Relationships between Redoximorphic Features and Water Table Depth and Duration. (S05-morgan142639-Poster)

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Abstract:

Redoximorphic features are often used to estimate the depth to seasonal saturation in a soil. These estimations are most often based on studies of the relationship between water table depth and the observation of redoximorphic features; where the duration of the water table is not considered. In this study, we are examining the relationships between redoximorphic features, water table depth, and the cumulative duration of the water table for soils on glacial landscapes in southern Rhode Island. Water table levels were monitored along transects on twelve sites (a total of 32 stations). Wells were monitored every 2 weeks. A simple, inexpensive device was developed to record the highest level the water table data, and a limited amount of water table logger data (collected at half-hour intervals) were used to construct hydrographs for each soil that reflect the duration of the water table. The duration hydrographs were examined to assess the relationship between cumulative saturation and type of redoximorphic feature.

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