# Curriculum vitae (02/01/15)

Surname: Lucena Moya Name: Paloma

Birth date: 22 /04/81 (SPAIN) Sex:F

Permanent address: Camino de la Desviación, 16 3ºH C.P. 29018 Málaga - Andalucía-Spain

Current address: Rua Igreja de Cedofeita, 5 2Andar 4050-306 Porto - Portugal

Cell phone (Spain): +34 617 108 759 Cell phone (Portugal): +351 926 249 778 Cell phone (Germany): +49 (0)176 6813 4926 e-mail: palomalucenamoya@gmail.com

personal web page: <a href="http://palomalucenamoya.weebly.com/">http://palomalucenamoya.weebly.com/</a>



# **Academic formation**

Grade	Center	Date
<b>Postgraduate</b> in Geographic Information Systems (GIS) and Spatial Planning	Faculty of Geography. University of Porto (Portugal)	July 2014
<b>PhD</b> Thesis in Aquatic Ecology (Title:"Ecology of the transitional waters of the Balearic Islands")	Faculty of Sciences. University of Vigo (Spain). Department of Ecology and Animal Biology	April 2011
<b>MSc</b> in Aquatic Ecology: "Biology of the organisms and ecosystems"	Faculty of Marine Sciences. University of Vigo (Spain). Department of Ecology and Animal Biology	July 2009
Undergraduate thesis in Ecology	"Development of a typology for transitional waters in the Balearic Islands". Faculty of Marine Sciences. University of Vigo. (Spain)	February 2009
Teacher Training Course	Center for Training and Educational Innovation University of Vigo (Spain)	March 2008
Postgraduate "Expert Business Environmental Assessment"	Training and Innovation Center in Andalucia (Málaga, Spain)	June 2005
<b>BSc</b> (advanced 5 years) in Biology with Honours	Faculty of Biology. University of Málaga (Spain)	July 2005

# Scientific and professional activity

Situation	Institution	Date
Assistant Professor	University of Porto (Portugal) Department of Geography	Oct.14 to Jan. 15
Postdoctoral Fellow	Institute for Applied Ecology University of Canberra (Australia)	Jan. 12 to 31 Mar.13

PhD-student fellowship (grant holder: Univ. of Vigo)	University of Vigo (Spain)	Feb.10 to Dec.11
PhD-student fellowship (grant holder: Local Government)	University of Vigo (Spain)	Jan.09 to Jan.10
Research-collaborator	Univ. of Vigo. Project: Climate change influence on biodiversity, goods and services of Mediterranean lagoons (CIRCLE)	Oct.08 to Oct.10
Assistant Professor	University of Vigo. 50 hours. 5 <sup>th</sup> degree in Marine Biology and 4 <sup>th</sup> degree in Biology.	Sept. 10 to July 11
Researcher	University of Vigo. Project: "Implementation of the WFD 2000/60/EC in Balears"	Nov.05 to Sept.09
Assistant Professor	University of Girona. 155 hours. 2 <sup>nd</sup> degree in Biology and Environmental Sciences	Sept. 07 to July 08
Researcher	University of Vigo. Project: "Monitoring of physic-chemical parameters, phytoplankton and invertebrates of Nature Reserve S'Albufereta (Balears)"	Jun. 07
Technician	Tecnigral S.L "Revision of Cartography and Inventory of the Gardens of the City of Málaga"	Jun.2005

# **Languages** (C =normal, B = O.K., A = Fluent)

Language	Speaking	Reading	Writing
Spanish	A	A	A
English	A	A	A
German	В	В	В
Portuguese	A	A	В

# **Teaching**

- Subject: Experimentation for Biology degree. University of Girona: 2007-2008 (65 hours)
- Subject: Ecology for Environmental Sciences degree. University of Girona: 2007-2008 (90 hours)
- Subject: Ecology for Biology degree students. University of Girona: 2007-2008 (15 hours)
- Subject: Marine Ecology for Biology degree. University of Girona: 2007-2008 (10 hours)
- Subject: Marine Zooplankton for Marine Science degree. University of Vigo: 2010-2011 (40 hours)
- Subject: Aquatic Ecology for Biology degree. University of Vigo: 2010-2011 (10 hours)
- Subject: Methods and techniques in geography. University of Porto: 2014-2015 (40 hours)

## **Journal articles**

- **Lucena-Moya P.**, Brawata R., Kath J., Harrison E., El Sawah S., Dyer F. 2015. Discretization of continuous predictor variables in Bayesian Networks: an ecological threshold approach. *Environmental Modelling and Software* (in press)
- Rodil F.I., **Lucena-Moya P.**, Olabarria C., Arenas, F. Altered macroalgal subsidies by temperature and ultraviolet radiation can affect wrack-reliant beach consumers. *Ecosystems* (in press).
- Dyer .F, El Sawah S., Croke B., Griffiths R., Harrison E., **Lucena-Moya P**. 2013. Ecologically relevant climate change impacts on flow regimes and water quality. *Stochastic Environmental Research Risk and Assessment* 28:67–82
- **Lucena-Moya P**. and Pardo I. 2012. An invertebrate multimetric index to classify the ecological status of small coastal lagoons in the Mediterranean ecoregion (MIBIIN). *Marine and Freshwater Research* 63:801-814
- **Lucena-Moya P.**, Gómez-Rodríguez, C. and Pardo, I. 2012. Conservation and management implications of spatio-temporal variability in water chemistry: The case of coastal lagoons in the Mediterranean region (Balearic Islands, Spain). *Wetlands* 32: 1033-1045
- Basset, A., Barbone, E., Elliott, M., Li, B-L, Jorgensen, S.E., **Lucena-Moya, P.,** Pardo, I., Mouillot, D. 2012. A unifying approach to understanding transitional waters: fundamental properties emerging from ecotone ecosystems. *Estuarine, Coastal and Shelf Science* 1-12
- **Lucena-Moya P.** and Duggan, I. 2011. The influence of macrophyte architecture on the abundance and diversity of littoral microfauna. *Aquatic Ecology* 45: 279-287
- **Lucena-Moya P.,** Abraín R., Pardo I., Hermida B. and Domínguez M. 2010. Invertebrate species list of coastal lagoons in the Balearic *Islands. Transitional Waters Bulletin* 1: 1-11
- Lucena-Moya P., Pardo I. & Álvarez M. 2009. Development of a typology for transitional waters in the Mediterranean ecoreegion: the case of the islands. *Estuarine, Coastal and Shelf Science Journal*. 82: 61-72

### **Chapters in Book**

- Pardo I., Delgado C., García L., Álvarez M., **Lucena-Moya P**. and Barón A. 2010. Assessing the ecological status of streams in the Balearic Islands: the case of Minorca. <u>Chapter book</u> in: "15 anys de la Reserva de la Biofesra de Menorca" 135-145pp. ISBN: 84–95718-40–5
- Dyer, FJ, El Sawah, S, Lucena-Moya, P, Harrison, ET, Croke, BFW, Tschierschke, A, Griffiths, R, Brawata, RL, Kath, J, Reynoldson, T & Jakeman, A (2013) Predicting water quality and ecological responses. National Climate Change Adaptation Research Facility, Gold Coast, 198 pp. ISBN: 978-1-925039-19-1

## **Technical Reports**

- Dyer, F, El Sawah, S, **Lucena-Moya, P**, Harrison, E, Croke, B, Tschierke, A, Griffiths, R, Brawata, R, Kath, J, Reynoldson, T, Jakeman, A, 2013, Predicting water quality and ecological responses. National Climate Change Adaptation Research Facility, Gold Coast. 320 pp

- **Lucena-Moya**, **P.**, Dyer F., Harrinson E., Kath J., and Tschierschke A. August 2012. Ecological Thresholds: Documentation. University of Canberra. 64 pp.
- Dyer F., ElSawah S., **Lucena-Moya**, **P.**, Harrinson E., Croke B., Griffiths R. June 2012. Hydrological and water quality modelling: Documentation. University of Canberra. 35 pp.
- ElSawah S., Lucena-Moya, P., Dyer F., Harrinson E., Croke B., Reynoldson T., Jakeman, T., Griffiths R., Hatton, S. February 2012. Scenario Development for Water Quality Predictions in the Upper Murrumbidgee River Catchment: Discussion Paper. University of Canberra. 63pp.
- Pardo, I., García, L., Delgado, C., **Lucena-Moya, P**. and Abrain, R. 2010. Implementation of the WFD in the Balearic Islands: Assessment of the environmental quality of epicontinental water bodies using biological indicators and indices. Volume I: Streams. <u>Final Report</u>. 304 pp.
- Pardo, I., **Lucena-Moya, P.**, Abrain, R. García, L. and Delgado, C. 2010. Implementation of the WFD in the Balearic Islands: Assessment of the environmental quality of epicontinental water bodies using biological indicators and indices. Volume II:Wetlands. <u>Final Report</u>. 276 pp.
- **Lucena-Moya P.** and Pardo, I. 2008. Monograph Albufereta Pollença: Brief introduction of physical and chemical composition of waters and biological communities (macroinvertebrates and phytoplankton), Estany Gross, Estany Petit and Sa Barcassa. <u>Technical Report</u> 66 pp.
- Pardo, I., Alvarez, M., Delgado, C., García, L., **Lucena-Moya, P.** 2007. Implementation of the WFD in the Balearic Islands: Assessment of the environmental quality of epicontinental water bodies using biological indicators and indices. Volume I: Streams. <u>Technical Report</u> 199 pp.
- Pardo, I., Alvarez, M., Delgado, C., García, L., Lucena-Moya, P. 2007. Implementation of the WFD in the Balearic Islands: Assessment of the environmental quality of epicontinental water bodies using biological indicators and indices. Volume I: Wetlands. <u>Technical Report</u> 159 pp. <a href="http://www.sab-web.com/dmagua/paginas/docs/200710111731270.InformeZH\_Last\_24Mayo07.pdf">http://www.sab-web.com/dmagua/paginas/docs/200710111731270.InformeZH\_Last\_24Mayo07.pdf</a>

#### **Investigations stages**

KEY: D = PhD, P = post-PhD, I = invited, E = employee, O = others

1. Center: Institute for Applied Ecology. University of Canberra

Locality: Canberra Country: Australia Date: 2012-2013 Timeframe (months):15 Subject: Collaboration in "Predicting water quality and ecological responses to a changing climate: informing adaptation initiatives"

Key: P

2. Center: Centre for Biodiversity and Ecology Research. University of Waikato

Locality: Hamilton Country: New Zealand Date: 2011 Timeframe (months):7.5 Subject: Collaboration in "Invertebrate composition and dynamics in New Zealand coastal lagoons: responses to pressure gradients"

Key: P

3. Center: Centre for Biodiversity and Ecology Research. University of Waikato

Locality: Hamilton Country: New Zealand Date: 2010 Timeframe (months):3 Subject: Collaboration in "Influence of artificial macrophyte architecture on the diversity and abundance of zooplanktons (rotifers and microcrustaceans)"

Key: D

4. Center: Institute of Aquatic Ecology- University of Girona

Locality: Girona Country: Spain Date: 2007/08

Subject: Collaboration in project and publication

Key: E (Teaching assistant).

5. Center: Ornithological Station of Helgoland

Locality: Helgoland Country: Germany Date: 2004 Timeframe (weeks): 2

Subject: Training practices Key: O (Erasmus Grant holder).

6. Center: Ernst-Moritz-Arndt Univeresität Greifswald

Locality: Greifswald Country: Germany Date: 2004 Timeframe: Academic year

Subject: Biology degree

Key: O Erasmus grant holder (Ministry of Science and Education. Spanish Government)

### Participation in public I+D (Investigation and Development) projects

1. Tittle: "Predicting water quality and ecological responses to a changing climate: informing adaptation initiatives".

Founds: Australian Government, ACT Government, ACTEW Participants: Australian National University, University of Canberra Time: December 2011 – March 2013 P.I.: Fiona Dyer (Australia)

2. Title: "Climate change influence on biodiversity, goods and services of Mediterranean lagoons (CIRCLE)".

Founds: Xunta de Galicia-Galician Government Participants: University of Vigo (Spain), Laboratoire Lagunaires Ecosystèmes, University of Montpellier II (France), Dipartimento di Scienze e Tecnologie ambientali ed Biologiche (DiSTeBA) Ecotekne Center, University of Salento (Italy) Department of Bio-technology, Faculty of Natural Sciences of Tirana University (Albania), Laboratoire Ressources et Ecosystèmes Aquatique, Institut National Agronomique de Tunisie (Tunisia).

Time: October 2008-October 2010 P.I.: Dr. David Mouillot (France)

3. Title: "Implementation of the WFD in the Balearic Islands: Assessment of the environmental quality of epicontinental water bodies (Streams and Wetlands) using biological indicators and indices"

Founds: Balearic Institute of Water and Coastal. Balearic Islands Government

Participants: University of Vigo (Spain)

Time: July 2005-March 2007 P.I.: Dr. Isabel Pardo (Spain)

4. Title: "Implementation of the WFD in the Balearic Islands: Assessment of the environmental quality of epicontinental water bodies (Streams and Wetlands) using biological indicators and indices"

Founds: Balearic Institute of Water and Coastal. Balearic Islands Government

Participants: University of Vigo (Spain)

Time: December 2007-September 2009 P.I.: Dr. Isabel Pardo (Spain)

5. Title: "Monitoring of physical and chemical parameters, phytoplankton and invertebrates s'Albufereta nature reserve 2006"

Founds: Regional Environmental Minister (Balearic Islands)

Participants: University of Vigo (Spain)

Time: March 2006-December 2006 P.I.: Dr. Isabel Pardo (Spain)

## **Congress contributions**

#### **Oral contributions:**

1. Authors: **Paloma Lucena-Moya**, Fiona Dyer, Evan Harrison, Jarrod Kath, Aloca Tschierschke, Sondoss El Sawah

Title: Looking for thresholds: the response of macroinvertebrate assemblages to predictor variables in the

Upper Murrumbidgee River Catchment Kind of participation: Oral presentation

Congress: ASLO (American Society of Limnology and Oceanogrpahy)
Location: New Orleans (EEUU)
Date: February 2013

2. Authors: **Paloma Lucena-Moya,** Fiona Dyer, Evan Harrison, Jarrod Kath, Sondoss El Sawah, Trefor Reynoldson, Tony Jakeman, Barry Croke

Title: Looking for thresholds: the response of macroinvertebrate assemblages to predictor variables in the

Upper Murrumbidgee River Catchment Kind of participation: Oral presentation

Congress: ASL 51 (Australian Society of Limnology)

Location: Armidale (Australia) Date: November 2012

3. Authors: **Lucena-Moya P**. and Pardo I.

Title: Multimetric Indexes based on invertebrates to assess the ecological status of coastal lagoons in the

Balearic Islands (MIBIN)

Kind of participation: Oral presentation

Congress: ECSA 47 (Estuarine & Coastal Sciences Association)

Location: Figueira da Foz (Portugal)

Date: September 2010

4. Authors: Lucena-Moya P. and Pardo I.

Title: Invertebrate community composition and biodiversity in Mediterranean coastal lagoon

Kind of participation: Oral presentation

Congress: SEFS 6 (Symposium for European Freshwater Sciences)
Location: Sinaia (Romania)

Date: August 2009

5. Authors: Pardo I., Delgado C., García L., Álvarez M. and Lucena-Moya P.

Title: Els torrents de Menorca

Kind of participation: Oral presentation

Congress: Conference on the 15th anniversary of the Biosphere Reserve of Minorca

Location: Maón (Spain) Date: October 2008

6. Authors: Lucena-Moya P., Pardo I., Gascón S., Sala J., Boix D. & Quintana XD.

Title: Relation between environmental factors and crustacean assemblages of coastal water bodies from

mainland and islands in the Mediterranean region

Kind of participation: Oral presentation

Congress: 3rd European Pond Conservation Network Workshop Location: Valencia (Spain) Date: May 2008

### **Poster contributions:**

1. Authors: Pachés, M., Romero, I., Abraín, R., Pardo, I. and Lucena-Moya P.

Title: Multimetric Indexes based on phytoplankton to assess the ecological status of coastal lagoons in the

Balearic Islands (PHYTO-MIBI) Kind of participation: Poster

Congress: ECSA 47 (Estuarine & Coastal Sciences Association)

Location: Figueira da Foz (Portugal)

Date: September 2010

2. Authors: Lucena-Moya P., Álvarez M. and Pardo I.

Title: The effect of exploitation of the saltwork in the conservation of invertebrate community

Kind of participation: Poster

Congress: I Workshop on Conservation of Biological Diversity

Location: Vigo (Spain) Date: September 2008

3. Authors: Lucena-Moya P., Pardo I. and Álvarez M.

Title: The effect of saltworks exploitation on the water chemistry and on the structure of the invertebrate

communities inhabiting saline wetlands in the Balearic Islands, Spain

Kind of participation: Poster

Congress: XIX Congress AEL (Spanish Association of Limnology) and VI Iberian Congress of Limnology

Location: Huelva (Spain) Date: September 2008

4. Authors: Lucena-Moya P., Pardo I. and Álvarez M.

Title: Development of a typology for coastal lagoons in the Balearic Islands, Spain.

Kind of participation: Poster

Congress: V Symposium for European Freshwater Sciences. University of Palermo.

### Other attended conferences:

1. Name: "GIS for the United Nations" Organizer: ITU, Unitar/UNOSAT, ESRI

Location: Geneva (Switzerland)

Date: 7-9 April, 2014

2. Northwest Symposium. " Urban Poly-centricism, Knowledge and Economic Innovation" Coloquio Noroeste: "Policentrismo Urbano, Conocimiento e Innovación Económica"

Location: Porto (Portugal) Organizer: Faculty of Letters Date: 13-14 February 2014

# **Organised workshops**

Tittle: 1st Dahlem Workshop: "Theoretical concepts - Methodologies Scenarios for Global Climate Change"

Location: University of Vigo (Spain)

Date: 14<sup>th</sup> – 18<sup>th</sup> April 2009

Tittle: 2nd Dahlem Workshop: "Good and services understanding ecosystems and human dependency on biodiversity in the light of climate change"

Location: Sóller (Mallorca, Spain) - Balearic Museum of Natural Sciences / Botanic Garden Sóller

Date: 29<sup>th</sup> June - 2<sup>nd</sup> July 2009

### **Specialization courses**

- 1. Initiation course on Quantum GIS. 14-16<sup>th</sup> April 2014. University of Porto (Portugal). Lecture: Deolinda Flores
- 2. Programming Bayesian Network Solutions. 19-20<sup>th</sup> July 2012. University of Monash (Melbourne, Australia). Lectures: A. NICHOLSON, S. MASCARO
- 3. Bayesian Network Training with Bayesian Intelligence. 28-29<sup>th</sup> June 2012. University of Monash (Melbourne, Australia). Lectures: A. NICHOLSON

- 4. Workshop on Analysis of Multivariate Data from Ecology and Environmental Science, using PRIMER. La Trobe University (Wodonga, Australia). 9 to 13<sup>th</sup> July 2012. Lectures: P. SOMMERFIELD
- 5. Advanced Interdisciplinary Course "Data analysis tools in ecology. Module 1: the use of Generalized Linear Models (GLM) and Generalized Additive Models (GAM) in ecology". 16 to 20<sup>th</sup> February 2009. University of Coimbra (Portugal). Lectures: Profs. A. ZUUR and E. IENO.
- 6. Advanced Interdisciplinary Course "Data analysis tools in ecology. Module 2: Multivariate tools in ecology and ecotoxicology". 23 to 27<sup>th</sup> February 2009. University of Coimbra (Portugal). Lectures: Profs. J.P SOUSA.
- 7. Statistic with R: "Quick introduction for biologists". 8 hours. 23-24<sup>th</sup> October. 2008. University of Vigo.
- 8. Course applied SPSS and R. 30 hours. 7-10<sup>th</sup> and 14-16 <sup>th</sup> July. 2008. University of Vigo.
- 9. International Course: "Quantitative marine ecology. Design and analysis of ecological experiments and environmental sampling". 68 hours. 27-30<sup>th</sup> October & 3-6<sup>th</sup> November 2008, University of Vigo. Lecturers: Profs. A. J. UNDERWOOD and M. G. CHAPMAN
- 10. Course "Course in Canivorous Mammals. Study Group of Wild Animals. University of Santiago de Compostela (Galicia, Spain). 28<sup>th</sup> to 30<sup>th</sup> April 2006.
- 11. Course: III Journals of Introduction to Ornithology. Town Hall of Alhama de Granada (Andalucía, Spain). 20 hours. 14<sup>th</sup>-15<sup>th</sup> April 2005.
- 12. Course in Sailor's Competence. Navy Social Services Institute, 120 hours (Málaga, Spain). 2004
- 13. Certificate "Open Water Scuba Diver", ACUC International. 2001.
- 14. Course: "Introduction to Entomology". Centre of Nature (Aula de la Naturaleza of Málaga (Spain). 23 hours. 2000.
- 15. Course: "Urban Environmental Education. Youth Area" (Área de Juventud), of Málaga 25 hours. 1998
- 16. Course "Introduction to the Environmental Education. Youth Area (Área de Juventud), of Málaga, 28 hours. 1998

### Participation in other projects and voluntary works.

- -Environmental Volunteer in the Biological Reserve Cloud Forest Monteverde belonging to Tropical Science Center. Costa Rica. Aug. 2007
- Environmental Volunteer in the Organisation for Tropical Studies (OET) Palo Verde National Park. Costa Rica. Sept. 2007
- Follow-up of the white stork migration. Ornithological Association Black Stork (Cigüeña Negra). Tarifa (Cádiz). Aug.-Sept., 2005.
- International Youth Exchange, "The youth concept about the necessity of a responsible water use and conservation" (Sicily, Italy). Nov. 2004.

- Environmental Volunteer. Ringing of nocturnal limicols. Odiel (Huelva). July 2003,
- Environmental Volunteer, Project Migres. Follow-up of the raptors migration. (Tarifa, Cádiz). 2001.
- Environmental Volunteer. Ringing of flamingos, Laguna de Fuente Piedra (Málaga). 2000.
- Environmental Volunteer of the Project Cethus en el boat Nauja, Andalusian Society for the preserving and studying of the cetacean (Almería). 2000
- -Environmental Volunteer in the project "Each young, a volunteer forest ranger". 1998

#### Other information:

- Driving license
- Open Water Scuba Diver
- Analytical equipment and field work experience:
- Field sampling and monitoring. Designed, executed, leaded working groups and incorporated findings into results. Use of biological sampling devices (e.g., enthomological net, Hess sampler), water and sediment devices (e.g., sediment cores), portable probes to measure temperature, salinity, dissolved oxygen etc.
- Chemical laboratory analysis. Assessed, planned, implemented and evaluated protocols for instrumentation use, water and sediment samples processing and analysis. Use of water filtration pump, laboratory oven and furnace, spectrophotometer etc.
- Biological laboratory analysis. Assessed, planned, implemented and evaluated protocols for organisms' identification (macroinvertebrates, zooplankton and phytoplankton). Use of stereoscopic microscope, optical microscope etc.
- Data management and analyses. Strong analytical skills demonstrated by academic success and professional achievements. Use of several softwares for statistical and spatial analyses (SSPS, CANOCO, Statistica, Estimatea, Sigmaplot, Gmav, Stella, R, ArcGIS, QGIS) and bibliography management (EndNote, Mendeley).
- Project redaction, financing and results diffusion. Excellent organizational and communication skills, ability to work effectively on the basis of general instructions, quick integration in multidisciplinary or multicultural groups. Proven ability to meet tight deadlines.
- Personal capacities. Ability to exercise initiative and to adapt to a range of different projects and new methodologies and statistical techniques. Demonstrated capacity for innovation and self-motivation, independence thinking, maturity and self-confidence.