environmental sciences proceedings

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Abstract

Forest Fires along Highways in the Last 10 Years in Curitiba and Metropolitan Region, Paraná, Brazil †

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† Presented at the Third International Conference on Fire Behavior and Risk, Sardinia, Italy, 3–6 May 2022.

Abstract: In recent years, news about accidents, including fatalities, on the highways of Paraná caused by low visibility due to fires occurring along the roads have been recurrent. In this sense, the objective of this study was to relate the highway areas with a high density of geolocated forest fires in the metropolitan region of Curitiba in the years 2011 to 2020. For that, data obtained from the Fire Department of Paraná through the SysBMNew-CCB platform were analyzed. For the spatialization of fire records, the Kernel point density was used, covering a scale from "null" to "very high". Subsequently, the percentage of road extension present in each density class was verified. In the last 10 years, 9565 fire occurrences were geolocated in the study area, with a greater concentration of points, according to the Kernel density, in the central region represented by the municipalities of Curitiba, São José dos Pinhais, Araucária, Almirante Tamandaré, Fazenda Rio Grande, Pinhais and Quatro Barras. It was possible to verify that 7.71% of the highways were located in an area classified as "very high" in fire density, 11.18% in the "high" class and 8.28% in the "medium" class. That means that, in these regions, greater attention is needed for forest fire control and prevention measures, in order to reduce potential accidents and preserve the lives of road users.

Keywords: roads; urban–rural interface; forest fire

Citation: Zamproni, K.; Ferreira, H.R.; Batista, A.C.; Biondi, D.; Martini, A. Forest Fires along Highways in the Last 10 Years in Curitiba and Metropolitan Region, Paraná, Brazil. *Environ. Sci. Proc.* **2022**, *17*, 5. https://doi.org/10.3390/environsciproc2022017005

Academic Editors: Pierpaolo Duce, Donatella Spano, Michele Salis, Bachisio Arca, Valentina Bacciu, Grazia Pellizzaro and Costantino Sirca

Published: 5 August 2022

Author Contributions: Conceptualization, K.Z. and A.C.B.; methodology, K.Z. and H.R.F.; investigation, K.Z.; writing—original draft preparation, K.Z. and H.R.F.; writing—review and editing, A.C.B., D.B. and A.M. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Conflicts of Interest: The authors declare no conflict of interest.