

## Summary *Curriculum Vitae* – Lúcia Guilhermino

**Name:** Lúcia Maria das Candeias Guilhermino

**Date and place of birth:** 24 December 1962, Beja, Portugal

**Nationality:** Portuguese

**Affiliation and contacts:** ICBAS & CIIMAR, University of Porto – ICBAS: Institute of Biomedical Sciences of Abel Salazar of the University of Porto, Department of Population Studies, Laboratory of Ecotoxicology (ECOTOX); CIIMAR – Interdisciplinary Centre of Marine and Environmental Research of the University of Porto, Research Team of Ecotoxicology, Stress Ecology and Environmental Health (ECOTOX). Address: ICBAS, University of Porto, Rua de Jorge Viterbo Ferreira, 228, 4050-313 Porto, Portugal; telephone: +351220428185 (direct office); +351220428100 (general); e-mail: [lguilher@icbas.up.pt](mailto:lguilher@icbas.up.pt)

### Academic Qualification

- Habilitation (“Agregação”) in Ecology/Planktonology, ICBAS, University of Porto, Portugal, 2004.
- PhD in Biology, specialization in Ecology, University of Coimbra, Portugal, 1997.
- MSc equivalent “Proves of Pedagogic Aptitude and Scientific Capability” in Biomedical Sciences, specialization in Ecology, ICBAS, University of Porto, Portugal, 1992.
- Licenciante (4 years) in Biology, Scientific Branch, University of Coimbra, Portugal, 1985.

### Other Professional Qualifications

- Accreditation in Animal Laboratory Science (equivalent to category C of FELASA) by the Portuguese National Animal Health Authority, 2013.

### Academic Career and Employment

- Full Professor, ICBAS, University of Porto, since 2006.
- Associate Professor, ICBAS, University of Porto, 2001-2006.
- Assistant Professor, ICBAS, University of Porto, 1997-2001.
- Lecturer, ICBAS, University of Porto, 1992-1997.
- Junior Lecturer, ICBAS, University of Porto, 1987-1992.
- Junior Researcher of the Centre of Ecology/Department of Zoology of the University of Coimbra, with a technical research scholarship from the National Institute of Scientific Research (INIC) (1986-1987).
- Teacher (“professora eventual”) of the 11<sup>th</sup> B group, Secondary School nº 1, Figueira da Foz, Portugal, 1985-1986.

### Other Relevant Positions/Functions (examples)

- Vice-President of the Portuguese Association of Marine Litter, since 2014.
- Vice-President of the Iberian Association of Limnology (AIL), since 2014.
- Leader of the Research Group of *Contamination Pathways and Mechanisms of Toxicity of CIIMAR*, since 2015.
- Member of the Ethical Commission of CIIMAR, since 2013.
- Coordinator of the Doctoral (PhD) Programme on Environmental Contamination and Toxicology of the University of Porto, since 2012.
- Coordinator of the Master Programme of Environmental Toxicology and Contamination of the University of Porto (ICBAS and FCUP).
- Subdiretor of the Department of Populations Study, ICBAS, University of Porto, since 2011.
- Editor of the Scientific journal *Environmental Toxicology and Chemistry (ET&C)*, since 2011; member of the Editorial Board, since 2010. Associate Editor of the Scientific journal *Biomarkers* since 2007; previously member of the Editorial Board of *Biomarkers*. Member of the Editorial Board of other scientific journals.
- Coordinator of the Doctoral (PhD) Programme on Marine and Environmental Sciences of the University of Porto, University of Aveiro and University of Algarve, since 2010.
- Member of the Scientific Committee of the BSc on Aquatic Sciences of ICBAS, University of Porto, since 2009.
- Member (as Scientific Expert) of the Group for the Evaluation of Veterinary Medicines of the Portuguese National Authority of Animal Health, since 2009.
- Member of the *Working Group on Biological Effects of Contaminants* of the *International Council for the Exploration of the Sea* (ICES), since 2009.
- Member of the *Global Awards Committee* of the Society of Environmental Toxicology and Chemistry (SETAC), since 2009.
- Member of the *Awards Committee* of SETAC Europe, since 2008. She was Vice-Chair (2009-2010), and Immediate Past Chair of this Committee (2011-2012).
- Member of several other Committees and *Advisory Groups* of SETAC, since 2007.
- Member of the Scientific Committee and ICBAS Representative on the Master of Environmental Contamination and Toxicology of the University of Porto, since 2010.
- President of the College of the Environment of the Portuguese College of Biologists (2005-2011); effective member of the Portuguese College of Biologists.
- Scientific Expert / External Evaluator / Member of Panels for the evaluation of research projects, grants and fellowships, final reports of projects, and programmes (PhD, MSc, BCs) of institutions from Portugal (e.g. FCT, A3ES), other countries (e.g. Argentina, France, Norway, The Netherlands, Israel) and international institutions (e.g. ISF, INTAS, EU) since 2000.

- Diretor of the Laboratory of Ecotoxicology of ICBAS, since 1997.
- Head of the Research Team of Ecotoxicology, Stress Ecology and Environmental Health (ECOTOX), previously Diretor of the Laboratory of Ecotoxicology and Ecology since 1997.
- Member of the Scientific Council of ICBAS, University of Porto, 2010-2014.
- Member of the Panel for the evaluation of applications to the Programme for the Promotion of Mobility Actions of Teaching and Non-teaching Staff of the University of Porto, 2010 – 2012.
- Member of the Board of Directors of the Centre of Marine and Environmental Sciences – Associate Laboratory (CIMAR-LA), 2010-2013.
- Member of the SETAC World Council, 2009 – 2012.
- President of SETAC Europe (2010-2011), Immediate Past President (2011- 2012), Vice-Presidente (2009-2010, Member of SETAC Europe Council (2008-2012), other functions in this Society.
- Member of the Hydrographic Region Council of the Hydrographic Regional Administration of the North Portugal (ARH-N), 2009-2011.
- Coordinator of the Master of Environmental Contamination and Toxicology of the University of Porto (ICBAS & FCUP), 2007 – 2010.
- Member of the Science Committee of the SETAC World Council, 2007-2009.
- Member of the Board of Directors of CIIMAR, 2006-2013.
- Member of the Executive Council of CIMAR-LA, 2004-2013.
- Vice-Director of the Populations Study Department of ICBAS, University of Porto, 2004-2006.
- Director of the Populations Study Department of ICBAS, University of Porto, 2002-2004.
- Treasurer of the Iberoamerican Society of Environmental Contaminantion and Toxicology, 2003-2008.
- Secretary of the General Assembly of CIIMAR, 2001-2006.
- President of the Iberoamerican Society of Environmental Contaminantion and Toxicology (SICTA), 2001-2003.
- Member of the Iberoamerican Society of Environmental Contaminantion and Toxicology (SICTA), 2000-2008.

### **Specialization Areas**

Ecotoxicology and Stress Ecology (marine, freshwater and terrestrial), Ecology, Environmental Health, Veterinary Toxicology, Human Toxicology.

### **Main Research Interests**

Microplastics; environmental and human risk assessment; combined effects of pollution, climate changes and bioinvasions on environmental, animal and human health; effects of microplastics, pharmaceuticals, nanomaterials, pesticides, oils, metals; mixture toxicology; water and food quality and security.

### **Publications and Communications**

More than 190 scientific international publications, several other scientific publications and technical reports; more than 400 communications in international and national scientific meetings; several other communications and interventions in public events.

### **Main Projects (on going)**

- EPHEMARE – Ecotoxicological effects of microplastics in marine ecosystems, JPI Oceans. (Investigator Responsible by CIIMAR)
- ECOAST – New methodologies for an ecosystem approach to spatial and temporal management of fisheries and aquaculture in coastal areas (COFASP) (Investigator Responsible by ICBAS)
- PLASTICGLOBAL – Assessment of plastic-mediated chemical transfer and effects in food webs of deep, coastal and estuarine ecosystems under global change scenarios (FCT) (project Principal Investigator)
- ECOSERVICES – Assessing the environmental quality, vulnerability and risks for the sustainable management of the NW coast natural resources and ecosystem services in a changing world (L3 – INNOVMAR, NORTE2020) (ECOSERVICES Principal Investigator)

### **Research Group**

L. Guilhermino proposed and implemented the Laboratory of Ecotoxicology of ICBAS (1997) and the Laboratory of Ecotoxicology of CIIMAR in 1997, currently Research Team of Ecotoxicology, Stress Ecology and Environmental Health (ECOTOX) of CIIMAR. At the present she is also the leader of the CIIMAR Research Group of Contamination Pathways and Mechanisms of Toxicity.

### **Scientific Adviser of Young Scientists and Students**

- CONCLUDED: she was supervisor/co-supervisor of more than 40 post-doc young researchers projects, 12 PhD Theses, 30 Master Theses, 45 post-graduation projects/probations, and several projects/stages of Master and BSc students;
- ON GOING: she is scientific adviser/co-adviser of 3 post-doc projects, 5 PhD Theses, 4 MSc Theses, and several post-graduation and BSc students projects.

### **Pedagogic Activities**

- Coordinator of 2 PhD programmes: Doctoral Programme on Marine and Environmental Sciences of the University of Porto (ICBAS/FCUP), University of Aveiro and University of Algarve; Doctoral Programme on Environmental Contamination and Toxicology of the University of Porto (ICBAS/FCUP/FFUP);

- Coordinator of the Master on Environmental Toxicology and Contamination of the University of Porto (ICBAS/FCUP), and of the Scientific Committee of the BSc on Aquatic Sciences of ICBAS.
- Among others, she is/was coordinator and teacher of the following courses: “Marine Ecotoxicology and Risk Assessment of Chemical Spills (international advanced course of ICBAS, University of Porto, and SETAC Summer School course); “Stress Ecology”; “Ecotoxicology”; “Environmental Risk Assessment”; “Veterinary Toxicology”; “Biomarkers of Environmental Contamination”; “Environment and Public Health”; “Molecular Toxicology”; “Applied Ecology and Conservation Biology”.

### Other Relevant Activities

- She was member of national and international panels to evaluate projects and grants applications of national, foreign and international organizations, applications to positions in the Academic and Research Careers
- She participated in more than 80 panels for the evaluation of PhD theses submitted to Universities in Portugal and abroad; and in several panels for the evaluation of other Academic proves (e.g. Habilitation, Master), among others.
- She has been reviewer of papers submitted to more than 40 scientific journals (mainly in the areas of Environmental Sciences, Life Sciences, Health Sciences, and Bioengineering).
- She was Chair, Vice-Chair or member of the Organizing and Scientific Committees of several international and national Scientific meetings, some with more than 2000 participants.
- She organizes regularly international advanced courses.

### Biometric Information – 19<sup>th</sup> October 2017:

#### Web of Science – All databases

You searched for: **AUTHOR:** (Guilhermino L\* OR Guilhermino U\*) **AND ADDRESS:** (Porto OR Oporto OR Coimbra) [...More](#)

Citation report:

Total Publications: 175; Sum of times cited – 5,117; Without self citations – 4,368; Citing articles – 3,087; Without self citations – 2,947; h-index: 43.

#### Scopus (2013-2017)

Documents: 165 cited documents; h-index Scopus: 44.

### Full Papers Published in International Scientific Journals (Indexed)

- (161) Baeta, A.; Vieira, L.R.; Lírio, A.V.; Canhoto, C.; Marques, J.C.; Guilhermino, L. 2017. Use of stable isotope ratios of fish larvae as indicators to assess diets and patterns of anthropogenic nitrogen pollution in estuarine ecosystems. *Ecological Indicators* 83: 112-121. DOI: 10.1016/j.ecolind.2017.07.062
- (160) Prego-Faraldo, M.V.; Vieira, L.R.; Eirin-Lopez, J.M.; Méndez, J.; Guilhermino, L. 2017. Transcriptional and biochemical analysis of antioxidant enzymes in the mussel *Mytilus galloprovincialis* during experimental exposures to the toxic dinoflagellate *Prorocentrum lima*. *Marine Environmental Research* 129: 304-315. DOI: 10.1016/j.marenvres.2017.06.009
- (159) Canhoto, C.; Simões, S.; Gonçalves, A.L.; Guilhermino, L.; Bärlocher, F. 2017. Stream salinization and fungal-mediated leaf decomposition: a microcosm study. *Science of the Total Environment* 59-60: 1638-1645. doi:10.1016/j.scitotenv.2017.05.101
- (158) Afonso, M.J.; Freitas, L.; Pereira, A.; Neves, L.; Guimarães, L.; Guilhermino, L.; Mayer, B.; Rocha, F.; Marques, J.M.; Chaminé, H. 2016. Environmental groundwater vulnerability assessment in urban water mines (Porto, NW Portugal). *Water* 8 (11), article number 499, 1-23. doi:10.3390/w8110499 URL: <http://www.mdpi.com/2073-4441/8/11/499>
- (157) San-Segundo, L.; Guimarães, L.; Torija, C.F.; Beltrán, E.M.; Guilhermino, L.; Pablos, M.V. 2016. Alterations in gene expression levels provide early indicators of chemical stress during *Xenopus laevis* embryo development: a case study with perfluorooctane sulfonate (PFOS). *Ecotoxicology and Environmental Safety* 127: 51-60. doi:10.1016/j.ecoenv.2016.01.005 URL: <http://www.sciencedirect.com/science/article/pii/S0147651316300069>
- (156) Ribeiro, D.C.; Costa, S.; Guilhermino, L. 2016. A framework to assess the vulnerability of estuarine systems for use in ecological risk assessment. *Ocean & Coastal Management* 119: 267-277. DOI:10.1016/j.ocecoaman.2015.05.022 URL: <http://www.sciencedirect.com/science/article/pii/S0964569115001611>
- (155) Gomes, C.; Sousa, R.; Mendes, T.; Borges, R.; Vilares, p.; Vasconcelos, V.; Guilhermino, L.; Antunes, A.; 2016. Low genetic diversity and high invasion success of *Corbicula fluminea* (Bivalvia, Corbiculidae) (Müller, 1774) in Portugal. *PLoS ONE* 11(7): e0158108. <http://dx.doi.org/10.1371/journal.pone.0158108>
- (154) Fonte, E.; Ferreira, P.; Guilhermino, L. 2016. Temperature rise and microplastics interact with the toxicity of the antibiotic cefalexin to juveniles of the common goby (*Pomatoschistus microps*): post-exposure predatory behaviour, acetylcholinesterase activity and lipid peroxidation. *Aquatic Toxicology* 180: 173-185. <http://dx.doi.org/10.1016/j.aquatox.2016.09.015> URL: <http://www.sciencedirect.com/science/article/pii/S0166445X16302715>
- (153) Ferreira, P.; Fonte, E.; Soares, M.E.; Carvalho, F.; Guilhermino, L. 2016. Effects of multi-stressors on juveniles of the marine fish *Pomatoschistus microps*: gold nanoparticles, microplastics and temperature. *Aquatic Toxicology* 170: 89-103. DOI:10.1016/j.aquatox.2015.11.011 URL: <http://www.sciencedirect.com/science/article/pii/S0166445X15300941>
- (152) Vieira, L.R.; Guilhermino, L.; Morgado, F. 2015. Zooplankton structure and dynamics in two estuaries from the Atlantic coast in relation to multi-stressors exposure. *Estuarine, Coastal and Shelf Science*, 167: 347-367. DOI:10.1016/j.ecss.2015.10.012 URL: <http://www.sciencedirect.com/science/article/pii/S0272771415301037>

- (151) Oliveira, P.; Lopes-Lima, M.; Machado, J.; [Guilhermino, L.](#) 2015. Comparative sensitivity of European native (*Anodonta anatina*) and exotic (*Corbicula fluminea*) bivalves to mercury. *Estuarine, Coastal and Shelf Science* 167: 191-198. DOI:10.1016/j.ecss.2015.06.014 URL: <http://www.sciencedirect.com/science/article/pii/S0272771415002231>
- (150) Davarpanah, E.; [Guilhermino, L.](#) 2015. Single and combined effects of microplastics and copper on the population growth of the marine microalgae *Tetraselmis chuii*. *Estuarine, Coastal and Shelf Science* 167: 269-275. DOI:10.1016/j.ecss.2015.07.023 URL: <http://www.sciencedirect.com/science/article/pii/S0272771415300305>
- (149) Sá, L.C. de; Luís, L.G.; [Guilhermino, L.](#) 2015. Effects of microplastics on juveniles of the common goby (*Pomatoschistus microps*): confusion with prey, reduction of the predatory performance and efficiency, and possible influence of developmental conditions. *Environmental Pollution* 196: 359-362. DOI:10.1016/j.envpol.2014.10.026 URL: <http://www.sciencedirect.com/science/article/pii/S1095643314002542>
- (148) Oliveira, C., Vilares, P., [Guilhermino, L.](#) 2015. Integrated biomarker responses of the invasive species *Corbicula fluminea* in relation to environmental abiotic conditions: a potential indicator of the likelihood of clam's summer mortality syndrome. *Comparative Biochemistry and Physiology A-Molecular & Integrative Physiology* 182: 27-37. DOI:10.1016/j.cbpa.2014.12.001 URL: <http://www.sciencedirect.com/science/article/pii/S1095643314002542>
- (147) Luís, L.G.; Ferreira, P.; Fonte, E.; Oliveira, M.; [Guilhermino, L.](#) 2015. Does the presence of microplastics influence the acute toxicity of chromium (VI) to early juveniles of the common goby (*Pomatoschistus microps*)? A study with juveniles from two wild estuarine populations. *Aquatic Toxicology* 164: 163-174. DOI:10.1016/j.aquatox.2015.04.018 URL: <http://www.sciencedirect.com/science/article/pii/S0166445X15001241>
- (146) Ilarri, M.I.; Souza, A.T.; Modesto, V.; [Guilhermino, L.](#); Sousa, R. 2015. Differences in the macrozoobenthic fauna colonising empty bivalve shells before and after invasion by *Corbicula fluminea*. *Marine and Freshwater Research* 66 (6): 549-558. DOI: 10.1071/MF14004 URL: <http://www.publish.csiro.au/?paper=MF14004>
- (145) Costa, S.; [Guilhermino, L.](#) 2015. Influence of long-term exposure to background pollution on the response and recovery of the invasive species *Corbicula fluminea* to ammonia sub-lethal stress: a multi-marker approach with field estuarine populations. *Water Air and Soil Pollution* 226, article 95. DOI: 10.1007/s11270-015-2368-8 URL: <http://link.springer.com/article/10.1007/s11270-015-2368-8>
- (144) Almeida, J.R.; Gravato, C.; [Guilhermino, L.](#) 2015. Effects of temperature in juvenile seabass (*Dicentrarchus labrax* L.) biomarker responses and behaviour: implications for environmental monitoring. *Estuaries and Coasts* 38: 45-55. DOI 10.1007/s12237-014-9792-7 URL: <http://link.springer.com/article/10.1007/s12237-014-9792-7>
- (143) Reis, P. A.; [Guilhermino, L.](#); Antunes, C.; Sousa, R. 2014. Assessment of the ecological quality of the Minho estuary (Northwest Iberian Peninsula) based on metal concentrations in sediments and in *Corbicula fluminea*. *Limnetica* 33 (1): 161-173. [http://www.limnetica.com/Limnetica/Limne33/L33a161\\_Ecological\\_quality\\_Minho\\_estuary.pdf](http://www.limnetica.com/Limnetica/Limne33/L33a161_Ecological_quality_Minho_estuary.pdf)
- (142) Oliva, M.; Gravato, C.; [Guilhermino, L.](#); Galindo-Riaño, M.D.; Perales, J.A. 2014. EROD activity and cytochrome P4501A induction in liver and gills of Senegal sole *Solea senegalensis* from a polluted Huelva estuary (SW Spain). *Comparative Biochemistry and Physiology C-Toxicology & Pharmacology*: 166: 134-144. <http://dx.doi.org/10.1016/j.cbpc.2014.07.010> URL: <http://www.sciencedirect.com/science/article/pii/S1532045614001057#>
- (141) Irizar, A.; Duarte, D.; [Guilhermino, L.](#); Marigómez, I.; Soto, M. 2014. Optimization of NRU assay in primary cultures of *Eisenia fetida* for metal toxicity assessment. *Ecotoxicology* 23 (7): 1326-1335. DOI 10.1007/s10646-014-1275-x URL: <http://link.springer.com/article/10.1007/s10646-014-1275-x>
- (140) Ilarri, M.I.; Souza, A.T.; Antunes, C.; [Guilhermino, L.](#); Sousa, R. 2014. Influence of the invasive Asian clam *Corbicula fluminea* (Bivalvia: Corbiculidae) on estuarine epibenthic assemblages. *Estuarine Coastal and Shelf Science* 143: 12-19. DOI: <http://dx.doi.org/10.1016/j.ecss.2014.03.017> URL: <http://www.sciencedirect.com/science/article/pii/S0272771414000651#>
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- (138) Gama, M.; [Guilhermino, L.](#); Canhoto, C. 2014. Comparison of three shredders response to acute stress induced by eucalyptus leaf leachates and copper: single and combined exposure at two distinct temperatures. *Annales de Limnologie-International Journal of Limnology* 50: 90-107. DOI: [10.1051/limn/2014006](http://dx.doi.org/10.1051/limn/2014006)
- (137) Baltazar, M.T.; Dinis-Oliveira, R.J.; Martins, A.; Bastos, M.D.L.; Duarte, J.A.; [Guilhermino, L.](#); Carvalho, F. 2014. Lysine acetylsalicylate increases the safety of a paraquat formulation to freshwater primary producers: a case study with the microalga *Chlorella vulgaris*. *Aquatic Toxicology* 146: 137-143. DOI: <http://dx.doi.org/10.1016/j.aquatox.2013.10.034>
- (136) Martins, A.; Guimarães, L.; [Guilhermino, L.](#) 2013. Chronic toxicity of the veterinary antibiotic florfenicol to *Daphnia magna* assessed at two temperatures. *Environmental Toxicology and Pharmacology* 36 (3): 1022-1032. <http://dx.doi.org/10.1016/j.etap.2013.09.001> <http://www.sciencedirect.com/science/article/pii/S1382668913001920#>
- (135) Oliveira, M.; Ribeiro, A.; Hylland, K.; [Guilhermino, L.](#) 2013. Single and combined effects of microplastics and pyrene on juveniles (0+ group) of the common goby *Pomatoschistus microps* (Teleostei: Gobiidae). *Ecological Indicators* 34: 641-647. <http://dx.doi.org/10.1016/j.ecolind.2013.06.019> <http://www.sciencedirect.com/science/article/pii/S1470160X13002501>
- (134) Oropesa, A.-L.; Gravato, C.; [Guilhermino, L.](#); Soler, F. 2013. Antioxidant defences and lipid peroxidation in wild White Storks, *Ciconia ciconia*, from Spain. *Journal of Ornithology* 154 (4): 971-976. DOI: [DOI 10.1007/s10336-013-0964-1](http://dx.doi.org/10.1007/s10336-013-0964-1) <http://link.springer.com/article/10.1007/s10336-013-0964-1>

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<http://www.sciencedirect.com/science/article/pii/S0041010113001530>
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- (130) Oliveira, C.; Almeida, J.R.; Guilhermino, L.; Soares, A.M.V.M.; Gravato, C. 2013. Swimming velocity, avoidance behaviour and biomarkers in *Palaemon serratus* exposed to fenitrothion. *Chemosphere* 90 (3): 936-944. DOI: [doi:10.1016/j.scitotenv.2012.10.077](https://doi.org/10.1016/j.scitotenv.2012.10.077) URL: <http://www.sciencedirect.com/science/article/pii/S0045653512008430>
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