

Part A. Personal Information

DATE	19/04/2022
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Surname(s)	Schnabel	
Forename	Susanne	
Social Security, Passport, ID number	X1524455S	
Sex	Female	
Age	63	
Researcher codes	WoS Researcher ID (*)	
	SCOPUS Author ID(*)	7003312221
	Open Researcher and Contributor ID (ORCID)	http://orcid.org/0000-0002-8065-8878

(*) At least one of these is mandatory

A.1. Current position

Post/Professional Category	Full professor (catedrática de Geografía Física)	
UNESCO Code	250508	
Key Words	Geomorphology, Hydrology, Soil Sciences, surface hydrological processes, soil erosion, land degradation in semi arid areas	
Name of the University/Institution	Universidad de Extremadura	
	Department/Centre	Institute for Sustainable Land Development (INTERRA)
	Full Address	Avda. de las Letras, Universidad de Extremadura, 10071 Cáceres
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	Phone Number	+34927257000, ext. 57716
Start date	07/01/2003	

A.2. Education (title, institution, date)

Year	University	Degree	Title
1987	Freie Universität Berlin	First degree (Licenciatura)	Geography
1989	University of Toronto	Master of Science	Geography
1995	Freie Universität Berlin	PhD	Geography

A.3. Indicators of Quality in Scientific Production (See the instructions)

Number of articles included in JCR: 49, of which 32 are included in Q1
Google Scholar: h-index: 27, total citations: 2982
Most cited document: 175 citations
Citations since 2017: 1701
Scopus: 60 articles, 1611 citations, h-index: 21

Part B. Free Summary of CV (Max. of 3.500 characters, including spaces)

- Recognition of research merits: 4 (incl. 1 of research transfer) - Recognition of teaching merits: 4 - Number of PhD thesis supervised: total: 11 (+1 ongoing), - Number of competitive projects coordinated: 11 - Number of contracts coordinated: 7 - Total number of publications: 159 - Number of books: 7 - First author oral presentations in congresses: 47 First degree studies in Geography, Botany and Geology at the Freie Universität Berlin, with a thesis about reservoir sedimentation, using ¹³⁷Cs in Spain. MSc in Physical Geography at University of Toronto, with a master's thesis about the determination of soil erosion rates in the

Baringo District in Kenya, using botanical indicators; PhD in Physical Geography at Freie Universität Berlin, with a thesis about hydrological and erosional processes in silvopastoral systems. During the academic formation I was awarded several scholarships: Government of Canada Award, Deutscher Akademischer Austauschdienst, Technische Hochschule Darmstadt and Junta de Extremadura. During 1988/89 assistant professor at University of Toronto.

In 1990 start of hydrological and geomorphological research in dehesas (silvopastoral systems of SW Spain), with studies carried out in small instrumented catchments.

Since 1998 coordinator of the *GeoEnvironmental Research Group* of Universidad de Extremadura, carrying out research in Mediterranean areas, particularly wooded rangelands, including studies about soil erosion, hydrological processes, land degradation, desertification, soil degradation, land use change and vegetation dynamics. Studies have been carried out at various spatial scales (plot, hillslope, catchment, farm, region) and temporal scales (rainfall events, annual, inter-annual). During the last years new lines of research were included, such as the use of laser scanning and high-resolution aerial photographs for elaborating digital elevation models, hydrological modelling, development of integrated indicator systems aimed at the evaluation of environmental quality of river catchments and the sustainability of silvopastoral farms.

Research stays in Kenya, Canada, Argentina and Mexico.

Part C. Relevant accomplishments

C.1. Publications

- Alfonso-Torreño, A., Gómez-Gutiérrez, Á., Schnabel, S. (2021). Dynamics of Erosion and Deposition in a Partially Restored Valley-Bottom Gully. *Land* 2021, 10, 62. IF: 2.429, Q2, 58/123 in Environmental Studies. <https://doi.org/10.3390/land10010062>
- Marín-Comitre, U., Schnabel, S., Pulido-Fernández, M. (2020). Hydrological characterization of watering ponds in rangeland farms in the southwest Iberian Peninsula. *Water* 12: 1038. IF: 2.544 (JCR, 2019). Q2, 31/94 in Water Resources. DOI: 10.3390/w12041038.
- Alfonso-Torreño, A., Gómez-Gutiérrez, Á., Schnabel, S., Lavado Contador, J.F., de Sanjosé Blasco, J.J., Sánchez Fernández, M. 2019. sUAS, SfM-MVS photogrammetry and a topographic algorithm method to quantify the volume of sediments retained in check-dams. *Science of the Total Environment* 678, 369-382. DOI: 10.1016/j.scitotenv.2019.04.332.
- Rubio-Delgado, J., Schnabel, S., Gómez-Gutiérrez, Á., Lavado-Contador, J.F. 2019. Temporal and spatial variation of soil erosion in wooded rangelands of southwest Spain. *Earth Surface Processes and Landforms*. DOI: 10.1002/esp.4636.
- Pulido, M., Schnabel, S., Lavado Contador, J.F., Lozano-Parra, J., González, F., 2018. The impact of heavy grazing on soil quality and pasture production in rangelands of SW Spain. *Land Degradation and Development* 29: 219-230. DOI: 10.1002/ldr.2501
- Rubio-Delgado, J., Schnabel, S., Gómez-Gutiérrez, Á., Sánchez-Fernández, M., 2018. Estimation of soil erosion rates in dehesas using the inflection point of holm oaks. *Catena* 166: 56-67. DOI: 10.1016/j.catena.2018.03.017
- Lozano-Parra, J., Pulido, M.; Lozano-Fondón, C., Schnabel, S., 2018. How do soil moisture and vegetation covers influence soil temperature in drylands of Mediterranean regions? *Water*, 10, 1747. doi.org/10.3390/w10121747
- Pulido, M., Schnabel, S., Lavado Contador, J.F., Lozano-Parra, J., Gómez-Gutiérrez, Á. 2017. Selecting indicators for assessing soil quality and degradation in rangelands of Extremadura (SW Spain). *Ecological Indicators* 74: 49-61. DOI: 10.1016/j.ecolind.2016.11.016
- Pulido, M., Schnabel, S., Lavado Contador, J.F., Lozano-Parra, J., Gómez-Gutiérrez, Á., Brevik, E.C., Cerdà, A. 2017. Reduction of the frequency of herbaceous roots as an effect of soil compaction induced by heavy grazing in rangelands of SW Spain. *Catena* 158: 381-389. DOI: 10.1016/j.catena.2017.07.019
- Herguido Sevillano, E., Lavado Contador, Schnabel, S., Pulido, M., Ibáñez, J. Using spatial models of temporal tree dynamics to evaluate the implementation of EU afforestation policies in rangelands of SW Spain. *Land Use Policy*, 78, 166-183. doi.org/10.1016/j.landusepol.2018.06.0541

- Lozano-Parra, J., Schaik, N.L.M.B., Schnabel, S., Gómez-Gutiérrez, Á. 2016. Soil moisture dynamics at high temporal resolution in a semiarid Mediterranean watershed with scattered tree cover. *Hydrological Processes* 30: 1155-1170. DOI: 10.1002/hyp.10694
- Ibáñez, J., Lavado Contador, J. F., Schnabel, S., Martínez Valderrama, J., 2016. Evaluating the influence of physical, economic and managerial factors on sheet erosion in rangelands of SW Spain by performing a sensitivity analysis on an integrated dynamic model. *Science of the Total Environment* 544, 439-449. DOI: 10.1016/j.scitotenv.2015.11.128
- Rubio-Delgado, J., Guillén, J., Corbacho, J.A., Gómez-Gutiérrez, Á., Baeza, A., Schnabel, S. 2017. Comparison of two methodologies used to estimate erosion rates in Mediterranean ecosystems: 137Cs and exposed tree roots. *Science of the Total Environment*, 605–606, 541-550. doi.org/10.1016/j.scitotenv.2017.06.248
- Lozano-Parra, J., Schnabel, S., Ceballos-Barbancho, A. 2015. The role of vegetation covers on soil wetting processes at rainfall event scale in scattered tree woodland of Mediterranean climate. *Journal of Hydrology* 529: 951-96. DOI 10.1016/j.jhydrol.2015.09.018

C.2. Research Projects and Grants

- Title:** Efficiency and resilience of mixed farming and agroforestry systems (Agromix)
Financing entity: European Union Horizonte 2020 Programme
Duration 1/5/2020 – 30/04/2024
Funding: 292.222 (UEX)
Responsible scientist: S. Schnabel (UEX partner), S. Burbi (coordinator, Coventry University)
- Title:** Creating knowledge for Understanding ecosystem services of agroforestry systems through a holistic methodological framework.
Financing entity: European Union, H2020-MSCA-RISE-2019
Duration: 1/1/2020 – 31/06/2025
Funding: 207.000 €
Role: coordinator of UEX partner
Responsible scientist: Susanne Schnabel (partner: Universidad de Extremadura)
- Title:** Los recursos hídricos en fincas de ganadería extensiva: estado actual, riesgos emergentes y propuestas de gestión (IB20036)
Financing entity: Junta de Extremadura y Fondo Europeo de Desarrollo Regional
Duration: 17/6/2021 - 16/6/2024
Funding: 128.069,70 Euros
Role: participating scientist
- Title:** Desarrollo de un sistema de evaluación integral espacialmente distribuido para explotaciones de ganadería extensiva (DINESEL) (IB16052)
Financing entity: Junta de Extremadura y Fondo Europeo de Desarrollo Regional
Duration 3/6/2017 - 2/6/2020
Funding: 103.723 €
Responsible scientist: Manuel Pulido Fernández, Universidad de Extremadura
Role: Participating scientist
- Title:** Evaluación de técnicas de recuperación de zonas acarcavadas mediante modelos 3D de alta resolución (CGL2014-54822-R)
Financing entity: Ministerio de Economía y Competitividad
Duration 01/01/2015 - 31/12/2018
Funding: 108.900 €
Responsible scientist: Álvaro Gómez Gutiérrez, Universidad de Extremadura
Role: Participating scientist
- Title:** Análisis y modelización integral de las dehesas: Cambios de uso y manejo y repercusiones sobre la sustentabilidad del sistema (CGL2011-23361)
Financing entity: Ministerio de Economía y Competitividad
Duration: 1/1/2012 - 31/12/2014
Funding: 66.550 €
Responsible scientist: Susanne Schnabel, Universidad de Extremadura
- Title:** Evaluación y modelización integral de la degradación de dehesas y pastizales (CGL2008-0121/BTE)
Financing entity: Ministerio de Ciencia e Innovación

Duration: 1/1/2009 - 31/12/2011
Funding: 148.830 Euros
Responsible scientist: Susanne Schnabel, Universidad de Extremadura

C.3. Contracts

Contract: Geolocalización espacial de materiales con Amianto (GEMA). Expediente: IDA1-19-0044-3.

Financing Company: EXTREM, Industria de Software, S.A.

Duration: 26/11/2019 - 22/11/2021 Responsible Scientist: J.F. Lavado Contador

Amount of funding: 42.376 Euros

Contract: Investigación de nuevos procesos de circulación del agua y los nutrientes en pequeñas cuencas agrícolas de montaña.

Financing entity: Junta de Extremadura, Fondo Europeo de Desarrollo Regional.

Duration: Septiembre 2019-Abril 2021 Responsible Scientist: J.C. Giménez Fernández

Amount of Funding: 53.991 Euros

Contract: Investigación de un sistema de evaluación para la gestión integral de los recursos naturales en cuencas hidrográficas. Aplicación a las cuencas del margen derecho del río Tiétar en la Comarca de la Vera (GESCUENCAS).

Financing entity: Gobierno de Extremadura. Programa COINVESTIGA

Duration: 15/10/2014 - 31/07/2015

Responsible scientist: Susanne Schnabel

Total funding: 108.972 Euros

C.4. Patents and other IPR

“Proyecto GESCUENCAS” (Evaluation system for integrated management of natural resources in river basins), deposited in the Intellectual Property Register of the United States, date: 1/8/2016, number: 1-386500641.

C.5. Teaching activities

- Teaching activities include graduate (bachelor) and postgraduate (master and PhD) levels.
- Coordinator of the PhD Programme on Sustainable Territorial Development from 2014 until January 2018.

C.6. Research management

- Director of the University Research Institute for Sustainable Land Development (Instituto Universitario para el Desarrollo Territorial Sostenible – INTERRA), since 2018.
- Coordinator of the GeoEnvironmental Research Group.
- Coordinator of the Guadalperalón y Parapuños research stations which form part of the Spanish Network of Experimental Catchments and Erosion and Desertification Evaluation (RESEL), since 2000.

C.7. Representations and Others

- President of the Spanish Geomorphological Society (SEG), 2014-2016 and Vicepresident of SEG, 2014-2014.
- Member of the Scientific and Educational Committee of the UNESCO Geopark Villuercas-Ibores-Jara since 2010
- Representative of University of Extremadura in the governing boards of the natural parks: Parque Natural Tajo Internacional and Parque Monumental Los Barruecos.
- Reviewer for JCR journals: Journal of Hydrology, Catena, Land Degradation & Development, Geoderma, Earth Surface Processes and Landforms, Hydrological Process, etc..
- Evaluator of research proposals of the Spanish National Research Programme (50 projects).
- Collaborator of the Spanish Ministry of Science and Technology, coordinating selection of research proposals and revision of research reports in the Hydrological Programme, 2005-2008.
- Member of the Earth Sciences Technical Commision (evaluation committee) of the Spanish National Research Programme 2019.