

PROGRAMME

NOVEMBER 1, 2019 – Morning

Co-chairs: Mark van Kleunen and Junmin Li

8:30	9:00	Welcome Ceremony & Conference Photo
9:00	9:45	Matthias Rillig - <i>Microplastic effects on soil and plants</i>
9:45	10:30	Zhongnan Yang - <i>The phenyl propanoid pathway is critical for plant landing and prosper</i>
10:30	11 :00	<i>Tea break</i>
11:00	11:45	Eva Knop - <i>Plants and their interactions with animals in an increasingly illuminated world</i>
11:45	12:00	Xiaoqi Ye - <i>Low doses of glyphosate affected a native species more than its associated invasive species</i>
12:00	14:00	<i>Lunch at New Century Hotel</i>

NOVEMBER 1, 2019 – Afternoon

Chair: Ming Dong

14:00	14:45	Mark van Kleunen - <i>The ecology and evolution of alien plants</i>
14:45	15:30	Jianqing Ding - <i>Invasion success, biotic interactions and chemical metabolites in the Chinese tallow tree</i>
15:30	16:00	<i>Tea break</i>
16:00	16:45	Ayub M. O. Oduor - <i>Can native plants adapt to competition from invasive plants under variable soil nutrient and moisture conditions?</i>
16 :45	17 :00	Zhiyong Liao - <i>The roles of rapid evolution and phenotypic plasticity in the invasion success of a tropical invader</i>
17:00	17:15	Yongge Yuan - <i>Effects of simulated herbivory and habitat types on invasive Alternanthera philoxeroides: a multi-generation study</i>
17:15	17:30	Yulong Zheng - <i>The invasive mechanism of Chromolaena odorata based on study of invasion success between native and invasive communities</i>
17:30	18:30	Poster session
18:30	-	<i>Dinner at New Century Hotel</i>

NOVEMBER 2, 2019 – Morning

Chair: Feihai Yu

8:00	8:45	Niklaus Zimmermann - <i>Plant range re-adjustments under climate change – insights from models and observations</i>
8:45	9:30	Rongchen Lin - <i>Plant growth in response to high temperature</i>
9:30	9:45	Qiang Yang - <i>Global homogenization of flowering plants by naturalized species</i>
9:45	10:00	Robin Pouteau - <i>Global pattern and drivers of naturalized range filling in European plants</i>
10:00	10:30	<i>Tea break</i>
10:30	11:15	Jinfeng Hu - <i>Endangered plants native to China: conservation versus unrecognized medicinals</i>
11:15	11:30	Achyut Kumar Banerjee - <i>Combining ecological niche modeling with genetic lineage information to predict potential distribution of M. micrantha in S and SE Asia under predicted climate change</i>
11:30	11:45	Zuzana Munzbergova - <i>Climate of origin, current climate and phylogeny interact to determine species performance</i>
11:45	12:00	Daolin Du - <i>The interactions of plant invasion and microorganism</i>
12:00	14:00	<i>Lunch at New Century Hotel</i>

NOVEMBER 2, 2019 – Afternoon

Chair: Eva Knop

14:00	14:45	Wim van der Putten - <i>Climate warming-induced plant range shifts from an aboveground-belowground perspective</i>
14:45	15:00	Caroline Brunel - <i>Deciphering rhizosphere microbiomes to understand plant responses to the changing world</i>
15:00	15:15	Fangfang Huang - <i>Competition alters temporal dynamics of plant-soil feedback along invasion in an invasive plant</i>
15:15	15:30	Fatih Fazlioglu - <i>Growth performance comparison in sympatric native and non-native mangroves and occurrence shifts through time</i>
15:30	16:00	<i>Tea break</i>
16:00	16:15	Zhonghua Ning - <i>Windows of opportunity for smooth cordgrass landward invasion to tidal channel margins: the importance of hydrodynamic disturbance to seedling establishment</i>
16:15	16:30	Guoqi Chen - <i>Fertility and multiple resistance of florypyrauxifen-benzyl-resistant <i>Echinochloa glabrescens</i> Kossenko: a case study</i>
16:30	16:45	Mu Liu - <i>Plant invasion alters latitudinal patterns of defense and herbivory but not mycorrhizal association</i>
16:45	17:00	Mohamed A. Balah - <i>Response of seed germination to temperature regimes associate with the distribution area in three invasive alien plant of Asteraceae</i>
17:00	-	<i>Dinner at New Century Hotel</i>

- **Microclimatic variability within topographically complex landscape and its influence on plant species composition**

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Microclimate experienced by organisms is crucial ecological factor. It is especially important for sessile plants with limited ability of movement. To understand the importance of microclimate for species distribution and performance, climate measurements need to be done at a scale at which organisms live and die. Currently available climate sensors, however, are not well suited for long-term field measurements at such a scale. Here we present our new temperature and moisture logger, the Temperature-Moisture-Sensor (TMS), which we designed for a wide range of ecological applications. Air, surface and soil temperatures are measured simultaneously by three independent sensors. The TMS data logger has a large memory and long battery life, so it is suitable for taking long-term microclimate measurements in the field. With a data acquisition interval of 15 min, it has sufficient memory to last for almost 15 years. We have thoroughly tested the TMS logger both in the laboratory and in demanding field conditions ranging from tropical rain forests of Africa to high-elevation cold deserts of the Himalayas. Here we illustrate its application using a field study exploring the effects of microclimate, terrain and tree vegetation on composition of the herb layer in deep valleys of a sandstone landscape (Bohemian Switzerland, Czech Republic). More than 300 units were installed in 2010 along an elevation gradient in 6 valleys in order to perform detailed (30 min. interval) measurement of seasonal dynamic of microclimatic conditions. The results indicate that topography of sandstone landscape largely modifies the microclimatic condition up to 15 °C (daily average) in comparison to data from standard meteorological station. Valley floors have stable microclimate, distinctly different from the surrounding area. The microclimate accounts for 14 % of small-scale species composition and most of this variability is shared with topography as explanatory factor.