

## ANDREA DUANE BERNEDO

### PERSONAL DETAILS

**Contact:**

Department of Environmental Science and Policy  
University of California, Davis,  
Davis, 95616, CA, United States

**Email:** [andreaduane@gmail.es](mailto:andreaduane@gmail.es)

**Date and place of birth:** 20th March 1987, Madrid, Spain

**Languages:** Catalan, Spanish, English, French



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SCOPUS Author ID: 56644424400

Google Scholar h-index: 15 – i10-index: 19 (31/10/2023)

Scientific articles: 21; First-author scientific articles: 7

### QUALIFICATIONS

PhD in Terrestrial Ecology

Universitat Autònoma de Barcelona, September 2018 [*Score: Excellent 'Cum Laude'*]

Master in Terrestrial Ecology and Biodiversity Management

Universitat Autònoma de Barcelona, 2012-2013. [*Score: 8.70 out of 10*]

Master in Remote Sensing and GIS

Universitat Autònoma de Barcelona, 2011-2012. [*Score: 9.28 out of 10. Highest student score*]

Bachelor in Environmental Science

Universitat Autònoma de Barcelona, 2005-2010

### WORK EXPERIENCE

September 2023 – current: Postdoc researcher at the University of California, Davis

May 2022 - August 2023: *Juan de la Cierva - Formación* Postdoc grant at the University of Lleida  
*January-June 2023: Maternity leave*

November 2021 - April 2022: Deputy coordinator of the FIRE-RES project

October 2018 - October 2021: Postdoc position at the Forest Science and Technology Center of Catalonia (CTFC) linked to the INMODES project.  
*January-June 2021: Maternity leave*

September 2014 - September 2018: FPU- PhD Grant from the Spanish Ministry of Education at the Forest Science and Technology Center of Catalonia (CTFC)

March 2013 - September 2014: Predoctoral technician at the Forest Science and Technology Center of Catalonia (CTFC)

#### PEER-REVIEWED PUBLICATIONS

21. Lecina-Diaz, J., Campos, J., Pais, S., Carvalho-Santos, C., Azevedo, J., Fernandes, P., Goncalves, J., Aquilue, N., Rocés-Diaz, J., Agrelo de la Torre, M., Brotons, L., Chas-Amil, D., Lomba, A., **Duane, A.**, Moreira, F., Touza, J. M., Hermoso, V., Sil, A., Vicente, J., Regos, A. 2023. (Accepted/In press). Stakeholder perceptions of wildfire management strategies as nature-based solutions in two Iberian Biosphere Reserves. *Ecology and Society*.
20. de la Barra, F., Alignier, A., Reyes-Paecke, S., **Duane, A.**, Miranda, M.D. 2022. Selecting Graph Metrics with Ecological Significance for Deepening Landscape Characterization: Review and Applications. *Land*, 11, 338. <https://doi.org/10.3390/land11030338>
19. Linley, G.D., Jolly, C.J., Doherty, T.S., Geary, W.L., Armenteras, D., Belcher, C.M., Bliege Bird, R., **Duane, A.**, Fletcher, M., Giorgis, M.A., Haslem, A., Jones, G.M., Kelly, L.T., Lee, C.K. F., Nolan, R.H., Parr, C.L., Pausas, J.G., Price, J.N., Regos, A., Ritchie, E.G., Ruffault, J., Williamson, G.J., Wu, Q., Nimmo, D. 2022. What do you mean, 'megafire'? *Global Ecology and Biogeography*, 31, Issue 10, pp. 1906-1922. <https://doi.org/10.1111/geb.13499>
18. Hermoso, V., Regos, A., Morán-Ordoñez, A., **Duane, A.**, Brotons, L. 2021. Tree planting: A double-edged sword to fight climate change in an era of megafires. *Global Change Biology*, 27, Issue 13, pp. 3001-3003. <https://doi.org/10.1111/gcb.15625>
17. **Duane, A.**, Castellnou, M., Brotons, L. 2021. Towards a comprehensive look at global drivers of novel extreme wildfire events. *Climatic change*, 165 (3-4), 43. <https://doi.org/10.1007/s10584-021-03066-4>
16. **Duane, A.**, Miranda M.D., Brotons, L. 2021. Forest connectivity percolation thresholds for fire spread under different weather conditions. *Forest Ecology and Management*, 498, 119558. <https://doi.org/10.1016/j.foreco.2021.119558>
15. Driscoll, D. A., Armenteras, D., Bennett, A. F., Brotons, L., Clarke, M.F., Doherty, T.S., Haslem, A., Kelly, L.T., Sato, C.F., Sitters, H., Aquilué, N., Bell, K., Chadid, M., **Duane, A.**, Meza-Elizalde, M.C., Giljohann, K.M., González, T.M., Jambhekar, R., Lazzari, J., Morán-Ordoñez, A., Wevill, T.; 2020. How fire interacts with habitat loss and fragmentation. *Biological reviews*. 96, Issue 3, pp. 976-998. <https://onlinelibrary.wiley.com/doi/abs/10.1111/brv.12687>
14. Kelly, L.T., Giljohann, K.M., **Duane, A.**, Aquilué, N., Archibald, S., Batllori, E., Bennett, A.F., Buckland, S.T., Canelles, Q., Clarke, M.F., Fortin, M.F., Hermoso, V., Herrando, S., Keane, R.E., Lake, F.K., McCarthy, M.A., Morán-Ordóñez, A., Parr, C.L., Pausas, J.G., Penman, T.D., Regos, A., Rumpff, L., Santos, J.L., Smith, A.L., Syphard, A.D., Tingley, M.W.,

- Brotons, L. 2020. Fire and biodiversity in the Anthropocene. *Science*. 370(6519). 10.1126/science.abb0355
13. Morán-Ordoñez, A., **Duane, A.**, Gil-Tena, A., De Cáceres, M., Aquilué, A., Guerra, C.A., Geijzendorffer, I.R., Fortin, M.J., Brotons, L. 2020. Future impact of climate extremes in the Mediterranean: Soil erosion projections when fire and extreme rainfall meet. *Land Degradation & Development*, 31, Issue 18, pp. 3040-3054. <https://doi.org/10.1002/ldr.3694>
  12. **Duane, A.**, Aquilué, N., Canelles, Q., Morán-Ordóñez, A., De Cáceres, M., Brotons, L. 2019. Adapting prescribed burns to future climate change in Mediterranean landscapes. *Science of the Total Environment*. 677, pp. 68 - 83. <https://doi.org/10.1016/j.scitotenv.2019.04.348>
  11. Otsu, K., Pla, M., **Duane, A.**, Cardil, A., Brotons, L. 2019. Estimating the Threshold of Detection on Tree Crown Defoliation Using Vegetation Indices from UAS Multispectral Imagery. *Drones*. 3 - 4, pp. 80. <https://doi.org/10.3390/drones3040080>
  10. Canelles, Q., Aquilué, N., **Duane, A.**, Brotons, L. 2019. From stand to landscape: modelling post-fire regeneration and species growth. *Ecological Modelling*. 404, pp. 103 - 111. <https://doi.org/10.1016/j.ecolmodel.2019.05.001>
  9. Pla, M., Bota, G., **Duane, A.**, Balagué, J., Curcó, A., Gutiérrez, R., Brotons, L. 2019. Calibrating Sentinel-2 Imagery with Multispectral UAV Derived Information to Quantify Damages in Mediterranean Rice Crops Caused by Western Swamphen (*Porphyrio porphyrio*). *Drones*. 3 - 2, pp. 45. <https://doi.org/10.3390/drones3020045>
  8. Brotons, L; **Duane, A.**, 2019. Correspondence: Uncertainty in Climate-Vegetation Feedbacks on Fire Regimes Challenges Reliable Long-Term Projections of Burnt Area from Correlative Models. *Fire*. 2-1, pp.8. <https://doi.org/10.3390/fire2010008>
  7. **Duane, A.**, Kelly, L., Giljohann, K., Batllori, E., McCarthy, M., Brotons, L. 2019. Disentangling the influence of past fires on subsequent fires in Mediterranean landscapes. *Ecosystems*. 22, pp. 1338 - 1351. <https://doi.org/10.1007/s10021-019-00340-6>
  6. **Duane, A.**, Brotons, L., 2018. Synoptic weather conditions and changing fire regimes in a Mediterranean environment. *Agriculture and Forest Meteorology*, 253–254:190–202. doi: 10.1016/j.agrformet.2018.02.014
  5. Pla, M., **Duane, A.**, Brotons, L., 2017. Potential of UAV images as ground-truth data for burn severity classification of Landsat imagery: approaches to a useful product for post-fire management. *Revista de Teledetección*. (49):91-102. doi:10.4995/raet.2017.7140
  4. **Duane, A.**, Aquilué, N., Gil-Tena, A., Brotons, L., 2016. Integrating fire spread patterns in fire modelling at landscape scale. *Environmental Modelling and Software*. 86, 219–231. doi:10.1016/j.envsoft.2016.10.001
  3. Gil-Tena, A., Aquilué, N., **Duane, A.**, De Cáceres, M., Brotons, L., 2016. Mediterranean fire regime effects on pine-oak forest landscape mosaics under global change in NE Spain. *European Journal of Forest Research*. 135, 2. 403-416. doi:10.1007/s10342-016-0943-1

2. **Duane, A.**, Piqué, M., Castellnou, M., Brotons, L., 2015. Predictive modelling of fire occurrences from different fire spread patterns in Mediterranean landscapes. *International Journal of Wildland Fire*. 24, 407–418. doi:<http://dx.doi.org/10.1071/WF14040>
1. Riu-Bosoms, C., Vidal, T., **Duane, A.**, Onrubia, A.F.-L., Gueze, M., Luz, A.C., Paneque-Gálvez, J., Macia, M.J., Reyes-Garcia, V., 2014. Exploring Indigenous Landscape Classification across Different Dimensions: A Case Study from the Bolivian Amazon. *Landscape Research*. 40, 3. 318-337. doi:10.1080/01426397.2013.829810

TECHNICAL REPORTS, BOOK CHAPTERS and OTHER ARTICLES
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13. **Duane, A.**, Brotons, L. 2023. La evaluación de los impactos por incendios en la resiliencia de los hábitats forestales y matorrales no riparios. In “Los incendios en la red natura 2000: situación, prevención y propuestas para una gestión integral”. Eds: López-Santalla, A. y Guil, F. Ministerio para la transición ecológica y el reto demográfico. Gobierno de España. Madrid. NIPO: 665-22-061-6/665-22-062-1
12. **Duane, A.**, Bachfisher, M. Brotons, L., Castellnou, M. 2023. Wildfire rate of spread according to fire isochrones and wind direction in four of the 2019-2020 Black Summer Fires in Australia. In *Advances in Forest Fire Research 2022*. Eds: Viegas DX and Ribiero LM.
11. Castellnou, M., Nebot, E., Estivill, L., Miralles, M., Rosell, M., Valor, T., Casals, P., **Duane, A.**, Piqué, M., Górriz-Mifsud, E., Coll, Ll., Serra, M., Plana, E., Colaço, C., Sequeira, C., Skulska, I., Moran, P. 2022. FIRE-RES Transfer of Lessons Learned on Extreme wildfire Events to key stakeholders. Deliverable D1.1 FIRE-RES project. 119 pages. DOI: 10.5281/zenodo.7358311
10. Regos, A; Campos, JC; Lecina-Diaz, J; Pais, S; Sil, Â; Cánibe, M; Freitas, TR; Rodriguez, S; Aquilué, N; Gonçalves, J; Carvalho-Santos, C; Lomba, Â; Moreira, F; **Duane, A**; Hermoso, V; Brotons, L; Chas-Amil, M; Touza, J; Santos, JA; Fernandes, P; Azevedo, J; Honrado, JP. 2023. Summary for policymakers of the project FirESmart – Nature-based solutions for preventive fire management and sustained supply of ecosystem services. FirESmart project – Nature-based solutions for preventive fire management and sustained supply of ecosystem services. FCT – Foundation for Science and Technology, Portugal. DOI: 10.5281/zenodo.7517623
9. **Duane, A.**, Valor, T. 2023. El règim d’incendis a Catalunya: què està canviant? Tendències, perspectives, i efectes sobre la vegetació. *L’Atzavara*, Vol. 33, p. 73-86, <https://raco.cat/index.php/Atzavara/article/view/411443>.
8. **Duane, A.**, Bachfisher, M. Brotons, L., Castellnou, M. 2023. Wildfire rate of spread according to fire isochrones and wind direction in four of the 2019-2020 Black Summer Fires in Australia. In *Advances in Forest Fire Research 2022*. Eds: Viegas DX and Ribiero LM.
7. Oliveres, J., Castellnou, M., Castellarnau, X., Larrañaga, A., Pagès, J., Miralles, M., Valls, R., Bosch, M., Viló, E., Rodríguez, L., Calvo, J., Arjó, G., Brotons, L., **Duane, A.** 2022. Plan estratègic de gestió sostenible regim de huc val d’aran. Conselh Generau Aran. 375 pp

6. **Duane, A.**, Aquilué, N., Canelles, Q., Garcia, O., Domenjó, I., Castellnou, M., Gené, J., Brotons, L., Trasobares, A. 2020. Quins reptes planteja un posible augment de la producció de fusta a Catalunya en ple s.XXI? *Catalunya Forestal*, 146. Pp 20-22
5. Brotons, L., Anton, M., Stefanescu, C., Vayreda, J., Comas, L., Rosell, C., Banqué, M., **Duane, A.**, Pino, J., Garriga, F., Camprodon, J., Ordóñez, J.L., Sainz de la Maza, P., Pont, S. 2020. Boscos i matollars. En: Brotons, et al. (2020) *Estat de la Natura a Catalunya 2020*. Departament de Territori i Sostenibilitat. Generalitat de Catalunya. Barcelona.
4. Sánchez de Dios, R., Sánchez Pescador, D., Del Barrio Escribano, G., Vayreda, J., Chacón, J., Sainz-Ollero, H., Velázquez, J.C., Escudero, A., Lloret, F., Martínez, J., Moreno, A.R., Sanjuan, M.E., Batllés-Climent, C., Lerner, M., Brotons, L., **Duane, A.** 2019. Bosques y matorrales no fluviales. Manual para el seguimiento del estado de conservación de los tipos de hábitat. pp. 110. Ministerio para la transición ecológica
3. **Duane, A.**, Brotons, L., Lerner, M., Fernández, M., Vila, B., Chacón-Labela, J., Pescador, D. S., Lloret, F. 2019. Análisis de escenarios, a corto y medio plazo, del riesgo de afección por incendios forestales para al menos veinticinco tipos de hábitat de bosque y matorral. Serie "Metodologías para el seguimiento del estado de conservación de los tipos de hábitat". Ministerio para la Transición Ecológica. Madrid. 47pp
2. Pagès, J., **Duane, A.**, Castellnou, M., Brotons, L., Nebot, E. 2015. Chapter: 'Reducing vulnerability to wildfires at landscape level'. In *Book of Guidelines: 'Operational tools and guidelines for improving efficiency in wildfire risk reduction in EU landscapes'*. Editors: Plana, E.; Font, M.; Green, T. ISBN: 978-84-608-5083-0
1. Piqué, M., González-Olabarria, J.R., Valor, T., **Duane, A.**, Beltrán, M., Blázquez, A., Brotons, L., Smith, T.E. 2015. 'Large forest fire risk assessment and fuel management: operational tools and integrated approach'. Technical Report. Forest Science Center of Catalonia.

#### CONFERENCE AND SEMINAR PRESENTATIONS

29. Moghli, A., Varotsos, K.V., Karali, A., Brotons, L., Giannakopoulos, C., **Duane, A.** Likely future changes in the conducive conditions to the extreme wildfire events in Europe. *Fire in the Earth System*. Granada, Spain. 05/07/2023
28. Moghli, A., **Duane, A.**, Baeza, M.J., Soliveres, S., Santana, VM. Combined restoration strategies can establish fire-resilient and functional landscapes. *International Wildland Fire Conference*. Porto, Portugal, 18/05/2023. 26.
27. Trasobares, A., **Duane, A.**, Garcia-Gonzalo, J. The FIRE-RES project. Challenges in Emergency Management - Toward 2030 and Beyond. *TIEMS annual conference*. Atlanta, USA. 20/10/2022
26. **Duane, A.** The FIRE-RES project: overview of innovations and end-users needs in the field of remote sensing and wildfires. *Earth Observation Products for Wildfires Monitoring and Forecast 2022*. Lisboa, Portugal, 19/10/2022.

25. **Duane, A.**, Vega, C. Are fire regimes changing in Europe? A pan-European analysis. Fire across boundaries Conference. Florence, Italy. 4/10/2022
24. **Duane, A.**, Górriz, E., Piqué, M., Plana, E., González-Olabarria, JA., Casafont, L., Trasobares, A. La gestión del riesgo de los nuevos incendios forestales extremos en Europa: el proyecto H2020 FIRE-RES y su despliegue en el territorio español. 8º Congreso Forestal Español, Lleida, Catalunya, Spain. 28/06/2022.
23. Brotons, L., **Duane, A.**, Castellnou, M., Vega, C., Resco de Dios, V. Review of the climate mechanisms behind the occurrence of extreme wildfire events around the globe. Fire and Climate Conference, Melbourne, Australia. 08/06/2023
22. **Duane, A.**, Miranda, M., Brotons, L. How landscape connectivity influences fire size as a function of fire weather conditions. Fire & Climate Conference. Pasadena, USA. 24/05/2022.
21. **Duane, A.**, Trasobares, A., Górriz, E., Casafont, L., Maltoni, S. The FIRE-RES Project: Innovative Technologies and Socio-Ecological–Economic Solutions for FIRE RESilient Territories in Europe. Third International Conference on Fire Behavior and Risk, Sardinia, Italy, 04/05/2022.
20. **Duane, A.**, Miranda, M., Brotons, L. Landscape connectivity and fire size in a Spanish Mediterranean region. V Congreso Ibérico Ecología del Paisaje. Online. 19/11/2021.
19. Oliveres, J., **Duane, A.**, Brotons, L., Rosas-Casals, M., Castellnou, M. The hammer of extinction and the dance with wildland fire use; the new fire deal in Pyrenees to foster socioecological resilience to climate change challenges. 18th Swiss Geoscience Meeting, Zurich. 04/11/2020
18. Brotons, L., **Duane, A.**, Kelly, L.T. Interpreting contrasting pyrodiversity effects under a common framework: Functional heterogeneity and global patterns of land use change impacts on biodiversity. 8th International Fire Ecology and Management Congress. Association for Fire Ecology. Tucson, Arizona, USA. 18-22/11/2019.
17. **Duane, A.**, Castellnou, M., Brotons, L. Global Novel Fire Regimes in the Anthropocene. 8th International Fire Ecology and Management Congress. Association for Fire Ecology. Tucson, Arizona, USA. 18-22/11/2019.
16. **Duane, A.**, Domènech, R. Mosaics paisatgístics i tractaments silvícoles com a eines per generar paisatges resilents als incendis forestals. Incendi de la Torre de l'Espanyol. Influència de l'estructura del paisatge i del mosaic agrícola i forestal. Generalitat de Catalunya. Vinebre, Catalunya, Spain. 09/10/2019.
15. **Duane, A.**, Aquilué, N., Canelles, Q., Morán-Ordoñez, A., De Cáceres, M., Brotons, L. Sustainable prescribed burning plans to offset climate change effects on fire regimes in a European Mediterranean region. 6th International Fire Behavior and Fuels Conference Marseille, Provence, France. 29/04 – 03/05/2019.
14. **Duane, A.**, Brotons, L. Does fire regulate fire? Insights on the ecosystem attributes that drive the fire paradox. 1st Meeting of the Iberian Ecological Society & XIV AEET Meeting. AEET. Barcelona, Catalonia, Spain. 04-07/02/2019.

13. **Duane, A.**, Brotons, L. Future fire regime changes in Catalonia under novel climates: insights for risk management. COMMUNICATING RISKS IN Decision Support Systems: from basic research to advance decision support tools. Solsona, Catalunya, Spain. 06/06/2019.
12. **Duane, A.** Evolución del riesgo de incendios forestales. Gestión de riesgos naturales y cambio climático: estado de la cuestión y retos de futuro. Departament d'Agricultura, Generalitat de Catalunya. Solsona, Catalunya, Spain. 29/11/2018.
11. **Duane, A.**, Brotons, L. Canvi climàtic, incendis i canvis en el paisatge. 20 anys de l'incendi del Solsonès. Bombers de la Generalitat de Catalunya. Solsona, Catalunya, Spain. 08/11/2018.
10. **Duane, A.**, Brotons, L. Global change and fire regimes in Mediterranean ecosystems. Forum on Catalan Wildfire Research. Pau Costa Foundation. Barcelona, Catalunya, Spain. 06/11/2018.
9. Canelles, Q., Gil-Tena, A, **Duane, A.**, Aquilué, N., Vayreda, J., Brotons, B. 2017. Parametrización de modelos dinámicos de vegetación a escala de paisaje mediante el uso del inventario forestal nacional. VII Congreso Forestal Español. Plasencia, Extremadura, Spain. 30/06/2017.
8. Gil-Tena, A., Canelles, Q., **Duane, A.**, Aquilué, N., Morám-Ordoñez, A., Comas, L., Beltrán, M., Vericat, P., Retana, J., Vayreda, J. Piqué, J., Brotons, B. 2017. Estimación y proyección de la idoneidad climática y del crecimiento potencial de las principales especies arbóreas forestales de Cataluña. VII Congreso Forestal Español. Plasencia, Extremadura, Spain. 30/06/2017.
7. **Duane, A.**, Brotons, L. The challenge of emergence in fire regimes in landscape succession models. World Conference on Natural Resource Modelling. Natural Resource Modelling Association. Barcelona, Catalunya, Spain. 05/06/2017.
6. **Duane, A.**, Batllori, E., Brotons, L. Burnt area prediction in Mediterranean ecosystems. XIV MEDECOS & XIII AEET meeting. AEET. Sevilla, Andalucia, Spain. 01/02/2017.
5. **Duane, A.**, Brotons, L. Modelización de los escenarios de cambio climático y de cambio de usos en Cataluña y de los efectos sobre el riesgo de incendios forestales. Incendios forestales: herramientas para la planificación y gestión del riesgo. Departament d'Agricultura, Generalitat de Catalunya. Manresa, Catalunya, Spain. 09/06/2016.
4. **Duane, A.**, Pla, M., Brotons, L. SEVERICAT: Cartografía de severidad de incendios en Cataluña – Metodología y aplicaciones en el ámbito de la Administración. Avances en el Estudio de la severidad de incendios mediante teledetección. Asociación Española de Teledetección. León, Castilla y León, Spain. 27/05/2016.
3. Aquilué, N., **Duane, A.**, Gil-Tena, A., Brotons, L. Forest Management and Fire suppression: a Landscape Dynamics Model for European Mediterranean Ecosystems. Ecological Modelling Global Conference. Towson, Baltimore, USA. 08/05/2016
2. **Duane, A.**, Brotons, L., Piqué, M., Castellnou, M. Wildland-Urban Interfaces and Fire typologies: where are we? International conference on forest fire risk modelling and mapping. IRSTEA. Aix-en-Provence, Provence, France. 01/10/2013.

1. **Duane, A.**, Castellnou, M., Brotons, L. Estima de la biomasa arbórea a partir de datos de inventarios forestales en relación con variables topoclimáticas e índices de vegetación. VI Congreso Forestal Español. Sociedad Española de Ciencias Forestales. Vitoria, Euskadi, Spain. 13/06/2013.

#### GRANTS AND AWARDS

- 2022-2023 Juan de la Cierva Formación PostDoc Fellowship. Ministerio de Ciencia e Innovación, Gobierno de España. 52600€
- 2019 Pioneer Thesis Awards. Centres CERCA Institution, Generalitat de Catalunya. 1000€
- 2017 Estancias Breves FPU – Grant for international exchange to the University of Melbourne, Australia. 3990€.
- 2014-2018 FPU- PhD Grant from the Spanish Ministry of Education. 76203.96€
- 2012 Grant to the highest grade in the MSc in Remote Sensing and GIS awarded by the master organization. 2500€.
- 2010 SENECA-Travel grant to the excellence awarded by Spanish Government to promote exchanges between Spanish universities. Universidad de Granada, 2120€.
- 2009 Universitat Autònoma de Barcelona – Exchange program to Bolivia. 400€
- 2005 Scholarship to the excellence to access to the University. Caixa de Manresa (Spanish Bank), 900€.

#### INTERNATIONAL SECONDMENTS

- 2019 One month stay (November) at the University of Washington, USA. With researcher Brian Harvey, within the European Marie-Curie IRSES project SuFoRun
- 2018 Two month stay (December-January-2019) at the Pontificia Universidad Católica de Chile, Chile. With researcher Marcelo Miranda, within the European Marie-Curie IRSES project SuFoRun.
- 2017 Three months stay (September-November) at the University of Melbourne, Australia. With researchers Michael McCarthy and Luke Kelly, within the *Estancias Breves* scholarship call of the *Ministerio de Educación* of the Spanish Government.
- 2014 Two month stay (March-April) at the *Université de Québec à Montréal (UQAM)*, Canada. With researchers Aurélie Terrier and Yves Bergeron, within the European Marie-Curie IRSES project Newforests

#### PARTICIPATION IN PROJECTS

- 2021-2025 FIRE-RES: Innovative technologies & socio-ecological-economic solutions for fire resilient territories in Europe, led by Antoni Trasobares. European



- Horizon H2020. Grant Agreement: 101037419. Total funds of the project: 21,5 million €. **Role:** Coordination team member, scientific supervisor
- 2018-2020 INMODES: Integrated modelling and planning for forest biodiversity and ecosystem services under global change scenarios, led by Lluís Brotons. Ministerio de Economía y Competitividad (CGL2017-89999-C2-2-R). Total funds of the project: 163350€. **Role:** Team member and research fellow.
- 2016-2020 SuFoRun: Models and decision support tools for integrated forest policy development under global change and associated risk and uncertainty. 2016-2020. Funded by: European Commission. H2020 (Marie Curie Actions – RISE). Main researcher: Jordi Garcia Gonzalo (CTFC).1.885.000 €. **Role:** Team member and research fellow.
- 2017 ‘Sistema de Evaluación del Estado de Conservación de los Hábitats de Bosque y Matorral en España’ – [*Evaluation System for Shrubs and Forest Habitat Conservation in Spain*], coordinated by TRAGSA and AEET (Spanish public organisations). **Role:** invited researcher, Principal Investigator of the wildfire section.
- 2016-2018 Alerta Forestal: citizen science forest project. Obra Social Fundación la Caixa. Main researcher: Lluís Brotons. 741.900 €. **Role:** Team member and research fellow
- 2015-2017 FORESTCAST: Assessment and forecasting of ecosystem services in forests: impacts and adaptation to extreme climate events, led by Lluís Brotons. Ministerio de Economía y Competitividad (CGL2014-59742-C2-2-R). Total funds of the project: 152460€. **Role:** Team member and research fellow.
- 2013-2017 NEWFORESTS: New and old world perspectives for forest ecology and management in a context of global change (PIRSES-GA-2013-612645) led by researcher Lluís Brotons. Total funds of the project: 405000€. **Role:** Technical coordinator
- 2014-2016 SEVERICAT. Fire severity mapping from remote sensing imagery in Catalonia. Funder: Catalan Government. 8500€ per year. **Role:** co-ordination
- 2014-2015 FIREfficient: Operational tools for improving efficiency in wildfire risk reduction in EU landscapes. Funder: European Commission. Directorate-General Humanitarian Aid And Civil Protection 2013. Total funds of the project: 455581€. **Role:** Leader of work package
- 2012-2014 BIONOVEL: Assessing the impact on biodiversity of uncertain and novel future landscapes under different drivers of global change in a Mediterranean region, led by Lluís Brotons. Ministerio de Economía y Competitividad (CGL2011-29539/BOS). Total funds of the project: 163350€. **Role:** Team member and research fellow.
- 2007-2010 MAPPING: Conservación del Bosque Amazónico y Territorios Indígenas: del Conflicto a la Colaboración (Bolivia), [*MAPPING: Conservation of Amazonian Forest and Aboriginal Territories: from conflict to collaboration, Bolivia*], led by Victoria-Reyes. BBVA Foundation (BIOCON\_06\_106-07). **Role:** collaborator and field work

## LECTURING AND TEACHING ACTIVITIES

- 2016-2022 Lecturing at the 'Mediterranean Forests Master'. Universitat de Lleida, Spain. *Global Changes and Fire Regimes*.
- 2017-2018 Teaching assistant. Subject 'Environmental Cartography Analysis', Grade of Biology. Universitat Autònoma de Barcelona.
- 2016-2018 Teaching assistant. Subject 'Exploration of Natural Environment', Grade of Biology. Universitat Autònoma de Barcelona.

*More than 150 hours of university teaching*

## POST-GRADUATE SUPERVISION

- 2023 Supervisor of the Master student Paula Tiara. Magíster en Recursos Naturales, Universidad Católica de Chile. 'Propuesta y validación de un conjunto de indicadores de susceptibilidad de un paisaje a incendios forestales'.
- 2020 Supervisor of the Master student Gabriela Romero. Master on Remote Sensing and GIS, Universitat Autònoma de Barcelona. 'Análisis de los patrones de velocidad y severidad del gran incendio forestal de Sisimiut ocurrido en Groenlandia en 2019'.
- 2019 Supervisor of the Master student Francisco Aguayo. Magíster en Recursos Naturales, Universidad Católica de Chile. 'Análisis temporal de anomalías de la productividad primaria asociada a eventos de incendio, en Bosques Nativos Mediterráneos de Chile y España'.
- 2014 Supervisor of the Master student Laura Las-Heras. Master on Terrestrial Ecology and Biodiversity Conservation, Universitat Autònoma de Barcelona. 'Analysis of forest connectivity role on large wildfires propagation'.
- 2013 Supervisor of the Master student Dani Ruiz. Master on Remote Sensing and GIS, Universitat Autònoma de Barcelona. 'Fire severity mapping in Catalonia from Landsat imagery: methods comparison'.

*Participation in three Master thesis evaluation panels.*

## OTHER RELEVANT INFORMATION

Dissemination and transfer of scientific activity in six radio interviews, three TV interview, eleven newspaper interviews and reports and two opinion press articles, all in both regional and national media.

Wildfire session presentation for the Catalanian Parliament. *Mesa sobre la Comissió de Estudi de la Prevenció y Gestió de los Incendios Forestales*. 25/07/2023.  
[https://www.parlament.cat/ext/f?p=700:15:0:::15:P15\\_ID\\_VIDEO,P15\\_ID\\_AGRUPACIO:14627002,17489](https://www.parlament.cat/ext/f?p=700:15:0:::15:P15_ID_VIDEO,P15_ID_AGRUPACIO:14627002,17489)

RPAS Drone Pilot License. I hold the Phantom-4 Drone License issued in Spain.

Co-organizer of the International Workshop 'Integrating ecological models to secure the future of biodiversity across flammable continents', held in Solsona (Spain) attended by 25 leading researchers from around the world. (June 2017)

Scientific committee of the 'V Reunión del Grupo de Modelización Forestal' of the SECF. Solsona, Lleida, (November 2019)

Member of the 'Sociedad Española de Ciencias Forestals' and of the 'Asociación Española de Ecología Terrestre', 'Association of Fire Ecology', and 'International Association of Wildland Fire'

Member Editorial Board of Frontiers in Forests and Global Change

Participant in the program "CientifiKs en joc": educative program related with gender and science. <https://cientificsenjoc.cat/>