Eastern Invasives Management Network
Workshop # 3, March 2003

Salt River/Rolling Fork, KY

(1) State clearly what conditions (invasive species distribution, abundance, etc) would have to prevail to allow you to reduce (or maintain) the invasive species threat rating(s) on your conservation area to MEDIUM or LOW. For invasive species threats currently rated as VERY HIGH, state the conditions that would have to prevail in order for it to be rated one level lower – HIGH – when re-assessed. Use these condition statements to form objectives for your conservation area, and where possible, state these objectives in quantitative terms.

I must reiterate first that in a landscape of 892,000 acres, we have incomplete information about the severity of our stresses and sources of stress. Invasive species have been ranked as either medium or low within the conservation area, but without proper management we would expect this to change dramatically in a 100 year outlook.
Reducing both the distribution and abundance of these populations will be important factors in the years to come. Populations are scattered across the landscape- there is hardly an area of any size that is truly free of invasive plants of some kind. Some are more invasive than others, and prioritization of these populations and their relationship within extremely high quality natural areas will become critical as we gain a more comprehensive picture of the needs within the conservation area.

In Grasslands: Invasives are currently ranked as a medium threat, contributing to alteration of natural fire regimes and altered composition and structure. (Percentages/ size of infestations depend on whether *Festuca arundinacea* is considered invasive or not… this has been a point of debate in the past)

We seek to reduce the abundance of invasive plants to <10% relative cover in grasslands, specifically focusing on restorable (without planting) natural areas. Areas of infestation should not exceed .3 hectacres in size. Interior and especially sensitive areas should be maintained as clean areas- priority areas that should be checked for new infestations at least once a year. When these areas have been protected, the threat of invasive species to barrens and grasslands should be ranked at "Low" level.

In Mixed Deciduous Forest: Invasives are currently ranked as a medium threat, contributing to alteration of natural fire regimes and altered composition and structure.

We seek to reduce the abundance of invasive plants to < 5% relative cover in mixed deciduous forests. Areas of infestation should not exceed .3 hectacres in size, and should be maintained with an annual monitoring plan. When major infestations (over 2 acres in size) are isolated to roadsides and away from priority areas, the threat ranking can move to "low".

In Bottomlands and Riparian Zones: Invasives are currently ranked as a medium threat, contributing to altered composition and structure.

We seek to reduce the spread in invasive plants by reducing the percent cover of these populations to < 10% cover so that there are no infested areas over .2 hectacres in the bottomlands/ riparian zones of first or second order streams. This estimate should include a 200 foot buffer zone around these streams. When the invasive species abundance is reduced to this level, it can be considered a "low" priority threat.

(2) Since invasive species can move into your conservation area from outside you probably need to consider conditions in upstream areas, upwind areas or a buffer zone surrounding it. What area(s) beyond the bounds of your conservation area do you believe should be included when assessing invasive species threats?

Roadsides, streams, and neighborhoods surrounding priority areas within the larger conservation area boundary should be monitored annually for new infestations. Areas draining into above high priority areas should be monitored every 2-3 years (possibly on a rotational basis). Adjacent farm fields should be watched closely when situated in close proximity to high quality or recently restored grassland/barrens/glade complexes.

(3) Identify 3 to 5 strategies that will allow you to achieve the objective(s) you identified in question 1.

In many areas simple education and outreach can be used to address these threats. Much of the general public does not realize that invasive plants have been introduced to the landscape. Promoting the reintroduction of native species is an essential part of invasive species management.

Using/ promoting the use of prescribed fire as a management tool. In one way or another, virtually every component within this system is fire adapted. By publicizing and demonstrating the use of fire, we can achieve results relatively quickly. Because invasive species populations alter the way fire behaves within the landscape, this is a relatively urgent goal.

Grassland restoration is a conservation goal within this project area. Many of the native grasslands have been converted to fescue fields for forage and hay production, while most other grasslands have been converted to row crops or wildlife habitat fields (using alfafa or clovers, typically). Large scale restoration of these grasslands will go a long way to crowd out non-native plants. Once established, these grasslands have many of the same "benefits" that non-native grasslands do- they are relatively maintenance free, provide excellent wildlife habitat, and can provide a source of income to the landowners (haying or harvesting seed).

(4) Identify at least one way that you could measure (monitor) progress towards the objective(s) you identified in question 1. Be as specific as you can about the species, factor or indicator to be monitored and the kind of data (e.g. cover, density, concentration, total area covered, etc) to be gathered. For example, a sampling scheme designed to assess the relative cover of all invasive plants (as a "guild") in riparian areas along first and second order streams could help measure progress toward the sample objective given in question one. However, more information would be required for riparian areas along larger creeks and rivers.

Sampling for distribution and density within the core target areas and the immediately surrounding areas would likely be the most manageable monitoring plan that we could create. Our priority areas are our main focus now- this will likely shift to encompass more "restored" areas in the future. This is especially true for grassland areas- we have seen several "new" invaders in the past few years (*Centaurea biebersteinii* is an example of a plant that we are seeing more and more of). Local landowners and other stakeholders know little about these plants, and typically take little or no action against them.
By focusing our sampling efforts on this plant and similar "new" invaders, we should be able to get a more accurate idea about their rates of spread and pathways of introduction.