

# ANTONIO GONZÁLEZ HERNÁNDEZ

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## PERSONAL INFORMATION

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**Birth date and place:** 20 April 1964 El Aaiún, Western Sahara **Nationality:** Spanish  
**Contact address:** Blas Infante 1, 10º F. 18008-Granada (Spain) **Phone:** +34 606 413 208

## EDUCATION

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**Ph.D. Student**, University of Granada, Spain. *Biogeography and conservation of two relictic species of the Western Mediterranean: Abies pinsapo Boiss. and Cedrus atlantica (End.) Carrière.* **since 2012**

**Skilled Researcher**, University of Almería, Spain. *Biology, ecology and production of plants.* **2000**

**Bachelor (and equiv. Master) of Science**, University of Granada, Spain. *Biology (Botany).* **1982-1988**

## QUALIFICATION SUMMARY

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- Habitat and vegetation mapping, field sampling implementation and design
- Environmental Impact Assessment, restoration design and monitoring
- Experience with GIS (ArcGIS, GRASS, QGIS)
- Skills on R (especially on 'dismo' and 'ecospat' packages for Species Distribution Modeling)

## RESEARCH EXPERIENCE

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**Project Researcher** **2013**

*Dpt. Botany. Univ. Granada.*

Designed and implemented the field sampling of current occurrences of *Abies pinsapo* and *Cedrus atlantica* in the Western Mediterranean; located marshes and peat bogs by photo interpretation in Morocco and took part in the field sampling of possible past occurrences of both species; and designed and implemented a GIS relative to variables and occurrences reported.

**Research Technician** **2001**

*Dpt. Plant Biology. Univ. Barcelona*

Prepared soil samples of restored limestone quarries in Catalonia, took photographs of samples, analyzed the images and evaluated the soil macroporosity.

**Project Researcher** **2000**

*Arid Zones Experimental Station. Spanish National Research Council (EEZA-CSIC), Almería.*

- Sampled stoniness related to plant cover in slopes of an arid basin in Tabernas Desert.
- Evaluated the infiltration of crusts of soil in Tabernas Desert badlands.

**Field Assistant** **1999**

*Ecology Pyrenaic Institute. Spanish National Research Council (IPE-CSIC), Zaragoza.*

- Located sampling sites, identified local flora and implemented quantitative population sampling in the assessment of risk of desertification of a Mediterranean sylvopastoral system by grazing, N.P. Cabo de Gata-Níjar, Almería.

**Project Researcher** **1996-1998**

*Zaidin Experimental Station. Spanish National Research Council (EEZ-CSIC), Granada.*

- Mapped plant communities and land use of Natural Park of Cabo de Gata-Níjar.
- Mapped pastures and implemented field sampling to evaluate livestock carrying capacity of Natural Park of Cabo de Gata-Níjar.

**Project Researcher** **1989-1990**

*Dpt. Plant Biology. Univ. Granada.*

Mapped plant communities by photo interpretation and field sampling of two National Map Sheets in the frame of the Project to Fight the Desertification in the Mediterranean.

## PROFESSIONAL EXPERIENCE

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### Biologist/Consultant

1991-1995, 2002-2008, 2010-2011

#### Freelance

- Interpreted and verified plant communities and implemented in a GIS the vegetation and land use of Southern Natural Park of Cazorla, Segura y Las Villas.
- Mapped pastures and implemented field sampling to evaluate livestock carrying capacity of National Park of Sierra Nevada.
- Interpreted and mapped pastures of Eastern Andalusia.
- Conducted botanical surveys and plant community inventories in the Natura 2000 network.
- Estimated and mapped biomass yields from forest and crop residues in Granada province as energetic resource.
- Participated in environmental impact assessments and designed corrective measures on highways, regional roads, high-speed railways construction and water conductions building in Southern Spain.
- Surveyed the environmental aspects of disturbing activities (mining, highways, urban and agricultural waste treatment plants, electrical substation, wind farm, gaz pipelines) in Southeastern Spain.
- Designed restoration of abandoned mines and disturbed areas.

### Biologist/Consultant

2008-2010

#### Najarra S.L. Environmental Assessment Engineering

- Participated in environmental impact assessments on municipality and urban planning.
- Participated in environmental impact assessments on provincial road conversion.
- Implemented municipal hydrological models.

### Biologist/Consultant

2001-2002

#### TECNA S.L. Technology on Nature

- Identified impacts and planned possible actions to restore abandoned mining in Almería and Granada provinces, Spain.
- Monitored the environmental aspects on the construction of a desalinated sea water conduction in the arid Southeastern Iberian.
- Performed two comarcal maps of forest resources, Almería, Spain.

### Biologist/Consultant

1991

#### Mediterraneo S.A. Environment and Urban Assessment

- Performed biological inventories in close to ten Environmental Impact Assessments, mainly golf courses building, in the Costa del Sol, Spain.
- Performed the vegetation map of the Guadalhorce basin, Málaga, Spain.

## PEER-REVIEWED PUBLICATIONS

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Alba-Sánchez, F., Abel-Schaad, D., López-Sáez, J. A., Sabariego Ruiz, S., Pérez-Díaz, S., & **González-Hernández, A.** (in press). Paleobiogeografía de *Abies* spp. y *Cedrus atlantica* en el Mediterráneo Occidental (Península Ibérica y Marruecos). *Ecosistemas*.

Li, X-Y., **González, A.**, & Solé-Benet, A. (2005). Laboratory methods for the estimation of infiltration rate of soil crusts in the Tabernas Desert badlands. *Catena* 60, 255-266.

Alados, C. L.; Pueyo, Y., Navas, D., Cabezudo, B., **González, A.**, & Freeman, D. C. (2005). Fractal analysis of plant spatial patterns: A monitoring tool for vegetation transition shifts. *Biodiversity and Conservation* 14, 1453-1468.

## SELECTED PRESENTATIONS AND POSTERS

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**González-Hernández, A.**, Nieto-Lugilde, D., Peñas, J., Fitzpatrick, M., & and Alba-Sánchez F. (2016, October) *Niche overlapping points to ecological divergence between populations of Abies pinsapo at both sides of the Mediterranean Sea*. Presented at International Conference on Ecological Sciences, Sfécologie 2016. Marseille, France.

**González-Hernández, A.**, Peñas, J., Nieto-Lugilde, D., & Alba-Sánchez, F. (2015, January). *Lean pattern in an altitude range shift of a tree species (Abies pinsapo Boiss.)*. Presented at Conference of International Biogeography Society. Bayreuth, Germany.

**González-Hernández, A.**, Peñas, J., Nieto-Lugilde, D., & Alba-Sánchez, F. (2013). *Realized niche vs.*

*reproductive niche: Key for survival.* Presented at 6th Congress of Plant Conservation Biology. Murcia, Spain.