



Wetland Condition Assessment Using the North Dakota Rapid Assessment Model and the Index of Plant Community Integrity

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We assessed wetland plant community condition in a designated area of the Missouri Coteau in central North Dakota. A probabilistic design was used in the selection of sample points and two sampling methods were utilized to estimate the vegetative condition of wetlands within the defined area. The methods included a rapid assessment and an intensive assessment component. The North Dakota Rapid Assessment Model (NDRAM) quickly estimates the overall wetland integrity of a site by taking into account disturbance, recovery, management, present vegetation, and potential. The vegetative-based Index of Plant Community Integrity (IPCI) evaluates the condition of plant communities based on a site intensive plant community survey. There were 255 seasonal wetlands sampled using the two procedures. There were approximately another 700 temporary, seasonal, and semi-permanent wetlands sampled using the NDRAM. The IPCI and NDRAM results were similar in indicating the current condition of wetland sites. We propose that the NDRAM be used at sites on a regular basis to identify general changes in wetland condition, while the IPCI should be used intermittently to further pinpoint changes in wetland condition. The IPCI and NDRAM methods can be utilized by the state of North Dakota to obtain valuable monitoring and assessment data that can in turn be used to report on wetland condition, possible trends, relationships of environmental and biological parameters, and identify areas in need of conservation and/or restoration.

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