



**University of  
Zurich** <sup>UZH</sup>

**ETH**

Eidgenössische Technische Hochschule Zürich  
Swiss Federal Institute of Technology Zurich

## **The Ecology, Evolution, Environment & Behavior UZH / ETH Joint Seminar Series**

*Camouflage in a butterfly/plant arms race and how climate warming may be affecting it*

**Speaker:** Prof. Susanne Renner  
Department of Biology, Washington University in St. Louis, USA  
<https://biology.wustl.edu/people/susanne-s-renner>

**Date/Time:** Tuesday, 2024-04-16  
16:15 to 17:15

**Place:** CHN-C-14/ETH Zentrum CHN  
Universitätstrasse 16; 8006 Zürich

**Access:** only intern

**Host:** Tom Crowther, ETH

### **Abstract:**

Some plants use camouflage to avoid herbivores. The study described in my talk clarifies the genetic mutation that underlies a leaf camouflage we discovered in a Qinghai-Tibet-Plateau species of *Corydalis*; the effects of camouflage on leaf damage by *Parnassius* butterfly larvae and the resulting fitness loss; and plant and butterfly effective populations sizes at different altitudes with different frequencies of camouflage plants during past and recent climate change. Using powerful population-genomic approaches, we were able to infer changes in interacting butterfly/plant populations since the 1970s. Our results illuminate the genetics of a plant camouflage and the evolutionary dynamics of coevolving alpine plants and butterflies under climate warming.

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