

Gebäude NW I  
Hörsaal H12

Wintersemester 2011/12

## BayCEER Kolloquium

### Vortragsreihe Ökologie und Umweltforschung

**Donnerstag 10.11.2011, 17:00 Uhr, H12**

**Anschließend Postkolloquium mit Bier und Brezeln im H12**

## Prof. Dr. Laurentius Voesenek

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# Waterproof Plants: escape or quiescence

The semi-aquatic dicot *Rumex palustris* responds to complete submergence by upward movement of leaves (hyponastic growth) and elongation of young petioles. These two escape responses together can bring leaves above the water surface, thus restoring gas exchange with the atmosphere and increasing survival in flood-prone environments. So far our work suggests that these two responses are regulated via an ethylene-driven signaling network in which apoplastic acidification, expansin action and the activity of the hormones abscisic acid (ABA) and gibberellin (GA) are important.

*R. acetosa* lacks this escape response when submerged and is therefore less tolerant to flooding. The entire transcriptome of these two species during submergence was characterized using next generation sequencing technologies. The results will be discussed with special attention to the complement of genes regulated by submergence and the differences between the two species.

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