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Summer 2003: anomalous high ozone concentrations recorded at high mountain stations

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"The unusually hot and sunny weather, combined with air pollutants emitted mainly by traffic, industry and vegetation, caused very long lasting and geographically extensive 'episodes' with high concentrations of harmful ground-level ozone." (EEA, 2003). Evidence of these unusually high ozone concentrations was also registered at two high mountain stations in the Southern Europe, at the border of the Po basin. Mt. Cimone (2165 m a.s.l.) and Plateau Rosà (3480 m a.s.l.) are located respectively at the Southern (North Apennines) and North-Western (Western Alps) edge of the Po basin.

In order to better evaluate the anomalous effects of the summer 2003 on ozone behaviour in the free troposphere over the Southern Europe, ozone concentrations and meteorological data recorded at the Mt. Cimone and Plateau Rosà stations have been analysed. These data are compared with the ozone concentrations in the Po basin, an area strongly affected by the emission and the build up of anthropic pollutants. The results, part of a recent research project between CESI and CNR, will be shown.