

*Abstract Title: Floristic Quality Assessment Across the Nation: Status, Opportunities, and Challenges*

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*Abstract:*

Floristic Quality Assessment (FQA) will be considered in the USEPA National Wetland Condition Assessment (NWCA). FQA is a powerful tool to describe wetland ecological condition, and is based on Coefficients of Conservatism (CC) of individual native plant species. CCs rank sensitivity to disturbance, and may vary regionally for a given taxon. CCs of the individual species occurring in a particular location are used to calculate summary metrics, such as the Floristic Quality Index (FQI) or Mean CC, that reflect the ecological condition of plant communities. We developed a draft nation-wide CC Database that is a compilation of over 115,000 CC-values for taxa-state pairs from the 39 states for which partial or complete state or regional CC lists currently exist. We used the CC Database in developing the NWCA CC List for the 13,136 taxa-state pairs observed in the 2011 NWCA. We matched existing CCs from the CC Database to the NWCA taxa-state pairs, which required 1) reconciliation of names, based on diverse nomenclatural sources encompassed in the CC Database, to the NWCA nomenclatural standard (USDA PLANTS), and 2) reconciliation of native status noted in the CC Database for taxa-state pairs with the NWCA state-specific nativity assignments. For NWCA taxa-state pairs without CCs, we developed a procedure for ecoregional extrapolation of CCs from nearby states. The resulting NWCA CC List consists of 11,605 species-state pairs, 1,017 genus-state pairs, and 523 undetermined records (many of which are growth form-state pairs). Among the 11,605 species-state pairs, 10,272 had direct matches to published CC lists. Extrapolations were made for 2,681 species-state pairs by assigning the CC from the most ecologically similar state based on presence in the same ecoregion and geographic proximity. The majority of the extrapolated CC assignments came from the nine states without CC lists. Multiple quality assurance tests were conducted throughout the development of the NWCA CC List providing high confidence in CC assignments. We are currently using the NWCA CC List to conduct an analysis of how the distribution of CC scores varies by species and how that distribution relates to the species autecology.