

# ONFIRE Dataset: Harmonizing Decades of Wildland Fire Data

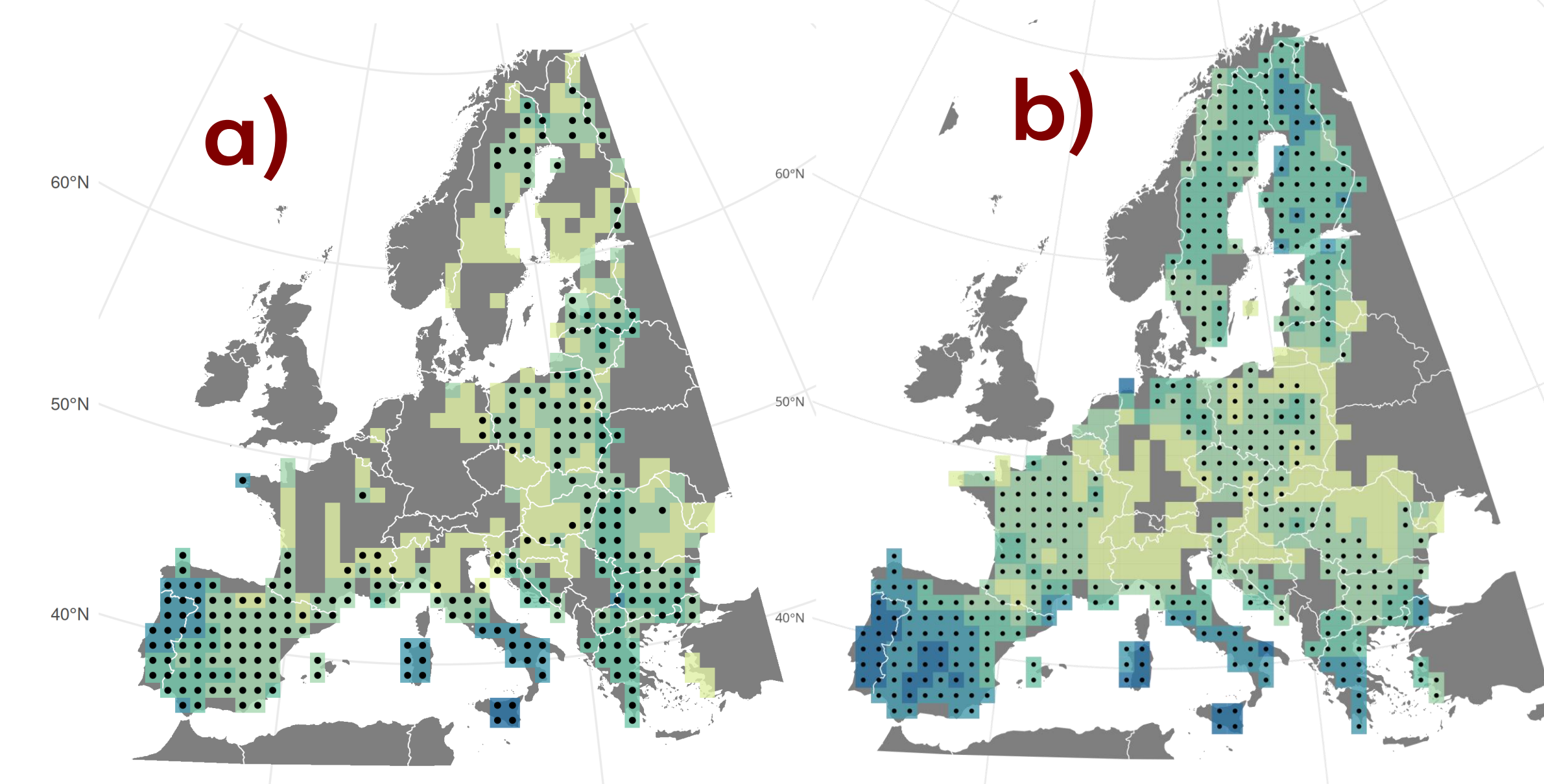
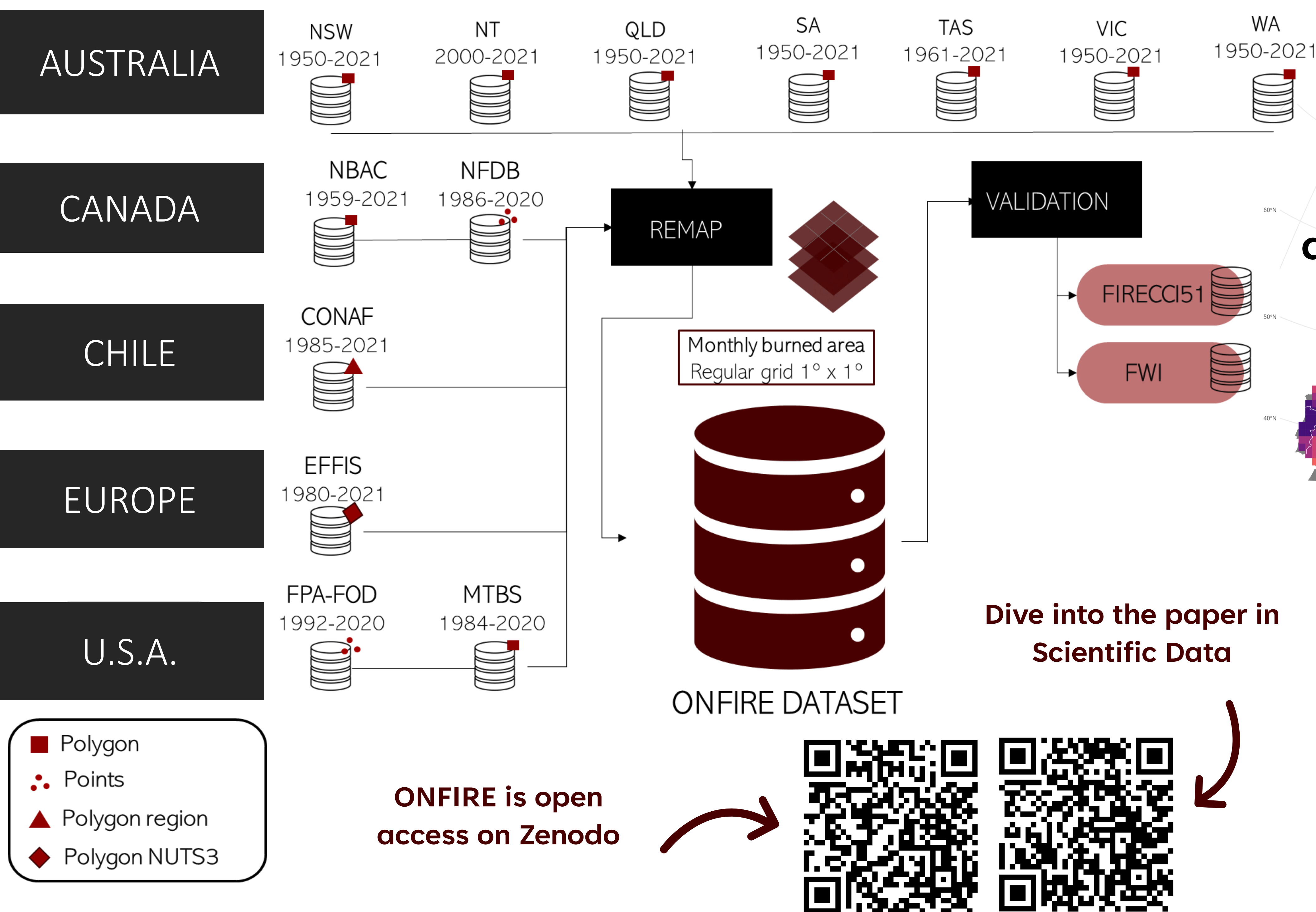


**Andrina Gincheva**, Juli G. Pausas, Andrew Edwards, Antonello Provenzale, Artemi Cerdà, Chelene Hanes, Dominic Royé, Emilio Chuvieco, Florent Mouillot, Gabriele Vissio, Jesús Rodrigo, Joaquín Bedía, John T. Abatzoglou, José María Senciales González, Karen C. Short, Mara Baudena, María Carmen Llasat, Marta Magnani, Matthias M. Boer, Mauro E. González, Miguel Ángel Torres-Vázquez, Paolo Fiorucci, Peter Jacklyn, Renata Libonati, Ricardo M. Trigo, Sixto Herrera, Sonia Jerez, Xianli Wang and, Marco Turco

## 1. Introduction

We describe a gridded monthly burned area database of national wildfire data providing data in a common framework.

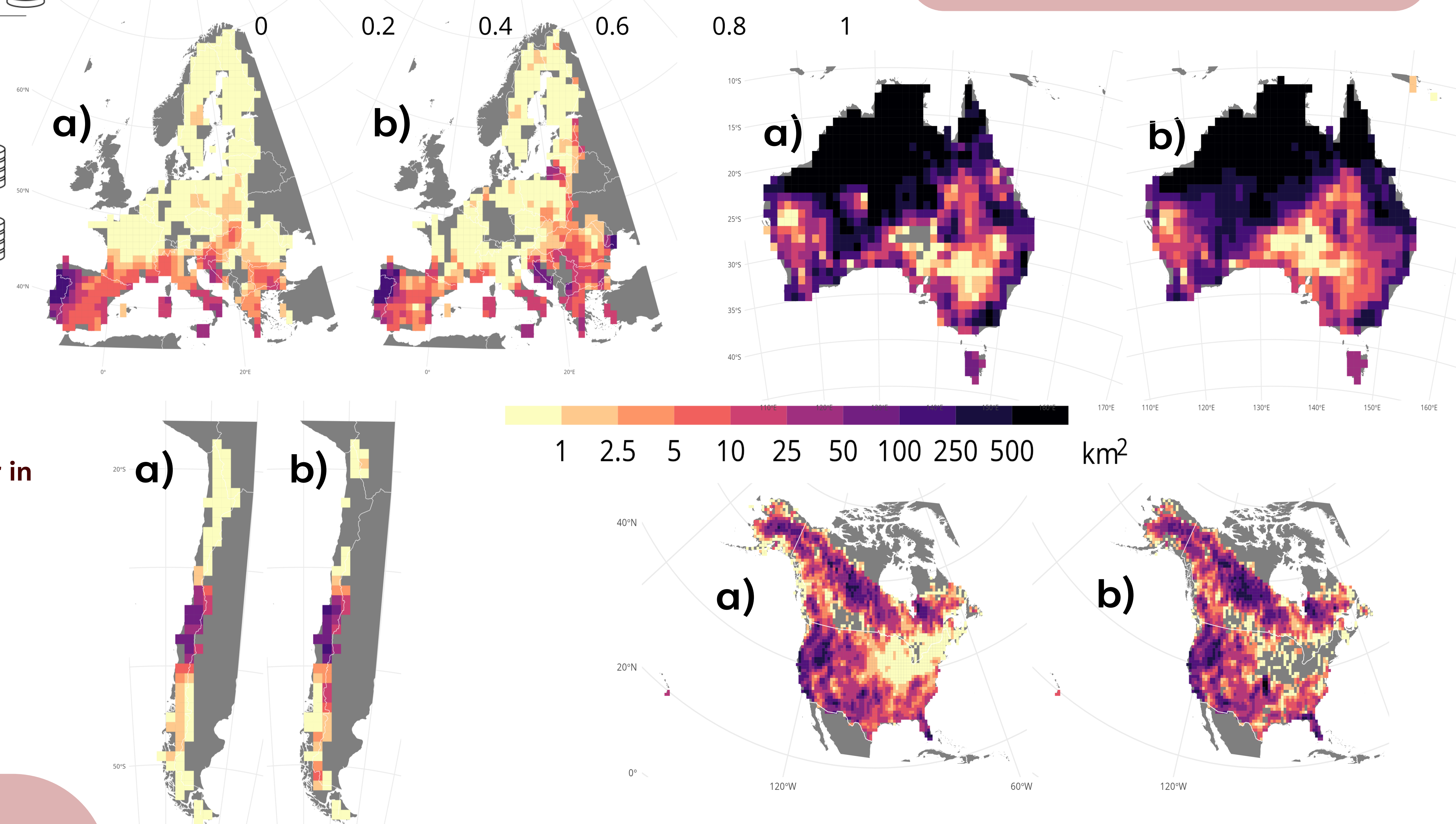
## 2. Schematic workflow



**Spearman correlation analyses for Europe:** Panel (a) presents the correlation between monthly burned area estimates from the ONFIRE and FireCCI51 datasets, spanning the period 2001–2020 or shorter, subject to the availability of data.

Panel (b) demonstrates the correlation between the monthly Fire Weather Index (FWI) and burned area from 1979–2021, utilizing ONFIRE data, subject to the availability of data.

## 3. Results



Mean annual burned area (km<sup>2</sup>) for the ONFIRE (panel a) and the FireCCI51 (panel b) datasets for Europe, Canada, the U.S.A., Australia, and Chile. Data for the period 2001–2020, or shorter depending on the data availability.

## 4. Conclusion

- ONFIRE provides accurate monthly burned area estimates.
- This dataset complements existing gridded BA data based on remote sensing.
- ONFIRE is Open Access.

**References:**

- Gincheva, A., & Turco, M. (2023). ONFIRE Dataset: Monthly Gridded Burned Area data (1.0) [Data set]. Zenodo. <https://doi.org/10.5281/zenodo.8289245>
- Gincheva, A., Pausas, J. G., Edwards, A., Provenzale, A., Cerdà, A., Hanes, C., Royé, D., Chuvieco, E., Mouillot, F., Vissio, G., Rodrigo, J., Bedía, J., Abatzoglou, J. T., Senciales González, J. M., Short, K. C., Baudena, M., Llasat, M. C., Magnani, M., Boer, M. M., ... Turco, M. (2024). A monthly gridded burned area database of national wildland fire data. *Scientific Data*, 11(1), 352. <https://doi.org/10.1038/s41597-024-03141-2>

**Acknowledgments:**  
 A.G. thanks to the Ministerio de Ciencia, Innovación y Universidades of Spain for Ph.D. contract FPU19/06536. M.T. acknowledges funding by the Spanish Ministry of Science, Innovation, and Universities through the Ramón y Cajal Grant Reference RYC2019-027115-I and through the project ONFIRE, grant PID2021-123193OB-I00, funded by MCIN/AEI/ 10.13039/501100011033 and by “ERDF A way of making Europe”.

andrina@um.es