

**Eastern Invasives Management Network
Workshop # 3, March 2003**

Summit Interlobate Plateau, Ohio

- (1) What conditions are necessary to reduce or maintain invasive species threat ratings at conservation targets to MEDIUM or LOW; what conditions would reduce threat rating from VERY HIGH to HIGH? Write (quantitative) objectives from condition statements.**
- (2) List strategies to achieve threat abatement conditions described above.**
- (4) Describe specific monitoring actions to achieve or make progress toward the threat abatement conditions.**

I) Threat Assessment Conditions

Conditions are listed from best case (LOW / MEDIUM) to worst case (HIGH / VERY HIGH)

A) Distribution in or adjacent to target occurrence, including dispersal pathways, is

- 1) localized to frequent – routine (at least annual) scouting/documentation and removal efforts at all target occurrences;
 - (a) quantify distribution terms (localized, frequent, common, widespread) for most important species or “guilds”
 - (b) conservation-area-wide consensus and prioritization of surveillance, documentation and removal; annual follow-up to track progress;
- 2) common to widespread – documentation & annual surveillance, plus increased vigilance and removal at previously uninvaded targets; removal/reduction efforts (reasonably heavy-handed) at least once every three years for infestations in a direct dispersal pathway affecting target
 - (a) consensus about documentation and reporting methodology; annual follow-up to share actions and findings;
 - (b) quantitative or qualitative monitoring of removal results and technologies.

B) Abundance

- 1) sparse, widely scattered to dense but small infestations – annual surveillance and removal from priority occurrences
 - (a) define abundance threshold for “small infestations”; GPS point mapping
- 2) present throughout target occurrence at low densities, but with high potential to increase (e.g. rhizomatous grasses) – annual removal and more intensive monitoring
 - (a) intensive (but practical) quantitative monitoring at managed and unmanaged target occurrences;
 - (b) GPS point mapping, with additional population data collected
- 3) dominant within target communities – heavy-handed removal and restoration (3-5 year cycle) to check further expansion (if adjacent areas of target are in decent condition); encourage these sites to be used for restoration research and education
 - (a) GPS polygon mapping

- (b) define thresholds beyond which quantitative monitoring is scuttled in favor of qualitative monitoring (say, photo monitoring); may be species or “guild” specific

C) Available & occupied habitat in conservation target occurrences

- 1) target occurrence is uninvaded – keep it clean by all means to prevent or minimize new introductions
 - (a) annual survey, with GPS and removal technology (plus documentation methodology) in hand
- 2) target occurrence is invaded at low abundance, and/or low number of invasive taxa, and invaders are removable under current capacity – annual removal is high priority, site is used as a source of restoration material
 - (a) measure invader abundance and species richness
 - (b) document all removal actions and monitor results
- 3) target occurrence is heavily infested by one or many taxa, or invaders are particularly difficult to remove under current capacity - lowest priority for removal or restoration; take action only if
 - ❖ the site is used for education/outreach, and/or restoration research & demonstration,
 - ❖ the site is a direct source of renewed invasions to adjacent conservation targets;
 - (a) GPS polygon mapping
 - (b) define thresholds beyond which quantitative monitoring is scuttled in favor of qualitative monitoring (say, photo monitoring); may be species or “guild” specific

D) Dispersal pathways & mechanisms

- 1) major pathways are known and within capacity to address or prevent (trails, roads); relatively low level of invasion within the geographic scope of the conservation target
 - (a) define and test detection and capacity threshold
- 2) major pathways are known, but not within capacity to address (airborne, large water corridors, etc.)
 - (a) prioritize early detection and removal efforts for difficult to contain invaders
 - (b) locate major sources of invaders – large populations or causes of introductions (trade, transport) – then devise a measure of success

II) Threat Abatement Conditions (capacity, capacity, capacity)

These are the prevailing institutional or organizational conditions needed for successful threat abatement strategies.

A) Awareness, Detection and Removal Capacity.

- 1) Field resources – trained personnel – to educate, locate, and verify.
- 2) Sufficient intensity of effort at the appropriate geographic scale. Includes comprehensive survey of target occurrences across the conservation area.

B) Cooperation Across Multiple Jurisdictions or Mandates.

- 1) Avoid duplication of efforts – agencies allow survey access or removal at target occurrences.

- 2) Expertise and institutional strengths (e.g. education, public contact, volunteer management, technical or financial capacity) are used cooperatively.
- 3) Prioritization of strategies and action across conservation area are determined large part by conservation target conditions.

C) Appropriate Technology.

- 1) Threat abatement actions are less harmful than the threats themselves.
- 2) Economic/budget sustainability, integrated pest management & best selective management practices, no paralyzing legal constraints; competent and available professionals (certifiable land stewards, as it were)

D) Defined and Demonstrated Success.

- 1) Clear communication about the long-term reality and prospects of invasive species management.
- 2) Economically viable removal and restoration strategies and business plans & businesses.
- 3) Sliding scale of success – knowing where and how and action fits within the regional threat assessment and abatement strategic plan.

E) Paradigm Shift.

- 1) Across the stakeholder spectrum, broaden invasive species assessment and management in order to balance management of already pervasive species against early detection, documentation, and rapid response. Shift additional resources to predictive capability, restoration, and the root social and economic causes of invasions.

(2) What areas beyond the bounds of the conservation area should be included in threat assessments?

The conservation targets are all embedded within the conservation area. The Summit Interlobate Plateau is a geologically distinct region of kettle-kame-moraine and outwash features. The conservation targets are all discrete community or landform features; areas included in threat assessments are introduction sources or dispersal corridors of invasive species.