews, T., **Cardoso, P.**, Casquet, J., Thébaud, C., Elias, R.B., Fernández-Palacios, J., Strasberg, D., López, H., Oromí, P. & Emerson, B.
- 2015 Using Species Abundance Distribution Models for Biogeographical Analyses.  
*2<sup>nd</sup> Portuguese Meeting on Biodiversity and Conservation of Invertebrates, Seia, Portugal*  
Crespo, L.C., Silva, I., **Cardoso, P.** & Arnedo, M.A.
- 2015 "The genus *Dysdera* (Araneae: Dysderidae) in the archipelago of Madeira: adaptive radiation and implications to conservation biology".  
*XV European Congress of Ichthyology, University of Porto, Portugal.*  
Henriques, S., **Cardoso, P.**, Cardoso, I., Laborde, M., Cabral, H.N. & Vasconcelos, R.P.
- 2015 "Large-scale processes underpinning fish species composition patterns in estuarine ecosystems worldwide".  
*16<sup>th</sup> European Congress of Arachnology, University of Brno, Czech Republic.*  
**Cardoso, P.**
- 2015 "The IUCN Spider & Scorpion Specialist Group".  
*Congress "Ecology at the Interface", University of Rome, Italy.*  
Borges, P.A.V., Matthews, T., **Cardoso, P.**, Casquet, J., Thébaud, C., Elias, R., Fernández-Palacios, J.-M., Strasberg, D., López, H., Oromí, P. & Emerson, B.

- 2015 "Cross Archipelagos Biodiversity Studies: SADs and SARs".  
*XX symposium on Cryptogamic Botany.*  
Borges, P.A.V., Gabriel, R., Costa, A.C., Arroz, A.M., Amorim, I.R., Gonçalves, J., Silva, L., Cunha, R., Elias, R.B., Soares, A.O., Mendonça, E., Ferreira, M.T. & Cardoso, P.  
"The Azorean Biodiversity Portal –PORBIOTA: e-infrastructure for small islands bryophyte conservation".
- 2015 *International Symposium on Mediterranean Temporary Ponds, Sassari, Italy.*  
Borges, P.A.V., Gabriel, R., Costa, A.C., Arroz, A.M., Amorim, I.R., Gonçalves, J., Silva, L., Cunha, R., Elias, R.B., Soares, A.O., Mendonça, E., Ferreira, M.T. & Cardoso, P.  
"The Azorean Biodiversity Portal as an exemplar e-infrastructure for small islands and outermost regions of Europe".
- 2015 *4<sup>th</sup> Iberian Congress of Ecology, University of Coimbra, Portugal.*  
Santos, A.M.C, Boieiro, M., Lobo, J.M., Farinha, A., **Cardoso, P.**, Amorim, I.R., Aguiar, C.A.S., Borges, P.A.V., Pereira, F., Rego, C., Silva, I. & Serrano, A.R.M.  
"Multi-scale environmental and landscape effects on the local diversity of ground beetle assemblages (Coleoptera: Carabidae) of Madeira Island Laurisilva".
- 2015 *4<sup>th</sup> Iberian Congress of Ecology, University of Coimbra, Portugal.*  
Borges, P.A.V., Matthews, T., **Cardoso, P.**, Casquet, J., Thébaud, C., Elias, R., Fernández-Palacios, J.-M., Strasberg, D., López, H., Oromí, P. & Emerson, B.  
"Using species abundance distribution models for biogeographical analyses".
- 2015 *4<sup>th</sup> Iberian Congress of Ecology, University of Coimbra, Portugal.*  
Rigal, F., **Cardoso, P.**, Lobo, J.M., Amorim, I.R. & Borges, P.A.V.  
"Filtered out toward opposing trajectories: contrasting functional patterns between indigenous and exotic arthropod assemblages under land-use changes in an oceanic island".
- 2015 *International Biogeography Society 7<sup>th</sup> Biennial Conference, University of Bayreuth, Germany.*  
Steinbauer, M., Field, R., Grytnes, J.-A., Trigas, P., Ah-Peng, C., Attorre, F., Birks, J., Borges, P., **Cardoso, P.**, Chou, C.-H., De Sanctis, M., Duarte, M., Elias, R., Fernandez-Palacios, J.-M., Gabriel, R., Gereau, R., Gillespie, R., Greimler, J., Harter, D., Huang, T.-J., Irl, S., Jeanmonod, D., Jentsch, A., Jump, A., Kueffer, C., Nogué, S., Otto, R., Price, J., Romeiras, M., Strasberg, D., Stuessy, T., Vetaas, O. & Beierkuhnlein, C.  
"Topography-driven isolation, speciation and global plant biodiversity".
- 2015 *International Biogeography Society 7<sup>th</sup> Biennial Conference, University of Bayreuth, Germany.*  
Borges, P.A.V., Matthews, T., Borda-de-Água, L., **Cardoso, P.**, Casquet, J., Thébaud, C., Elias, R., Fattorini, S., Rigal, F., Otto, R., Fernández-Palacios, J.M., Borregard, M., Strasberg, D., López, H., Oromí, P. & Emerson, B.  
"Species abundance distributions (SADs) in different trophic groups across archipelagos".
- 2014 *Gordon Research Conferences - Unifying Ecology Across Scales, University of New England, Biddeford, ME, USA.*  
Malumbres-Olarte, J., Pape, T., **Cardoso, P.**, Sanders, N. & Scharff, N.  
"Moving up, forward and through; how do elevation, horizontal distance and habitat structural connectivity shape community?".
- 2014 *International Conference on Island Evolution, Ecology, and Conservation, University of Hawaii, Manoa, Hawaii, USA.*  
Borges, P.A.V., Matthews, T.J., Borda-de-Água, L., **Cardoso, P.**, Rigal, F., Triantis, K.A., Whittaker, R.J., Borregard, M., Fattorini, S., Hortal, J., Santos, A.M.C., Lobo, J.M., Florencio, M. Rego, C., Boieiro, M., Crespo, L., Serrano, A.R.M., Amorim, I.R., Parmakelis, A., Elias, R.B., López, H., Oromí, P., Pérez, A.J., Fernández-Palacios, J.M., Otto, R., Fernández Lugo, S., Nascimento, L. de, Caujapé-Castells, J., Sadeyen, A.M., Thébaud, C., Strasberg, D. & Emerson, B.C.  
"Emergent properties in island species community assembly: relating species abundance distributions (SADs) with oceanic islands biogeographical variables".
- 2014 *International Conference on Island Evolution, Ecology, and Conservation, University of Hawaii, Manoa, Hawaii, USA.*  
Borges, P.A.V., Gabriel, R., Arroz, A.M., Amorim, I.R., Elias, R.B., Costa, A.C., Soares, A.O., Gonçalves, J., Menezes, G., Tempera, F., Silva, M.A., Afonso, P., Porteiro, F.M., Silva, L., Cunha, R., Parente, M., Mendonça, E., Cardigos, F., Ferreira, M.T., **Cardoso, P.**, Santos, R.S.  
"The Azorean Biodiversity Portal, a key e-infrastructure for the integrated management of terrestrial and marine biodiversity in Azores".
- 2014 *International Conference on Island Evolution, Ecology, and Conservation, University of Hawaii, Manoa, Hawaii, USA.*  
Florencio, M., Lobo, J.M., **Cardoso, P.**, Almeida-Neto, M., Azevedo, E.B. & Borges, P.A.V.  
"Assembly patterns of arthropods across habitat disturbance gradients on oceanic islands".
- 2013 *Portuguese Meeting on Artificial Intelligence, Angra do Heroísmo, Portugal*  
**Cardoso, P.**, Carvalho, R., Carreira, J. & Batista, J.  
"Automation of species identification and description".
- 2013 *Portuguese Meeting on Artificial Intelligence, Angra do Heroísmo, Portugal*  
**Cardoso, P.** & Gomes, L.M.  
"Biodiversity data compilation".

- 2013** *Portuguese Meeting on Artificial Intelligence, Angra do Heroísmo, Portugal*  
**Cardoso, P.**, Rigal, F. & Mendes, A.  
 "Cluster analysis optimization".
- 2013** *Portuguese Meeting on Artificial Intelligence, Angra do Heroísmo, Portugal*  
 Borges, P.A.V., **Cardoso, P.**, Guerreiro, O., Rigal, F., Florencio, M., Amorim, I.R., Borda-de-Água, L., Cascalho, J. & Ferreira, M.  
 "Perspectives and progress of ecology and conservation science in the Azores: the possible contribution of Artificial Intelligence".
- 2013** *Portuguese Meeting on Artificial Intelligence, Angra do Heroísmo, Portugal*  
 Monjardino, P., Rocha, S. & **Cardoso, P.**  
 "Automation of organelle identification in developing maize endosperm transfer cells".
- 2013** *Portuguese Meeting on Artificial Intelligence, Angra do Heroísmo, Portugal*  
 Riquelme, C., **Cardoso, P.**, Rigal F. & Dapkevicius, M.L.E.  
 "Challenges in assessing color and spatial distribution of bacterial mats in lava cavities".
- 2013** *Portuguese Meeting on Biodiversity and Conservation of Invertebrates, Lisbon, Portugal*  
 Silva, R.R. & **Cardoso, P.**  
 "Naturdata - national biodiversity data base: results and importance for biodiversity conservation in Portugal".
- 2013** *Portuguese Meeting on Biodiversity and Conservation of Invertebrates, Lisbon, Portugal*  
 Crespo, L.C., Silva, I., Borges, P.A.V. & **Cardoso, P.**  
 "The Desertas tarantula (*Hogna ingens*): extinction risk of a remarkable spider with limited distribution".
- 2013** *World Congress of Malacology, Ponta Delgada, Portugal*  
 Teixeira, D., **Cardoso, P.** & Gouveia, C.  
 "Using predictive models of species distribution as a tool for ecology and conservation of Madeiran land snails".
- 2013** *Portuguese Meeting on Biodiversity and Conservation of Invertebrates, Lisbon, Portugal*  
 Teixeira, D., **Cardoso, P.** & Gouveia, C.  
 "Land snails (Mollusca: Gastropoda) of Madeira archipelago: status, threats and conservation strategies".
- 2013** *Meeting of the International Biogeography Society, Miami, USA*  
 Borges, P.A.V., Rigal, F., Rego, C., Crespo, L., **Cardoso, P.**, Gaspar, C., Mendonça, E., Terzopoulou, S., Amorim, I.R., Hortal, J., Pereira, F., Santos, A.M.C., Serrano, A.R.M., Parmakelis, A., Whittaker, R.J. & Triantis, K.A.  
 "Temporal change in arthropod forest assemblages in the Azores: contrasting response in predators and herbivores". (poster)
- 2013** *Meeting of the International Biogeography Society, Miami, USA*  
 Whittaker, R.J., Rigal, F., Borges, P.A.V., **Cardoso, P.**, Terzopoulou, S., Casanoves, F., Pla, L., Guilhaumon, F., Ladle, R.J. & Triantis, K.A.  
 "Non-native species extend the functional diversity of Azorean island in-vertebrate assemblages".
- 2013** *23th Pacific Conference of the Regional Science Association International, Bandung, Indonesia*  
 Nogueira, P., **Cardoso, P.**, Rodrigues, A., Madureira, L., Gabriel, L., Dentinho, T.P.  
 "Spatial patterns of the value of endemic species. A choice experiment exercise".
- 2013** *Conference Science in the Azores - What Future?, Angra do Heroísmo, Portugal*  
 Nunes, R.M., **Cardoso, P.**, Soares, A.O. & Borges, P.A.V.  
 "Azorean arthropod diversity in endemic trees: understanding the trophic relations and functional diversity at plot scale".
- 2013** *Conference Science in the Azores - What Future?, Angra do Heroísmo, Portugal*  
 Picanço, A., Rigal, F., **Cardoso, P.** & Borges, P.A.V.  
 "Dynamics of plant-insect pollinator interaction networks in Azores: evaluation of an ecosystem service".
- 2013** *Conference Science in the Azores - What Future?, Angra do Heroísmo, Portugal*  
 Elias, R.B., Ferreira, M.T., Azevedo, E.B., Borges, P.A.V., **Cardoso, P.**, Gabriel, R., Reis, F. & Aranda, S.C.  
 "IMPACTBIO - Implications of climate change for Azorean Biodiversity".
- 2013** *Conference Science in the Azores - What Future?, Angra do Heroísmo, Portugal*  
 Mendonça, E., Barreiros, J.P., Cardoso, M.I.P., **Cardoso, P.**, Costa, A.C., Elias, R., Gabriel, R., Machete, M., Magalhães, M.C.C., Menezes, G., Morato, T., Porteiro, F., Santos, P.A., Santos, R.S., Silva, M., Tempera, F. & Borges, P.A.V.  
 "ATLANTIS-MAR - Mapping coastal and marine biodiversity of the Azores".
- 2012** *Portuguese Congress of Malacology, Bragança, Portugal*  
 Teixeira, D., **Cardoso, P.**, Jesus, J. & Sousa, J.P.  
 "Spatial predictive distribution modelling of Madeira's endemic land snail species".
- 2012** *15th Molluscan Forum, London, UK*  
 Teixeira, D., **Cardoso, P.**, Jesus, J. & Sousa, J.P.  
 "Spatial predictive distribution modelling of Madeira's endemic land snail species".
- 2012** *15th Iberian Congress of Entomology, Angra do Heroísmo, Terceira, Portugal*

- Borges, P.A.V., Gaspar, C., Santos, A.M.C., Ribeiro, S.P., **Cardoso, P.**, Triantis, K.A. & Amorim, I.R.  
 "Macroecological patterns on Islands: the Azorean Arthropods as a case study".  
 2012 *15<sup>th</sup> Iberian Congress of Entomology, Angra do Heroísmo, Terceira, Portugal*  
 Triantis, K.A., **Cardoso, P.** & Borges, P.A.V.  
 "Functional diversity and conservation biogeography on oceanic islands: indigenous and exotic spiders of Azores".  
 2012 *15<sup>th</sup> Iberian Congress of Entomology, Angra do Heroísmo, Terceira, Portugal*  
 Florencio, M., **Cardoso, P.**, Lobo, J.M., Azevedo, E.B. & Borges, P.A.V.  
 "Homogenisation in soil arthropod communities of oceanic islands: the role of invasive species and anthropic disturbance".  
 2012 *15<sup>th</sup> Iberian Congress of Entomology, Angra do Heroísmo, Terceira, Portugal*  
 Rigal, F., **Cardoso, P.**, Gaspar, C., Whittaker, R.J., Triantis, K.A. & Borges, P.A.V.  
 "Functional diversity in an oceanic island: disentangling the impact of disturbance".  
 2012 *15<sup>th</sup> Iberian Congress of Entomology, Angra do Heroísmo, Terceira, Portugal*  
 Guerreiro, O.M.L.F., Ferreira, M., **Cardoso, P.** & Borges, P.A.V.  
 "Potential Distribution of *Cryptotermes brevis* (Isoptera: Kalotermitidae) in the Azores". (poster)  
 2012 *15<sup>th</sup> Iberian Congress of Entomology, Angra do Heroísmo, Terceira, Portugal*  
 Boeiro, M., Aguiar, A.M.F., Aguiar, C.A.S., Bivar de Sousa, A., **Cardoso, P.**, Crespo, L., Martins da Silva, P., Menezes, D., Palma, C., Pereira, F., Prado e Castro, C., Rego, C., Silva, I. & Serrano, A.R.M.  
 "New and interesting findings of terrestrial arthropods from the archipelago of Madeira". (poster)  
 2012 *15<sup>th</sup> Iberian Congress of Entomology, Angra do Heroísmo, Terceira, Portugal*  
 Nunes, R.M., **Cardoso, P.**, Soares, A.O., Emerson, B.C. & Borges, P.A.V.  
 "Whole Azorean arthropod diversity: understanding the trophic relations and functional diversity at plot scale". (poster)  
 2011 *Prevention and control of invasive species workshop, Angra do Heroísmo, Portugal*  
 Borges, P.A.V., Rigal, F., **Cardoso, P.** & Gaspar, C.  
 "Invasive animals in the Azores archipelago".  
 2011 *5th Biennial Conference of the International Biogeography Society, Heraklion, Crete, Greece*  
 Boeiro, M., Barrinha, C., Aguiar, C., Amorim, I., Borges, P.A.V., **Cardoso, P.**, Faria e Silva, I., Pereira, F., Rego, C. & Serrano, A.R.M.  
 "Biodiversity and endemism patterns of beetles (Coleoptera: Carabidae, Staphylinidae and Curculionidae) associated to Madeiran laurisilva habitats". (poster)  
 2011 *5th Biennial Conference of the International Biogeography Society, Heraklion, Crete, Greece*  
 Borges, P.A.V., Gaspar, C., Santos, A.M.C., Ribeiro, S.P., **Cardoso, P.**, Triantis, K.A. & Amorim, I.R.  
 "Patterns of colonization and species distribution for Azorean arthropods: evolution, diversity, rarity and extinction". (poster)  
 2011 *5th Biennial Conference of the International Biogeography Society, Heraklion, Crete, Greece*  
 Gaspar, C., Borges, P.A.V., **Cardoso, P.** & Lobo, J.  
 "Heaven or Hell: a portrait of the conservation of the Azorean arthropod's diversity". (poster)  
 2011 *5th Biennial Conference of the International Biogeography Society, Heraklion, Crete, Greece*  
 Opatova, V., Jiménez-Valverde, A., **Cardoso, P.**, Ferrández, M.A. & Arnedo, M.  
 "Alien visitors or long time residents? Population history and phylogeographic patterns of the European funnel-web spiders (Araneae, Hexathelidae)". (poster)  
 2011 *5th Biennial Conference of the International Biogeography Society, Heraklion, Crete, Greece*  
 Serrano, A.R.M., Boeiro, M., Aguiar, C.A.S., Borges, P.A.V., **Cardoso, P.**, Franquinho Aguiar, A.F., Gaspar, C., Hortal, J., Jiménez-Valverde, A., Martins da Silva, P., Menezes, D., Pereira, F., Rego, C., Santos, A.M. & Sousa, J.P.  
 "Conflict between human activities and the conservation of island endemics in a global biodiversity hotspot". (poster)  
 2011 *12<sup>th</sup> Meeting of the Iberian Group of Arachnology, Gorliz, Spain*  
 Arnedo, M.A. & **Cardoso, P.**  
 "Mediterranean species of the genus *Macrothele*: old inhabitants or recent colonizers?".  
 2011 *IOBC/wprs Working Group Meeting "Integrated Protection of Olive Crops", Jerusalem, Israel*  
 Rei, F., Crespo, L., **Cardoso, P.** & Torres, L.  
 "Spiders (Araneae) community associated with the olive tree canopy in Alentejo (Southern Portugal)".  
 2010 *18th International Congress of Arachnology, Siedlce, Poland*  
 Opatova V., **Cardoso P.**, Ferrández, M.A. & Arnedo M.  
 "Origins and phylogeography of the European protected funnel-web *Macrothele* spiders (Araneae, Hexathelidae)".  
 2009 *International Liquid Crystal Elastomer Conference 2009, Ohio, USA*  
 Almeida, P.L., Kundu, S., **Cardoso, P.**, Henriques, S.S., Godinho, H.M. & Figueirinhas, J.L.  
 "Bio Networks for Electro-optical Liquid Crystal light shutters".  
 2009 *European Materials Research Society 2009 Spring Meeting, Strasbourg, France*  
 Almeida, P.L., Kundu, S., **Cardoso, P.**, Henriques, S.S., Godinho, H.M. & Figueirinhas, J.L.  
 "Electro-optical light shutters using biological systems".

- 2009** *2009 Biennial Meeting of the International Biogeography Society, Merida, Mexico*  
Borges, P.A.V., Boieiro, M., Serrano, A.R.M., **Cardoso, P.**, Aguiar, C., Rego, C., Gaspar, C., Amorim, I.R., Ribeiro, S. & Pereira, F.  
"Patterns of diversity and abundance (rarity) of ground-beetles in the Laurisilva of Azores and Madeira archipelagos".
- 2008** *93<sup>rd</sup> Ecological Society of America Annual Meeting, Wisconsin, USA*  
**Cardoso, P.**, Lobo, J.M., Aranda, S.C., Dinis, F., Gaspar, C. & Borges, P.A.V.  
"Land-use and spatial scale effects on the arthropod communities of Azores". (poster)
- 2008** *9<sup>th</sup> Meeting of the Iberian Group of Arachnology, Cordoba, Spain*  
Arnedo, M.A & **Cardoso, P.**  
"The Mediterranean species of Macrothele: old inhabitants or recent additions?".
- 2006** *23<sup>rd</sup> European Colloquium of Arachnology, Barcelona, Spain*  
**Cardoso, P.**, Henriques, S.S & Rasteiro, F.L.  
"Conservation of European troglobiont species: a case study of a new symphytognathid in Portugal".
- 2005** *22<sup>nd</sup> European Colloquium of Arachnology, Blagoevgrad, Bulgaria*  
**Cardoso, P.**, Silva, I., Oliveira, N.G. & Serrano, A.R.M.  
"When to capture spiders in Mediterranean ecosystems?".
- 2004** *5<sup>th</sup> Meeting of the Iberian Group of Arachnology, Murcia, Spain*  
**Cardoso, P.**  
"A future proposal for a spider biodiversity assessment protocol in the Iberian Peninsula".
- 2004** *16<sup>th</sup> International Congress of Arachnology, Ghent, Belgium*  
**Cardoso, P.**  
"A future proposal for a spider biodiversity assessment protocol in Mediterranean habitats".
- 2004** *Methods for selection of protected areas: their management and nature conservation Workshop, Angra do Heroísmo, Portugal*  
Oliveira, N.G., **Cardoso, P.**, Silva, I., Gayubo, S.F. & Serrano, A.R.M.  
"Surrogate groups in theory and practice: the case of spheciform wasps (Apoidea: Sphecidae, Ampulilidae and Crabronidae) vs. several families, tribes and genera of Hymenoptera".
- 2004** *11<sup>th</sup> Iberian Congress of Entomology, Funchal, Portugal*  
Oliveira, N.G.; Silva, I., **Cardoso, P.**, Gayubo, S.F. & Serrano, A.R.M  
"Spheciforms (Apoidea: Spheciformes) as diversity indicators of other Hymenoptera: what's their real efficiency?".
- 2004** *11<sup>th</sup> Iberian Congress of Entomology, Funchal, Portugal*  
Silva, I., Oliveira, N.G., **Cardoso, P.** & Serrano, A.R.M.  
"Preliminary study on the epigeal Coleoptera of the Serras de Aire e Candeeiros Nature Park, with special emphasis on Carabidae (Coleoptera: Carabidae)". (poster)
- 2004** *11<sup>th</sup> Iberian Congress of Entomology, Funchal, Portugal*  
Oliveira, N.G., Silva, I., Santos, A.M., **Cardoso, P.**, Gayubo, S.F. & Serrano, A.R.M  
"Efficiency of combining Malaise and flight interception traps for Hymenoptera". (poster)
- 2004** *11<sup>th</sup> Iberian Congress of Entomology, Funchal, Portugal*  
Santos, A.M.C; Oliveira, N.G.; Silva, I.; **Cardoso, P.** & Serrano, A.R.M.  
"Trophic guilds of Hymenoptera and their utility in habitat ranking".
- 2004** *5<sup>th</sup> Meeting of the Iberian Group of Arachnology, Murcia, Spain*  
Gouveia, A.F., **Cardoso, P.**, Oliveira, N.G. & Serrano, A.R.M.  
"Temporal variation of the spider communities of São Mamede Nature Park".
- 2004** *5<sup>th</sup> Meeting of the Iberian Group of Arachnology, Murcia, Spain*  
Gouveia, A.F., **Cardoso, P.** & Serrano, A.R.M.  
"Spiders of the São Mamede Nature Park". (poster)
- 2003** *4<sup>th</sup> Meeting of the Iberian Group of Arachnology, San Sebastian, Spain*  
**Cardoso, P.**  
"Measures and methods for prioritization of areas for conservation".
- 2002** *20<sup>th</sup> European Colloquium of Arachnology, Szombathely, Hungary*  
**Cardoso, P.**, Silva, I., Oliveira, N.G. & Serrano, A.R.M.  
"Higher taxa surrogates vs. surrogate groups of biodiversity. What approach to use with spiders in a Portuguese natural area?".
- 2002** *10<sup>th</sup> Iberian Congress of Entomology, Zamora, Spain*  
Silva, I., Oliveira, N.G., **Cardoso, P.** & Serrano, A.R.M.  
"Preliminary study on the diversity of Coleoptera of the Douro Internacional Nature Park, with special emphasis on Carabidae (Coleoptera: Carabidae)".
- 2001** *2<sup>nd</sup> Meeting of the Iberian Group of Arachnology, Barcelona, Spain*  
**Cardoso, P.**  
"Towards a spider biodiversity assessment protocol".
- 1999** *18<sup>th</sup> European Colloquium of Arachnology, High Tatras, Slovakia*  
**Cardoso, P.**  
"Portuguese spiders (Araneae) - checklist and distribution".



- 1999** *18<sup>th</sup> European Colloquium of Arachnology, High Tatras, Slovakia*  
**Cardoso, P.**  
 "Description of the male *Nemesia hispanica* Ausserer 1871 (Araneae, Nemesiidae)". (poster)
- 1999** *Ad-hoc conference, Évora, Portugal*  
**Cardoso, P.**, Meierrose, C. & Quartau, J.A.  
 "Arachnofauna of Arrábida mountain chain".
- 1998** *8<sup>th</sup> Iberian Congress of Entomology, Évora, Portugal*  
**Cardoso, P.**, Meierrose, C. & Quartau, J.A.  
 "Arachnofauna of Arrábida mountain chain". (poster)

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### **FIELDWORK**

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**Organization Participation** Portugal, Finland, Azores, Madeira, Cape Verde.  
 Spain, Tanzania, Brazil, Nicaragua.

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### **LANGUAGES**

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**Portuguese** Mother language.  
**English** Writing, reading and speaking - high proficiency.  
**Spanish** Writing - basic; reading and speaking - high proficiency.  
**French** Writing and speaking - basic; reading - high proficiency.  
**Finnish** Writing, speaking and reading - basic.  
**Italian** Reading - basic.

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### **MEMBERSHIPS**

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International Society of Arachnology (national correspondent since 2002).  
 European Society of Arachnology.  
 American Arachnological Society.  
 British Arachnological Society.  
 Aragón Entomological Society.  
 Iberian Group of Arachnology (board of direction 2004-2008).  
 Portuguese Entomological Society.  
 Portuguese Federation of Speleology (Scientific Council since 2007).  
 Speleology Nucleus of Costa Azul.  
 Speleologists Association of Sintra.

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### **RELEVANT PROFESSIONAL SKILLS**

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**Geographic Information Systems** Expertise in several GIS and ecological modelling software packages:

- ArcGIS
- Idrisi
- QuantumGIS
- SagaGIS
- Diva-Gis
- Maxent
- Desktop GARP
- SAM – Spatial Analysis in Macroecology

**Programming languages** Expertise in R, C, C++, Java, Python and SQL.  
 Several projects already developed dealing with:

- Evolutionary computing - development of genetic algorithms and evolution strategies.
- Optimization algorithms of priority areas for conservation.
- Optimization of biodiversity assessment methodology.
- Null hypothesis testing with Monte Carlo simulations.
- Accumulation curves of species richness, relative richness and beta diversity indices.
- Automated bacterial mats mapping through colour pattern recognition.
- Cell organelles mapping and distance calculation.

**Speleology** Participation in hundreds of activities in different fields with the University of Azores, the Speleology Nucleus of Costa Azul and the Speleologists Association of Sintra:

- Biospeleology (work in the area has won the CM Sesimbra Espichel Award for Scientific

- Merit 2008);
  - Microbiology;
  - Environmental education;
  - Topography;
  - Photography.
- Nature Photography**
- Photography Books (author)*
- Sistema do Frade (Costa Azul Speleology Group and Municipal Association of the Region of Setubal)
  - Azores – a natural portrait (Veraçor editions, Portugal).
  - Spiders of the Vale do Guadiana Nature Park (Portuguese Institute for Nature Conservation).
  - Spiders of Arrábida Nature Park (Portuguese Institute for Nature Conservation).
- Books (collaboration with photography)*
- Biggest vs. Smallest Creepy, Crawly Creatures (Biggest Vs. Smallest Animals) by Susan K. Mitchell, Enslow Publishers.
  - Predicting extinctions on oceanic islands: arthropods and bryophytes - studying the small things that run the world (Azorean Biodiversity Group, Angra do Heroísmo, Portugal).
  - TOP 100 - The 100 threatened species priority for management in Macaronesia (Consejería de Medio Ambiente y Ordenación Territorial, Gobierno de Canarias, Santa Cruz de Tenerife, Spain).
  - Invasive Terrestrial Flora & Fauna of Macaronesia. TOP 100 in Azores, Madeira and Canaries (ARENA, Ponta Delgada, Portugal).
  - Azorean Termites (Principia Editora and University of Azores, Portugal).
  - Endemic arthropods of the Azores (Regional Bureau for the Environment of Azores, Portugal).
  - Endemic bryophytes of the Azores (Regional Bureau for the Environment of Azores, Portugal).
  - Azores Volcanic Caves (GESPEA - Speleology group, Portugal).
  - Manual of geology (Portuguese Federation of Speleology).
- Magazines (articles)*
- National Geographic Portugal (4 x photographer, 2 x writer, 1 x scientific reviewer), Pingo de Lava (2x)
- Newspapers (collaboration with photography)*
- Correio da Manhã.
  - Diário Insular (2x).
  - A União.
  - Jornal de Sintra.
  - Azorean Spirit.
- Exhibits*
- Collective exhibit "Terra Brava" (Museum of Angra do Heroísmo).
  - Individual exhibit "Azores – from Fire to Forest" (Science Centre of Angra do Heroísmo, Museum of Angra do Heroísmo, Whale Museum of São Roque do Pico, Museum of Flores, Angra do Heroísmo Congress Centre).
  - Slideshow presentation for Agrotec 2009 - Lisbon International Fair (Stand of the University of Azores).
  - Slideshow presentation for the Museum of Angra do Heroísmo.
  - "Insects" exhibit (Vienna Zoo, Austria).
  - "Masters of the Web" exhibit (Woodland Park Zoo, WA, USA).
  - "Bats" exhibit (Tapada de Mafra, Portugal).
- Web*
- Arkive (www.arkive.org).
  - Naturdata web portal.
  - Azorean Biodiversity Portal (University of Azores).
  - Naturlink web portal.
- Leaflets*
- Regional Bureau for Science and Technology of the Azores.
- Courses*
- Astrophotography – Angra do Heroísmo Science Centre, Angra do Heroísmo, Portugal (2012).
  - Extreme macro photography – University of the Azores, Angra do Heroísmo, Portugal (2012).
- Webdesign (HTML, Javascript, PHP, MySQL)**
- Website development*
- Agricultural Research and Technologies Centre (University of Azores).
  - Azorean Biodiversity Group (University of Azores).
  - Environmental Education MSc (University of Azores).

- Iberian Group of Arachnology.
- Portuguese Entomological Society.
- Arachnology Group homepage (Natural History Museum, University of Copenhagen).

**Video  
(DVCam,  
Betacam, UMatic)**

Visual storytelling course – Youth and Arts Academy of Terceira, Praia da Vitória, Portugal (2012).  
 Sound capture for cinema and video course – Youth and Arts Academy of Terceira, Praia da Vitória, Portugal (2012).  
 Video production course - Youth and Arts Academy of Terceira, Praia da Vitória, Portugal (2011).  
 Professional broadcasting systems course (levels I,II) – Youth Portuguese Institute, Lisbon, Portugal (2000).

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***NON-PROFESSIONAL ACTIVITIES***

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**Emergency  
medical services  
Paragliding**

Standard First Aid course - American Red Cross, Arlington, VA, USA (2009).  
 CPR/AED course - American Red Cross, Arlington, VA, USA (2009).  
 Paragliding course (levels I,II,III) - Northwind, Centro de Actividades de Montanha, Lisbon, Portugal - Portuguese Federation of Free Flight (2002-2004).

**Parachuting**

Parachuting course - Associação de Paraquedistas do Sul, Évora, Portugal - Portuguese Federation of Parachuting (2000).

**Mountaineering**

Mountaineering course - Northwind, Centro de Actividades de Montanha, Chamonix, France - Portuguese Federation of Camping and Mountaineering (2003).

**Climbing**

Trad climbing course - Montanheiros, Angra do Heroísmo, Portugal - Portuguese Federation of Mountaineering and Climbing (2011).

**Kayaking**

Member of the Portuguese Federation of Canoeing (2011-2012).

**Running**

From 10k to marathons and ultra-trails.

**Trekking**

From short strolls to self-sustained multi-week mountain treks.

**Biking**

From commuting year-round to mountain biking.

**Orienteering**

Short races.