



Influence of salt stress on biosynthesis and emission of BVOC from grey poplar (*Populus x canescens*)

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Many plants produce isoprene via the plastidic isoprenoid pathway in large quantities. Light and temperature are known as the most important factors triggering isoprene emission at short and long term scales, while about the influence of other environmental factors less information is present. The actual study on poplar therefore aimed to elucidate if salt stress, an environmental stress factor with globally increasing importance, influences isoprene biosynthesis as well as the emission of other volatile organic compounds as acetaldehyde.

The presentation summarizes our actual knowledge on gene expression and biochemistry of isoprenoid genes, as well as photosynthetic gas exchange and VOC emission rates. The observation that biosynthesis and emission of isoprene and oxygenated VOC were abided under salt stress even when photosynthesis was significantly lowered and leaves started to become damaged gave raise to further questions concerning the physiological function of this behaviour.