Descriptive Data Challenges for the World Flora Online

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Abstract

The World Flora Online (WFO) is primarily a data management project initiated in 2012 in response to Target 1 of the Global Strategy for Plant Conservation – "*To create an online flora of all known plants by 2020*". A WFO Consortium has been formed of now 42 international partners with a governing Council and three Working Groups. The World Flora Online Public Portal (www.worldfloraonline.org) was launched at the International Botanical Congress in Shenzhen, China in July, 2017. The baseline Public Portal was primarily populated with a taxonomic backbone of information gathered from The Plant List augmented by newer taxonomic sources like Solanaceae Source. To support all known plant names in the WFO. including both vascular and non-vascular plants, new WFO identifiers (WFOIDs) were created, which were also cross-referenced to the International Plant Names Index (IPNI) identifiers for plant names included there. The next phase of the World Flora Online involves additional enhancement of the taxonomic backbone by engagement of new plant Taxonomic Expert Networks (TENs) and acceleration of ingestion of descriptive data from digital floras and monographs, and other sources like International Union for Conservation of Nature (IUCN) threat assessments and the Botanic Gardens Conservation International (BGCI) Global Tree Assessment. Descriptive data can be text descriptions, images, geographic distributions, identification keys, phylogenetic trees, as well as atomized trait data like threat status, lifeform or habitat. Initial digital descriptive datasets have been received by WFO from Flora of Brazil, Flora of South Africa, Flora of China, Flora of North Africa, Solanaceae Source and several others. The hard

work is underway to match the names associated with the submitted descriptions to the names and WFOIDs in the World Flora Online taxonomic backbone and then merging the descriptive data elements into the WFO database. Numerous data tools have been adopted and created to accomplish the data cleaning, standardization and transformation required before descriptive data can be integrated. The WFO project has discovered many variations between just the few datasets received so far, which highlights the need for better standardization and controlled vocabularies for flora and monographic descriptive data. This presentation will review some of the issues identified by the project when merging descriptive data and some potential gaps in the TDWG standards specifically for flora descriptive data. Some opportunities for consideration by the TDWG Species Information Interest Group will be presented.

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World Flora Online Portal is hosted at the Google Cloud.