

**Part A. Personal Information**

<b>DATE</b>	12/09/2021
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Surname(s)	Schnabel	
Forename	Susanne	
Social Security, Passport, ID number		
Sex	Female	
Age		
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
	Email Address	schnabel@unex.es
	Phone Number	
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)

<p>Number of articles included in JCR: 48, of which 32 are included in Q1  <u>Google Scholar</u>: h-index: 26, total citations: 2761          Most cited document: 174 citations          Citations since 2016: 1686  <u>Scopus</u>: 59 articles, 1478 citations, h-index: 20</p>
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**Part B. Free Summary of CV** (Max. of 3.500 characters, including spaces)

<ul style="list-style-type: none"> <li>- Number of <i>sexenios</i>: 4 (incl. 1 of research transfer)</li> <li>- Number of PhD thesis supervised: total: 9, last 10 years: 4 (+2 ongoing),</li> <li>- Number of competitive projects coordinated: 11</li> <li>- Number of contracts coordinated: 7</li> <li>- Total number of publications: 158</li> <li>- Number of books: 7</li> <li>- Contribution to conferences: Total number of first author oral presentations: 47.</li> </ul> <p>First degree studies in Geography, Botany and Geology at the Freie Universität Berlin, with a thesis about reservoir sedimentation, using <sup>137</sup>Cs in Spain. MSc in Physical Geography at</p>
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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
- 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
- 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

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

Gómez-Gutiérrez, Á., Schnabel, S., Berenguer-Sempere, F., Lavado-Contador, F., Rubio-Delgado, J., 2014. Using 3D photo-reconstruction methods to estimate gully headcut erosion. *Catena* 120: 91-101. DOI: 10.1016/j.catena.2014.04.004

## 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 – 31/12/2023  
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

**Contrato:** 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

**Contrato:** 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

**Contrato:** Investigación para la mejora, optimización y valoración económica del Sistema de Evaluación Gescuencas. Construcción de un prototipo tecnológico y validación en diferentes cuencas hidrológicas (GESCUENCAS II).

Financing entity: Gobierno de Extremadura. Programa COINVESTIGA, V Plan Regional de Investigación.

Duration: 01/04//2017-31/12/2017.    IP: J.F. Lavado Contador.    Funding: 30.000 Euros

**Contrato:** Investigación para la mejora, optimización y valoración económica del Sistema de Evaluación Gescuencas. Construcción de un prototipo tecnológico y validación en diferentes cuencas hidrológicas. Contract (229/14).

Gobierno de Extremadura. Programa COINVESTIGA.

Duration, from: 01/04//2017      until: 31/12/2017

Responsible scientist: J. F. Lavado Contador, Universidad de Extremadura

Total funding: 30.000 Euros

#### **C.4. Patents and other IPR**

Propiedad intelectual "Proyecto GESCUENCAS" (Sistema de evaluación para la gestión integral de los recursos naturales en cuencas hidrográficas), depositada en el Registro de la Propiedad Intelectual de Estados Unidos, con fecha 1/8/2016 y número de registro 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).  
- 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).

#### **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 Geoparque 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 Commission (evaluation committee) of the Spanish National Research Programme 2019.