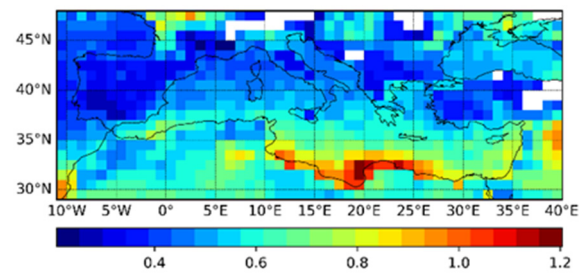


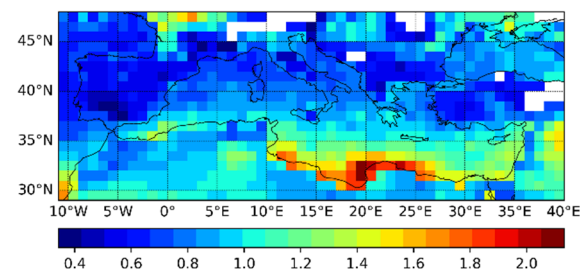
Article

A Climatological Assessment of Intense Desert Dust Episodes over the Broader Mediterranean Basin Based on Satellite Data

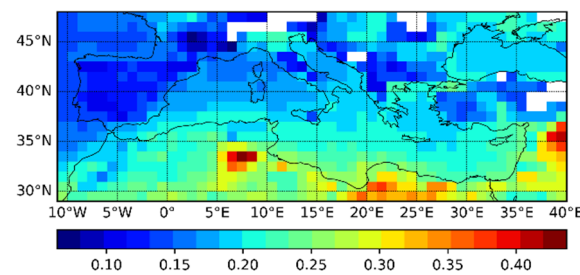
Supplement



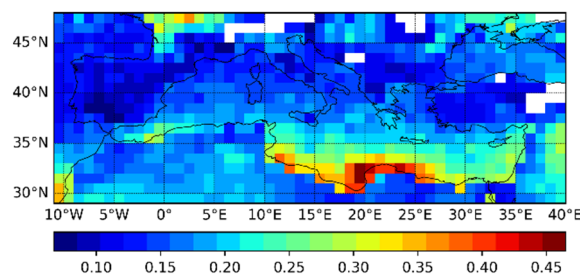
(a)



(b)



(c)



(d)

Figure S1. (a) AOD threshold values ($\text{AOD}_{\text{mean}} + 2\text{STDV}$) for strong dust episodes, (b) AOD threshold values ($\text{AOD} \geq \text{AOD}_{\text{mean}} + 4\text{STDV}$) for extreme dust episodes, (c) climatological (2005-2019) mean AOD values (AOD_{mean}) and (d) the associated standard deviations (STDVs).

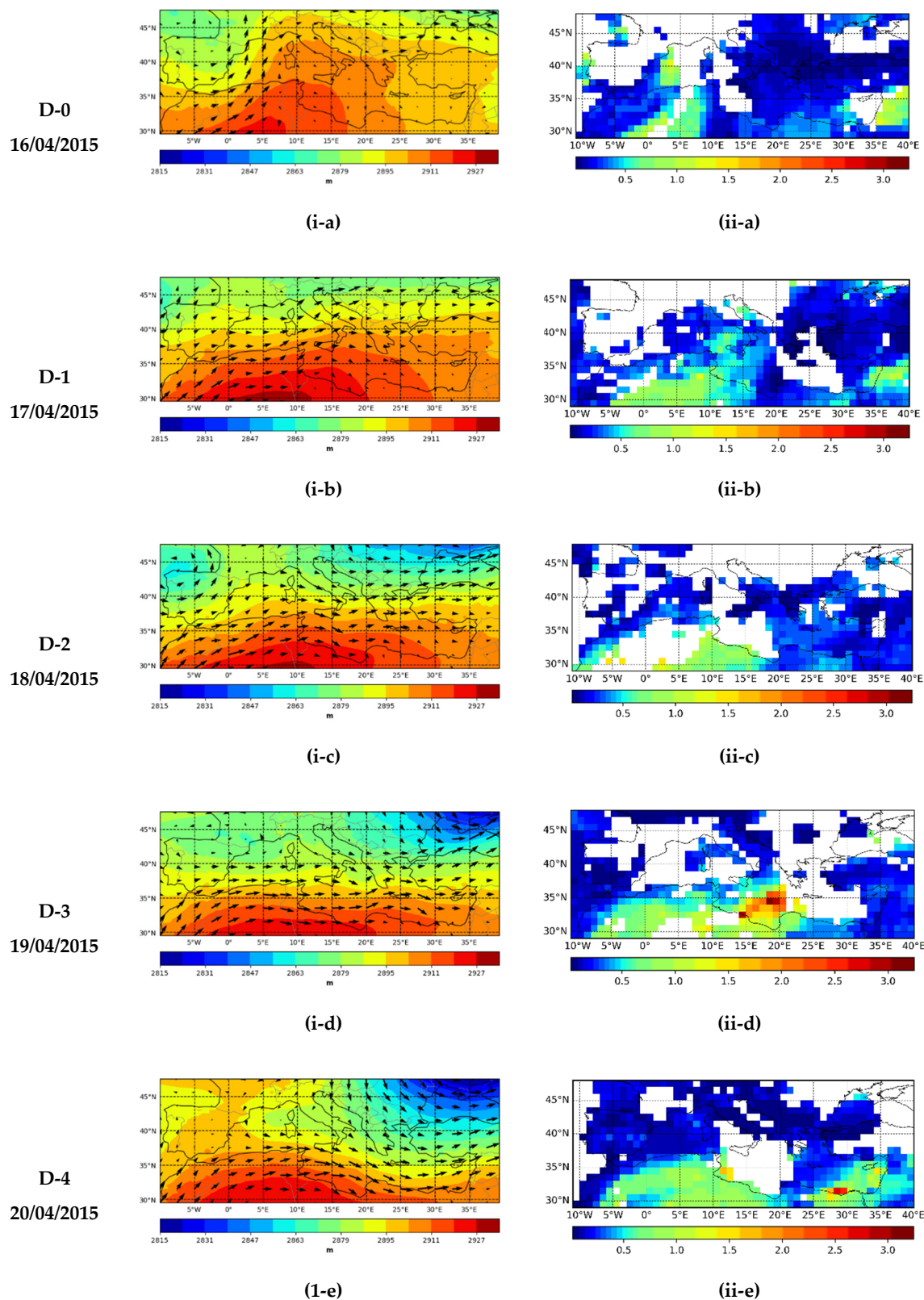


Figure S2. The atmospheric circulation, i.e. geopotential height (GPH, in m) at 700 hPa (left panels, i) along with the wind vectors (black arrows) and the geographical distribution of MODIS AOD (right panels, ii) during the day before (D-0, first row, a), and the first (D-1, second row, b), second (D-2, third row, c), third (D-3, fourth row, d) and fourth (D-4, fifth row, e) day of the DAEC that took place during 17–20 April 2015 over the Mediterranean Basin.

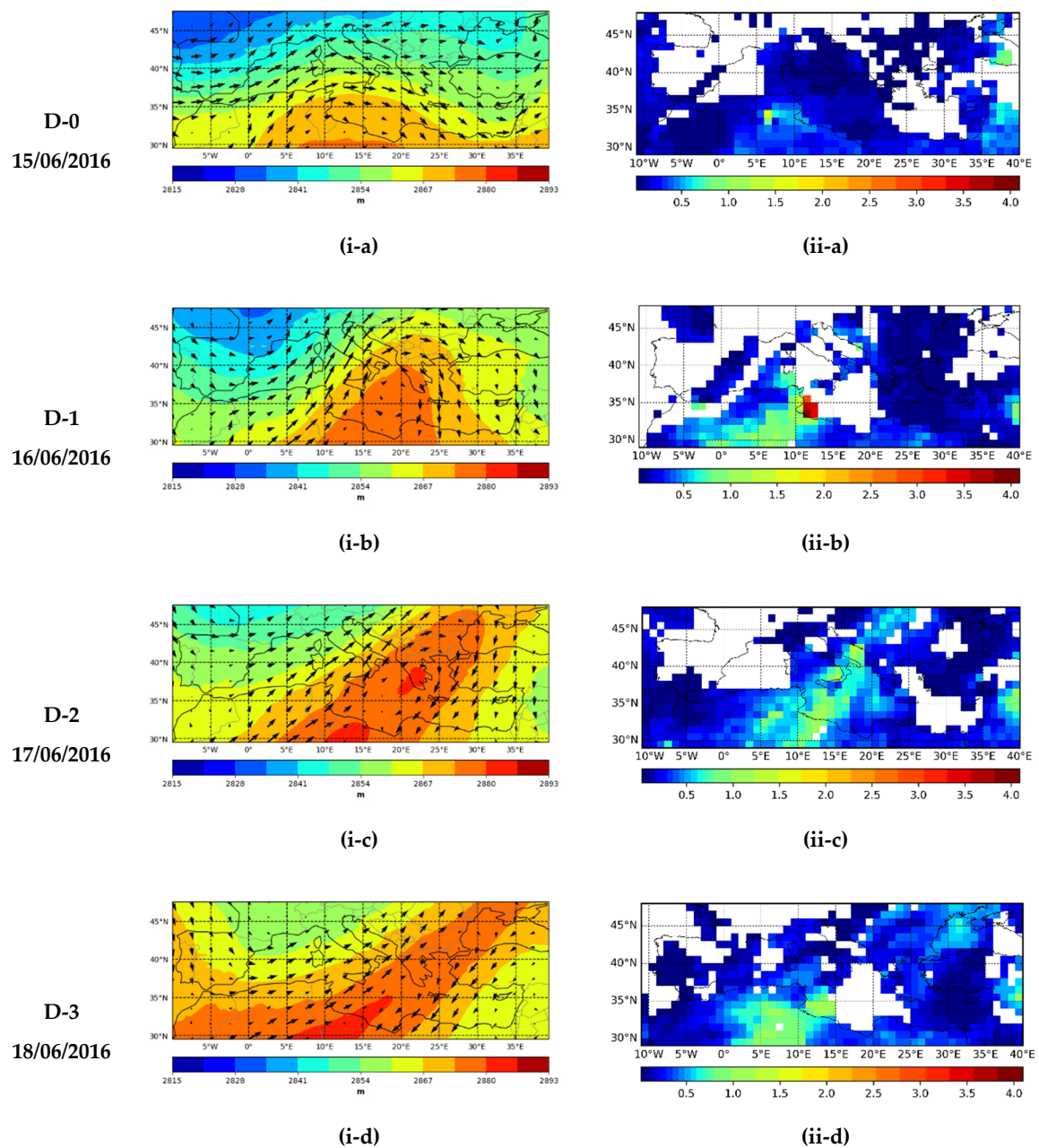


Figure S3. The atmospheric circulation, i.e. geopotential height (GPH, in m) at 700 hPa (left panels, i) and the geographical distribution of MODIS AOD (right panels, ii) during the day before (D-0, first row, a) along with the wind vector (black arrow) and the first (D-1, second row, b), second (D-2, third row, c) and third (D-3, fourth row, d) days of the DAEC that took place during 16–18 June 2016 over the Mediterranean Basin.

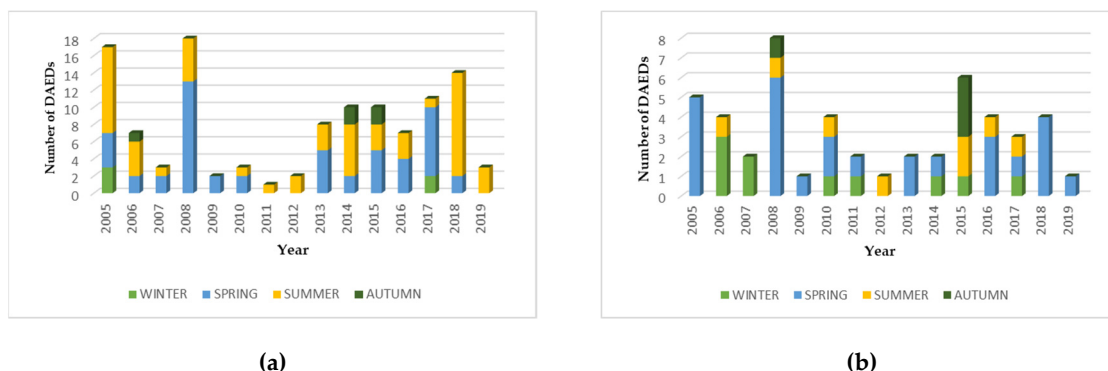


Figure S4. Interannual variation of the total number (frequency of occurrence) of (a) strong and (b) extreme dust aerosol episode days (DAEDs) per year over the broader Mediterranean basin during the period 2005–2019.

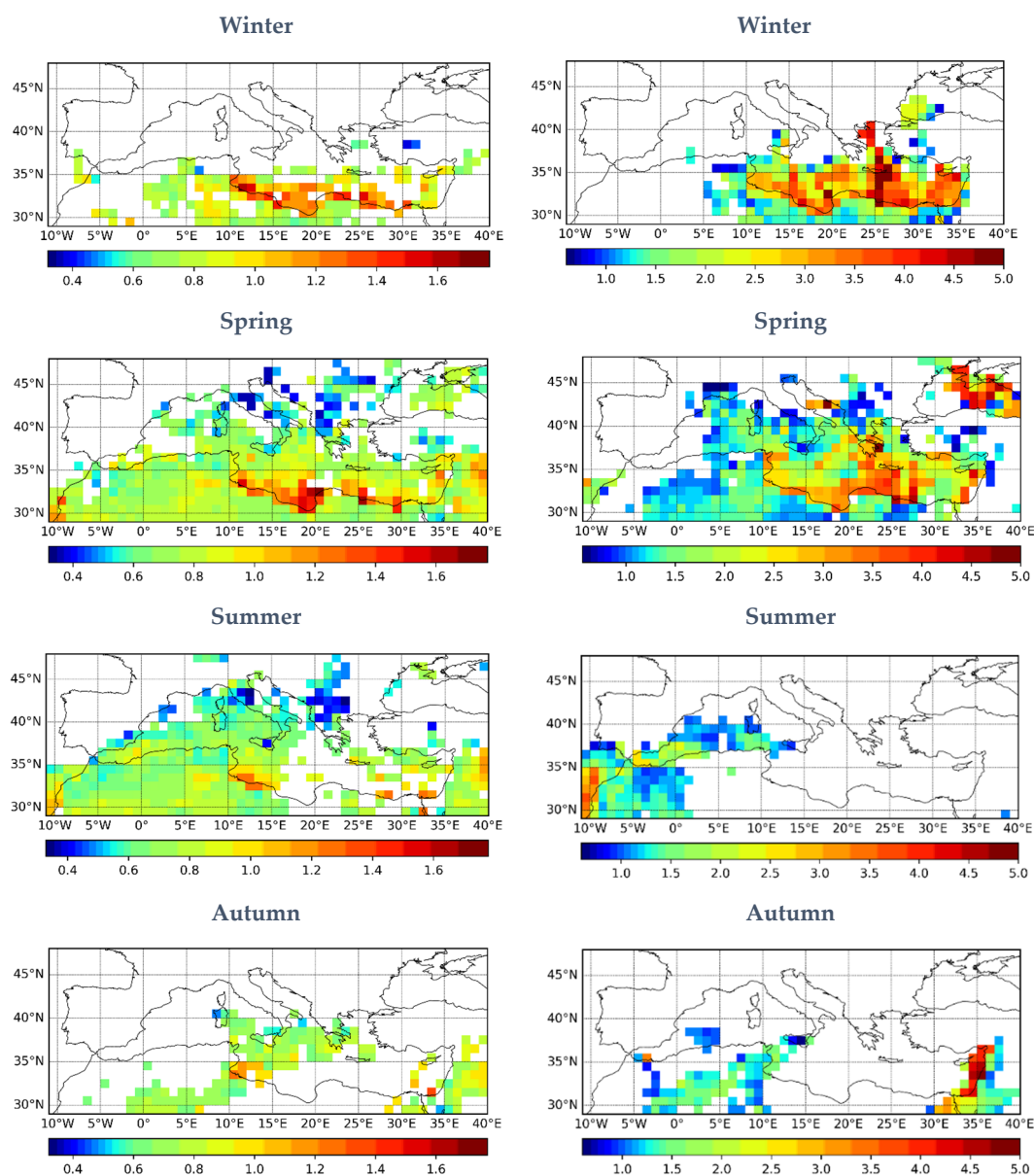


Figure S5. Spatial distribution of the seasonal mean DOD of strong (left column) and extreme (right column) DAEDs that took place over the broader Mediterranean basin during the 15-year period 2005–2019.