

Part A. PERSONAL INFORMATION		CV date	23/02/2021
First and Family name	Alcaraz-Segura, Domingo		
Social Security, Passport, ID number	DNI:	Age	
Researcher codes	ORCID**	0000-0001-8988-4540	
(*) Optional	SCOPUS Author ID (*)	24463232500	
(**) Mandatory	WoS Researcher ID (*)	B-8063-2008	

A.1. Current position

University/Institution	University of Granada		
Department	Botany Department. Faculty of Sciences		
Address and Country	Av. Fuentenueva, s/n. 18071. Granada. Spain		
Phone number	+34 670641182	E-mail	dalcaraz@ugr.es
Current position	Associate Professor (civil servant)	From	27/Apr/2019
Key words	Global change, remote sensing, ecosystem services, conservation		

A.2. Education

PhD, Licensed, Graduate	University	Year
Degree in Environmental Sciences	University of Almería	2000
PhD in Environmental Sciences	University of Almería	2005

A.3. General indicators of quality of scientific production (see instructions)

Research stages: 2 sexennial stages. Last in 2015.

Teaching stages: 3 quinquennial stages. Last in 2014.

Transfer stages: 1 sexennial stage. Last in 2019.

PhD supervised (last 10 years): 6 defended (P.Lourenço, M.Vallejos, A.S.Vaz, E.Guirado, B.Cazorla, M.Pacheco).

Total cites: 1091 in WOS, 1192 in Scopus, 2146 in Scholar

Mean cites/year (last 5 complete years): 152 in WOS, 158 in Scopus, 245 in Scholar

Publications in Q1: 37 in WOS-JCR

H-index: 18 in WOS, 18 in Scopus, 23 in Scholar. i10-index: 37 in Scholar

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

Interests: Remote-sensing based assessment of global change effects on ecosystem functioning and services. Development of monitoring and warning systems for changes in the functioning of socio-ecosystems and protected areas. Geographical priorities in conservation.

Achievements: Together with my colleagues, we have proposed a new concept in Ecology, the Ecosystem Functional Type. EFTs have been successfully used to improve climate and species distribution models, to characterize the functional diversity of ecosystems, to evaluate the functional representativeness and the capacity to provide services of protected area networks. We have also developed the Monitoring and Warning System for functional changes in the Spanish National Park Network (REMOTE).

Education: During my Bachelor's Degree and PhD in Environmental Sciences I obtained outstanding grades. During my predoc and postdoc, I enjoyed 5 years of research stays in prestigious centers (University of Virginia, University of Texas-Austin, University of Maryland, University of Oxford, University of Glasgow, University of Buenos Aires and CONICET, Estación Biológica de Doñana-CSIC, Málaga University, CIBIO-Universidade do Porto).

Research: I have published 47 articles in JCR indexed journals, 15 articles in non-indexed journals, 15 international book chapters, 24 national book chapters, and published 1 international book. I have directed 35 projects (1 H2020, 1 National, 1 Andalusian, 1 UGR, 1 Fundación Mapfre) and 2 research contracts and have participated in 25 projects and 13 research contracts. I have made 61 communications to international congresses and 38 to national ones. I have collaborated in review tasks for 20 journals indexed in JCR. My research



opened new lines in the Universities of Almeria and Granada and led to the creation of the Andalusian Centre for the Evaluation and Monitoring of Global Change.

Teaching: Since 2019, I am Associate Professor (civil servant, Profesor Titular de Universidad) in the Dept. of Botany at the University of Granada, where I entered as an assistant professor in 2011. I accumulate more than 2500 hours of theoretical and practical classes in core, obligatory and optional subjects of undergraduate, master and doctorate levels. My effort for quality teaching is reflected in the high marks that students systematically give me, placing me above those of the area of knowledge, degree and university. I have participated in two teaching innovation projects, one undergraduate and one master's, and I have taught subjects in English and participated in plans to promote multilingualism. I have directed 11 undergrad dissertations, 16 master's theses, 6 PhD theses (2 in progress).

Management: I highlight my work as coordinator of the Master's Degree in Conservation, Management and Restoration of Biodiversity at the University of Granada since 2018 (secretary from 2013 to 2018). I was a member of the committee that drew up the report for the creation of the Andalusian Centre for the Evaluation and Monitoring of Global Change.

Part C. RELEVANT MERITS (sorted by typology, last 10 years, max. 10 per item)

C.1. Publications (including books, max. 10, see instructions)

Cazorla B, Cabello J, Peñas J, Garcillán PP, Reyes-Díez A, **Alcaraz-Segura D**. 2020. Incorporating ecosystem functional diversity into geographic conservation priorities using remotely sensed Ecosystem Functional Types. [Ecosystems](#). **Q1**

Guirado E, **Alcaraz-Segura D**, Cabello J, Puertas-Ruiz S, Herrera F, Tabik S. 2020. Tree Cover Estimation in Global Drylands from Space Using Deep Learning. [Remote Sensing](#), 12(3), 343. **Q1**

Moreno-Llorca R, Vaz AS, Herrero J, Millares A, Bonet-García FJ, **Alcaraz-Segura D**. 2020. Multi-scale evolution of ecosystem services' supply in Sierra Nevada (Spain): an assessment over the last half-century. [Ecosystem Services](#), 46: 101204. **Q1**

Pacheco-Romero M, **Alcaraz-Segura D**, Vallejos M, Cabello J. 2020. An expert-based reference list of variables for characterizing and monitoring social-ecological systems. [Ecology and Society](#), 25(3): 1. **Q1**

Ros-Candeira A, Moreno-Llorca R, **Alcaraz-Segura D**, Bonet-García FJ, Vaz AS. 2020. Social media photo content for Sierra Nevada: a dataset to support the assessment of cultural ecosystem services in protected areas. [Nature Conservation](#), 38:1-12. **Q2**

Vaz AS, Moreno-Llorca R, Gonçalves J, Vicente JR, Méndez PF, Revilla E, Santamaría L, Bonet-García FJ, Honrado JP, **Alcaraz-Segura D** (corresponding author). 2020. Digital conservation in biosphere reserves: Earth observations, social media, and nature's cultural contributions to people. [Conservation Letters](#), e12704. **Q1**

Arenas-Castro S, Regos A, Gonçalves JF, **Alcaraz-Segura D**, Honrado J. 2019. Remotely Sensed Variables of Ecosystem Functioning Support Robust Predictions of Abundance Patterns for Rare Species. [Remote Sensing](#). 11(18): 2086. **Q1**

Vaz AS, **Alcaraz-Segura D**, Campos JC, Vicente JR, Honrado JP. 2018. Managing plant invasions through the lens of remote sensing: A review of progress and the way forward. [Science of the Total Environment](#), 642, 1328-1339. **Q1**

Guirado E, Tabik S, Rivas M, **Alcaraz-Segura D**, Herrera F. 2019. Whale counting in satellite and aerial images with deep learning. [Scientific Reports](#), 9: 14259. **Q1**



Guirado E, Tabik S, **Alcaraz-Segura D**, Cabello J, Herrera F. 2017. Deep-Learning Versus OBIA for Scattered Shrub Detection with Google Earth Imagery: *Ziziphus lotus* as case study. [Remote Sensing](#) 9(12): 1220. **Q1**

C.2. Research projects (max. 10)

TITLE: EBV-ScaleUp - Harnessing the power of Google Earth Engine and GEO BON to bring Essential Biodiversity Variables from concept to application-ready global solutions in service of society

FUNDING ENTITY: Group on Earth Observations - Google Earth Engine Program 2019

DURATION: 24 meses. FROM: 01/07/2020 TO: 30/06/2022

AMOUNT: 125000 US Dollars PARTICIPATION: investigator

PRINCIPAL INVESTIGATOR: Robert P. Guralnick (University of Florida) Carsten Meyer (German Centre for Integrative Biodiversity Research –iDiv-)

TITLE: Aumentando la resiliencia y resistencia de los sistemas agroforestales andaluces: bases para la restauración frente a los efectos del cambio global (RESISTE). P18-RT-1927

FUNDING ENTITY: Junta de Andalucía. Proyectos de I+D+i Retos de la Sociedad. 2018

DURATION: 36 meses. FROM: 01/01/2020 TO: 31/12/2022

AMOUNT: 108292 euros PARTICIPATION: principal investigator

PRINCIPAL INVESTIGATOR: Jorge Castro y **Domingo Alcaraz Segura** (U. de Granada)

TITLE: Sistema Automático Basado en Teledetección e Inteligencia Artificial Para la Detección de Cambios en la Distribución de Arbustos de Alta Montaña en Respuesta al Cambio Global. Detector. A-RNM-256-UGR18

FUNDING ENTITY: Programa FEDER-Universidad de Granada. 2018

DURATION: 24 meses. FROM: 01/01/2020 TO: 31/12/2021

AMOUNT: 37.150 euros PARTICIPATION: principal investigator

PRINCIPAL INVESTIGATOR: **Domingo Alcaraz Segura** (Universidad de Granada)

TITLE: Lagos centinelas de cambio global en los Parques Nacionales: análisis multidisciplinar de los últimos 6000 años. 2403-S/2017

FUNDING ENTITY: Organismo Autónomo de Parques Nacionales. Plan Nacional. 2017

DURATION: 24 meses. FROM: 11/12/2019 HASTA:10/12/2023

AMOUNT: 55.545 euros PARTICIPATION: investigator

PRINCIPAL INVESTIGATOR: Carmen Pérez (Universidad de Granada)

TITLE: Deep Learning and Smart data for Complex Problems (DeepSCOP)

FUNDING ENTITY: Fundación BBVA. 2018

DURATION: 24 meses. FROM: 01/04/2019 TO: 31/03/2021

AMOUNT: 100000 euros PARTICIPATION: investigator

PRINCIPAL INVESTIGATOR: Francisco Herrera Triguero (Universidad de Granada)

TITLE: Ecosystem Functional Diversity of the Circumpolar Arctic Tundra. REF: 80NSSC18K0446

FUNDING ENTITY: NASA: Group on Earth Observations Work Programme. 2016.

AMOUNT: : \$ 606 666 US dollars PARTICIPATION: investigator

DURATION FROM: 15/03/2018 TO: 14/03/2021

PRINCIPAL INVESTIGATOR: Howard Epstein, University of Virginia (USA)

TITLE: ECOPOTENTIAL: Improving future ecosystem benefits through earth observations. 641762

FUNDING ENTITY: H2020-European Union. 3.5.5. - Developing comprehensive and sustained global environmental observation and information systems. 2014.

AMOUNT: 15 000 000 euros PARTICIPATION: principal investigator

DURATION FROM: 01/10/2015 TO: 30/09/2019

PRINCIPAL INVESTIGATOR: A. Provenzale, CNR (Italia) (**D. Alcaraz-Segura** en Universidad de Granada)



TITLE: COOP-PLUS: Cooperation of research infrastructures to address global challenges in the environment field. REF. 654131
FUNDING ENTITY: H2020-European Union. Support to innovation, human resources, policy and international cooperation for research infrastructures. 2015
AMOUNT: 371250 euros PARTICIPATION: investigator
DURATION: 24+6 meses. FROM: 01/03/2016 TO: 31/08/2018
PRINCIPAL INVESTIGATOR: Francisco Bonet García y Enrique Pérez Sánchez-Cañete (Universidad de Granada)

TITLE: Tipos funcionales de socio-ecosistemas: integrando procesos biofísicos y sociales para caracterizar los ecosistemas del antropoceno. REF. CGL2014-61610-EXP
FUNDING ENTITY: Programa Estatal de Investigación Científica y Técnica de Excelencia. Ministerio de Economía y Competitividad. Gobierno de España. 2014
AMOUNT: 70180 euros PARTICIPATION: principal investigator
DURATION: 12+6 meses. FROM: 01/09/2015 TO: 28/02/2017
PRINCIPAL INVESTIGATOR: **Domingo Alcaraz Segura** (Universidad de Granada)

TITLE: IND_CHANGE - INDicator-based modelling tools to predict landscape CHANGE and to improve the application of social-ecological research in adaptive land management. REF. PTDC/AAG-MAA/4539/2012
FUNDING ENTITY: Fundação para a Ciência e a Tecnologia (FCT). Ministério da Educação e Ciência de Portugal . 2012
AMOUNT: 171550 euros PARTICIPATION: investigator
DURATION: 24 meses. FROM: 01/07/2013 TO: 30/06/2015
PRINCIPAL INVESTIGATOR: Joao Honrado (University of Porto-CIBIO-InBio, Portugal)

C.3. Contracts, technological or transfer merits (max. 10)

TITLE: Elaboración de protocolos para el seguimiento con precisión del estado de los cultivos bajo plástico mediante vuelos de dron externos al invernadero
FUNDING COMPANY OR ADMINISTRATION: Cooperativa La Unión S.L.
DURATION FROM: 15/10/2018 TO: 14/10/2019
AMOUNT: 20350 euros
PRINCIPAL INVESTIGATOR: Dr. Javier Cabello Piñar (Universidad de Almería)

TITLE: Desarrollo de funcionalidades informáticas de procesamiento, consulta y análisis de datos cartográficos e imágenes para el seguimiento del medio natural en el marco del desarrollo web de los visores de la Red de Parques Nacionales y Centros Adscritos. Nº 3511
FUNDING COMPANY OR ADMINISTRATION: Indra Sistemas, S.A.
DURATION FROM: 20/10/2014 TO: 19/12/2015
AMOUNT: 6655 euros
PRINCIPAL INVESTIGATOR: **Domingo Alcaraz-Segura** (Universidad de Granada)

TITLE: Plataforma web con sistema de seguimiento y alerta: elaboración de rutinas y protocolos informáticos para la caracterización funcional de ecosistemas a partir de datos de teledetección. Nº 3485
FUNDING COMPANY OR ADMINISTRATION: Centro Andaluz para la Evaluación y Seguimiento del Cambio Global
DURATION FROM: 01/07/2014 TO: 30/09/2014
AMOUNT: 11100 euros
PRINCIPAL INVESTIGATOR: Regino Zamora Rodríguez (Universidad de Granada)

C.5. Other merits

I have been reviewer of several project proposals for the national research programs of Spain (ANEP-Explora, 2016), Belgium (Federal Science Policy, BELSPO, 2014, 2016), Argentina (FONCYT, 2015), Portugal (FCT), and Rufford Foundation (United Kingdom).