

## PROJECT OUTLINE

### Vegetation of the upland fields of the Cary Arboretum

#### Background

The Cary Arboretum contains a number of upland fields subject to current management or in varying stages of succession following abandonment. These fields represent a major site for ecological research at the Arboretum; however, there are currently no baseline data on the composition, structure, current management, and land-use history of these sites.

#### Objectives

1. Inventory the current composition, structure, and environmental conditions of the upland fields of the Arboretum.
2. Compile land-use and management histories of the major upland fields within the Arboretum.

#### Approach

The major contiguous upland fields will be treated as discrete units to the degree that each unit has a relatively uniform history of management and land-use. Sampling within each field is designed to allow description of variation in vegetation and environmental conditions both within and between fields.

#### Methods

The major contiguous fields will be identified<sup>inventoried,</sup> and sketched on base maps. A set of the major fields will be chosen for actual sampling. At these sites:

1. land use history and past management will be documented as well as possible from sources such as current and former employees, former landowners, and Arboretum and public records;
2. vegetation (structure and composition) and basic environmental conditions will be recorded at randomly located points within each field.

*Limit the scope of the project to major fields that appear to have a high potential for future research. Focussed on upland fields because the lowlands have, in general, been subject to much more intensive management and would vastly increase the amt. of work needed to be done.*

*Relationships betw/ vegetation and both basic env. conditions and land use history will be evaluated using direct gradient analysis*