Parte A. DATOS PERSONALES

Nombre	Jorge		
Apellidos	Aldea Mallo		
Sexo	No Contesta	Fecha de Nacimiento	28/01/1983
DNI/NIE/Pasaporte			
URL Web	https://www.slu.se/en/ew-cv/jorge-aldea2/		
Dirección Email	jorge.aldea@inia.csic.es		
Open Researcher and Contributor ID (ORCID)		0000-0003-2568-5192	

A.1. Situación profesional actual

Puesto	Ramon y Cajal fellowship		
Fecha inicio	2023		
Organismo / Institución	Consejo Superior de Investigaciones Científicas		
Departamento / Centro	Instituto de Ciencias Forestales (ICIFOR-INIA,CSIC) / ICIFOR-INIA		
País	España	Teléfono	(+34) 91 347 87 96
Palabras clave	310600 - Ciencia forestal		

A.2. Situación profesional anterior (incluye interrupciones en la carrera investigadora - indicar meses totales, según texto convocatoria-)

Periodo	Puesto / Institución / País
2020 - 2022	Postdoctoral researcher / Swedish University of Agricultural Sciences (SLU) / Suecia
2018 - 2020	Postdoctoral researcher / Swedish University of Agricultural Sciences (SLU) / Suecia
2014 - 2018	PhD. student / Universidad de Valladolid / España

A.3. Formación académica

Grado/Master/Tesis	Universidad / País	Año
PhD. Forestry (Programa Oficial de Doctorado en Conservación y Uso Sostenible de Sistemas Forestales)	Universidad de Valladolid	2018
Master's degree in research on Conservation and Sustainable use of Forest Systems	Universidad de Valladolid	2014
Forestry engineer (Bachelor+Master degree)	Universidad Politécnica de Madrid	2009

Parte B. RESUMEN DEL CV

1. Scientific-technical achievements.

I have a professional background as a technical and researcher assistant at public and private companies within several inter-sectorial teams (mycology and forest bioeconomy) from before my doctoral period. I participated in several national and international technology and knowledge transfer projects. For my PhD, I studied tree growth dynamics and silvicultural treatments in Mediterranean mixed forests. This work developed forest management practices with important implications in the face of ongoing climate change. My **first post-doctoral position** was in the Ecology group at the Southern Swedish Forest Research Centre (SLU), focused on the silviculture and growth dynamics of mixed forests as a tool for forest climate change adaptation and mitigation. A particular achievement was to join a large European project with 13 partners from 10 countries. Due to my interest in mixed forests, I did a **second post-doc** in the Silvicultural group of the same department at SLU to assess the long-term impacts of increased species mixture on the diversity and bioeconomy of boreal

forests. Important results include basic scientific knowledge, support for silvicultural decisions and guidelines for the management of mixed stands in northern Europe. I was granted by the **Ramon y Cajal** postdoctoral fellowship for Established Researchers and I currently work on growth dynamics, responses and tree defense to climate change disturbances using **AI algortihms**.

As result of my research activity, I have published **30 papers** in multidisciplinary peer-reviewed journals (SCI) with high impact. According to Web of Science I have an h-index of 14 and 609 total citations (excluding self-citations). I have participated in **20 national and international research projects**, being a **leader in 5 of them (44,400 € total granted)** and a **co-applicant in 4 others (326,000 € total granted)**. With my multidisciplinary scientific profile, broad contact networks, and own experiences of mobility (pre-doctoral stay at INRA-France and postdocs in Sweden), I have significantly contributed to the recent growth of knowledge on Forest Growth Dynamics and Sustainable Forest Management.

2.   Contribution to society.

I have participated in numerous national and international congresses, with **38 contributions (20 as first author),** including in the **Cost-Action FP1206** about European mixed forests. I **co-organized a IUFRO international congress** about the resilience and management of mixed forests in 2020, although it was ultimately cancelled due to the pandemic. I have collaborated on **4 scientific and technical books, authoring 15 chapters (6 as main author)**. It is noteworthy that my collaboration in several projects involved open science and innovation. I **am leader of two high-priority research project** of the Forest Damage Center at SLU which is developing a software module for a forest decision support system to evaluate the effect of wind disturbance under climate change in Sweden. I have also **led two projects in collaboration with Skogforsk** (the Forestry Research Institute of Sweden) consisting of beech provenance trials in Sweden. My earlier work and pre-PhD project collaborations, focused in non-timber forest products, gave me multidisciplinary experience in technological development activities, such us **services and technical assistance** for industry, private and public institutions.

3.   Management of scientific activity.

I currently teach in **two courses** (each 15 ECTs) in the **EUROFORESTER international master´s** programme and **one course** in the Forest and Landscape - **Bachelor of Science** (15 ECTs) at the Southern Swedish Forest Research Centre (SLU). I have completed six pedagogical courses for teaching in higher education, from critical thinking to e-learning methodologies. In recent years, I **supervised 3 Master theses** on forest growth dynamics at the SLU. One of them has continued to a PhD, a process where I clearly contributed to his career development. I am currently **co-supervisor of one PhD student**. My contributions to research evaluation include being an examiner for two PhD defences and a peer reviewer for multiple SCI-indexed journals. I am a member of three National Committee: Silviculture, Modelling and Mycology and Truficulture in the Spanish Society of Forest Sciences (SECF).

4.   Other important aspects.

I received an **extraordinary award** for my master's thesis work, a fellowship to do my PhD. from Valladolid University (where I graduated **cum laude**) and the RyC grant.

Parte C. LISTADO DE APORTACIONES MÁS RELEVANTES

C.1. Publicaciones más importantes en libros y revistas con "peer review" y conferencias

AC: Autor de correspondencia; (nº x / nº y): posición firma solicitante / total autores. Si aplica, indique el número de citaciones

1 **Artículo científico**. Jorge Aldea; al. et. 2023. Current and future drought vulnerability for three dominant boreal tree species. Global Change Biology. WILEY.
2 **Artículo científico**. Jorge Aldea; al. et. 2023. Short-term effect of thinning on inter- and intra-annual radial increment in Mediterranean Scots pine-oak mixed forests. Forest Ecology and Management. Elsevier.
3 **Artículo científico**. Daesung Lee; al. et. 2023. Current state of mixed forests available for wood supply in Finland and Sweden. Scandinavian Journal of Forest Research. Elsevier.
4 **Artículo científico**. Jorge Aldea; al. et. 2023. Evaluation of growth models for mixed forests used in Swedish and Finnish decision support systems. Forest Ecology and Management. Elsevier.
5 **Artículo científico**. Sonja Vospernik; al. et. 2022. Tree species growth response to climate in mixtures of Quercus robur/ Quercus petraea and Pinus sylvestris across Europe- a dynamic, sensitive equilibrium. Forest Ecology and Management. Elsevier.
6 **Artículo científico**. Jorge Aldea; al. et. 2022. Timing and duration of drought modulate tree growth response in pure and mixed stands of Scots pine and Norway spruce. Journal of Ecology. WILEY.
7 **Artículo científico**. Hans Pretzsch; Andrés Bravo-Oviedo; Torben Hilmers; et al.2022. With increasing site quality asymmetric competition and mortality reduces Scots pine (Pinus sylvestris L.) stand structuring across Europe. Forest Ecology and Management. Elsevier. 520.
8 **Artículo científico**. Miren del río; al. et. 2022. Emerging stability of forest productivity by mixing two species buffers temperature destabilizing effect. Journal of Applied Ecology. WILEY.
9 **Artículo científico**. Ruiz-Peinado, R; Pretzsch, H; Lof, M; et al; del Rio, M. 2021. Mixing effects on Scots pine (Pinus sylvestris L.) and Norway spruce (Picea abies (L.) Karst.) productivity along a climatic gradient across Europe. FOREST ECOLOGY AND MANAGEMENT. 482. ISSN 0378-1127.
10 **Artículo científico**. Aldea, J; Bravo, F; Vazquez-Pique, J; Ruiz-Peinado, R; del Rio, M. 2021. Differences in stem radial variation between Pinus pinaster Ait. and Quercus pyrenaica Willd. may release inter-specific competition. FOREST ECOLOGY AND MANAGEMENT. 481. ISSN 0378-1127.
11 **Artículo científico**. Aldea, J; Ruiz-Peinado, R; del Rio, M; et al; Lof, M. 2021. Species stratification and weather conditions drive tree growth in Scots pine and Norway spruce mixed stands along Europe. FOREST ECOLOGY AND MANAGEMENT. 481. ISSN 0378-1127.
12 **Artículo científico**. Moreno-Fernandez, D; Aldea, J; Gea-Izquierdo, G; Canellas, I; Martin-Benito, D. 2021. Influence of climate and thinning onQuercus pyrenaicaWilld. coppices growth dynamics. EUROPEAN JOURNAL OF FOREST RESEARCH. 140-1, pp.187-197. ISSN 1612-4669.
13 **Artículo científico**. Pretzsch, H; Steckel, M; Heym, M; et al; del R?o, M. 2020. Stand growth and structure of mixed-species and monospecific stands of Scots pine (Pinus sylvestris L.) and oak (Q. robur L., Quercus petraea (Matt.) Liebl.) analysed along a productivity gradient through Europe. EUROPEAN JOURNAL OF FOREST RESEARCH. 139-3, pp.349-367. ISSN 1612-4669.
14 **Artículo científico**. Steckel, M.; {del Río}, M.; Heym, M.; et al; Pretzsch, H.2020. Species mixing reduces drought susceptibility of Scots pine (Pinus sylvestris L.) and oak (Quercus robur L., Quercus petraea (Matt.) Liebl.) – Site water supply and fertility modify the mixing effect. Forest Ecology and Management. 461, pp.117908-117908. ISSN 0378-1127.
15 **Artículo científico**. Aldea, J.; Bravo, F.; Vázquez-Piqué, J.; Rubio-Cuadrado, A.; {del Río}, M.2018. Species-specific weather response in the daily stem variation cycles of Mediterranean pine-oak mixed stands. Agricultural and Forest Meteorology. 256-257, pp.220-230. ISSN 0168-1923.

16 **Artículo científico**. Aldea, J.; Bravo, F.; Bravo-Oviedo, A.; Ruiz-Peinado, R.; Rodríguez, F.; {del Río}, M.2017. Thinning enhances the species-specific radial increment response to drought in Mediterranean pine-oak stands. Agricultural and Forest Meteorology. 237-238, pp.371-383. ISSN 0168-1923.

17 **Capítulo de libro**. Johanna Witzell; Carmen Romeralo Tapia; Jorge Aldea; Magnus Löf. 2022. Forest diversity and productivity – implications for forest health in future climates. Forest Microbiology: Forest Tree Health. ELSEVIER. Volume 2.

C.2. Congresos

1 Jorge Aldea; Ignacio Barbeito. Thinning increased drought resilience in an oak Swedish plantation. XVI Congreso Nacional de la AEET. AEET. 2023. España.

2 Jorge Aldea; Simone Bianchi; Emma Holmstöm; Jari Hynynen; Urban Nilsson; Daesung Lee; Saija Huuskonen. Evaluation of growth models for mixed forests used in Swedish and Finnish decission support systems. International scientific growth and yield network conference. SILAVA. 2022. Letonia.

C.3. Proyectos o líneas de investigación

1 **Proyecto**. Continuous cover forestry - managing for complex forest stand structures. Magnus Löf. (Swedish University of Agricultural Sciences). 06/05/2024-06/05/2026. 67.200 €.

2 **Proyecto**. Managing stand structure to restore mixed oak-dominated forests for conservation of biodiversity. Oscar & Lili Lamms Minne Foundation. Magnus Löf. (Swedish University of Agricultural Sciences). 01/09/2021-01/09/2025. 220.000 €.

3 **Proyecto**. Microbiome and their role in tree health. Kungl.Skogs-och Lantbruksakademien. Carmen Romeralo. (Swedish University of Agricultural Sciences). 01/12/2021-31/12/2023. 10.900 €.

4 **Proyecto**. Management of Mixed-forest : Diversity to forests and bioeconomy. Kungl. Skogs- och Lantbruksakademiens (KSLA). Emma Holmström. (Swedish University of Agricultural Sciences). 01/01/2020-31/12/2022. 192.000 €.

5 **Proyecto**. Gallrings för ökad torkresiliens i svensk ek. Erik Stenströms stiftelse. Ignacio Barbeito. (Swedish University of Agricultural Sciences). 22/11/2019-31/12/2022. 15.000 €.

6 **Proyecto**. Evaluation of birch growth resilience to extreme drought events. Swedish University of Agricultural Sciences. Jorge Aldea. (Swedish University of Agricultural Sciences). 06/05/2020-01/01/2022. 9.000 €.

7 **Proyecto**. Drought vulnerability in time and space of Norway spruce and Scots pine forests as a basis for decision support. Swedish University of Agricultural Sciences. Jorge Aldea. (Swedish University of Agricultural Sciences). 30/04/2019-30/04/2021. 25.000 €.

8 **Proyecto**. REFORM (FR-2017/0001) SUMFOREST ERA-net. Mixed species forest management. Lowering risk, increasing resilience.. Swedish Research Council. Magnus Löf. (Swedish University of Agricultural Sciences). 01/01/2016-31/12/2019. 294.200 €.

9 **Contrato**. Implementing Monte Carlo based random storm generator in Heureka Decision Support System Swedish University of Agricultural Sciences. Narayanan Subramanian. 01/06/2022-01/06/2023. 29.025 €.

10 **Contrato**. Enabling Heureka model to generate random storm events Swedish University of Agricultural Sciences. Jorge Aldea. 13/04/2021-13/04/2022. 7.000 €.

11 **Contrato**. Beech growth performance in a provenance trial in southern Sweden Partnerskap Alnarp. Jorge Aldea. 01/12/2019-01/12/2021. 2.390 €.

12 **Contrato**. Thinning for enhancing resilience of oaks to drought in Sweden Partnerskap Alnarp. Ignacio Barbeito. 20/02/2019-20/02/2021. 3.100 €.

13 **Contrato**. Study of survival and growth in a beech provenance trial in southern Sweden Partnerskap Alnarp. Jorge Aldea. 03/12/2018-03/12/2020. 1.000 €.