
The BioKET Plant Data Warehouse: Ontology Mapping Concept and Visualization

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Résumé

Plant data are generally stored in different formats. This makes it difficult for biologists to combine and integrate them in order to retrieve useful information and discover novel knowledge for the purpose of, for example, efficiently classifying specimens. In this work, we present the BioKET plant data warehouse which is a consolidation of heterogeneous data stored in different formats and originating from different sources. Its construction required, among others things, to analyze existing plant ontologies, to standardize and relate terms. We also developed a methodology for mapping and defining taxonomic terminologies that are controlled vocabularies with hierarchical structures from authoritative plant ontologies. The BioKET plant data warehouse was integrated geographical information systems such as Google Maps and OpenStreetMap. Besides, The BioKET plant visualization is interfaced with other applications and resources, like the GeoCAT (Geospatial Conservation Assessment Tool), to provide a powerful analysis tool for biodiversity data.

Mots-Clés: Biodiversity, Data Integration, Plant Ontology, Geospatial Visualization

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