

# Arnald Marcer

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## Education

2009–2013	Ph D. in Terrestrial Ecology (Special prize award) Universitat Autònoma de Barcelona, Spain
2008–2009	Master in Environmental Studies Universitat Autònoma de Barcelona, Spain
1989–1991	Master in Environmental Sciences Yale University, New Haven, CT., USA
1984–1989	Bachelor's degree in Biology Universitat Autònoma de Barcelona, Spain

## Professional Experience

2010–today	Researcher CREAF, Universitat Autònoma de Barcelona, Spain
2003–2009	Project manager CREAF, Universitat Autònoma de Barcelona, Spain
1995–2003	Technical staff CREAF, Universitat Autònoma de Barcelona, Spain
1993–1995	Environmental planner Department of the Environment, Generalitat de Catalunya, Spain
1992–1993	Freelance environmental consultant Sant Cugat del Vallès, Spain
1991–1992	Environmental writer Fundació Enciclopèdia Catalana, Barcelona, Spain

## SCI publications

- 2018 Gómez R., Méndez-Vigo B., Marcer A., Alonso-Blanco C., and Picó F.X. Quantifying temporal change in plant population attributes: insights from a resurrection approach. *AoB Plants*, 10:ply063, 2018
- 2018 Tabas-Madrid D., Méndez-Vigo B., Arteaga N., Marcer A., Pascual-Montano A., Weigel D., Picó F.X., and Alonso-Blanco C. Genome-wide signatures of flowering adaptation to climate temperature: Regional analyses in a highly diverse native range of *Arabidopsis thaliana*. *Plant, Cell & Environment*, 41:1806–1820, 2018
- 2018 A. Marcer, D. S. Vidigal, P. M A James, M. J. Fortin, B. Méndez-Vigo, H. W M Hilhorst, L. Bentsink, C. Alonso-Blanco, and F. X. Picó. Temperature fine-tunes Mediterranean *Arabidopsis thaliana* life-cycle phenology geographically. *Plant Biology*, 20(Issue Supplement S1):148–156, 2018
- 2016 A Marcer, B Méndez-Vigo, C Alonso-Blanco, and F.X. Picó. Tackling intraspecific genetic structure in distribution models better reflects species geographical range. *Ecology and Evolution*, 6(7):2084–2097, 2016
- 2014 Esperanza Manzano-Piedras, Arnald Marcer, Carlos Alonso-Blanco, and F. Xavier Picó. Deciphering the Adjustment between Environment and Life History in Annuals: Lessons from a Geographically-Explicit Approach in *Arabidopsis thaliana*. *PLoS ONE*, 9:e87836, 2014
- 2013 Arnald Marcer, Llorenç Sáez, Roberto Molowny-Horas, Xavier Pons, and Joan Pino. Using species distribution modelling to disentangle realised versus potential distributions for rare species conservation. *Biological Conservation*, 166:221–230, 2013
- 2012 Arnald Marcer, Joan Pino, Xavier Pons, and Lluís Brotons. Modelling invasive alien species distributions from digital biodiversity atlases. Model upscaling as a means of reconciling data at different scales. *Diversity and Distributions*, 18(12):1177–1189, 2012
- 2010 Arnald Marcer, Víctor Garcia, Agustí Escobar, and Xavier Pons. Handling historical information on protected-area systems and coverage. An information system for the Natura 2000 European context. *Environmental Modelling & Software*, 25(8):956–964, 2010
- 2010 Montserrat Vilà, Corina Basnou, Petr Pšsek, Melanie Josefsson, Piero Genovesi, Stephan Gollasch, Wolfgang Nentwig, Sergej Olenin, Alain Roques, David Roy, Philip E. Hulme, Pavlos Andriopoulos, Margarita Arianoutsou, Sylvie Augustin, Sven Bacher, Ioannis Bazos, Francois Bretagnolle, François Chiron, Philippe Clergeau, Pierre-Olivier Cochard, Christian Cocquempot, Armelle Coeur d’Acier, Matej David, Pinelopi Delipetrou, Marie-Laure Desprez-Loustau, Viktoras Didžiulis, Franck Dorkeld, Franz Essl, Bella S. Galil, Jacques Gasquez, Kyriakos Georghiou, Martin Hejda, Vojtech Jarosik, Salit Kark, Ioannis Kokkoris, Ingolf Kuhn, Philip W. Lambdon, Carlos Lopez-Vaamonde, Arnald Marcer, Alain Migeon, Mathew McLoughlin, Dan Minchin, Maria Navajas, Vadim E. Panov, Michel Pascal, Jan Pergl, Irena Perglová, Joan Pino, Katja Poboljsaj, Wolfgang Rabitsch, Jean-Yves Rasplus, Daniel Sauvard, Riccardo Scalera, Ondrej Sedlacek, Susan Shirley, Marten Winter, Artemios Yannitsaros, Annie Yart, Pierre Zagatti, Andreas Zikos, and DAISIE Partners. How well do we understand the impacts of alien species on ecosystem services? A pan-European, cross-taxa assessment. *Frontiers in Ecology and the Environment*, 8(3):135–144, apr 2010

## Organization of scientific and technical events

### International workshop

Studying spatiotemporal patterns of genetic variation with species distribution models (SDM) – potential, caveats and challenges

Funding: Acreditación de Excelencia Severo Ochoa

Organizers: F. Xavier Picó (EBD-CSIC) and Arnald Marcer(CREAF) Duration: 22-24 October 2014

Location: Estación Biológica de Doñana, CSIC, Sevilla, Spain

## Stages abroad

### Département de Sciences Biologiques, Université de Montréal, Montréal, Québec, Canada

Invited by Dr. Patrick M. A. James to collaborate on the analysis of co-evolutionary patterns between seed dormancy and flowering time of the annual plant *Arabidopsis thaliana* across the Iberian Peninsula.

Funding: NewForests Project (IRSES Project, 7th EU Framework Programme)

Grant agreement: PIRSES-GA-2013-612645

Coordinator: Dr. Lluís Brotons

Duration: 5 weeks (June-July 2016)

Location: Montréal, Québec, Canada

### Department of Ecology & Evolutionary Biology, University of Toronto

Invited by Dr. Marie-Josée Fortin to collaborate on conceptual and methodological aspects in landscape genetics to study spatio-temporal patterns of genetic variation.

Funding: NewForests Project (IRSES Project, 7th EU Framework Programme)

Grant agreement: PIRSES-GA-2013-612645

Coordinator: Dr. Lluís Brotons

Duration: 1 month (July 2014)

Location: Toronto, Canada

### School of Forestry & Environmental Studies, Yale University, USA

Master in Environmental Management

Funding: "La Caixa" – Indiana University Fellowship

Duration: 2 years (July 1989 – June 1991)

Location: New Haven, Connecticut, USA

## Technical developments

### **IberiAt**

Information system on the natural genetic variation of the annual plant *Arabidopsis thaliana* in the Iberian Peninsula

Project direction and coordination: Arnald Marcer and Xavier Picó

Development manager: Arnald Marcer

Developers: Agustí Escobar and Víctor Garcia

### **SIPAN**

Natural Heritage Information System of Catalonia

(Protected areas, Habitats, Forests, Species, Legislation)

Project direction: Arnald Marcer and Salvador Grau

Project coordination: Arnald Marcer, Pau Sainz and Francesc Diego

Development manager: Arnald Marcer

Development: Agustí Escobar and Víctor Garcia

### **SIPARC**

Protected Areas Information System of Catalonia

(Works, Reports, Boundaries, Legislation)

Project direction and coordination: Arnald Marcer and Francesc Diego

Development manager: Arnald Marcer

Development: Agustí Escobar and Víctor Garcia

### **AfectacioBosc**

Information system to keep track of events of forest damage

(*Thaumatococcus panyocampa*, Snow events, Wind events)

Project direction and coordination: Arnald Marcer and Jordi Vayreda

Development manager: Arnald Marcer

Development: Agustí Escobar and Víctor Garcia

### **GeoRef**

Georeferencing Tool for Biological Specimens at the Natural History Museum of Barcelona

Project direction: Arnald Marcer and Francesc Uribe

Project coordination: Arnald Marcer

Development manager: Arnald Marcer

Development: Agustí Escobar and Víctor Garcia

### **ExoAqua**

Information System of Alien Invasive Species in Water Ecosystems of Catalonia

Project direction: Arnald Marcer and Joan Pino

Project coordination: Arnald Marcer

Development manager: Arnald Marcer

Development: Agustí Escobar and Víctor Garcia

### **ExoCat**

Information System of Alien Invasive Species of Catalonia

Direction: Arnald Marcer and Joan Pino

Coordination: Arnald Marcer

Development manager: Arnald Marcer  
Development: Agustí Escobar and Víctor Garcia

**MONTES–Metadata**

Information System of ecological datasets  
Direction: Javier Retana and Arnald Marcer  
Coordination: Arnald Marcer  
Development manager: Arnald Marcer  
Development: Agustí Escobar and Víctor Garcia

**MONTES–Clima**

Information System of climatic datasets  
Direction: Jordi Vayreda and Arnald Marcer  
Coordination: Arnald Marcer  
Development manager: Arnald Marcer  
Development: Agustí Escobar and Víctor Garcia

## Proceedings, technical reports and others

- 2016 A Marcer, Fortin M.J., and Picó F.X. Geographical restructuring of *Arabidopsis thaliana*'s genetic makeup in the iberian peninsula due to climate change based on genetic cluster membership. *bioRxiv*, page 091686, 2016
- 2016 D Koureas, C Arvanitidis, L Belbin, W Berendsohn, C Damgaard, Q Groom, A Güntsch, G Hagedorn, A Hardisty, D Hobern, A Marcer, D Mietchen, D Morse, M Obst, L Penev, L Pettersson, S Sierra, V Smith, and Vos R. Community engagement: The 'last mile' challenge for european research e-infrastructures. *Research Ideas and Outcomes*, 2:e9933, 2016
- 2016 D Koureas, A Hardisty, R Vos, D Agosti, C Arvanitidis, P Bogatencov, Buttigieg P, Y de Jong, F Horvath, G Gkoutos, Q Groom, T Klimont, U Kõljalg, I Manakos, A Marcer, K Marhold, D Morse, P Mergen, L Penev, L Pettersson, J Svenning, A van de Putte, and Smith V. Unifying european biodiversity informatics (biounify). *Research Ideas and Outcomes*, 2:e7787, 2016
- 2004 Francesc Uribe, Eulàlia Garcia, and Arnald Marcer. Georeferenciació dels registres de la base de dades de col·leccions: una experiència amb mostres zoològiques. Technical report, Museu de Ciències Naturals, Institut de Cultura, Ajuntament de Barcelona, Barcelona, 2004
- Xavier Pons, Carles Dalmases, Lluís Pesquer, Arnald Marcer, and Joan Masó. ISOMDE: Una nueva aproximación a la generación de Modelos Digitales del Terreno. In C. Conesa and JB Martínez-Guevara, editors, *Territorio y Medio Ambiente. Métodos cuantitativos y Técnicas de Información Geográfica*, pages 27–38, Murcia, 2004
- 2002 Tim W Clark, Peter Schuyler, Tim Donnay, Peyton Curlee, Timothy Sullivan, Margaret Cymerys, Lili Sheeline, Richard Reading, Richard Wallace, Ted Kennedy Jr, Arnald Marcer, and Yance de Fretes. Conserving biodiversity in the real world: professional practice using a policy orientation (Applications). *Endangered Species Update*, 19(4):156–160, July 2002
- 2001 Joan Josep Ibàñez, Arnald Marcer, José Ángel Burriel, Jordi Vayreda, Teresa Mata, and Carles Gràcia. Aportacions del sistema d'informació dels boscos de catalunya i les tècniques sig al coneixement dels sistemes naturals del parc nacional d'aigüestortes i estany de sant maurici. In *Cinquenes Jornades sobre Recerca al Parc Nacional d'Aigüestortes i Estany de Sant Maurici*, Barruera, Lleida, Spain, 18–20 October 2001. Departament de Medi Ambient, Generalitat de Catalunya
- 2000 Arnald Marcer, Xavier Pons, and Jaume Vicens. 'Vulcanus Project'. *Geographical Information System applied to the management of the Zona Volcànica de la Garrotxa Natural Park*. CDROM. Departament de Medi Ambient (Generalitat de Catalunya), Institut Cartogràfic de Catalunya, Centre de Recerca Ecològica i Aplicacions Forestals, July 2000. ISBN: 84-393-4138-5
- Arnald Marcer, Joan Josep Ibàñez, Jordi Vayreda, and Xavier Pons. Aplicació dels SIG en la gestió forestal d'àrees protegides. In F. Llimona, J.M. Espelta, J.C. Guix, E. Mateos, and J.D. Rodríguez-Teijeiro, editors, *I Jornades sobre la Recerca en els sistemes naturals de Collserola: aplicacions a la gestió del Parc*, pages 265–269, Barcelona, 2000. Consorci del Parc de Collserola. I.S.B.N.: 84-605-9579-X, Dep.Legal: B-4.524-2000

- 1999 Arnald Marcer, Xavier Pons, and Jaume Vicens. El projecte Vulcà. Desenvolupament d'un Sistema d'Informació Geogràfica per a la gestió del Parc natural de la Zona Volcànica de la Garrotxa. *Vitrina*, 10:29–34, 1999
- 1998 Arnald Marcer, Xavier Pons, and Jordi Falgarona. Proyecto Vulcà: Desarrollo de un Sistema de Información Geográfica para la Gestión del Parque Natural de la Zona Volcánica de la Garrotxa. *Boletín de la Sección del Estado Español de EuroParc*, 8:19–22, 1998
- Jordi Fontboté, Josep Germain, Salvador Grau, Arnald Marcer, Lluïsa Pujolriu, and Xavier Carceller. Pla especial de protecció del medi natural i del paisatge d'Alfés. Protected area management plan, Departament de Medi Ambient, Generalitat de Catalunya, Barcelona, April 1998
- 1997 Jordi Fontboté, Josep Germain, Salvador Grau, Arnald Marcer, Lluïsa Pujolriu, and Xavier Carceller. Pla especial de protecció del medi natural i del paisatge de Tamarit-Punta de la Móra. Protected area management plan, Departament de Medi Ambient, Generalitat de Catalunya, Barcelona, July 1997
- 1996 Arnald Marcer, Xavier Pons, and Joan Masó. 'Vulcà Project'. *A GIS for park management and planning at 'Zona Volcànica de la Garrotxa Natural Park'*. CDROM. Departament de Medi Ambient (Generalitat de Catalunya), Institut Cartogràfic de Catalunya, Centre de Recerca Ecològica i Aplicacions Forestals, cdrom edition, December 1996. ISBN: 84-393-4138-5
- Jordi Fontboté, Josep Germain, Salvador Grau, Arnald Marcer, and Xavier Carceller. Pla especial de protecció del medi natural i de la riera de Sorreigs. Protected area management plan, Departament de Medi Ambient, Generalitat de Catalunya, Barcelona, November 1996
- Jordi Fontboté, Josep Germain, Salvador Grau, Arnald Marcer, and Xavier Carceller. Pla especial de protecció del medi natural i de la Rojala-Platja del Torn. Protected area management plan, Departament de Medi Ambient, Generalitat de Catalunya, Barcelona, July 1996
- Jordi Fontboté, Josep Germain, Salvador Grau, Arnald Marcer, and Xavier Carceller. Pla especial de protecció del medi natural i dels Tossals d'Isòvol i Olopte. Protected area management plan, Departament de Medi Ambient, Generalitat de Catalunya, Barcelona, December 1996
- 1995 Jordi Fontboté, Josep Germain, Salvador Grau, Arnald Marcer, and Xavier Carceller. Pla especial de protecció del medi natural i del paisatge de Montllober. Protected area management plan, Departament de Medi Ambient, Generalitat de Catalunya, Barcelona, July 1995
- 1992 Tim W Clark, Peter Schuyler, Tim Donnay, Peyton Curlee, Timothy Sullivan, Margaret Cymerys, Lili Sheeline, Richard Reading, Richard Wallace, Ted Kennedy Jr, Arnald Marcer, and Yance de Fretes. Conserving biodiversity in the real world: professional practice using a policy orientation. *Endangered Species Update*, 9(5/6):12–16, 1992

## Projects

2018–2022	<p>MOBILISE – Mobilising Data, Policies and Experts in Scientific Collections (Action CA17106) Role: Research team member Funding: COST - European Cooperation in Science and Technology Participating partners: Institutions from 27 different states Duration: 48 months Principal Investigator: Dr. Dimitris Koureas (Naturalis, NL) Number of researchers: 81 Duration: 02/10/2018 – 01/10/2022</p>
2017–2019	<p>BEEMed – Biodiversitat i Evolució en Ecosistemes Mediterranis (2017 SGR 1006) Role: Collaborator Funding: Generalitat de Catalunya Participating partners: CREAM Duration: 36 months Principal Investigator: Dr. Maria Mayol Number of Researchers: 9 Duration: 01/01/2017 – 31/12/2019</p>
2017–2019	<p>BLACKBOX – Looking into the evolutionary black box: processes and mechanisms accounting for adaptive evolution in <i>Arabidopsis thaliana</i> (CGL2016-77720-P) Role: Research team member Funding: Spanish Science and Innovation Ministry Participating partners: EBD-CSIC, CREAM Duration: 36 months Principal Investigator: Dr. F. Xavier Picó Number of researchers: 2 Duration: 01/01/2017 – 31/12/2019</p>
2013–2017	<p>NewForests – New and old World perspectives for forest ecology and management in a context of global change Role: Participant Funding: IRSES Projects, EU 7th Framework Programme Participating partners: CREAM, CTFC, CBAE, UQAM, UQAT Duration: 40 months Principal Investigator: Dr. Lluís Brotons Number of researchers: 85 Duration: 01/10/2013 – 31/01/2017</p>
2013–2015	<p>REACT – Caracterización fenotípica y normas de reacción de linajes de <i>Arabidopsis thaliana</i> mediante experimentos de translocación entre ambientes diferenciados (CGL2012-33220/BOS) Role: Research team member Funding: Spanish Science and Innovation Ministry Participating partners: EBD-CSIC, CREAM Duration: 36 months Principal Investigator: Dr. F. Xavier Picó Number of researchers: 3 Duration: 01/01/2013 – 31/12/2015</p>
2014–2016	<p>BEEMed – Biodiversitat i Evolució en Ecosistemes Mediterranis</p>



	<p>Role: Collaborator  Funding: Generalitat de Catalunya  Participating partners: CREAM  Duration: 36 months  Principal Investigator: Dr. Maria Mayol  Number of Researchers: 7  Duration: 01/01/2014 – 31/12/2016</p>
2014–2015	<p>iNaturalist España, creando comunidad a través de casos de estudio  Role: Collaborator  Funding: Fundación Española para la Ciencia y la Tecnología, Ministerio de Economía y Competitividad  Participating partners: CREAM  Duration: 12 months  Principal Investigator: Dr. Bernat Claramunt  Number of Researchers: 5  Duration: 30/10/2014 – 01/11/2015</p>
2013–2014	<p>iNaturalist España – Ampliación de funcionalidades e integración de los usuarios en la mayor red internacional para grabar observaciones de la naturaleza y conectarse con otros naturalistas  Role: Collaborator  Funding: Fundación Española para la Ciencia y la Tecnología, Ministerio de Economía y Competitividad  Participating partners: CREAM  Duration: 12 months  Principal Investigator: Dr. Bernat Claramunt  Number of Researchers: 2</p>
2010–2012	<p>DORMANT – Genómica funcional ecológica y evolutiva de la dormición de semillas en poblaciones de <i>Arabidopsis thaliana</i> (CGL2009-07847/BOS)  Role: Participant  Funding: Spanish Science and Innovation Ministry  Participating partners: EBD-CSIC, CNB-CSIC, CREAM, UNIV. OF FLORIDA, UNIV. OF PITTSBURGH  Duration: 36 months  Principal Investigator: Dr. F. Xavier Picó  Number of researchers: 4  Duration: 01/01/2010 – 31/12/2012</p>
2007–2014	<p>GEOREF – Information System for the Georeferencing of Biological Collections at the Natural History Museum of Barcelona  Role: Principal investigator  Funding: Barcelona City Council</p>
2005–2014	<p>SIPARC – Protected Areas Information System  Role: Principal investigator  Funding: Department of the Environment, Generalitat de Catalunya</p>
2004–2013	<p>SIPAN – Natural Heritage Information System  Role: Principal investigator  Funding: Department of the Environment, Generalitat de Catalunya</p>
2010–2012	<p>DORMANT – Functional ecological and evolutionary genomics of seed dormancy in populations of <i>Arabidopsis thaliana</i>  Role: Collaborator</p>

	Funding: Spanish Science and Innovation Ministry
2008–2011	<p>MONTES – Spanish forests and global change: threats and opportunities (CSD2008-00040)</p> <p>Role: Collaborator</p> <p>Funding: Consolider Ingenio 2010, Spanish Science and Innovation Ministry</p> <p>Participating partners: CREA, CIEMAT, CTFC, EBD-CSIC, IDAEA, IRN-MNCN, IRTA, UB, UCLM, UGR</p> <p>Duration: 60 months</p> <p>Principal Investigator: Dr. Javier Retana</p> <p>Number of researchers: 97</p> <p>Duration: 15/12/2008 – 15/12/2013</p>
2010–2011	<p>CONSPARC – Database integration and harmonization for the Strategic Conservation Plan of the protected areas of the Province of Barcelona</p> <p>Role: Principal investigator</p> <p>Funding: Government of the Province of Barcelona</p>
2005–2008	<p>DAISIE – Delivering Alien Invasive Inventories for Europe</p> <p>Role: Collaborator</p> <p>Funding: European 6th Framework Programme</p>
2003–2006	<p>SITGAR – Land Information System for the Garrotxa County</p> <p>Role: Principal investigator</p> <p>Funding: Garrotxa County Council</p>
2000–2003	<p>SITGAR – Land Information System for the Garrotxa County</p> <p>Role: Technical staff</p> <p>Funding: Garrotxa County Council</p>
2003–2005	<p>BOSCOS PÚBLICS – Public Forests Information System</p> <p>Role: Principal investigator</p> <p>Funding: Department of the Environment, Generalitat de Catalunya</p>
2000–2003	<p>SIPAN – Natural Heritage Information System</p> <p>Role: Technical staff</p> <p>Funding: Department of the Environment, Generalitat de Catalunya</p>
1995–1999	<p>VULCANUS – Geographical Information System of the Volcanic Zone of La Garrotxa Natural Park</p> <p>Role: Technical staff</p> <p>Funding: Department of the Environment, Cartographic Institute of Catalonia</p>

## Presentations at conferences, etc.

- 2018 J. Martínez-Minaya, D. Conesa, M.J. Fortin, C. Alonso-Blanco, F. Xavier Picó, and A. Marcer. Effects of geographic genetic structure and spatial autocorrelation on models of distribution range shifts in the annual plant *Arabidopsis thaliana*, 08–13 July 2018. XXIXth International Biometric Conference, CCIB, Barcelona, Spain
- 2018 B. Mendez-Vigo, N. Arteaga, M. Ramiro, A. Marcer, F. Xavier Picó, and C. Alonso-Blanco. Genome-wide signatures of flowering adaptation to climate temperature, 04–06 July 2018. XIV Reunión de Biología Molecular de Plantas, Universidad de Salamanca, Salamanca, Spain
- 2018 J. Martínez-Minaya, A. Vicent, M. Cendoya, A. López-Quílez, F. Xavier Picó, A. Marcer, and D. Conesa. Bayesian spatial models for analyzing the spread of diseases and species distributions, 24–29 June 2018. 2018 ISBA World Meeting, University of Edinburgh, Edinburgh, UK
- 2018 J. Martínez-Minaya, D. Conesa, M.J. Fortin, C. Alonso-Blanco, F. Xavier Picó, and A. Marcer. Modeling the distribution range shifts in the annual plant *Arabidopsis thaliana* taking into account the effects of geographic genetic structure and spatial autocorrelation, 29 May–01 June 2018. XXXVII Congreso Nacional de Estadística e Investigación Operativa y XI Jornadas de Estadística Pública, Universidad de Oviedo, Oviedo, Spain
- 2017 J. Martínez-Minaya, A. Vicent, A. López-Quílez, F.X. Picó, A. Marcer, and D. Conesa. Highly structured spatial models as a tool for analyzing the spread of diseases and species distributions, 24–26 July 2017. 27<sup>th</sup> Annual Conference of The International Environmetrics Society joint with GRASPA 2017 on Climate and Environment, Bergamo, Italy
- 2016 F.X. Picó, A. Marcer, and Alonso-Blanco C. Ecological drivers and genetic mechanisms underlying adaptive evolution of life-cycle phenology in annuals: lessons from natural *Arabidopsis thaliana* populations, 11–14 December 2016. British Ecological Society annual meeting, Liverpool, UK
- 2016 A. Marcer, M.J. Fortin, and F.X. Picó. Geographical restructuring of *Arabidopsis thaliana*'s genetic makeup in the iberian peninsula due to climate change, 11–14 December 2016. British Ecological Society annual meeting, Liverpool, UK
- 2015 F.X. Picó, A. Marcer, B. Méndez-Vigo, and C. Alonso-Blanco. Evaluating the effects of global climate change on loss of genetic diversity: the case of the annual plant *arabidopsis thaliana* in the iberian península, 16–19 June 2015. 4<sup>o</sup> Congreso Ibérico de Ecología. Universidade de Coimbra, Coimbra, Portugal
- 2015 A. Marcer, M.J. Fortin, and F.X. Picó. Species distribution modelling based on intraspecific genetic variation in the light of global climate change, 13–15 July 2015. Spatial Ecology & Conservation 3, University of Bristol, Bristol, UK
- 2015 M. Amores Arrocha, A. Amores-Arrocha, A. Marcer, and F.X. Picó. Analysis of the geographic structure of genetic variation in *arabidopsis thaliana* in eurasia, 6–10 September 2015. EUROANALYSIS 2015, Université de Bordeaux, Bordeaux, France

- 2014 Arnald Marcer and F. Xavier Picó. Assessing global change using meaningful genetic units: the case of the iberian collection of natural populations of the model plant *Arabidopsis thaliana*, 23 October 2014. Workshop: Studying spatiotemporal patterns of genetic variation with species distribution models (SDM) in a context of global change – potential, caveats and challenges, Estación Biológica De Doñana, Sevilla, Spain
- 2014 Carlos Alonso-Blanco, Israel Ausín, Belén Méndez-Vigo, Mercedes Ramiro, Marija Savic, Arnald Marcer, and F. Xavier Picó. Searching for genes involved in climatic adaptation: contributions from *Arabidopsis* studies at a regional scale, 22–26 June 2014. Plant Biology Europe FESPB/EPSO 2014 Congress, Dublin, Ireland
- F. Xavier Picó, Arnald Marcer, and Carlos. Contribución de la genética de poblaciones al entendimiento y mitigación de los efectos del cambio global sobre la biodiversidad, 1–3 October 2014. XX Seminario de Genética de Poblaciones y Evolución, Granada, Spain
- 2013 Arnald Marcer, Agustí Escobar, Carlos Alonso-Blanco, and Xavier Picó. Modelling the distribution and dynamics of genetic variation in *Arabidopsis thaliana*, 18–20 September 2013. Adapting to Global Change in the Mediterranean Hotspot, EBD-CSIC, Sevilla, Spain
- Arnald Marcer. Biodiversity data use, modelling and organization: some research and development projects at CREAM, 3–6 September 2013. Biodiversity Informatics Horizons 2013 (BIH2013), Rome, Italy
- 2012 Arnald Marcer, Carlos Alonso-Blanco, Agustí Escobar, Víctor Garcia, and Xavier Picó. IberiAt – An Information System on Natural Variation of the Annual Plant *Arabidopsis thaliana* in the Iberian Peninsula, 27–28 September 2012. Biosymposium 2012: Biodiversity Technologies, Biodiversity Institute, Oxford University, Oxford, UK
- 2008 Arnald Marcer, Agustí Escobar, and Víctor Garcia. Territorialización de las actuaciones de la administración ambiental, 15–19 September 2008. XIII Congreso Nacional de Tecnologías de la Información Geográfica, Las Palmas de Gran Canaria, Spain
- 2007 Arnald Marcer, Agustí Escobar, and Víctor Garcia. Keeping track of legal and cartographic contexts in protected areas, 4–6 July 2007. 13th EC-GI & GIS Workshop. INSPIRE Time: ESDI for the environment, Porto, Portugal
- 2005 Arnald Marcer, Agustí Escobar, and Eduard Calvo. Sistema de información para el seguimiento del catálogo de espacios naturales protegidos, 8–11 February 2005. 6a Setmana geomàtica, Barcelona
- 2003 Arnald Marcer and Agustí Escobar. Diseño e implementación de un sistema de información para el seguimiento del catálogo de espacios naturales protegidos con capacidad para el registro de cambios históricos, 24–26 September 2003. IX Conferencia Iberoamericana de SIG, VII Congreso Nacional de la AESIG, II Reunión del GMCSIGT, Cáceres, Spain
- 2003 Arnald Marcer, Eduard Calvo, and Agustí Escobar. Sistema de información para el seguimiento de la planificación de espacios naturales protegidos en cataluña, 2–4 July 2003. VII Congreso Nacional de la Asociación Española de Ecología Terrestre, Universitat Autònoma de Barcelona, Cerdanyola del Vallès, Spain

- 2000 Arnald Marcer, Xavier Pons, and Jaume Vicens. Design and implementation of a GIS-based report management tool for the 'Zona Volcànica de la Garrotxa Natural Park (Catalonia, Spain)', 16–23 July 2000. XIXth Congress of the International Society for Photogrammetry and Remote Sensing, Amsterdam, The Netherlands
- 1999 Arnald Marcer, Joan Josep Ibàñez, Jordi Vayreda, and Xavier Pons. Inventarios forestales y sistemas de información geográfica en la gestión forestal de áreas protegidas. In *Actas del Congreso de Ordenación y Gestión Sostenible de Montes*, volume I, pages 239–247, Santiago de Compostela, Spain, 4–9 October 1999
- 1998 Arnald Marcer and Xavier Pons. Park GIS Implementation, 7–11 September 1998. GIS Planet '98, International Conference and Exhibition on Geographic Information, Lisbon, Portugal
- Arnald Marcer, Xavier Pons, and Jordi Falgarona. Proyecto Vulcà: Desarrollo de un Sistema de Información Geográfica para la Gestión del Parque Natural de la Zona Volcánica de la Garrotxa. *Boletín de la Sección del Estado Español de EuroParc*, 8:19–22, 1998

## Student's theses

- 2015 María Amores Arrocha, Análisis de la estructura geográfica de la variación genética de *Arabidopsis thaliana* en su rango de distribución nativo  
Directors: Arnald Marcer and F.X. Picó  
Programme: Master in Molecular Genetics and Biotechnology  
Universidad de Sevilla, Spain
- 2012 María Jesús Soriano Matarín, Repositorio de Variables Ambientales de la península Ibérica  
Directors: Arnald Marcer and Lluís Pesquer  
Programme: Master in Remote Sensing and GIS  
CREAF, Universitat Autònoma de Barcelona, Cerdanyola del Vallès, Spain
- 2010 Jordi Gadea, Sistema d'Informació per a la gestió de l'enllumenat públic a Parets del Vallès  
Director: Arnald Marcer  
Programme: Master in Remote Sensing and GIS  
CREAF, Universitat Autònoma de Barcelona, Cerdanyola del Vallès, Spain
- 2009 Elena Navarro, Proposta de creació d'un SIG per a la gestió i tramitació d'expedients d'obres majors a l'ajuntament de Santa Perpètua de la Mogoda: "SIG Parcel·lari Municipal"  
Director: Arnald Marcer  
Programme: Master in Remote Sensing and GIS  
CREAF, Universitat Autònoma de Barcelona, Cerdanyola del Vallès, Spain

## Teaching

2015–2018	Case studies in GIS implementations Master in Remote Sensing and GIS CREAF, Universitat Autònoma de Barcelona, Spain
2000–2015	Organization of corporate GIS Master in Remote Sensing and GIS CREAF, Universitat Autònoma de Barcelona, Spain
2000–2015	GIS in protected areas management Master in GIS Universitat Politècnica de Catalunya, Spain
2003–2010	GIS in protected areas Master in protected areas Universidad Autónoma de Madrid, Universidad Complutense de Madrid, Universidad de Alcalá, Spain
2004–2005	Environmental Information, Information Systems and Land Applications Master in Land and Urban Studies Catalonia Institute of Technology Foundation, Spain
2003–2005	Environmental Information, Information Systems and Land Applications Graduate course on Urban areas and Land Sustainability Catalonia Institute of Technology Foundation, Spain
2001–2002	Lecture on GIS in Protected Areas PhD programme in Environmental Studies Universitat de Girona, Spain
2000–2001	Lecture on Environmental Cartography, GIS and Internet Master in Sustainability Cátedra UNESCO of the Catalonia Institute of Technology, Spain
1999–2000	Lecture on GIS in Protected Areas Summer course on Geographical Information Systems Universitat de Girona, Spain
1998	Lecture on GIS in protected areas Computer Aided Management Planning Workshop EuroParc Expertise Exchange, Vrchlabi, Krkonose Mountains National Park (KRNAP), Czech Republic

## Languages

Catalan	Mother tongue
Spanish	Fluent
English	Fluent
French	Fluent
German	Basic

## Computer skills

Programming	Java, R, Python, SQL
Databases	Oracle, PostgreSQL
GIS tools	GRASS, Quantum GIS, GDAL, PostGIS, MiraMon
Office	LibreOffice, Microsoft Office
Operating systems	Linux, OS X, MS Windows