

CV date	07/06/2023
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Part A. PERSONAL INFORMATION

First and Family name	Fernández Rebollo, Pilar		
Researcher numbers	Researcher ID	ABH-2997-2020	
	Orcid code	0000-0001-7215-412X	

A.1. Current position

University/Institution	Universidad de Córdoba		
Department	Dpto. Ingeniería Forestal, ETSAIM		
Address and Country	Campus Universitario Rabanales, Edif. Leonardo da Vinci. Ctra. Madrid-Cádiz Km. 396, 14014 Córdoba		
Phone number	957 218410	E-mail	pfernandez@uco.es
Current position	Lecturer	From	10/08/98
Espec. cód. UNESCO	310607		
Palabras clave	Agroforestry systems, Animal-pasture-soil interactions, Ecosystem services, Grassland management, Grazing management		

A.2. Education

PhD	University	Year
First degree, Agricultural Engineer	University of Córdoba	1990
PhD, Agricultural Engineer	University of Córdoba	1995

A.3. Index of research quality

2 research periods, last one 2012-2017

1 transference of knowledge period with positive evaluation

8 PhD supervised, 2 ongoing PhD

32 indexed research papers, (18 Q1)

Citations: 435 (web of science) 1117 (google academic)

h-index: 11 (web of science) 15 (google academic)

Main Researcher in 2 National Projects, 2 Regional and 10 R+D Contracts; Researcher in 9 European Projects (1 H2020; 1 LIFE; 2 POPTec, 2 INTERREG, 1 INCO, 1 ENV4, 1 ISPRA), 8 National Projects and 4 Regional Project

>100 conference contributions, 25 books and book chapters, 35 scientific reports, more than 25 invited lectured.

Part B. CV SUMMARY (max. 3500 characters, including spaces)

I obtained my PhD at UCO in 1995 working as assistant researcher in Animal Production Department. I have been Lecturer in Grassland Management at Forestry Degree, ETSIAM, UCO since 1998. There, I develop my research lines in management and improvement of Mediterranean grassland, focusing on grazing and animal-plant-soil interactions. I belong to the research group of "Silvopascicultura" (AGR-221, PAIDI). Since 2000, I focus my research to dehesa system, considering not only pasture and livestock but also the structure, physiology and dynamics of tree and bush components. From this time, I have been collaborating, through different contracts and agreements, with Agricultural and Environmental Andalusia Governments, evaluating the application of agricultural policy (PAC) and the delivery of ecosystem services in dehesa of Andalusia. Given the environmental and economic repercussion of the forest diseases in dehesa farms, I have participated in different projects related to the control of root rot of the *Quercus* caused by oomycetes in collaboration with Andalusia Governments and Agro-forestry pathology group of the UCO. The close collaboration with the Andalusia Governments in these topics, ends up in the participation, as a member, in the Advisory Council of Biodiversity (2005-2012) and the Advisory Council of the oak decline (from 2018) of the Junta de Andalusia. I lecture among other courses in Grassland management, Grazing management in forests, and Agroforestry, in degree (14 ECTS/year) and master (5 ECTS/year). I teach in Master's Degree in Agroecology (UCO-UPO-UNIA), in Forestry (UCO), Sustainability and Global Change (UCO), and Forest Fires: Science and

management (UCO-ULE-UDL). I participate in a PhD program Agricultural, Food, Forestry and Sustainable Rural Development Engineering INGEVERDE, (UCO-USE-CSIC-IFAPA) in which I lead the research group on forest and agrosilvopastoral systems and resources. Renewable energy. I am author of 26 indexed research papers (15 Q1) and 25 books and book chapters. I have presented more than 100 communications in conferences. I have taken part of 25 competitive research projects and 10 R+D+I contracts from both, public and private sectors. I supervised 8 PhD and another 2 ongoing. I supervised 120 Degree projects (research), 12 Master theses. Since 2008, I have been responsible of 1.3 M€ in R+D+i (projects that I have led) and 1.9 M€. The Group AGR-221 collaborate with foreign researcher groups who have received pre/postdoctoral stays. I organized the Annual Scientific Meeting of the Spanish Society of Pasture (2008), IUFRO Working Party on Phytophthora in Forests and Natural Ecosystems (2012) and VIII Reunión IOBC-WPRS Working Group on forest protection (2016). I am ANEP reviewer since 2017 and ACADEMIA-ANECA.

Part C. RELEVANT MERITS

C.1. Publications

1. F. Milazzo, P. Fernández-Rebollo, A. Peña, T. Vanwalleghem. 2022. The resilience of soil erosion rates under historical land use change in agroecosystems of Southern Spain. *Science of the Total Environment*. DOI: 10.1016/j.scitotenv.2022.153672.
2. René L.M. Schils, Conny Bufe Caroline Rhymer, Richard Francksen, Valentin H. Klaus, Mohamed Abdalla, Filippo Milazzo, Eszter Lellei-Kovács, Hein ten Berge, Chiara Bertora, Anna Chodkiewicz, Claudia Dămățircă, Iris Feigenwinter, Pilar Fernández-Rebollo, Shiva Ghiasi, Stanislav Hejduk, Matthew Hiron, Maria Janicka, Raoul Pellaton, Kate Smith, Rachel Thorman, Tom Vanwalleghem, John Williams, Laura Zavattaro, Jarl Kampen, Ria Derkx, Pete Smith, Mark J. Whittingham, Nina Buchmann. 2022. Permanent grasslands in Europe: Land use change and intensification decrease their multifunctionality. *Agriculture, Ecosystems and Environment*. DOI: 10.1016/j.agee.2022.107891.
3. Fernández-Habas, J., Carriere Cañada, M., García Moreno, A., Leal-Murillo, J.R., González-Dugo, M.P., Abellanas Oar B., Gómez-Giraldez P., Fernández-Rebollo, P. 2022. Estimating pasture quality of Mediterranean grasslands using hyperspectral narrow bands from field spectroscopy by Random Forest and PLS regressions. *Computers and Electronics in Agriculture*. <https://doi.org/10.1016/j.compag.2021.106614>.
4. Fernández-Habas J., García Moreno A., Hidalgo-Fernández M.T., Leal-Murillo, J.R., Abellanas Oar, B., Gómez-Giráldez, P., Gózález-Dugo M.P., Fernández-Rebollo, P. 2021. Investigating the potential of Sentinel-2 configuration to predict the quality of Mediterranean permanent grasslands in open woodlands. *Science of the Total Environment*, <https://doi.org/10.1016/j.scitotenv.2021.148101>.
5. Fernández-Habas, J., Hidalgo-Fernández, M. T., Leal-Murillo, J. R., Méndez, P., Quero, J. L., Vanwalleghem, T., Fernández-Rebollo, P. 2021. Effects of two water regimes on morphological traits, nutritive value and physiology of three *Bituminaria bituminosa* varieties from the Canary Islands. *Journal of Agronomy and Crop Science*. DOI: 10.1111/jac.12485.
6. Rodríguez-Molina MC., Fernández-Rebollo P., Serrano-Pérez P., De Santiago A., Hidalgo-Fernández MT., Campos- Navarro FJ. 2021. Biofumigation with Brassica seed-based products combined with calcium carbonate to control *Phytophthora cinnamomi* root rot in cork and holm oaks. *European Journal of Plant Pathology*. 159: 471-483. <https://doi.org/10.1007/s10658-020-02175-7>.
7. Reyna-Bowen L, Fernandez-Rebollo P, Fernández-Habas J, Gómez J.A. 2020. The influence of tree and soil management on soil organic carbon stock and pools in dehesa systems. *CATENA*.190:104511.
8. Cruz-Aguilar R, Cruz-León A, Ramirez-Valverde B, Uribe-Gómez M, Fernández-Rebollo P, Cuevas-Reyes V. 2019. Characterization of peasant production units in the Sierra Huautla, Morelos, Mexico. *Tropical and Subtropical Agroecosystems*, 22: 723-733. 2019.
9. Fernández-Habas J, Fernández-Rebollo P, Casado M, Moreno A, Abellanas B. 2019. Spatio-temporal analysis of oak decline process in open woodlands: A case study in SW Spain. *Journal of environmental management*. 248 1093308.

10. Ríos P, González M, Obregón S, Carbonero MD, Leal JR, Fernández-Rebollo P, de Haro A, Sánchez ME. 2017. Brassica-based seedmeals biofumigation to control *Phytophthora cinnamomic* in the Spanish "dehesa" oak trees. *Phytopathologia Mediterranea*. 56 (3): 392-399.
11. González M, Ríos P, Fernández-Rebollo P, de Haro A, Serrano MS, Sánchez ME. 2017. Biofumigant action of Brassica seedmeals against *Phytophthora cinnamomic* in dehesa ecosystems. *Phytopathologia Mediterranea* 56 (2): 340.
12. Koenig W., Alejano R., Carbonero P., Fernandez-Rebollo P., Knops JMH., Marañón T., Padilla-Diaz CM., Pearse IS., Pérez-Ramos IM., Vázquez-Piqué J., Pesendorfer MB. 2016 Is the relationship between mast-seeding and weather in oaks related to their life-history or phylogeny? *Ecology* 97(10): 2603-2615.
13. Rios P, Obregón S, Haro A, Fernández-Rebollo P, Serrano MS, Sánchez ME. 2016. Effect of Brassica biofumigant amendments on different stages of the life cycle of *Phytophthora cinnamomi*. *Journal of Phytopathology*. 164 (9): 582-594.
14. Carbonero M., Fernández-Rebollo P. Holm oak dehesas. 2014. Influence of meteorology on acorn production. *Ecosistemas* 23(2): 55-63.
15. García-Moreno A, Carbonero M, Serrano-Moral M, Fernández-Rebollo P. Grazing affects shoot growth, nutrient and water status of *Quercus ilex* L. in Mediterranean open woodlands. 2014. *Annals of Forest Science*. 71:917-926.
16. Parras-Alcántara L, Díaz-Jaimes L, Lozano-García B, Fernández-Rebollo P, Moreno-Elcure F. Carbonero-Muñoz MD. 2014. Organic farming has little effect on carbon stock in a Mediterranean dehesa (southern Spain). *Catena* 113: 9–17.

C.2. Research projects

1. Multifunctionality of Iberian Forest on the face of climatic change. PID2020-115809RB-I00. 2021-2025. PR: Rafael Villar. 172183€.
2. Alimentación inteligente. SmartFOOD. Lifewatch. 2021-2023. PR: José Emilio Guerrero. 697.500€.
3. Fortalecimiento de los sistemas transfronterizos de prevención y extinción de incendios forestales y mejora de los recursos para la generación de empleo rural. POCTEC-0756. 2021-2022. PR: Francisco Rodriguez y Silva. 253.800€.
4. CILIFO-Centro Ibérico para la Investigación y Lucha contra Incendios Forestales. POCTEP-0753_CILIFO_5_E. 01/01/2019-12/12/2021. PR: Francisco Rodriguez y Silva. 1.059.147 €.
5. Analyzing new active techniques for tree regeneration in dehesas (NUTERA-DE II). IFAPA (PR. AVA-AVA2019.004). 17/05/2019-31/12/2021. PR: F. Navarro Reyes. 150.000 €
6. Organic beef cattle in dehesa: Production and commercialization improvement. Consejería de Agricultura, Pesca y Desarrollo Rural, Junta de Andalucía (GOP2I-HU-16-0018). 15/02/2018-31/12-2019. PR: P. Fernández Rebollo. 197.142,20 €.
7. Developing Sustainable Permanent Grassland systems and policies. SUPER-G (ID 774124), H2020-SFS-2017-2.1/05/2018-1/05/2023. PR: Newell P (ADAS, UK); PR of UCO sub-project, Vanwallaghen T. 9.994.997,75 € (645.125 € UCO).
8. Analyzing new active techniques for tree regeneration in dehesas (NUTERA-DE). IFAPA-TRANSFORMA, Junta de Andalucía. 24/06/2016-31/12/2018. PR: F Navarro Reyes. 206.327,44 €.
9. Oak decline in Dehesa ecosystem. Impact assessment, monitoring and control options: biofumigation, soil amendments and oak resistance. INIA (RTA2014-00063-C04-03).21/09/2015-21/09/2018. PR: P. Fernández Rebollo. 115.000 €.
10. Dehesa Ecosystems: development of policies and tools for biodiversity conservation and management Life-Biodehesa. LIFE+11/BIO/ES/000726. 01/09/2012 - 31/07/2018. PR: JE Guerrero Ginel. 614.099 €.
11. Control of root rot of holm oak in dehesa: biofumigation, fertilization and natural and induced tolerance. P10-AGR-6501. 14/09/2011-14/09/2015. PR: P. Fernández Rebollo. 125.872 €.

C.3. Contracts

1. Evaluation of the tree status on dehesa network (Cordoba). WWF España. 202. PR: P. Fernández Rebollo. 6.050€.

2. Promotion of tree regeneration and diversification in dehesas: Pilot experiences (Córdoba). WWF España. 2019. PR: P. Fernández Rebollo. 10.726,05 €.
3. Dissemination of good practices for tree regeneration and diversification in dehesa: pilot farm of Retamal de Llerena (Extremadura). WWF España. 2018. PR: P. Fernández Rebollo. 2.650 €.
2. Growing holm oak seedling in special forest containers IFAPA. 2017. PR: P. Fernández Rebollo. 13.200 €.
3. Pilot experiences for the promotion of tree regeneration and diversification in dehesas of the Los Pedroches region (Córdoba). WWF España. 2017. PR: P. Fernández Rebollo. 10.726,05 €.
4. Evaluation and maintenance of the network of demonstration dehesa: promotion of tree regeneration and diversification. WWF España. 2016. PR: P. Fernández Rebollo. 10.890 €.
5. Dehesa demonstration network: promotion of tree regeneration and diversification. WWF-España. 2015-2016 PR: P. Fernández Rebollo. 11.245 €.
6. Study of mortality processes in pine forests (Sierra de Filabres and Baza, Almería) and Quercus species in Andalusia. EGMASA. 2010-2015. PR: R. Navarro. 200.000 €.

C.4 Invited speaker

1. Past, present and future of dehesa. III Congreso Ibérico de la Dehesa y el Montado. Badajoz. Noviembre 2018.
2. Dehesa and tree regeneration. XVIII Encuentro Universidad-Empresa: Problemática de la dehesa: propuesta de soluciones. Córdoba, 14 de dic, 2017.
3. Dehesa trees. Reflections to advance in the conservation. XXIV Jornadas Técnicas COVAP, La dehesa. Su conservación. Almodovar del Campo, Ciudad Real. 26 de oct, 2017.
4. Dehesa at risk. WWF Encounter: Dehesa at the crossroads. Madrid, 18 nov 2016.
5. Dehesa management Plans: What should be its content and scope? I Congreso Ibérico de la Dehesa y el Montado. Badajoz, 6-7 nov 2013.
6. Management and conservation of oak open woodlands in southern Spain. Oak forests coping with global change: ecology and management. UNIA, Baeza, España. Sep, 2013.
7. Assessment and improvements of CAP measures supporting the Dehesas in Spain. ICAAM International Conference on Dehesa and Montado. Evora, Portugal. Feb, 2013.

C.5 Institutional responsibilities and memberships of scientific societies

1. Member of Advisory Council of the oak decline. Consejería de Agricultura Pesca y Desarrollo Rural, Junta de Andalucía. From 2018 until now.
2. Member of Advisory Council of Biodiversity. Consejería de Medio Ambiente, Junta de Andalucía. 2005-2012.
3. Vocal of the Executive Committee of the Spanish Society of Pastures. 2011-2019.
4. Associate Editor of Monografías INIA-Serie Forestal (2011-2014) and Forest systems (from 2018 until now).
5. Member of the Scientific Committee of the Annual Meeting of the Spanish Pasture Society. From 2003 to 2021.
6. Reviewer of Scientific Journals: Pastos, Ecosistemas, Annals of Forest Science, Agroforestry System, Revista Internacional de biología tropical.
7. Projects Reviewer: ANEP and ANECA.

C.6 I+D+i Organization

1. VIII Reunión IOBC-WPRS (International Organization for Biological and Integrated Control-West Palearctic Regional Section). October 2016.
2. Farmer workshops for tree regeneration in dehesa. 2016, 2017, 2018 and 2019
3. Annual Scientific Meeting of the Spanish Society of Pasture, 2008. President of the Organization Committee.

C.7 Awards

Andrés Núñez de Prado, 2012, first award, "Olivar adehesado: integración del pastoreo con ganado ovino como herramienta de gestión en los olivares ecológicos"