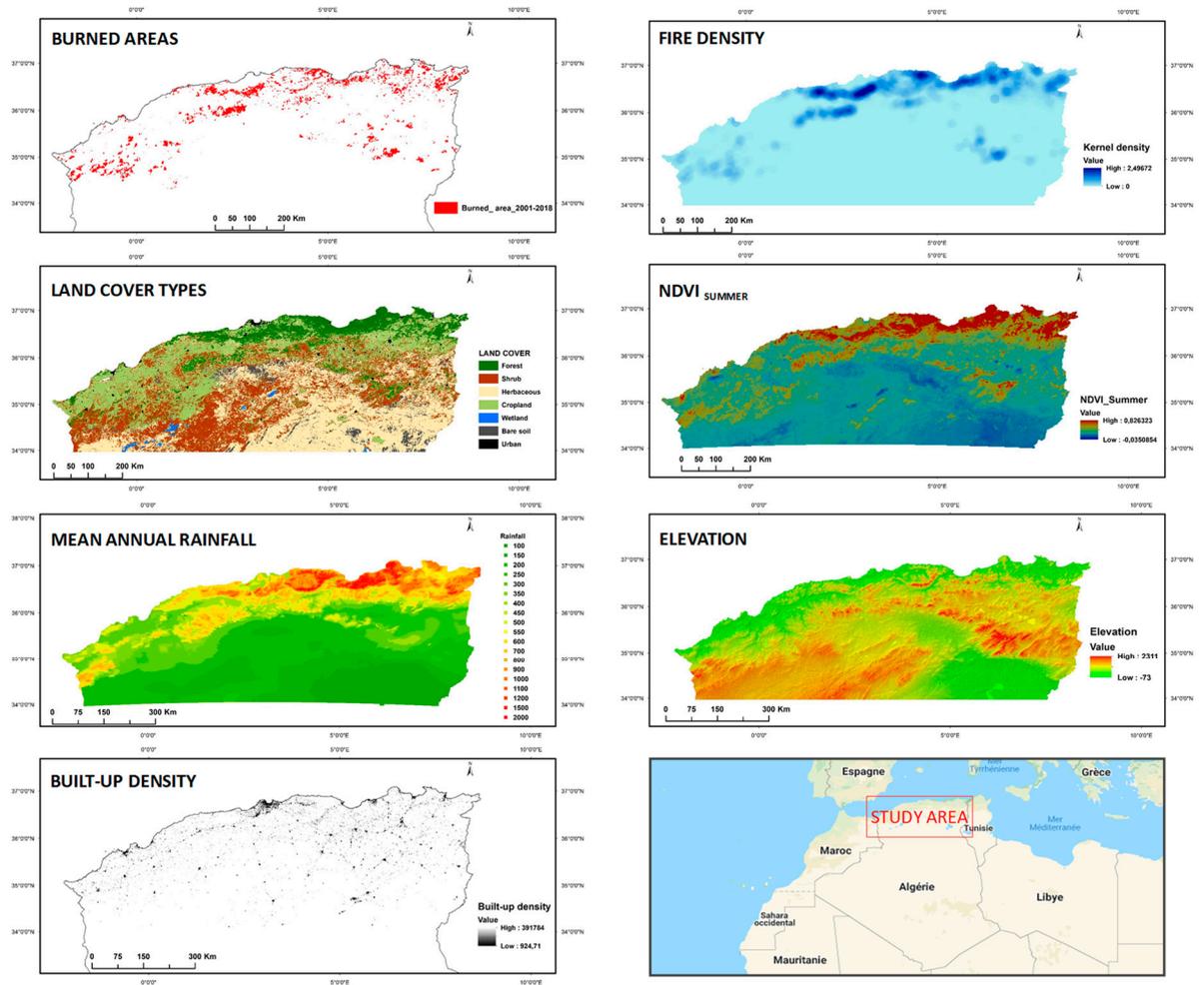


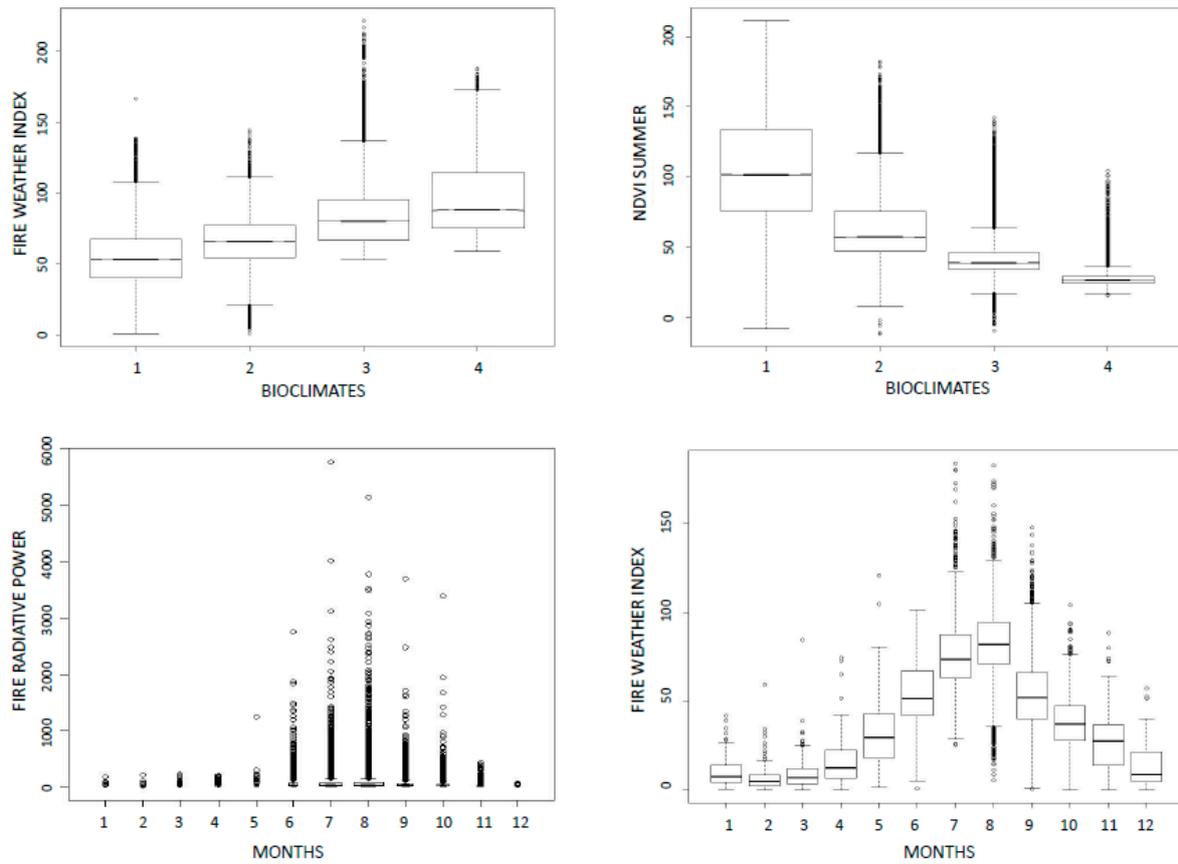
Supplementary Figures

Figure S1



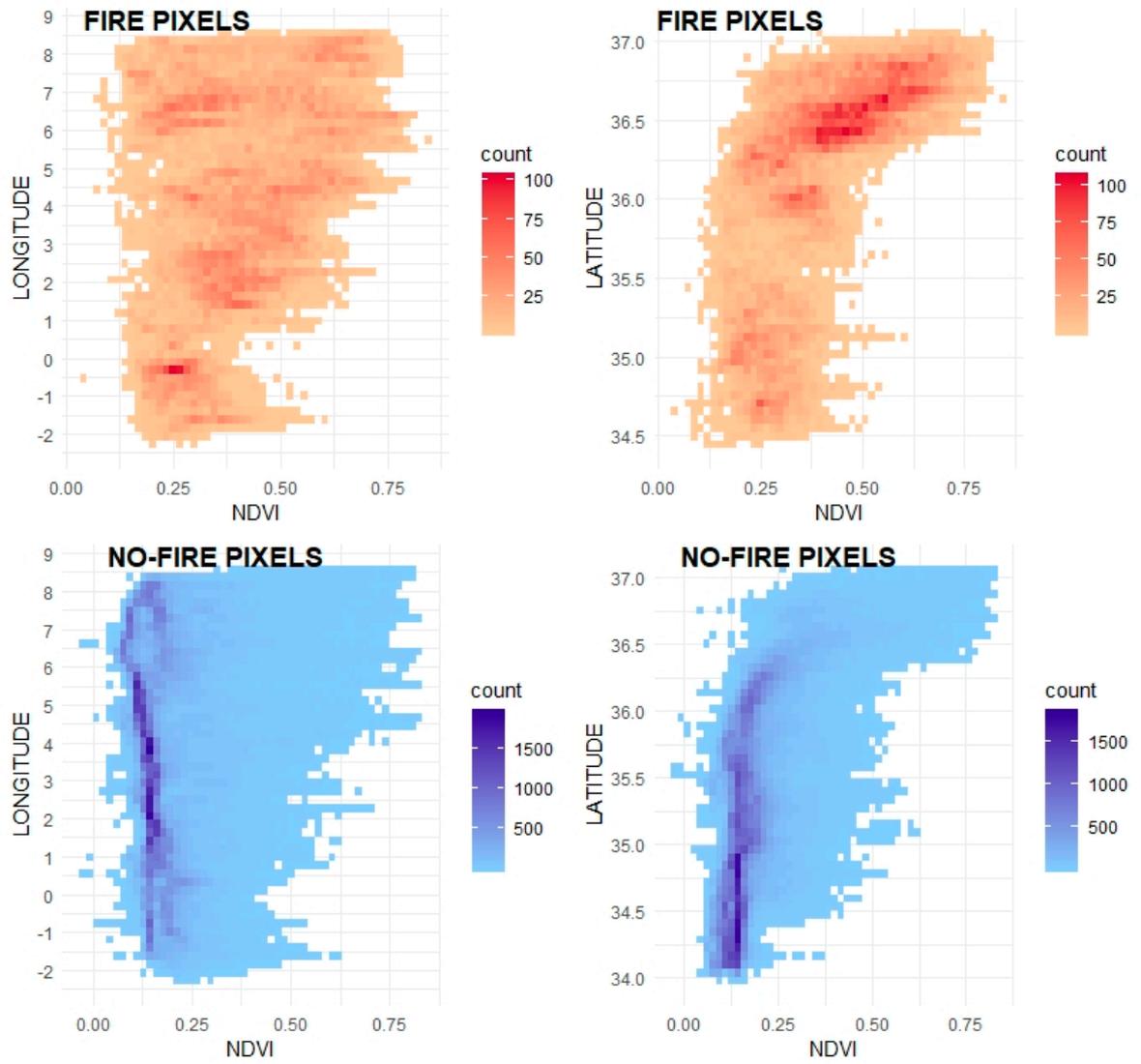
Main environmental and anthropogenic variables in Northern Algeria

Figure S2



Main weather-related variables in Northern Algeria. Upper panels: bioclimates 1 to 4 are humid, subhumid, subarid, and arid, respectively. FWI is the fire weather index, and $NDVI_{summer}$ is the normalized difference vegetation index. Lower panels: Fire radiative power (FRP; left) and FWI (right) monthly distribution

Figure S3



Density distribution of fire and no-fire pixels as a function of latitude and longitude in Northern Algeria

Table S1. Collection of environmental and anthropic variables

Variable name	Description	Comments	Source
FIRE			
Number of fires	MODIS MCD64A1v006 fire hotspots provided point-data	MODIS fire hotspots (point data) Fire radiative power (FRP)	MODIS earthdata.nasa.gov
Burned areas	MODIS MCD64A1v006 fire hotspots provided point-data	The burned areas were redrawn using ArcMap 10.7 we regrouped within a same fire perimeter the burnt pixels which where contiguous and which had the same date and time	MODIS earthdata.nasa.gov
FUELS			
Land Cover Types	ESA land cover types	Supervised classification on high-resolution Landsat TM satellite images (30 m) including forests, woodlands, croplands, pastures, urban, aso)	esa-landcover-cci.org
Normalized Difference Vegetation Index (NDVI)	MODIS TERRA sensor (MOD13)	MODIS monthly NDVI data is generated using the 16-day vegetation index aggregated using a weighted average to produce a monthly composite	MODIS earthdata.nasa.gov
WEATHER/CLIMATE			
Climate and weather data	- CHELSA Climate Data high resolution from January 2001 to December 2015 at 30-arc sec (~1km) spatial resolution - NASA Power Data for air humidity and wind speed	From these data we computed the fire danger indices (FWI, FFMC, DMC, DC, ISI, BUI) using the Canadian Forest Fire Danger Rating System and the R package 'cffdrs'	CHELSA Climate Data power.larc.nasa.gov https://cwfis.cfs.nrcan.gc.ca/ https://cran.r-project.org/web/packages/cffdrs/cffdrs.pdf
IGNITIONS			
Human footprint index Built-Up	The HFI is a composite index that evaluates the human footprint index on the environment, which represents the relative influence of Humans worldwide.	This index is a global dataset of 1-kilometer grid cells, created from nine global data layers covering human population pressure (population density), human land use and infrastructure (built-up areas, nighttime lights, land use/land cover), and human access (coastlines, roads, railroads, navigable rivers)	(Version 2, 2005 LWP-2 Wildlife Conservation Society and Columbia University Center for International Earth Science Information Network)
Lightning strikes density	The World Lightning Strikes Map	The raster map provides the density of lightning strikes across the world (number of flashes per km ² per year)	geology.com
TOPOGRAPHY			
Digital Elevation Model	digital elevation model ASTER GDEM V2 imagery (30 m) from the NASA Earth data site	We extracted data for elevation, aspect, and slope	earthdata.nasa.gov

All the data listed were recalculated on a 500 * 500 meters grid, with the exception of the number of fires that was also recalculated on a 3 * 3 km grid