

Ravine Meander Rapid Floristic Quality Assessment Protocol

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This Rapid Floristic Quality Assessment (RFQA) tool facilitates rapid assessment of ravines and results in quantitative metrics of plant community quality. RFQA relies on meander-based sampling of a subset of species found in ravines of the Illinois Lake Michigan Watershed. With funding from Openlands, this protocol was developed by Plants of Concern (POC) at the Chicago Botanic Garden in partnership with Openlands and Alliance for the Great Lakes and modeled after the Minnesota Pollution Control Agency's RFQA, available here <https://www.pca.state.mn.us/sites/default/files/wq-bwm2-02b.pdf>.



MATERIALS

- **Datasheet:** The datasheet lists 102 species targeted for the rapid assessment. Species are separated into woody, graminoid, herbaceous, and vine categories.
- **Species Guide:** The guide contains photos and descriptions of the assessment species.

METHODS

On the datasheet, assessors record:

- **site name**, all **assessor names**, and **date** of sampling
- **start time**, **end time**, & relevant **notes** at the top of the first page
- **slope information**, assign a slope to each number (1 or 2). These numbers correspond to one of the two spaces in front of each species on the Checklist.

Carefully meander along each slope of a ravine. The path should be random, yet intentional, reaching the top and bottom of each ravine slope. Identify and record plant species by circling the space next to the species name corresponding to the slope being assessed. Spend at least 60 minutes per slope. Upon completion of the meander, assign a cover class category (see datasheet for categories and percent cover ranges) to each circled species representing the total areal cover of the species for each slope. The more dominant species will have higher cover class categories. Record the cover class category in the circle that corresponds to the slope being assessed.

METRICS

To calculate metrics, create an account with universalfqa.org. Select "New Transect/Plot" to enter data. To access our species list, use "Flora of the Chicago Region, 2017" as the FQA database. The cover classes used in this RFQA assessment match Braun-Blanquet categories 1-5. Select "Braun-Blanquet" as the cover method; however, only use categories 1-5 when entering a cover class. Indicate that this is a Full Transect/Plot before entering species data.

Enter species individually or in bulk and by either scientific or common names. Assign each species a cover class category before submitting data. Once all species and cover classes are entered, view metrics via the website or download a spreadsheet. We recommend evaluating ravine plant community quality by the metric weighted C (the sum of each species proportional abundance for a ravine slope multiplied by its C-value).