DEVELOPMENT OF A COMPREHENSIVE VASCULAR PLANT DATABASE FOR THE MISSOURI PLATEAU

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ABSTRACT

The land area of the Missouri Plateau includes most of the Dakotas, the majority of Montana, eastern Wyoming and northern Nebraska. The purpose of our study is to record and make available label data of all vascular plant specimens collected from this region. Data are being collated from 26 herbaria. Approximately 200,000 plant specimens will be included in the database, which will result in the first comprehensive flora of this region. Data are being “cleaned” and georeferenced, allowing most specimens to be mapped. Eighteen fields in the database include data about plant names, localities, habitat, collector and holding herbarium. The software currently being used is Specify 6.4. The database is currently running in a virtual environment using multiple Vmware ESX hosts connected to SAN storage. The database will be made available online to the public and many combinations of data fields, including date of collection and locality of collection, will be accessible for research. We anticipate being able to use the database to learn about the arrival and spread of invasive species as well as the presence and distribution of rare plant species. Given the rapid expansion of energy resource extraction currently developing in this area, we anticipate the database will become a significant resource for information.