Data repositories for biodiversity and ecology research

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Primary biodiversity and ecology data is frequently collected with high expense and should therefore be provided open access to public and the scientific community, contemporary with the ending of a research project. Most taxon-related primary data from field observations and laboratory analyses are stored in local project databases, according to the DFG demands from 1997 to a minimum of ten years. In the recent "Empfehlungen zur gesicherten Aufbewahrung und Bereitstellung digitaler Forschungsprimärdaten" (DFG 2009), the establishment and promotion of so-called 'institutional data repositories' within the scientific disciplines is claimed. Tasks of institutional data repositories should cover long-term storage of data, sustainable availability of all primary data and quality control.

The establishment of data transfer mechanisms from two research projects to an institutional data repository is aimed in the frame of a recently initiated DFG-Project involving the Staatliche Naturwissenschaftliche Sammlungen Bayerns (SNSB), the Applied Informatics IV (University of Bayreuth) and two work groups at the Universities of Regensburg and Bayreuth. In this context, a software application is developed to enable data acquisition in the field by using a smart phone or mobile device (see www.diversitymobile.net). Gathered data are transferred to a data repository at the SNSB using data synchronisation mechanisms and redistributed to end-users via various types of interfaces.