Einladung zum Vortrag
im Rahmen des gemeinsamen Kolloquiums des Instituts für Biologie und Umweltwissenschaften und des Departments für Neurowissenschaften

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The herbarium at the Carl von Ossietzky-University as an important research infrastructure

The approx. 3000 herbaria worldwide are home to about 400 million dried plant specimens. Whereas herbaria are sometimes believed to be outdated, modern research demonstrates that herbaria are more important and valuable than before. Traditional uses of herbaria, such as documentation of distribution, morphological variation, storing type specimens and teaching plant identification, may have mostly been substituted by providing information for “big data” data bases, DNA barcoding etc. For example, herbarium specimens are increasingly used as genomic resources to access DNA otherwise inaccessible due to legal restrictions or extinction of populations or species. Herbarium genomics further provide insights into the past and allow tracking the evolution over time of hybrids, domestication, and invasions, sometimes even answering functional genomics questions. In this talk I will highlight, the multiple ways, in which we use the herbarium at the university in Oldenburg for plant research to answer questions relating to evolution, ecology and biodiversity conservation. For that, methodologies will need to be improved to utilize these resources optimally. For example, since DNA extraction is a destructive sampling method, it needs to be optimized. DNA degradation, fragmentation and mutation during storage need to be considered. Nevertheless, there is also pressing need for non-destructive methods. Spectroscopy may offer such a method and initial results demonstrate its potential. Consequently, herbaria will need to be incorporated into university teaching as an important resource providing opportunities for research-oriented teaching and transdisciplinary research as exemplified by a couple of student research projects in Oldenburg. Thus, I will also present how collection-based research and teaching at the university in Oldenburg has established the Zertifikats-Programm „Kustodische Praxis an Universitätssammlungen“.

04.05.2021, 16 Uhr s.t.
virtual room: https://meeting.uol.de/b/gab-t5m-nmo-kvi

Gastgebend: Prof. Dr. Gabriele Gerlach (AG Biodiversität und Evolution der Tiere), IBU
Gäste aller Institute sind herzlich willkommen