

# The Effect of Age and pH on the Community Structure of a Chrono-series of Volunteer Wetlands in Northern West Virginia

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During the summer of 1990 a survey was conducted of 15 volunteer wetland associated with abandoned or reclaimed surface mines in Monongalia and Preston counties, West Virginia. The wetlands were classified by age. Five were less than six years old, five were 10 - 12 years old and five were 20 -25 years old. Within each age class there was a range of pH values from pH 3 - pH 7. At each wetland six transects were run and estimates obtained of community composition, structure, cover, diversity, dominance (Simpson index), and equitability (Shannon-Wiener index).

Over the 15 wetlands we found more than 90 different species. Of these *Typha latifolia* was by far the most common. Analysis of the wetlands showed that the overriding influence on community parameters, such as dominance, diversity and equitability, was the age of the wetland. There were also significant effects of pH on dominance, diversity and equitability, but not on percent cover. Dominance and equitability tended to increase with decreasing pH while diversity declined. The interactive relationship between the effects of pH and age on wetland communities are complex