

PILAR ANDRÉS PASTOR

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EDUCATION

Academic degrees

1990. *Ph. D in Biology.* Autonomous University of Barcelona (Barcelona, Spain) with a dissertation on "Function of oribatid mites in soil organic matter decomposition in forest ecosystems". My advisor was Dr. Françoise Athias-Binche (CNRS-Paris V, France) and most of my research (1985-1989) was carried out at Laboratoire Arago (Banyuls-sur-mer, France).

1981 *MSc in Soil Biology.* Universidad de Navarra (Pamplona, Spain) with a dissertation about "Faunistic and Ecological Study of the Oribatid Mites of the Peñas de Echaury Oak Forest (Navarra)". Advisor: Dr. Lourdes Moraza Zorrilla.

1980 *Degree in Biology.* Universidad de Navarra (Pamplona, Spain) with expertise in Zoology.

Complementary studies

2022. *Training Workshop on Strategic Food Security Planning.* International Centre for Parliamentary Studies. 23rd – 25th November. On-line

2013-2014. *Training in Leadership, Personal Effectiveness and Communication and Conflict Resolution.* Colorado State University, Faculty and Staff Development Department. Seminars on: "Introduction to managing teams", "Managing Personal Stress", "Successful Team Dynamics: How to have better team interactions and improve team decisions", "The positive side of conflict", "Meeting management", "Listening and Constructive feedback" and "Dealing with toxic people" (Drs. R. Sanders and M. Benedetti)

International research stays

2016 (May-October). London Natural History Museum / Imperial College of London. Research stay about application of DNA sequencing to the study of soil ecology, in collaboration with Dr. Alfried Vogler.

2013-2016. Natural Resource Ecology Lab. Research stay under Dr. John Moore and Dr. Diana Wall as a Marie-Curie IOF fellow.

1995 (August-October). Cuban Academy of Sciences. Institute of Ecology and Systematics. La Habana (Cuba). Diagnose of the soil quality of the Cuban grazelands. French-Cuban cooperation. Cuban Academy of Sciences / CNRS cooperation agreement. Invited scientist.

1987-1990. Laboratoire Arago. CNRS. Banyuls-Sur-Mer. France. Pre-doc period under Dr. F. Athias-Binche.

PRESENT POSITION

Senior Researcher (Staff member) Center for Ecological Research and Forest Applications (CREAF) Barcelona, Spain since 1989. <https://www.creaf.cat/>

PREVIOUS JOBS

2012-2015 *Research affiliate* at the Soil Biodiversity and Ecosystem Functioning Lab. Department of Biology. Colorado State University. Fort Collins, Colorado (USA)

2002-2006 *Member of the Board of Directors* of the Institute for Environmental Sciences and Technology at the Autonomous University of Barcelona (Barcelona, Spain)

2002-2018 *Research affiliate* at the Institute for Environmental Sciences and Technology (ICTA) at the Universitat Autònoma de Barcelona. Barcelona, Spain

2000-2002 *Member of the Board of Directors* of the Center for Environmental Studies (CEA) Autonomous University of Barcelona (Barcelona, Spain)

1988-1989 Environmental technician at TECNOAMBIENTE S.A. (Barcelona, Spain)

1986-1988 Environmental technician at AMBIO S.A. (Barcelona, Spain)

OTHER PROFESSIONAL ACTIVITIES

Since 2020. Active collaborator of EIP-AGRI.

- Invited participant to the workshop *Shaping the EU mission 'Caring for soil is caring for life'* (October 20-21, 2020, on-line) (<https://ec.europa.eu/eip/agriculture/en/event/eip-agri-workshop-shaping-eu-mission-soil>) and to the Seminar on *Healthy soils for Europe: sustainable management through knowledge and practice* (April 13, 2021, on-line). <https://ec.europa.eu/eip/agriculture/en/event/eip-agri-seminar-healthy-soils-europe-sustainable>
- Invited collaborator to the EU CAP Network Workshop 'Enhancing food security under changing weather patterns: farm adaptation. Bologna (Italy), 14-15 March 2023. https://eu-cap-network.ec.europa.eu/news-events/events/eu-cap-network-workshop-enhancing-food-security-under-changing-weather-patterns-farm-adaptation-2023-03-14_en

Since January 2023. Member of the *Consolidated Research Group* on Biodiversity Conservation Under Global Change (BIOCONS) of the Generalitat de Catalunya.

Since January 2022. Chair of SER-IAC, the Iberoamerican and Caribbean Chapter of the SER (Society for Ecological Restoration) <https://www.ser.org/page/Chapters>.

Since May 2021. Member of the “Nature-Based Solutions” TaskForce 2 on “Integrated Assessment Framework” (<https://networknature.eu/task-force-2-integrated-assessment-framework>) of the EC Network Nature Project (<https://networknature.eu/>)

2021-2022. Chair of SIACRE (Ibero-American and Caribbean Society for Ecological Restoration) <http://www.siacre.com.co/index.php/es/>

Since 2021. Member of the working group on Soil Biological Analysis GLOSOLAN/NETSOB of the FAO <https://www.fao.org/global-soil-partnership/glosolan/en/>

Since January 2021. Member of the Editorial Board of the journal “Agriculture” <https://www.mdpi.com/journal/agriculture>

2017-2021. Vice-chair of SIACRE (Sociedad Iberoamericana y del Caribe de Restauración Ecológica) <http://www.siacre.com.co/index.php/es/>

2019-2020. Member of the Expert working Group on Soil Biodiversity Evaluation for the report on ‘*The state of knowledge on soil biodiversity*’. FAO/CBD.

2019. Participant at the EC H2020 EKLIPSE Proof of Concept Conference and workshop *Delivering a Knowledge and Learning Mechanism for Biodiversity and Ecosystem Services*. Palace of Academies. Brussels (Belgium), January 23-24, 2019. <http://www.greengrowthknowledge.org/event/eklipse-proof-conference-and-workshop>

2018-2019. Member of the *EKLIPSE Expert Group* (EC) on “What is hampering the effectiveness of existing approaches that aim to restore biodiversity and ecosystem function and services?” (Call for experts No.5/2018 EKLIPSE – June 2018/december 2019)

2017-2018. Member of the Thematic Group on “*Sustainable Management of Water and Soil*”. European Network for Rural Development ENRD. https://enrd.ec.europa.eu/contact_en

2016-2017. Stakeholder Advisory Board (StAB) support member for the FACCE-JPI Joint Action “Thematic Annual Programming Network on Soil Functionality” (TAP SOIL). <https://www.facejpi.com/>

Since 2016. Member of the Europe’s ecosystem research network *ALTER-Net: A Long-Term Biodiversity, Ecosystem and Awareness Research Network*. <http://www.alter-net.info/about-alter-net>

Since 2015. Member of the Spanish Society for Terrestrial Ecology <http://www.aeet.org/>

2014-2018. Member of the *Consolidated Research Group on Ecosystem Biodiversity and Evolution* of the Generalitat de Catalunya

Since 2018, active. Member of the *Group on Earth Observations GEO BON* <https://geobon.org/> as a member of the thematic Soil BON <https://geobon.org/bons/thematic-bon/mbon/>

Since 2014. Member of the *International Soil Carbon Network*, ISCN <https://iscn.fluxdata.org/>

Since 2013. Member of the *Global Soil Biodiversity Initiative*, GSBI <http://www.globalsoilbiodiversity.org/>

2009-2014. Scientific Evaluator of Research and Development Projects for the *Autònoma Solidària Foundation*, Universitat Autònoma de Barcelona.

2009-2014. Member of the *Consolidated Research Group on Soil Protection* of the Generalitat de Catalunya

2008-2011. Member of the Spanish Research Network on *Agriculture & Development*.

Since 2001. Scientific Evaluator for the Spanish National Agency of Evaluation and Prospective (ANEP). State Secretariat on Scientific Research, MINECO

STUDY CONTRACTS

2021-2022. “Agricultural potential in carbon sequestration, and humus content of land used for agriculture and CO₂ storage”. Report to the European Parliament. IP/B/AGRI/IC/2021-052. Coordinator of the drafting team.

2021. Prospective study on the effects of intensive grazing and cattle ranching on soil quality with a focus on carbon sequestration in soil in Menorca (Balearic Islands, Spain). Contract CREAM- ENFOCC ENERGIA FOREST I CANVI CLIMATIC. IP of the project.

2005-2008. Ecotoxicological characterization of compost and other cattle manure composting products for application to soil. Contract AGROTECH S.A.-CREAF. Coordinator of the working team.

2005-2007. Technical support for the use of sewage sludge in mine restoration. Collaboration agreement between the Catalonia Water Agency, Waste Management Agency and General Directorate for Environment, CREAM and IQS. Member of the CREAM working team.

2003. Strategic study of the Barcelona mountainside of the Collserola Range. Personal contract with the Barcelona Council and the Collserola Park Consortium. Member of the expert team.

2002. Expert reports on ecotoxicological assessment of veterinary drugs (Amoxicillin). Personal contract with Laboratorios Serra Pamies S.A. - CREAM. Coordinator of the working team.

2001. Expert report on the environmental impact of the Horta Tunnel. Personal contract with ACESA.

- 2001.** Environmental diagnose and deployment of the "Espacio Agroforestal de Levante". Contract Sabadell Council - CREAM. Member of the CREAM working team.
- 2000.** Quality evaluation of restored opencast carbon mines at the Natural Site of National Interest "Macizo del Pedraforca". Contract with the General Directorate for Natural Heritage and Physical Environment (Generalitat de Catalunya) - CREAM. Member of the CREAM working team
- 2000.** Environmental audit of the Baix Maresme. Contract Diputaci3n de Barcelona - CEA (UAB). Member of the CEA working team.
- 1999-2001.** Improvement of environmental mine restoration techniques. Contract UNILAND CEMENTERA S.A. - CREAM. Coordinator of the working team.
- 1999.** Monitoring flooded crops in the Llobregat River Delta. Contract Diputaci3n de Barcelona - CREAM. Member of the working team.
- 1998-1999.** Technical advice and monitoring of sewage sludge use in quarry restoration Contract. Junta de Sanejament (Generalitat de Catalunya) - IQS / CREAM. Member of the working team.
- 1998.** Environmental impact study of a nautical service harbor and a fishing quay in the Cap de Creus Natural Park (Cala Calders, Alt Empord3a Catalonia). Contract Cadaqu3s Council - Universidad de Barcelona. Responsible for impact on terrestrial ecosystems.
- 1997.** Preliminary analysis of the environmental impact of the Fenals Oeste-Sta Clotilde yacht marina. Contract Port Alfa, S.L.-Universidad de Barcelona. Responsible for impact on terrestrial ecosystems.
- 1995-1996.** Building up of a database of mine restoration quality based on vegetation indicators. Contract Generalitat de Catalunya - CREAM. Coordinator of the working team.
- 1994.** Environmental evaluation of potential land use at Can Turull. Contract. Vall3s Occidental Regional Council-CREAM. Coordinator of the working team
- 1993.** Assessment of potential environmental consequences of the expansion of the Tarragona harbor on Salou. Contract Salou Council - Universidad de Barcelona. Responsible for impacts on terrestrial ecosystems.
- 1992.** Environmental Impact Assessment of the Algerri-Balaguer irrigation channel. Contract. Generalitat de Catalunya - CREAM. Coordinator of the working team.
- 1992.** Revegetation of the area affected by the expansion of the A-7 motorway. Contract ACESA-CREAM. Coordinator of the working team.
- 1991-1995.** Revision of the environmental impact study of the Maresme motorway. Design and execution of the corrective measures for impacts on soil, fauna, vegetation, landscape and noise. Drawing up of the environment surveillance plan. Contract ACESACREAM. Coordinator of the working team.
- 1991.** Revision of the Tarragona Urban Development Plan. Contract Tarragona Council-CREAM. Coordinator of the working team for planning open areas.

1989-1992. Monitoring the efficiency of corrective measures applied to the construction of the "Eje de Vallvidrera" motorway. Contract AUCAT-CREAF. Coordinator of the working team.

1989-1992. Design and execution of environmental preventive and corrective measures in the construction of the Castelldefels-Sitges motorway. Contract AUCAT-CREAF. Coordinator of the working team.

1985-1986. Study of the aboveground and belowground biomass in Mediterranean holm oak forests (La Castanya, Montseny, Barcelona). Contract INEM - Universitat Autònoma de Barcelona. Member of the research team.

RESEARCH RELATED ACTIVITIES

Competitive research projects

2023-2027 *Climate Adaptation and Resilience Demonstrated in the MEDiterranean region* (CARDIMED) HORIZON-MISS-2022-CLIMA-01-06. PI: S. Malamis (National Technical University of Athens – NTUA, Greece).

2023-2026. *Building Momentum and Trust to Achieve Credible Soil Carbon Farming in the EU* (CREDIBLE). HORIZON-MISS-2022-SOIL-01-06. PI: T. Bacchetti-De-Gregoris (Innova, Spain).

2023-2027. *REconciling negative and positive impacts of WEEDs IN organic tomato crops: effects on soil ecosystem services and plant performance* (REWEEDING). Spanish Ministry of Science and Innovation. 2022 Call for Knowledge Generation Projects. IP: D. Verdaguer & L. Llorens (UdG).

2022- 2025. *Carbon Agriculture* (AgriCarboniCAT). Catalan Government. Climate Fund project. PI: J. Usall (IRTA).

2022-2025. *Regenerative Agriculture in Catalonia* (AgriRegenCAT). Climate Fund project. Catalan Governement. Principal Investigator: J. Usall (IRTA).

2021-2022. *Soil Recarbonization in Mediterranean Grasslands*. Fields4Ever (<https://fields4ever.biomemakers.com/>). A sub-project of the EC H2020 project “Smart microbiome-based platform for the early detection of biological threats in agriculture”. Grant No. 947084.

2019-2022. *PROMoting the Governance of Regional Ecosystem ServiceS* (PROGRESS). Researcher at the project as a member of the CREAM team. INTERREG Europe project. PI: Besnik Mehmeti (National Association of Italian Municipalities Tuscany, Italy Tuscany).

2018-2023. *Large-scale demonstrators on nature-based solutions for hydro meteorological risk reduction. PHUSICOS – 'According to Nature'*. H2020-SC5-2016-2017 call (Greening the Economy). Leader of the CREAM team for the evaluation of effect of the proposed solutions on environmental services provided by soil biodiversity and vegetation at the landscape scale. PI: Amy Owen, MGI, Norway.

- 2013-2016.** *Matching soil biodiversity with global biogeochemical cycles.* European Commission. PEOPLE program. Marie Curie (IOF). Experienced Researchers Modality (FP7-PEOPLE-2012- EC Horizon 2020 Program. IOF, PIOF-GA-2012-326361). PIs: D. H. Wall (Colorado State University), P. Andrés (CREAF, Spain)
- 2013-2015.** *Effect of biochar on carbon sequestration and belowground biodiversity in Mediterranean soils.* Ministry of Economy and Competitiveness. AGL2012-40037-C02-01. PI: J.M. Alcañiz (CREAF, Spain)
- 2009-2012.** *Pyrogenic organic matter as a source of stable carbon in soil and its relationship with environmental toxicity.* Ministry of Science and Innovation. AGL200912343. PI: P. Andrés (CREAF, Spain)
- 2009-2010.** *Social Multi-criteria Evaluation for decision-making in the restoration and sustainable management of the agricultural systems of the Miraflores-Moropotentia Protected Landscape (Nicaragua), Phase III.* Catalan Agency for Development Cooperation. U2008O. VCP/1527/200. PI: P. Andrés (CREAF/ICTA, Spain)
- 2008-2011.** *Development of a scientific-technical training program and creation of an experimental research station on Dry Tropics at the Estelí Multidisciplinary Regional Faculty-UNAN/Managua (Nicaragua).* Spanish Development Cooperation Agency. 2007 Call for Integrated Actions. D/7592/07. PI: J.M. Espelta (CREAF, Spain)
- 2008-2009.** *Social Multi-criteria Evaluation for decision-making in the restoration and sustainable management of the agricultural systems of the Miraflores-Moropotentia Protected Landscape (Nicaragua), Bridge Project.* XXV Call of the Solidarity Fund of the Autonomous University of Barcelona. PI: P. Andrés (CREAF/ICTA, Spain)
- 2007-2009.** *Ecotoxicity, mycotoxins and nonylphenol degradation in sewage sludge and sludge amended soils.* Ministry of Economy and Competitiveness. CTM2006-14163-C0201/TECNO. PI: P. Andrés (CREAF, Spain)
- 2007-2008.** *Social Multi-criteria Evaluation for decision-making in the restoration and sustainable management of the agricultural systems of the Miraflores-Moropotentia Protected Landscape (Nicaragua), Phase II.* Catalan Agency for Development Cooperation. U2006O. PRE/2555/2006. Principal Investigator: P. Andrés (CREAF, Spain)
- 2006-2007.** *European ring test on the ecotoxicological characterization of waste and waste eluates. "Soil quality- Determination of the effects on pollutants on soil flora-Part 2: Effects of chemicals on the emergence and growth of higher plants. ISO/DIS 11269-2 and Soil quality – Effects of pollutants on earthworms (Eisenia foetida) – Part 1: Determination of acute toxicity using artificial soil substrate. ISO 11268-1.* Federal Environmental Agency (Germany) Dep. III 3. Waste and Waste Water Management. PI of the CREAM research team: P. Andrés
- 2005-2007.** *OECD Guidelines for the Testing of Chemicals; Proposal for a New Guideline. Collembolan Reproduction Test (Folsomia fimetaria and Folsomia candida).* National Environmental Research Institute, (Denmark). PI of the CREAM research team: P. Andrés

- 2005-2007.** *Integrated Action on Mediterranean Soil Ecotoxicology.* CREAM - Instituto do Ambiente e Vida (Universidade de Coimbra, Portugal). Ministry of Education and Science. PI: P. Andrés (CREAF, Spain)
- 2005-2006.** *Social Multi-criteria Evaluation for decision-making in the restoration and sustainable management of the agricultural systems of the Mirafior-Moropotenté Protected Landscape (Nicaragua), Phase I.* Catalan Agency for Development Cooperation. GAP/161/2006. U20040. PI: P. Andrés (CREAF, Spain)
- 2004-2006.** *Study of the suitability of thermally dried sewage sludge to restore degraded quarrying areas.* Ministry of the Environment. Coordinated projects 150/2004/3, 4.3236/2005/2-B and 226/2006/1-4.3. PI: M. Bonmatí (ESAB, Spain)
- 2004-2006.** *Complementary Action Network for Environmental Risk Evaluation and Prevention in Central America.* Ministry of Education and Science. CGL2004-21115-E. PI: P. Andrés (CREAF, Spain)
- 2003-2006.** *CENTRALRISK Network for Environmental Risk Evaluation and Prevention in Central America.* European Commission ALFA Program. AML / B7-311 / 97 / 0666 / II-0334-FA. PI: P. Andrés (CREAF, Spain)
- 2002-2005.** *Evaluation of the ecotoxicological risk of sewage sludge and pig slurry.* Ministry of Science and Technology – FEDER. AGL2002-0329. PI: J.M. Alcañiz (CREAF, Spain)
- 2000-2001.** *Retrospective environmental evaluation of restorative actions in opencast mines in Catalonia: soil biological activity.* Ministry of Education and Culture. CICyTFEDER. 2FD97-1644-C03-03. PI: J.M. Alcañiz (CREAF, Spain)
- 1999-2002.** *Use of sewage sludge and derived products (composted and thermally dried sludge) in degraded land restoration.* CIRIT-MMAGC. PI: L. Comellas (IQS, Spain)
- 1995-1997.** *Effect of high doses of sewage sludge on degraded quarry soil restoration.* CICYT. AMB95-0728. PI: J.M. Alcañiz (CREAF, Spain)

Supervision of postgraduate research projects

- 2019.** *Biological indicators of soil quality in Mediterranean vineyards under intensive and organic management.* MSc Thesis. University of Barcelona. Student: Alex Silva Sánchez.
- 2011.** *Restauración ecológica de bosques altoandinos sometidos a presión antrópica: de lo teórico a lo posible (Ecological restoration of Andean forests under human pressure: from principles to practice).* PhD Thesis. Autonomous University of Barcelona. Student: José Ignacio Barrera Cataño.
- 2009.** *Monitorización de la productividad de pastos a partir de imágenes de satélite para la gestión a escala de paisaje en el Paisaje Terrestre Protegido de Mirafior – Moropotenté, Nicaragua (Monitoring pasture productivity with satellite imagery for land management in the Terrestrial Protected Landscape Mirafior-Moropotenté,*

- Nicaragua) MSc Thesis. Autonomous University of Barcelona. Student: Virginia García Millán.
- 2007.** *Evaluación de la ecotoxicidad de diferentes residuos aplicados al suelo como abonos orgánicos. Nuevas propuestas metodológicas (Ecotoxicological evaluation of several wastes when applied to soil as organic fertilizer. New methodological proposals).* PhD Thesis. Autonomous University of Barcelona. Student: Xavier Domene.
- 2005.** *Los Medios de Comunicación Social y Gestión de Riesgo en El Salvador: una aproximación al caso de la parcelación “El Ángel” (Social Media and Risk Management in El Salvador: the case of “El Ángel” allotment)* MSc Thesis. Autonomous University of Barcelona / University of Girona. Student: Luis Balmore Amaya.
- 2005.** *Evaluación de los recursos medicinales en el Área Protegida de Mirafior, Estelí, Nicaragua (Evaluation of medicinal resources in the Mirafior Protected Landscape, Estelí, Nicaragua).* MSc Thesis. National Autonomous University of Nicaragua (CURN Estelí) / Autonomous University of Barcelona. Student: Julio Cesar Gómez.
- 2005.** *Evaluación de las herramientas de gestión en Áreas Protegidas de Nicaragua: los casos de Mirafior y Tisey-La Estanzuela, Estelí (Evaluation of Nicaraguan management tools: the case of Mirafior and Tisey-La Estanzuela, Estelí).* MSc. National Autonomous University of Nicaragua (CURN Estelí) / Autonomous University of Barcelona. Student: Delia Moreno.
- 2005.** *Evaluación de la utilidad del bioensayo con el colémbolo *Folsomia candida* en la estimación del potencial ecotoxicológico de los lodos de depuradora para los suelos (Evaluation of a bioassay with the springtail *Folsomia candida* to measure sewage sludge toxicity to soil).* MSc Thesis. Autonomous University of Barcelona. Student: Xavier Domene.
- 2004.** *Dinámica de los bancos de semillas de *Ulex europaeus* en los cerros orientales de Bogotá (Colombia) (*Ulex europaeus* seed bank dynamics in Bogotá Eastern Hills, Colombia).* MSc Thesis. Autonomous University of Barcelona. Student: Camilo de los Ángeles Cárdenas.
- 2002.** *Indicadores urbanos de sostenibilidad aplicados a la integración metropolitana pre- y postolímpica de Barcelona (Urban sustainability indicators applied to Barcelona pre- and post-olympic metropolitan integration)* Graduation thesis. Autonomous University of Barcelona. Students: Marga Rodríguez Asenjo & Adriano-Bruno Chaves. Co-advisors: G. Munda & P. Andrés.
- 1995-1996.** *Efecto de la aplicación de lodos de depuradora sobre las poblaciones de *Allolobophora chlorotica* y *Nicodrilus caliginosus meridionalis* en suelos de canteras restaurados (Effect of sewage sludge application to restored quarry soils on populations of *Allolobophora chlorotica* and *Nicodrilus caliginosus meridionalis*)* MSc. Autonomous University of Barcelona. Student: Ignacio Barrera. Co-advisors: P. Andrés & J.M. Alcañiz.

PUBLICATIONS

Books and Book chapters

- Andrés P, Doblas-Miranda E, Rovira P, Bonmatí A, Ribas À, Mattana S, Romanyà J (2022) Research for AGRI Committee – *Agricultural potential in carbon sequestration- Humus content of land used for agriculture and CO₂ storage*. European Parliament, Policy Department for Structural and Cohesion Policies, Brussels.
- Fisher J, Cortina-Sagarra J, Grace M, Moreno-Mateos D, Rodríguez-González P, Baker S, Frouz J, Klimkowska A, Andrés P, Kyriazopoulos A, Bullock C, Sarkki S, García-Sánchez I, Porras Gómez J (2020). *What is hampering current restoration effectiveness? An EKLIPSE Expert Working Group report*. UK Centre for Ecology and Hydrology, Wallingford, UK. ISBN 978-1- 906698-67-6.
- FAO, ITPS, GSBI, SCBD and EC (2020). *State of knowledge of soil biodiversity - Status, challenges and potentialities, Report 2020*. Rome, FAO. Contributing author for chapters 4 (*Threats to soil biodiversity - global and regional trends*) and 5 (*Responses and opportunities*)
- Orgiazzi A, Bardgett RD, Barrios E, Behan-Pelletier V, Briones MJI, Chotte J-L, De Deyn GB, Eggleton P, Fierer N, Fraser T, Hedlund K, Jeffery S, Johnson NC, Jones A, Kandeler E, Kaneko N, Lavelle P, Lemanceau P, Miko L, Montanarella L, Moreira FMS, Ramirez KS, Scheu S, Singh BK, Six J, van der Putten WH, Wall DH (eds.) (2016) *Global Soil Biodiversity Atlas*. European Commission, Publications Office of the European Union, Luxembourg. 176 pp. Contributing author.
- Andrés, P (2008) *Introducción a la cartografía*. In: Andrés P & Rodríguez R (eds.). *Evaluación y Prevención de Riesgos Ambientales en Centroamérica*. Documenta Universitaria. Girona, Spain, pp. 339-357. ISBN: 978-84-96742-37-6
- Andrés P, Rodríguez R (eds.) 2008. *Evaluación y prevención de riesgos ambientales en Centroamérica*. ISBN: Documenta Universitaria. Girona, Spain. 412 pp. ISBN: 978-8496742-37-6. <https://doi.org/10.4060/cb1928en>.
- Andrés P (2008) *La planificación del territorio: conceptos y herramientas básicas*. In: Andrés P & Rodríguez R (eds.) *Evaluación y Prevención de Riesgos Ambientales en Centroamérica*. Documenta Universitaria. Girona, Spain, pp. 377-400. ISBN: 978-8496742-37-6
- Andrés P (2008) *Construcción de un espacio integrado de investigación en medio ambiente y desarrollo en América Central*. In: *Actas del IV Congreso de Universidad y Cooperación al desarrollo*. Universidad Autónoma de Barcelona, Barcelona, Spain, ISBN: 978-84-490-2571-6.
- Andrés P (2002) *L'espai metropolità de Barcelona: reptes i limitacions ambientals*. In: Ávila A & Terradas J (eds.) *Aula d'Ecologia. Cicle de Conferències 2001*: 63-68. Servei de Publicacions de la UAB. Sèrie: Ciència i Tècnica. Barcelona. Barcelona, Spain, 78 pp. ISBN: 84-490-2274-6

Acebillo J, Folch R, París A (eds.) (2000) *Atles Ambiental de l'Àrea de Barcelona. Balanç de recursos i problemes*. Ariel Ciencia, Barcelona, 444 pp. ISBN. 84-344-8025-5. Contributing author.

Andrés P, Mateos E, Ascaso C (1999) *Soil Arthropods In: Rodà, Retana, Gracia & Bellot (eds.) Ecology of Mediterranean Evergreen Oak Forests*. Springer-Verlag, New York. pp. 341-354. ISBN 3-540-65019-9.

Papers in International Journals

Caroppi G, Pugliese F, Gerundo C, De Paola F, Stanganelli M, Urciuoli G, Nadim F, Oen A, **Andrés P**, Giugni M. (2023). A comprehensive framework tool for performance assessment of NBS for hydro-meteorological risk management. *Journal of Environmental Planning and Management* 1-27.

Andrés P, Doblas-Miranda E, Silva-Sánchez A, Mattana S, Font S (2022) Physical, Chemical, and Biological Indicators of Soil Quality in Mediterranean Vineyards under Contrasting Farming Schemes. *Agronomy* 12, 2643.

Cortina-Segarra J, García-Sánchez I, Grace M, **Andrés P**, Baker S, Bullock C, Decler K, Dicks LV, Fisher JL, Frouz J, Klimkowska A, Kyriazopoulos AP, Moreno-Mateos D, Rodríguez-González PM, Sarkki S, Ventocilla JL (2021) Barriers to ecological restoration in Europe: expert perspectives. *Restoration Ecology* 29, e13346.

Andrés P, Doblas-Miranda E, Mattana S, Molowny-Horas R, Vayreda J, Guardiola M, Pino J, Gordillo J (2021). A battery of soil and plant indicators to evaluate the contribution of nature-based solutions for risk reduction to climate change mitigation and biodiversity promotion". *Sustainability* 13, 1913.

Pioli S, Sarneel J, Thomas HJD, Domene X, **Andrés P**, Hefting M, Reitz T, Laudon H, Sandén T, Piscová V, Aurela M, Brusetti L (2020). Linking plant litter microbial diversity to microhabitat conditions, environmental gradients and litter mass loss: Insights from a European study using standard litter bags. *Soil Biology and Biochemistry* 144, 107778.

Andrés P, Colomer F, Denef K, Cotrufo F, Rosell A (2019). Belowground biota responses to maize biochar addition to the soil of a Mediterranean vineyard. *Science of the Total Environment* 660, 1522-1532.

Andrés P, Moore JC, Cotrufo F, Denef K, Haddix ML, Molowny-Horas R, Riba M, Wall DH (2017). Grazing and edaphic properties mediate soil biotic response to altered precipitation patterns in a semiarid prairie. *Soil Biology & Biochemistry* 113, 263e274

Pauli N, Abbott LK, Negrete-Yankelevich S, **Andrés P** (2016) Farmers' knowledge and use of soil fauna in agriculture: a worldwide review. *Ecology and Society* 21, 19.

Andrés P, Moore JC, Simpson RT, Selby G, Cotrufo F, Denef K, Haddix ML, Shaw EA, Milano de Tomasel C, Molowny-Horas R, Wall DH (2016). Soil food web stability in response to grazing in a semi- arid prairie: the importance of soil textural heterogeneity. *Soil Biology & Biochemistry* 97, 131-143.

- Chelinho S, Domene X, Campana, **Andrés P**, Römbke J, Sousa JP (2014) Toxicity of phenmedipham and carbendazim to *Enchytraeus crypticus* and *Eisenia andrei* (Oligochaeta) in Mediterranean soils. *Journal of Soils and Sediments* 14, 584–599.
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Science dissemination publications

- Andrés P** (2010) Degradación y restauración de los ecosistemas terrestres latinoamericanos. *Ambienta* 92: 58-70.
- Andrés P** (2008) El abonado de suelos con purines: buscando la reducción de riesgos. www.3tres3.com.
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Conference Books

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- Andrés P (2012) *Recrear suelos captando carbono: la restauración de suelos mineros dentro de una estrategia ambiental global*. In: Domínguez-Haydar, Y., Boom, Y., Lamadrid, F. Simposio Internacional de Restauración Ecológica. Retos y Estrategias de Restauración en el Caribe Colombiano. ISBN: 978-958-8742-28-1
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Ravera F, Tarrasson D, Grassa R, Herrera A, Andrés, P (2008) *Evaluación social multicriterios para la gestión sostenible de sistemas silvopastoriles semiáridos de Nicaragua: un ejemplo de investigación y cooperación interuniversitaria*. In: Actas del IV Congreso de Universidad y Cooperación al desarrollo. Universidad Autónoma de Barcelona, Barcelona, Spain, ISBN: 978-84-490-2571-6.

CONTRIBUTION TO CONFERENCES

Andrés P, Doblas-Miranda E, Rovira P, Ribas À, Bonmatí A, Romanyà J, Mattana S. (2022) *Large scale restoration of the EU agricultural soils: the opportunity of carbon farming in the post 2020 Common Agricultural Policy*. Invited presentation to the workshop “Save our soils - Decision Supporting tools towards SDG’s policy implementation”. Horizon 2020 LANDSUPPORT Project. University Federico II Portici, Napoli (Italy) 27-28 April.

Andrés P, Doblas-Miranda E, Mattana E, Ribas A, Bonmati A, Rovira P, Romanyà J. (2022). *Struggling for climate neutrality in Europe: carbon sequestration as an opportunity for large scale restoration of agricultural soils*. Invited side evento in the 13th Conference of SER Europe. University of Alicante. Alicante (Spain), September 5-9.

Andrés P, Doblas-Miranda E, Mattana E, Font F (2022) *Regenerative viticulture as a tool for climate mitigation, soil fertility recovery and soil biodiversity preservation*. Oral presentation. 2nd Meeting of the Iberian Ecological Society (SIBECOL). University of Aveiro. Aveiro (Portugal) July 3-6.

Andrés P (2022) *Knowledge co-construction in an uncertain world. Lessons learned from landscapes in crisis*. Invited talk to the EIP-AGRI brokerage event “Get involved in the EU Mission: A Soil Deal for Europe” Brussels (Belgium) 8-9 June 2022

Andrés P, Doblas-Miranda E, Mattana S, Silva A, Font F, Madeo N (2021) *Ecological intensification of Mediterranean vineyards: effects on soil conservation and economic viability*. Poster. Global Symposium on Soil Biodiversity. FAO. On-line symposium. 19 - 22 April 2021.

Andrés P, Doblas-Miranda E, Mattana S, Font F (2021) *Soil restoration in Mediterranean woody crops: best practices and best indicators*. Oral Presentation. SER Europe 12th Conference. 7th-10th September 2021. On-line

- Molowny-Horas R, **Andrés P**, Doblas-Miranda E, Vayreda J, Pino P, Caroppi G, Pugliese, F, Giugni M, Del Seppia N (2019). *Evaluation of a Nature-Based Solution to reduce water pollution in the Massaciucoli Lake*. Oral presentation. MUSLOC (Multi-scale analysis of the slopes under climate change. A cross-disciplinary workshop) Barcelona (Spain), September 19-20.
- Andrés P**, Doblas E, Pino J, Vayreda J, Molowny-Horas R (2019) *Nature-based solutions for hydro-meteorological risk reduction in European mountain regions*. Oral presentation. 1st Meeting of the Iberian Ecological Society & XIV AEET Meeting "Ecology: an integrative science in the Anthropocene". Barcelona (Spain), February 4-7.
- Andrés P**, Villalobos R, Bonfil C (2018) *Ecological restoration and the social construction of the territory*. Oral presentation. SER Europe Conference on "Restoration in the Era of Climate Change". Reykjavik (Iceland), September 9-13.
- Andrés P** (2018) *La restauración ecológica frente a la creciente incertidumbre global*. Invited key speaker. IV Congreso Colombiano de Restauración Ecológica; I International Amazonian Symposium on Ecological Restoration. Florencia (Colombia). July 30 – August 3.
- Andrés P** (2017) *Sport and Nature Conservation: friends or foes?* Plenary talk to the 4th Nature & Sports Euromeet. La Seu d'Urgell, Lleida (Spain). September 26-29
- Andrés P** (2017) *Post-restoration indicators of belowground communities' structure and functionality: A 20-year journey across soil biodiversity*. Oral presentation. SER 7th World Conference on Ecological Restoration. Linking Science and Practice for a Better World. Iguassu (Brazil). August 27 - September 1.
- Andrés P** (2017) *La texture du sol détermine la réponse des réseaux trophiques aux changements du régime de pluie (Soil texture determines soil trophic web response to shifts in the rainfall regime)*. Oral presentation. 41^{èmes} Journées Scientifiques du GFHN. GFHN/ECCOREV/IMBE. Observatoire de Haute-Provence, St Michel l'Observatoire (France). January 23-25.
- Andrés P**, Moore JC, Cotrufo F, Deneff K, Molowny-Horas R, Wall DH (2016) *Soil food web response to land use intensification and climate change: integrating field evidence and modeling*. Oral presentation. ECOSUMMIT. Montpellier (France) August 28-September 1.
- Andrés P** (2016) *Soil biodiversity: the bewitching life machine under our feet*. Opening lecture of the XIII CREAM-SCB-ICHN day work on "The role of soil in nature conservation" (*El paper dels sòls en la conservació de la natura*). SCB-ICHN-CREAM. Barcelona (Spain), November 22.
- Andrés P** (2016) *Response of the soil food web and its functions to increasing drought duration: an integrative approach from lab data and modeling*. I Symposium on plant-soil interactions. AETT. Madrid (Spain), February 25-26.

- Andrés P**, Santamaría S, Palacios-Vargas JG, Mejía Recamier BE, Iglesias R, Espadaler X (2015) *Heterogeneidad del territorio y biodiversidad en la restauración de pastizales*. Oral presentation. IV Congreso Iberoamericano de Restauración Ecológica. SIACRE. Buenos Aires (Argentina), April 12-16, 2015.
- Andrés P**, Rosell-Melé A, Colomer F, Alcañiz JM, Deneff K (2015) *Effect of biochar on soil microbial community- A field experiment in Mediterranean soils*. Poster. International Conference on Ecology of soil Microorganisms. Microbes as Important Drivers of Soil Processes. Prague, (Czech Republic), November 29th to December 3rd.
- Andrés P**, Moore JC, Simpson RT, Selby G, Cotrufo F, Deneff K, Haddix ML, Shaw EA, Milano de Tomasel C, Molowny-Horas R, Wall DH (2015) *Soil food web stability is affected by grazing in the short grass steppe*. Oral presentation. 2015 Soil Ecology Society Meeting. Colorado Springs, Colorado (USA), June 9th-12th
- Andrés P** (2015) *Soil food web stability is affected by aboveground herbivory*. Plenary session of the seminar “Improving our knowledge on the taxonomy and functional roles of soil fauna (SOILDIVFUN). CSIC/UB. University of Barcelona (Barcelona, Spain). December 14-15
- Andrés P** (2015) *Climate change and carbon cycle in the Rocky Mountains NP. The amazing machinery under our feet*. Invited talk to the monthly seminar series of the Colorado Mountain Club “Shining Mountains” Group. Rocky Mountains NP headquarters. Estes Park. Colorado (USA), May 9.
- Andrés P**, Santamaría S, Palacios-Vargas JG, Mejía Recamier BE, Iglesias R, Espadaler X (2014) *Tropical pasture heterogeneity and soil arthropod biodiversity: "Bad plants" also help*. Oral presentation. The First Global Soil Biodiversity Conference. Dijon (France), December 2th-5th
- Andrés P** (2013) *Soil Biodiversity: Drivers, Functions and Threats*. Invited plenary speaker. International Workshop on "Soil biodiversity functions and environmental services in Mediterranean forests - Effects of land use on soil trophic webs under an uncertain climate". CREA/Generalitat de Catalunya/Universidad Autónoma de Barcelona. Barcelona (Spain), March 13-15.
- Andrés P** (2013) *Estado actual de la restauración de actividades extractivas en Cataluña*. Invited speaker. III Congreso Iberoamericano y del Caribe de Restauración Ecológica, II Congreso Colombiano de Restauración Ecológica y III Simposio Nacional de Restauración Ecológica. RIACRE/REDCRE. Santafé de Bogotá (Colombia), July 29-31.
- Andrés P** (2013) *Cuando la restauración ecológica enfrenta la urgencia económica*. Invited speaker. III Congreso Iberoamericano y del Caribe de Restauración Ecológica, II Congreso Colombiano de Restauración Ecológica y III Simposio Nacional de Restauración Ecológica. RIACRE/REDCRE. Santafé de Bogotá (Colombia), July 29-31.

- Andrés P** (2013) *¿Restauración de suelos o eliminación de residuos?* Invited plenary speaker. III Congreso Iberoamericano y del Caribe de Restauración Ecológica, II Congreso Colombiano de Restauración Ecológica y III Simposio Nacional de Restauración Ecológica. RIACRE/REDCRE. Santafé de Bogotá (Colombia), July 29-31.
- Alcañiz JM, **Andrés P**, Domene X, Paco D, Ortiz O (2013) *Efectos de dos tipos de biochar de pino sobre propiedades físicas del suelo y el desarrollo de la cebada*. Oral presentation. Jornada sobre Evaluación de Ecotoxicidad para la Protección de Suelos. 29th Reunión de la Sociedad Española de la Ciencia del Suelo. Universitat de les Illes Balears / SECS. Mallorca (Spain), September 3-6.
- Ojeda G, Domene X, Mattana S, Sousa JP, Ortiz O, **Andrés P**, Alcañiz JM (2012) *Soil biochar amendments: type and dose effects*. Poster. European Geosciences Union (EGU) General Assembly 2012. Vienna (Austria), April 22–27.
- Chelinho S, Domene X, Natal-da-Luz T, **Andrés P**, Norte C, Rufino C, Lopes I, Cachada A, Espindola E, Ribeiro R, Duarte AC, Sousa JP (2012) *Using soil microarthropod community testing to increase ecological relevance of effect data in pesticide risk assessment*. Oral presentation. SETAC World Congress/SETAC Europe 22nd Annual Meeting. Berlin (Germany), May 20-24.
- Andrés P**, Tarrasón D., Ravera F, Espelta JM, López K., Urrutia, JT, Rocha J (2012) *La construcción de conocimiento complejo para la restauración de territorios económica y ambientalmente degradados. Un caso de aplicación a áreas ganaderas del trópico seco*. Invited speaker. Simposio Internacional de Restauración Ecológica. Retos y Estrategias de Restauración en el Caribe Colombiano. Universidad del Atlántico. Barranquilla (Colombia). July 25-27.
- Andrés P** (2012) *Recrear suelos captando carbono: la restauración de suelos mineros dentro de una estrategia ambiental global*. Invited speaker. Simposio Internacional de Restauración Ecológica. Retos y Estrategias de Restauración en el Caribe Colombiano. Universidad del Atlántico. Barranquilla (Colombia). July 25-27.
- Palacios-Vargas JG, Mejía Recamier BE, Iglesias R, **Andrés P**, Bach C (2011) *Nuevos datos de Collembola (Hexapoda) neotropicales*. Oral presentation. XX Congreso Nacional de Zoología, México. Cuernavaca (México), November 14-18.
- Barrera JI, Riba CM, Ríos EF, **Andrés P** (2011) *Andean tropical forest restoration affected by invasion of Ulex europaeus L.* Oral presentation. SER 4th World Conference on Ecological Restoration. Mérida (México). August 21-25.
- Barrera JI, **Andrés P** (2011) *Effect of biosolids in the restoration of soils affected by opencast mining in highland forests of Bogotá (Colombia)*. Oral presentation. SER 4th World Conference on Ecological Restoration. Mérida (México). August 21-25.
- Andrés P**, Ortiz O (2011) *Soil restoration with urban wastes to improve soil environmental services*. Oral presentation. SER 4th World Conference on Ecological Restoration. Mérida (México). August 21th-25th

- Andrés P** (2011) *Matching rural and scientific perceptions to improve environmental quality in livestock regions: the case of the Mesas de Moropotente Protected Area (Nicaragua)*. Oral presentation. SER 4th World Conference on Ecological Restoration. Mérida (México). August 21-25.
- Alcañiz, JM, Ortiz O, Carabassa V, **Andrés P** (2011). *Enmiendas orgánicas y biosólidos para la rehabilitación de terrenos desnudados*. Oral presentation. V Simposio Nacional sobre Control de la Degradación y Uso Sostenible del Suelo. Universidad de Murcia/ Universidad Politécnica de Cartagena/ CEBAS-CSIC. Murcia (Spain), June 27-30.
- Chelinho S, Domene X, Natal-da-Luz T, Lopes I, Espíndola E, **Andrés P**, Ribeiro R, Sousa JP (2009) *Soil microarthropod community testing: a new approach to increase the ecological relevance of effect data for pesticide risk assessment*. Oral presentation. SETAC Europe 19th Annual Meeting: Protecting ecosystem health: facing the challenge of a globally changing environment. Göteborg (Sweden), May 31- June 4.
- Andrés P**, Mateos E, Domene, X (2009) *Evaluación integrada de la calidad de suelos restaurados: el uso de bioindicadores basados en los microartrópodos edáficos*. Oral presentation. Congresso Iberoamericano e do Caribe sobre Restauração Ecológica. Soil restoration with urban wastes to improve soil environmental services. SER 4th World Conference on Ecological Restoration. Curitiba (Brasil). November 11-13.
- Domene X, Ramírez W, Mattana S, Ojeda G, **Andrés P**, Ortiz O, Alcañiz JM (2008) *Evaluación ecotoxicológica de composts de lodos de depuradora*. Oral Presentation. I Jornadas de la Red Española de Compostaje (REC). Barcelona (Spain), February 6-9.
- Andrés P**, Tarrasón D, Ravera F, Grasa R, Contreras T, Espelta JM (2008) *Sistemas silvopastoriles en trópico seco: construcción participativa del conocimiento para evaluar sostenibilidad y gobernanza locales*. Oral presentation. IUCN World Conservation Congress. Pabellón de Cataluña. Barcelona (Spain), October 5-14.
- Andrés P** (2008) *Llueve en Centroamérica: de la gestión del agua a la gestión de la sequía*. Invited speaker. Jornadas de trabajo de la Red de Escritores por la Tierra. Santa Tecla (El Salvador). March 5-8.
- Andrés P** (2008) *Investigación para el Desarrollo en América Latina*. Oral presentation. Jornadas de Cooperación de la UAB. Fundación Autònoma Solidaria (UAB), Cerdanyola del Vallès, Barcelona (Spain). April 17.
- Ravera F, Tarrason D, Urrutia J, **Andrés P** (2007) *Understanding the agro-silvopastoral socio-ecological system of Mesas de Moropotente Reserve (Nicaragua). A participatory process of knowledge co-construction for sustainability evaluation and local governance*. Poster. Integrating Natural and Social Sciences for Sustainability. 7th International Conference of the European Society for Ecological Economics. Leipzig, (Germany), June 5-8.
- Domene X, Ramirez W, Mattana S, Ortiz O, **Andrés P**, Alcañiz JM (2007) *Avaluació de la qualitat dels fangs de depuradora mitjançant assaigs ecotoxicològics*. Poster. III

- Jornades tècniques: tractament i valorització de fangs. Agència Catalana de l'Aigua. Barcelona (Spain), October 16-17.
- Domene X, Ramírez W, Mattana E, **Andrés P**, Alcañiz JM (2007) *Estimation of organic waste safe amendment rates from the species sensitivity distribution of a soil test battery*. Poster. 17th Annual Meeting of SETAC Europe. Porto (Portugal), May 20-24.
- Domene X, Alcañiz JM, **Andrés P** (2007) *Suitability of solid phase and eluate tests for the ecotoxicological risk assessment of organic wastes*. Poster. 17th Annual Meeting of SETAC Europe. Porto (Portugal), May 20-24.
- Andrés P**, Tarrasón D, Ravera F, Grasa R, Contreras T, Espelta JM, Rodríguez R (2007) *Gestión integrada de recursos en los sistemas agrosilvopastoriles de las Mesas de Moropotente (Nicaragua). Una aproximación desde la Evaluación Social Multicriterios*. Oral presentation. Jornadas sobre Investigación en Agricultura para el Desarrollo. Escuela Superior de Agricultura. UPC. Castelldefels (Spain), December 13-14.
- Andrés P** (2007) *Restauración de cuencas degradadas: sugerencias para el manejo de la complejidad territorial*. Invited plenary speaker. I Simposio Nacional de Experiencias de Restauración Ecológica "Entre la sucesión y los disturbios". Universidad Javeriana. Santafe de Bogotá (Colombia). July 31- August 3.
- Andrés P** (2007) *La difícil relación entre parques naturales y ciudades: el caso del parque de Collserola (Barcelona, España)*. Invited speaker. Seminario Internacional de Montañas Periurbanas. Santafe de Bogotá (Colombia).
- Andrés P** (2007) *Catástrofes naturales y desarrollo: Nicaragua en el ojo del huracán*. Invited speaker. Primer Encuentro de Escritores por la Tierra. Asociación para el desarrollo de Solentiname (APDS). Granada (Nicaragua). March 06-12.
- Domene X, Natal-da-Luz T, Alcañiz JM, **Andrés P**, Sousa JP (2006) *A new method for the ecotoxicological evaluation of organic wastes based on the feeding inhibition of Folsomia candida*. Poster. 16th Annual Meeting of SETAC Europe. The Hague (The Netherlands), May 7-11.
- Chelinho S, Domene X, Natal-da-Luz T, Campana P, **Andrés P**, Römbke J, Sousa, JP (2006) *Effects of phenmedipham on the reproduction of Enchytraeus crypticus (Oligochaeta) and Folsomia candida (Collembola) in twelve Mediterranean Soils*. Poster. 16th Annual Meeting of SETAC Europe. The Hague (The Netherlands), May 7-11.
- Andrés P** (2006) *Riesgo ambiental asociado a la aplicación al suelo de lodos de depuradoras urbanas*. Invited speaker. Jornadas sobre Riesgo Químico en suelos contaminados. Intexter / Laboratorio de Toxicología Ambiental (UPC). Intexter. Terrassa (Spain), March 3.
- Domene X, **Andrés P** (2005) *A sewage sludge toxicity evaluation method with the collembolan Folsomia candida*. Oral presentation. 15th Annual Meeting of SETAC Europe. Lille (France), May 22-26.

Chelinho S, Natal-da-Luz, T Campana P, Domene X, **Andrés P**, Römbke J, Sousa JP (2005) *Selection of natural reference soils for the Mediterranean Basin -avoidance and reproduction tests with oligochaeta and collembolan*. Poster. 15th Annual Meeting of SETAC Europe. Lille (France), May 22-26.

Andrés P (2005) *Diferentes enfoques en los ensayos de toxicidad con fauna edáfica*. Oral presentation. Jornada sobre Evaluación de Ecotoxicidad para la Protección de Suelos”. CREAM, Cerdanyola del Vallès (Barcelona, Spain).

ORGANIZATIONAL ACTIVITIES

2023. Chair of the *III Symposium of the Working Group on Soil-Plant Interactions of the Spanish Society of Terrestrial Ecology (AEET)* (<http://plansoil.creaf.cat>). UB, Barcelona. June 6-7.

2023. Member of the Scientific Committee of the *VI Iberoamerican and Caribbean Conference on Ecological Restoration* (<https://congreso restauracion.redcre.com>). June 16-16 Bogotá (Colombia).

2021. Chair of the Symposium on “*Soil restoration strategies under Mediterranean conditions: from farming to engineering*” 12th SERE Conference 7th -10th September. On-line

2018. Member of the Scientific Committee of the *IV Congreso Colombiano de Restauración Ecológica*; I International Amazonic Symposium on Ecological Restoration. Florencia, Colombia. July 30 – August 3.

2018. Chair of the seminar on “*Ecological restoration under complex socio-environmental conditions: the Latin-American experience*”. SER Europe Conference on “Restoration in the Era of Climate Change”. Reykjavik, Iceland. 9-13 September

2018. Chair of the *43^{èmes} Journées scientifiques GFHN*. Dégradation et restauration des sols naturels, agricoles et urbains en climat aride et semi-aride: mesure, caractérisation et modélisation des processus hydriques. GFHN-CREAM-University of Barcelona. IEC, Barcelona, November 19-21.

2017. Member of the Scientific Committee of the SER 7th World Conference on Ecological Restoration. *Linking Science and Practice for a Better World*. Iguassu, Brazil. August 27 - September 1.

2017. Chair of the seminar on “*Biological tools in soil restoration*”. SER 7th World Conference on Ecological Restoration. *Linking Science and Practice for a Better World*. Iguassu, Brazil. August 27 - September 1.

2016. Member of the Organizing Committee of the XXII CREAM-SCB-ICHN seminar on “*Soils, a pending subject in nature conservation*” (*El sòl, una assignatura pendent en la conservació de la natura*). Barcelona, November 22.

2013. Member of the Scientific Committee and Organizing Committee of the *III Congreso Iberoamericano y del Caribe de Restauración Ecológica, II Congreso*

Colombiano de Restauración Ecológica and *III Simposio Nacional de Restauración Ecológica*. Red Iberoamericana y del Caribe de Restauración Ecológica (RIACRE) y Red Colombiana de Restauración Ecológica (REDCRE). Santafé de Bogotá. Colombia. July 29-31.

- 2013.** Chair of the *International Workshop on Soil biodiversity functions and environmental services in Mediterranean forests - Effects of land use on soil trophic webs under an uncertain climate*. CREAM / Generalitat de Catalunya / Universidad Autónoma de Barcelona. UAB Campus, Barcelona, Spain. March 13-15.
- 2012.** Chair of the *International seminar on effects of land use on soil trophic webs under an uncertain climate*. CREAM / Generalitat de Catalunya / Universidad Autónoma de Barcelona. UAB Campus, Barcelona, Spain. March 15-17.
- 2011.** Member of the Scientific Committee of the *I Congreso en Investigación en Agricultura para el Desarrollo. Research Network on Agriculture for Development*. ETSI Agrónomos. Madrid, Spain. October 17-18.
- 2007.** Member of the Scientific Committee of the International Meeting “*Soil and Wetland Ecotoxicology*”. UAB/UdG/UB/CREAF/IEC. Barcelona, Spain, November 26-27.
- 2006.** Facilitator of the International Workshop for the redaction of the *Training Program in Environmental Management and Sustainable Development in Central America and Dominican Republic*. Araucaria XXI Program, Agencia Española de Cooperación Internacional (AECI). La Antigua, Guatemala.
- 2005.** Chair of the *Workshop on Joint decision-making for restoration and sustainable management of the silvopastoral ecosystems at the Mirafior-Moropotente Protected Area Nicaragua*) UAB/CREAF/UNAN Managua/UAEM/MARENA. Estelí, Nicaragua. October 12-13.
- 2005.** Chair of the *International Workshop for Joint Research on Integrated Management of Dry Tropical Watersheds*. CREAM / Red Mesoamericana de Recursos Bióticos (REDMESO)/ UAEM (México) / UAQ (México) / UNAN (Nicaragua)/ UCA/ (Nicaragua)/ ICTA (UAB). AUQ Campus, Querétaro, Mexico. September 8.
- 2004-2005.** Chair of the *I and II Meetings of the International Network for Environmental Risk Prevention and Mitigation in Central America*. EU ALFA Program/CREAF/ICTA. Campus UAB, Barcelona, Spain. April 17-19, 2004 and April 15-16, 2005.
- 2003-2011.** Chair of the *International Network CENTRALRISK for Environmental Risk Prevention and Mitigation in Central America*, founded by the EU in the framework of the ALFA II Program.
- 2003.** Co-coordinator (with T. Barahona, Nitlapan, Nicaragua) of the *Workshop on Ecotourism in Nicaragua*. CREAM (Barcelona)/ NITLAPAN (Nicaragua). León, Nicaragua.

2001. Member of the Scientific Committee of the *I International Virtual Congress on Urban Ecology* (CIEC). Red Temática de Ecología y Ciudad. Virtual headquarters in Barcelona, Spain. January-March.

1996-2005. Co-organizer of the 1th to 10th editions of the *Aula de Ecología de la Ciudad de Barcelona*. Barcelona Council / UAB/CREAF. Barcelona, Spain. (Co-organizers: J. Terradas and A. Ávila)

POST GRADUATE TEACHING

2021 and 2023. Post-graduate course on “Soil restoration in post-mining landscapes”. Responsible for the module on *Soil biobiodiversity and its potential for soil conservation and restoration*. University of Barcelona, Faculty of Biology. First Edition: May 31 - July 29 (2021); Second Edition: January 20 - February 17.

2013. Master's Program in Environmental Management and Restoration. Universidad de Alicante. Invited lecturer in *Integrated Landscape Restoration*. Alicante, Spain.

2009-2012. Master's Program in Renewable Energy Integration in Architecture. ETSAB, Universidad Politécnica de Cataluña. Coordinator and lecturer in *Urban Environment*. Barcelona, Spain.

2009. Researchers' Training Course on *Soil Ecology*, in the framework of the project “Desarrollo de un programa de capacitación científico-técnica y creación de una estación experimental en trópico seco en la Facultad Regional Multidisciplinar de Estelí/UNAN/Managua (Nicaragua)”. Universidad Autónoma de Barcelona/ UNAN-Managua. General coordinator and teacher. Estelí, Nicaragua.

2007-2009. Master's Program in Architecture and Urban Environment. ETSAB, Universidad Politécnica de Cataluña. Coordinator and teacher in the module *Urban Microecology*. Barcelona, Spain.

2007-2008. Inter-University Master's Program in Environment and Natural Resources. Universidad Autónoma de Barcelona/ UNAN-Managua/ Universidad Autónoma de Querétaro. Lecturer in *Land Planning* and *Urban Ecology*. Estelí, Nicaragua.

2007. Short Course in Environmental Quality and Quality of Life. Universidad Rovira i Virgili / Fundació Mediterrània. Invited lecturer in *Environmental Risks of Biosolid Reuse as Fertilizers*. Conference Hall of the Tarragona Port Authority. Tarragona, Spain.

2005. International Postgraduate Course in Evaluation, Prevention and Mitigation of Environmental Risks caused by urban and industrial activities. CentralRisk Network. EU ALFA Program. General Coordinator of the course and lecturer in *Land Planning*. UdG/UAB, Girona, Spain.

2005. Master's Program in Ecological Economics and Environmental Management. Universidad Autónoma de Barcelona. Lecturer in *Urban Ecology*. Barcelona, Spain.

- 2004-2006.** International Master's Program in *Environmental Risk Assessment and Prevention in Central America*. CentralRisk Network. EU ALFA Program. General Coordinator of the Program. Estelí (Nicaragua)/ Girona (Spain/ Barcelona (Spain).
- 2004.** International Postgraduate Course in *Evaluation, Prevention and Mitigation of Environmental Risks of Natural Origin*. CentralRisk Network. EU ALFA Program. General Coordinator of the course and lecturer in *Introduction to Environmental Cartography*. CURN Estelí, Nicaragua.
- 2004.** International Course on *Urban Ecology*. Pontificia Universidad Javeriana/ CREAM/ Universidad Politécnica de Cataluña. Invited lecturer. Santafé de Bogotá. Colombia.
- 2003.** Workshop on *Land-use planning in Nicaragua*. CREAM (Barcelona)/ NITLAPAN (Nicaragua). Co-coordinator of the Workshop together with T. Barahona (Nitlapan). Siuna, Nicaragua.
- 2003.** International course on *Ecological Restoration of Quarries and Biosolid Use*. Pontificia Universidad Javeriana/ DAMA/ CREAM. Invited lecturer. Santafé de Bogotá. Colombia.
- 2002.** Master's Program in Public Sector Management and Sustainable Development. Universidad Autónoma de Barcelona. Lecturer in the module *Action Techniques*. Barcelona, Spain.
- 2002.** Master's Program in Environmental Management and Natural Resources. Universidad Autónoma de Barcelona /UNAN-Managua. Lecturer in the module *Environmental Impact and Land-use Planning*. Estelí, Nicaragua.
- 2002.** Doctorate course in *Soil in Environmental Studies*. Universidad Autónoma de Barcelona. Invited Lecturer in *State of the Soils in the EU* and in *Soil Ecotoxicology*. Barcelona, Spain.
- 2001.** Master's Program in Ecological Economics and Environmental Management. Universidad Autónoma de Barcelona. Lecturer in *Urban Ecology*. Barcelona, Spain.
- 2001.** Master's Program in Development, Population and Environment with emphasis on the rural sector. Universidad Autónoma de Barcelona/Universidad Politécnica de Nicaragua. Lecturer in *Environmental Impact studies*. Managua. Nicaragua.
- 2000.** International Workshop on Urban Ecology. Universidad Nacional de Colombia. Invited lecturer in *Urban Ecology*. Santafe de Bogotá. Colombia.
- 1999–2006.** Postgraduate Course in Architecture and Urban Environment. ETSAB, Universidad Politécnica de Cataluña. Teacher in *Urban Ecology*. Barcelona, Spain.
- 1999.** First International Course in Restoration Ecology. Universidad Autónoma de Barcelona/ Fundación de Restauración de Ecosistemas Tropicales/Universidad Nacional de Colombia. Lecturer in *Vegetation Tools in Soil Restoration, Restoration Planning and Environmental Monitoring Plans*. Santafé de Bogotá Colombia.
- 1999.** Master's Program in Environment and Natural Resources. Universidad Autónoma de Barcelona/ Universidad Nacional de El Salvador/ Asociación Catalana de

Profesionales para la Cooperación. Lecturer in *Environmental Impact Studies* and *Land-use Planning*. San Salvador, El Salvador.

1999. Master's Program in Environment and Natural Resources. Universidad Autónoma de Barcelona/ Universidad Nacional Autónoma de Managua/ Asociación Catalana de Profesionales para la Cooperación. Lecturer in *Environmental Impact Assessment* and *Land-use Planning*. Managua, Nicaragua.

1998. Postgraduate Course on Soil Conservation and Restoration. Universidad Autónoma de Barcelona. Lecturer in *Regional Planning of Soil Conservation, Soil Restoration after motorway construction* and *Quarry Restoration Monitoring*. Barcelona, Spain.

1998. Doctorate Course in Natural Resource Management. Universitat Autònoma de Barcelona. Invited lecturer in *Urban Ecology* and *Forests and Greenhouse Effect*. Barcelona, Spain.

1997-1999. Postgraduate Program in Environmental Education, First and Second Editions. Universidad Autónoma de Barcelona. Lecturer in *Environmental Impact Assessment* and *Land-use Planning*. Barcelona, Spain.

1996-1997. Postgraduate Program in Environmental Education. Universidad Politècnica de Catalunya. Lecturer in *Environmental Impact Assessment* and *Land-use Planning*. Barcelona, Spain.

1996. Postgraduate Course in Soil Conservation and Restoration. Universidad Autónoma de Barcelona. Lecturer in *Regional Planning of Soil Conservation* and *Revegetation Plans*. Barcelona, Spain.

1994. Monographic Courses at the Barcelona Botanic Garden. Lecturer in *Native Plant Heritage Inventories* and *Vegetation in Environmental Impact Assessment*. Barcelona, Spain.

1992. Environment Technicians' Training Course. Técnicos para la iniciativa. Invited Lecturer in *Environment Conservation*. Barcelona, Spain.

1992. Postgraduate Course in Soil Conservation and Restoration. Universidad de Barcelona. Lecturer in *Use of vegetation in Ecological Restoration* Barcelona, Spain.

1991-1993. Postgraduate Course in Econometrics and Environmental Management. First, Second and Third Editions. Universidad de Barcelona. Lecturer in *Environmental Impact Assessment* and *Physical Planning*. Barcelona, Spain.

1991-1992. First Inter-University Postgraduate Course in Environmental Management for the Rural Sector. Universidad Autónoma de Barcelona, Universidad de Barcelona, Universidad Politècnica de Catalunya. Lecturer in *Environmental Impact Assessment*. Barcelona, Spain.

OUTREACH & TRAINING OF ENVIRONMENTAL MANAGERS

- 2023** “Soil Biodiversity: the life machine under our feet”. Invited master class in the IV Edition of the online course of “La uni Climàtica” about Biodiversity. July 3-7. (<https://kiosco.lamarea.com/producto/la-uni-climatica-2023-iv-edicion/>)
- 2023** “The soil-plant system: concepts and application to soil restoration” Invited talk in a designed seminar to the technical staff of “Naturalea” (<https://naturalea.eu/en/>) Castellar del Vallès, Barcelona, Spain. May 09.
- 2022** “*Regenerative viticulture: living soils for climate mitigation and wine production*”. Invited contribution to the on-line webinar on “Regeneration and Conservation of Viticultural Soils”. Wine Technological Platform & Interprofesional de Vino España & Agrobank. March 29.
- 2021**. Seminar series “Towards a fair and sustainable food system”. Invited speaker to the session “*Protecting the soil: the great challenge for agriculture*”. The Green European Foundation. Project GEF-21-10. On-line event, September 21. <https://youtu.be/6kE81uRiRz8>
- 2021**. *Soil Biodiversity services in Agriculture*. Invited speaker to the 1st symposium in Regenerative Viticulture. Regenerative Viticulture Association. Vniseum. Vilafranca del Penedès. (Barcelona, Spain). July 17. Video available from <https://www.viticultraregenerativa.org/en/conferences> and <https://youtu.be/QQ8I-TZTrfs>
- 2020**. Webinar “La restauración de suelos en un contexto de cambio climático” (*Soil restoration in a climate change context*). On-line workshop for the Red Colombiana de Restauración Ecológica (*Colombian Network for Ecological Restoration*) (REDCRE) (<https://twitter.com/redcre>) October 16, 2020.
- 2020**. Invited speaker to the First Workshop on Energy Transition of the Energy Transition Chair Network of the UB-REPSOL Foundation. “*Capture, use and storage of CO₂: natural climate solutions*”. College of Civil Engineers, Barcelona. February 20.
- 2019**. *Biological indicators of soil ecological quality*. Theoretical session for the training course “Interpretation of the Fertility of Agricultural Lands through”. College of Agriculture and Forestry Technical Engineers of Catalonia. UdG, Girona, November 14-15.
- 2018**. *Soil Ecology and Belowground Biodiversity Management*. Invited contribution to the technical workshop on “Management of soil fertilization: a key to improving crop health”. 2018 Annual Plan on Technology Transfer. Generalitat de Catalunya. Department of Agriculture, Cattle, Fishing and Food. Vilabertran (Girona), February 20.
- 2018**. *Soil biodiversity restoration to restore agricultural lands*. Invited contribution to the technical workshop on “Soil management is the Great Ignored in intensive farming”. 2018 Annual Plan on Technology Transfer. Generalitat de Catalunya. Department of Agriculture, Cattle, Fishing and Food. Escola Politècnica Superior de la UdG. Girona, November 29

- 2018.** *Below-ground biodiversity in agricultural soils: functions and conservation.* Invited talk to the Bages Farmers' Group for Plant Protection. Pla de Bages (Barcelona), February 16.
- 2017.** *Soil biodiversity and ecosystem services.* Work meeting as a part of the technical staff training in Environmental Services (140119-1). Generalitat de Catalunya. Department of Territory and Sustainability. Colet Museum, Barcelona, September 18.
- 2017.** *Soil biodiversity and agricultural practices.* Invited talk to members of the "Llavors Orientals" agricultural association. Cardedeu, Barcelona. June 18.
- 2017.** *Multifunctional land planning to face uncertain scenarios.* Invited talk to the BIO4ECO Interreg Europe Thematic Workshop "The Energy-food-water land use nexus: possible equilibriums for the low carbon transition. Smart land use for low carbon economy. Riga, Latvia. June 13-15.
- 2017.** *Consequences of over-fertilization with phosphorus for agricultural soil metabolism.* Invited contribution to the technical seminar "Soil fertilization under Phosphorus criteria". Waste Agency of Catalonia. Barcelona, November 24.
- 2017.** *Belowground biodiversity and agricultural soil fertility.* Invited talk in the VIII Fira del Tomàquet del Vallès. Centre Cívic i Cultural La Fàbrica. Santa Eulàlia de Ronçana, Barcelona. July 23.

CITIZEN SCIENCE

2017- 2020. Responsible in Spain for the Global Tea Bag Index Project. 75 Spanish schools and higher education institutions are generating data about litter decomposition rates across ecosystems)