

EEWR Brown Bag Seminar

Cynthia Gerlein

Water status of hydrophobic leaves improved by the impact of artificial dew deposition on leaf energy balance

Uptake of water from the surface of the leaves instead of the roots has been observed in many different species and many different ecosystems. This phenomenon, called foliar uptake, is common when rainfall is scarce and non-meteoric water (like dew or fog) is the main source of water for plants. However, many species across the world have very water repellent leaves and none of the past studies have tried to differentiate between the uptake of deposited water droplets and the impact of those droplets on the energy balance of the leaf. We conducted three experiments on the highly hydrophobic *Colocasia esculenta* leaves that allowed us to investigate the impact of non-meteoric water deposition on the energy balance of the leaves, while ruling out any direct water uptake. We present evidence that the effect of the droplets on the energy intake of the leaves impacts its water balance. We conclude by presenting three possible mechanisms through which water droplets impact the leaf energy balance.

Friday, March 27, 2015

E-225, 12pm

Snacks and drinks will be served



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