

## **Implementing biogenic emissions from MEGAN into the global air quality model for Environment and Climate Change Canada**

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Emission of biogenic compounds into the atmosphere can impact ozone formation, oxidizing capacity of the atmosphere and contribute to aerosol abundances. They are also an important precursor of secondary organic aerosols. Since anthropogenic sources of ozone precursors have dropped in many industrialized regions, biogenic sources of ozone have become increasingly important for air quality forecasting. Environment and Climate Change Canada's air quality forecasting model (GEM-MACH) uses a modified version of BEIS3.09 with 15 vegetation types and a constant LAI to account for shading. Here, we update the biogenic emissions in GEM-MACH by implementing the MEGAN (Model of Emissions of Gases and Aerosols from Nature) model into the global version of the GEM-MACH, and examine the impact of global biogenic emissions from MEGAN on ozone. The impact of the choice of canopy shading will also be explored.