

# **Vertical profile of atmospheric dimethyl sulfide in the Arctic Spring and Summer**

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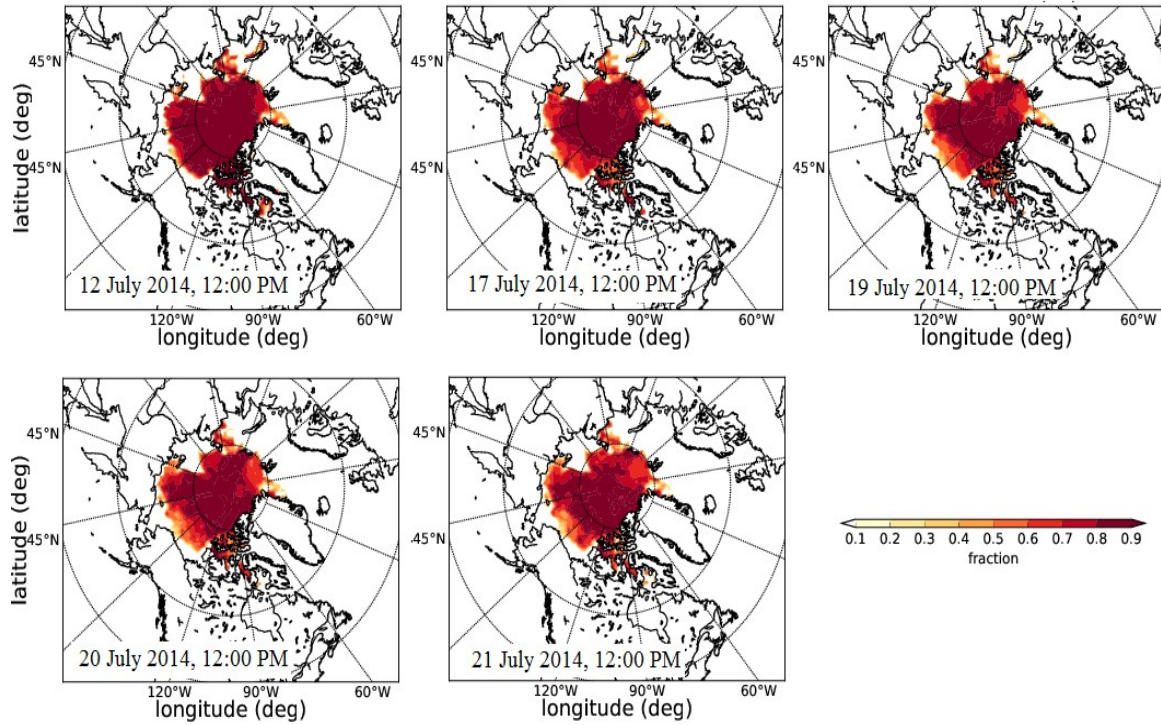


Figure S1. Distribution of the sea ice fraction over the Arctic for July 2014 flights. The fraction in each grid box specifies how much of the area was covered with sea ice. The data is taken from the operational analysis of the ECMWF model which is also used as meteorological input for the FLEXPART simulations.

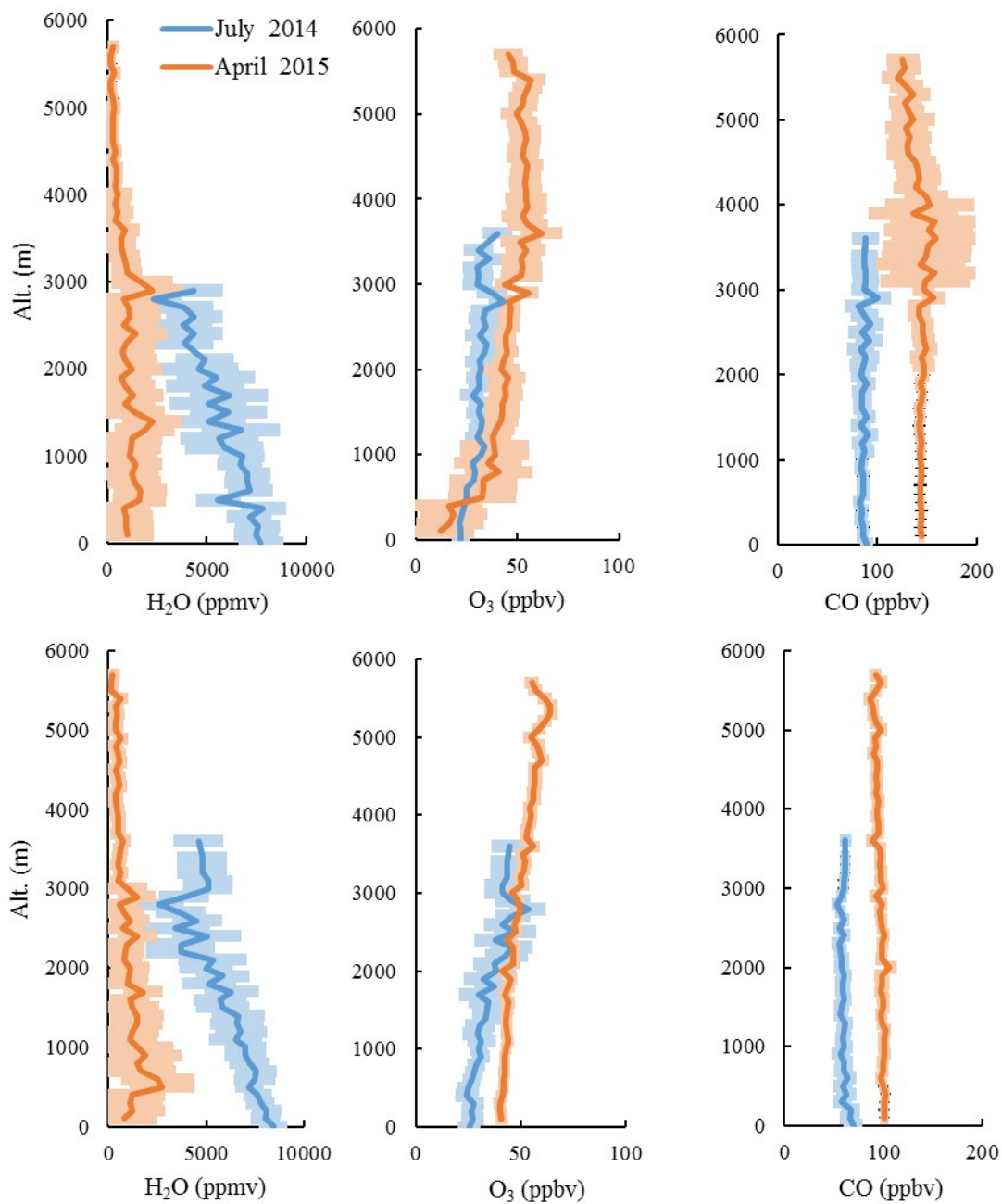


Figure S2. Average vertical profile of  $\text{H}_2\text{O}(\text{g})$  and  $\text{O}_3$  and  $\text{CO}$  during July 2014 (orange) and April 2015 (blue). Upper panels indicate and lower panels indicate measurements and GEOS-Chem results, respectively. Shadows show standard deviations.

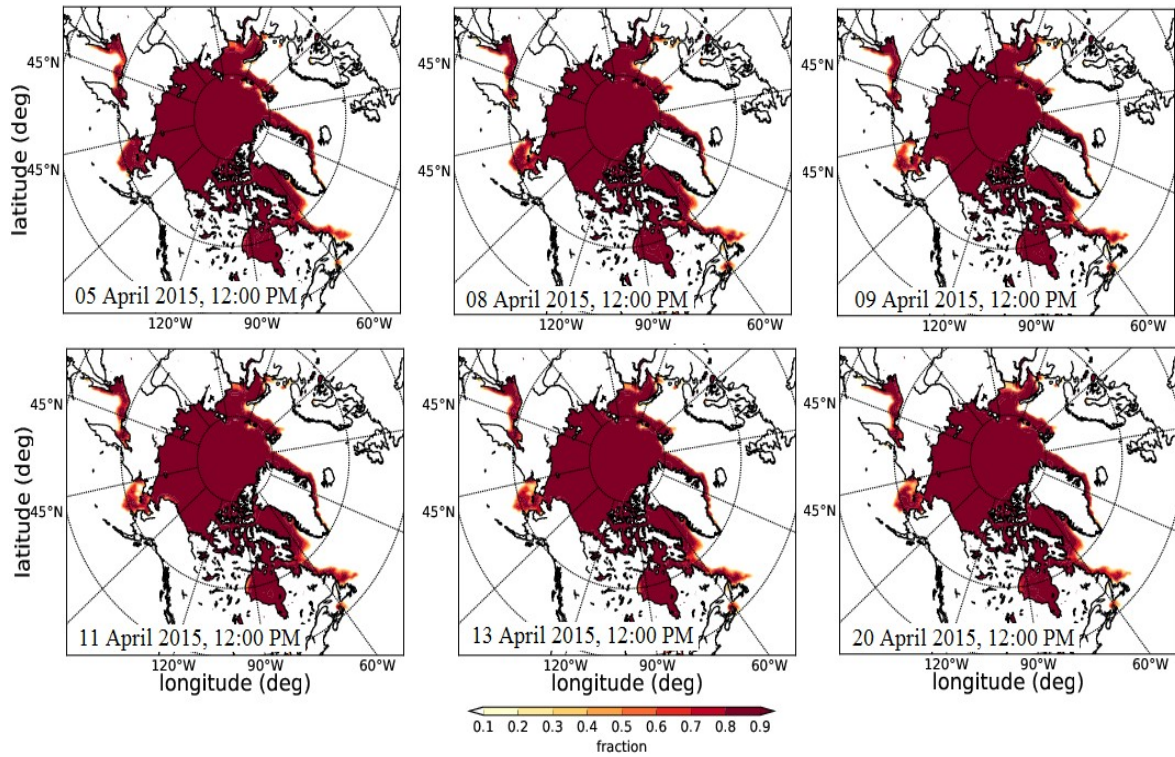


Figure S3. Distribution of the sea ice fraction over the Arctic for April 2015 flights. The fraction in each grid box specifies how much of the area was covered with sea ice. The data is taken from the operational analysis of the ECMWF model which is also used as meteorological input for the FLEXPART simulations.