Atmospheric
Chemistry
and Physics

Discussions

Open Access

EGU

Interactive comment on "Tritium as hydrological tracer in Mediterranean precipitation events" by Tobias R. Juhlke et al.

Tobias R. Juhlke et al.

tobias.juhlke@fau.de

The authors like to clarify a section of the methods chapter in order to improve comprehension for readers and reviewers.

We have come to the conclusion that the description of the meteorological ERA5 dataset (Copernicus Climate Change Service (C3S), 2017) and the processing steps we performed that are described in section "2.1 HYSPLIT trajectory model", require some clarification. The actual change in the manuscript will be done in the revision step.

Revised paragraph: "The HYSPLIT model requires input in the form of meteorological grid data. We used the newly available ERA5 grids (Copernicus Climate Change Ser-

vice (C3S), 2017) from the European Centre for Medium-Range Weather Forecasts. This dataset originally has a horizontal resolution of 31 km on a global scale, a vertical resolution of 37 interpolated pressure levels and a temporal resolution of one hour. As input for this HYPLSIT analysis a data subset was extracted with the following specifications: The horizontal and temporal resolutions were left at 31 km and 1 hour. The spatial extent of our model area was clipped to an area of about 40 ° latitudinal and longitudinal distance from our sampling location (0 °N to 80 °N, 31 °W to 49 °E). The upper 6 pressure levels were omitted, leaving 31 pressure levels from 1000 to 20 hPa. Additionally, the model run was cropped in HYSPLIT to an elevation limit of 10000 m a.s.l."

References: Copernicus Climate Change Service (C3S): ERA5: Fifth generation of ECMWF atmospheric reanalyses of the global climate, Copernicus Climate Change Service Climate Data Store (CDS), date of access: 2019-02-06, https://cds.climate.copernicus.eu/cdsapp#!/home, 2017.