

Floristic Inventory and Vegetation Classification of the Kleinmaier State Nature Preserve, Fairfield County, Ohio

Clea Klagstad, MS
Botanist and Environmental Project Manager

Introduction

The Kleinmaier State Nature Preserve comprises approximately 32 acres in south-central Fairfield County, Ohio. The property is owned and managed by the Appalachia Ohio Alliance (AOA), which acquired the parcel through a donation from the Kleinmaier and Crompton families. The Preserve is located approximately 35 miles southeast of Columbus, Ohio, near the southern border of the Galion Glaciated Low Plateau near the Allegheny Escarpment physiographic provinces. In order to better understand the species diversity within the Kleinmaier State Nature Preserve, a floristic inventory and vegetation classification will be conducted within the 2015 growing season. In 2013, Rick Gardner led a quick floristic inventory of the adjacent Kircher property, which yielded over 250 species identifications, four of which are sensitive. There is a high probability that these species exist in the neighbouring Kleinmaier Preserve. The objectives of the study are therefore (1) to identify the vascular flora of Kleinmaier State Nature Preserve, (2) to classify the vegetation types within the area, and (3) to identify species with distributions that represent county records, range extensions, and unique phytogeographic affinities. The conclusions from this study may better inform the AOA for further research and management decisions within the property.

Methods

Access to the Kleinmaier State Nature Preserve was obtained by permit with the appropriate agencies. At least six field visits will be made to the Kleinmaier State Nature Preserve. This will ensure that every season is represented by two visits (spring, summer, and fall). Where identification cannot be determined during a site visit, plant vouchers will be collected, placed in a marked bag, and subsequently identified. Plants will be collected ethically, i.e. only taken if there is a healthy population at that location. If a listed species is suspected but cannot be identified on site, a photo voucher will be taken.

Preliminary Results and Future Direction

Approximately six vegetation types and thirty species have been identified on site thus far. The preliminary species list includes several species of note. The state threatened great rhododendron

(*Rhododendron maximum*) exists within the Preserve, surrounded by eastern hemlock (*Tsuga canadensis*). Additionally, the site potentially contains the state endangered flame azalea (*Rhododendron calendulaceum*) (Figure 1), which was previously noted on the property by Rick Gardner. Other noteworthy species include mountain-laurel (*Kalmia latifolia*) and skunk cabbage (*Symplocarpus foetidus*) (Figure 2). Lady's-slipper and other uncommon orchid species have been reported from the site.



Figure 1. Flame azalea; photo taken from nearby Mathias Grove.



Figure 2. Skunk cabbage on the Kleinmaier site.

The floristic assemblage of the Preserve and surrounding area suggests that the site may represent a significant relict population at its northern extent. Further analysis into the origins of the habitat types will be conducted following the conclusion of the inventory.