Supplementary Material

Surface Ozone Pollution: Trends, Meteorological Influences and Chemical Precursors in Portugal

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S.M.1 Map with the geographical distribution of Portugal's rural monitoring stations

S.M.2 Dendrograms from CA for the study period (except 2012).

S.M.3 Results from rural stations statistical analysis.

S.M.4 Auxiliary material for Person's Correlation results.

S.M.5 Wind rose obtained from IPMA's data.

S.M.1 Map with the geographical distribution of Portugal's rural monitoring stations

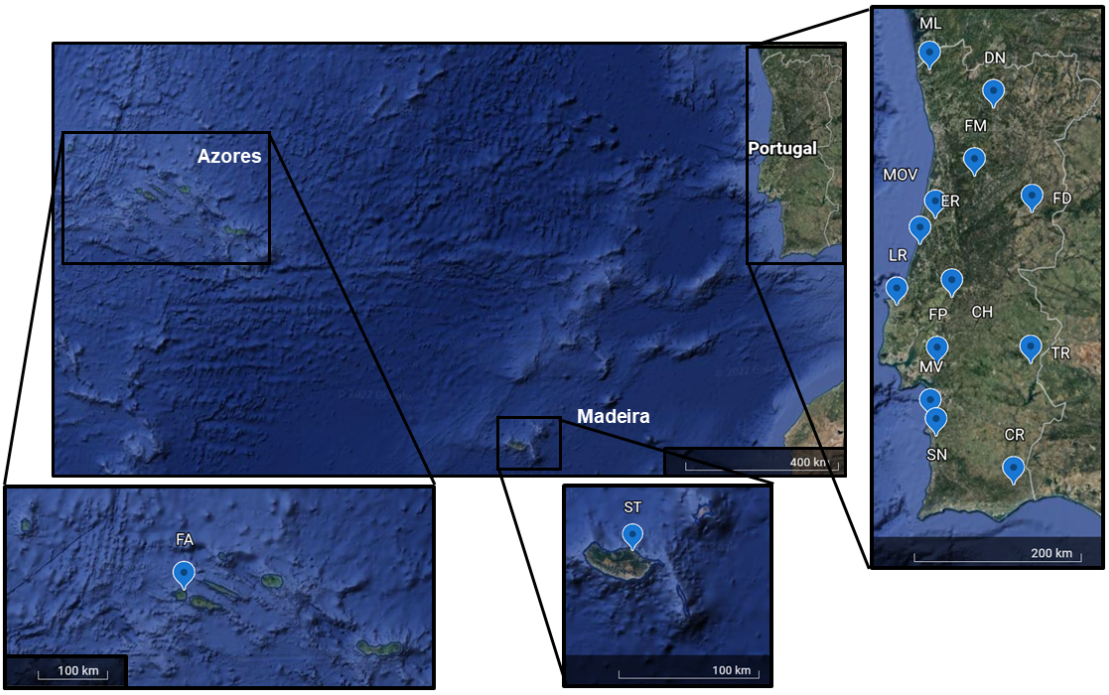

Figure S1 – Map with the geographical distribution of Portugal's rural monitoring stations.

S.M.2 Dendrograms from CA for the study period (except 2012)

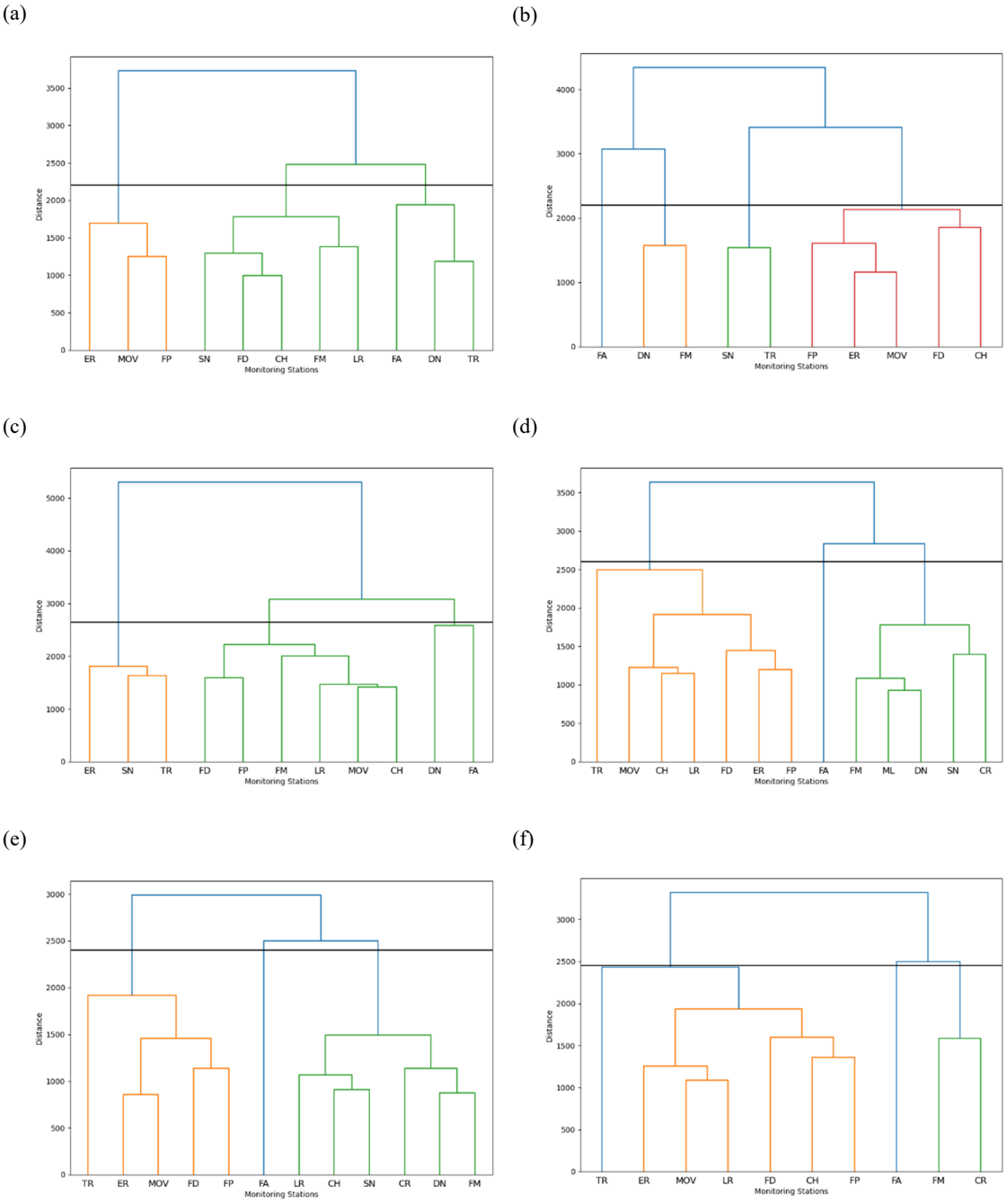

Figure S2A - Dendrograms for years (a) 2009, (b) 2010, (c) 2011, (d) 2013, (e) 2014 (f) and 2015.

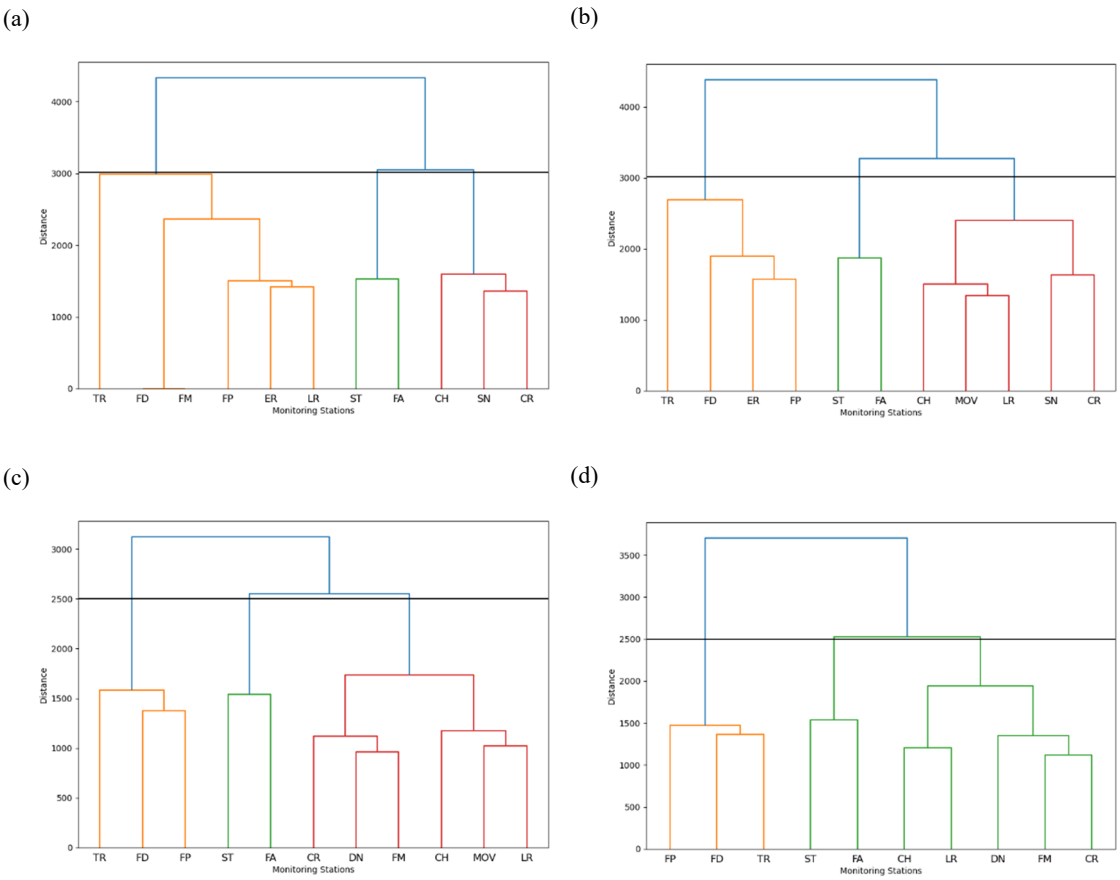

Figure S2B - Dendrograms for years (a) 2016, (b) 2017, (c) 2018 and (d) 2019.

S.M.3 Results from rural stations statistical analysis.

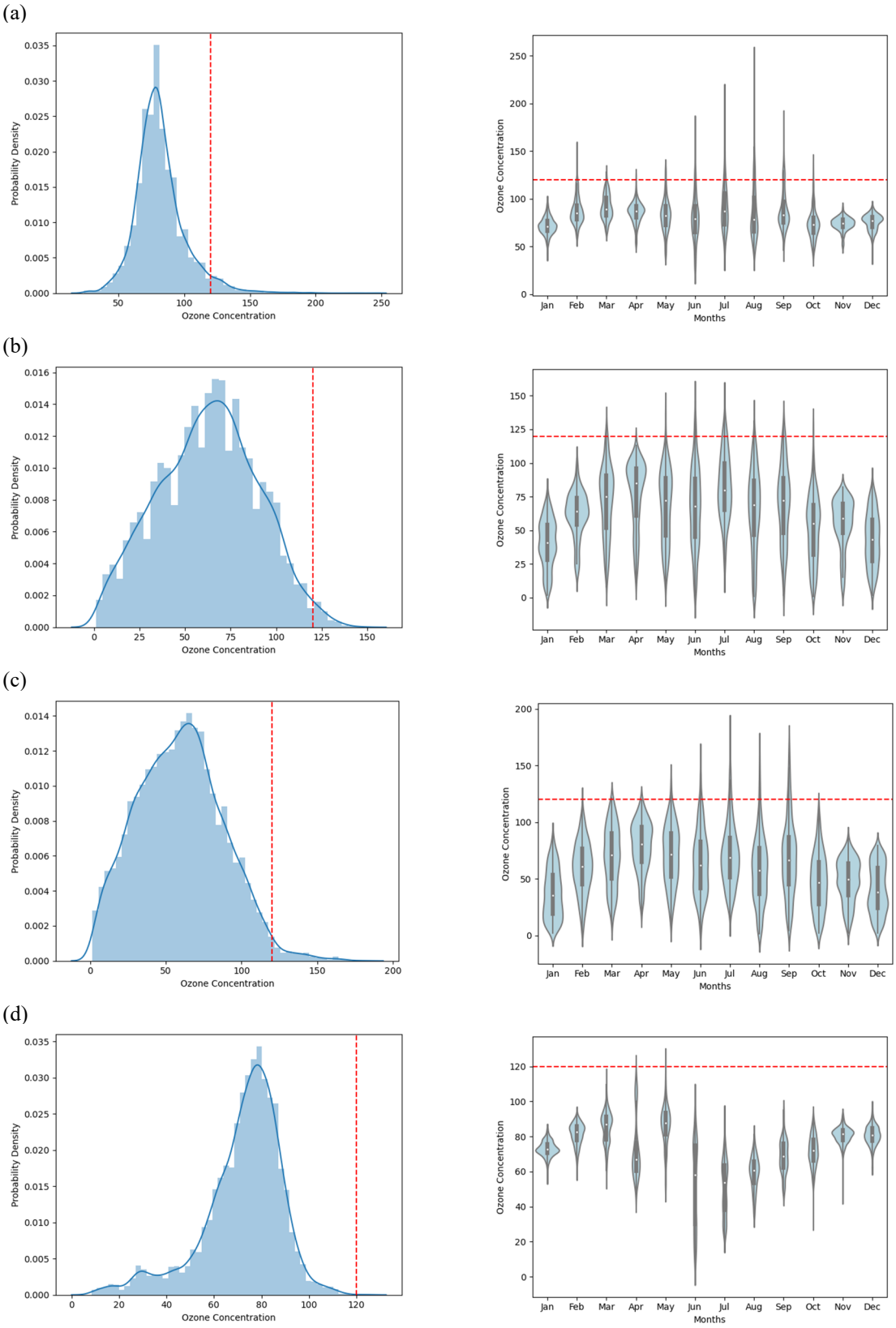

Figure S3 - Annual profile of O_3 concentration (µg m^{-3}) and monthly distribution for 2012 at different stations: (a) Douro-Norte; (b) Fundão; (c) Fernando Pó; (d) Faial.

Table S1 - Matrix of relative frequencies depicting the relationship between the different stations

	ML	DN	ER	FD	FM	MOV	CH	FP	LR	SN	TR	CR	ST	FA
ML	100%													
DN	33%	100%												
ER	0%	0%	100%											
FD	0%	0%	89%	100%										
FM	33%	88%	11%	9%	100%									
MOV	0%	0%	67%	64%	0%	100%								
CH	0%	63%	33%	36%	40%	56%	100%							
FP	0%	0%	89%	100%	10%	78%	36%	100%						
LR	0%	38%	56%	64%	40%	78%	64%	55%	100%					
SN	67%	38%	11%	0%	30%	11%	36%	0%	10%	100%				
TR	33%	0%	78%	73%	10%	44%	18%	73%	40%	38%	100%			
CR	33%	63%	0%	0%	60%	11%	55%	0%	40%	63%	0%	100%		
ST	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	
FA	33%	25%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	100%	100%

S.M.4 Auxiliary material for Person's Correlation results.

Table S2 - Guidelines for interpretation of PC coefficient values [1]

Strength of Association	Coefficient, *r*	
	Positive	Negative
Small	.1 to .3	-0.1 to -0.3
Medium	.3 to .5	-0.3 to -0.5
Large	.5 to 1.0	-0.5 to -1.0

S.M.5 Wind rose obtained from IPMA's data.

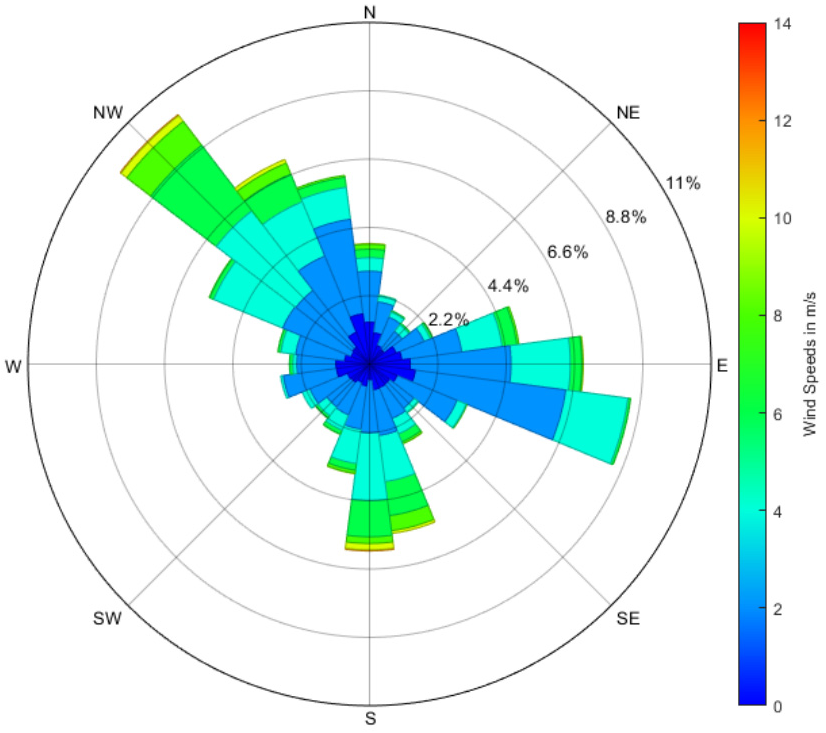

Figure S4 - Wind rose with wind direction and speed distribution for the year 2015.

References

[1] Statistics, L. *Pearson's product moment correlation*. Statistical tutorials and software guides 2020. [Online] Available from: https://statistics.laerd.com/statistical-guides/pearson-correlation-coefficient-statistical-guide.php [Accessed 12 June 2021].