

## **Appendix 1 – Hit List Survey**

*Appendix 1 includes all of the information that you will need to develop a Hit List for your program. This appendix consists of an introductory letter and background information to be sent to prospective reviewers (local field biologists and land managers), as well as a preliminary (starting point) hit list of problematic invasive exotic species and detailed observational information (questionnaire), that requires their input and expertise.*

### **Sample Letter:**

April 4, 2000

THANK YOU for agreeing to provide your input to help us develop a “hit list” of invasive species to be targeted for monitoring and management through our new Weed Watchers program. I have enclosed a “starting point” list, for your review and comment, and a brief questionnaire to help you provide us with the pertinent information on each species. I have tried to provide clear and specific instructions on both the list and the questionnaire – I hope that this will make it faster and easier for you to respond. You should be able to work through all of this material in no more than 2 hours.

**Your responses will be most useful if I receive them by April 28.** I have provided a return envelope.

I have included a little more background on Weed Watchers and the Hit List on the back of this page. Thank you again for your help!

Sincerely,

Donnelle Keech  
Assistant Director of Stewardship

**Background:**

The Maryland/DC Chapter of The Nature Conservancy is developing an invasive species monitoring and management program – the “Weed Watchers” program. Volunteer Weed Watchers will be trained to use a carefully designed methodology to find, document, and monitor new or newly expanding occurrences of invasive species, and take or trigger appropriate management action. Initially, we will focus on TNC preserves, but the program could include other areas of conservation interest in the future. The goal of Weed Watchers is to detect and control invasive species infestations before they become widely established at a site and impact native species and natural communities. We also think that Weed Watchers will generate a base of information useful to future research and management efforts.

As part of this effort, we are creating a “Hit List” of invasive species for natural areas in Maryland. The purpose of the Hit List is to identify the most invasive, most damaging species in our region, so that we can target these species for monitoring and management action in the Weed Watchers program.

In addition to being an important foundation for Weed Watchers, this Hit List will be an important contribution to other efforts to develop lists of invasive species, currently or soon-to-be underway in Maryland and the region. Because of this, we want to utilize the very best available information in developing the Hit List. Literature is often a limited resource for information on the impact and behavior of invasive species at the state or regional level, so we will seek input from experienced field biologist and land managers.

## Starting Point for Hit List

These are the species reported by TNC staff from Maryland, Pennsylvania, West Virginia, Virginia, Delaware, and/or New Jersey in the most recent TNC Weed Survey. These are the species known to be impacting or potentially impacting conservation targets on Conservancy preserves in these states as of 1998.

Following the directions below, please annotate/amend this list based on your knowledge and observations:

1. ~~Cross out~~ any species that you think are *not* invasive in natural areas in our region. Write-in any species that you think are missing.
2. Place an "X" next to up to 12 species, which you think *are* invasive and *should be targeted* for monitoring and management in natural areas in our region. (You can certainly choose fewer than 12 species, if you think that is appropriate.)
3. If you feel your knowledge or experience is too limited to assess a species, place brackets [ ] around that species.

---

<i>Ailanthus altissima</i>	(tree-of-heaven)
<i>Alliaria petiolata</i>	(garlic mustard)
<i>Berberis vulgaris</i>	(common barberry)
<i>Bromus sterilis</i>	(barren brome grass)
<i>Centaurea maculosa</i>	(spotted knapweed)
<i>Elaeagnus umbellata</i>	(autumn olive)
<i>Lonicera japonica</i>	(Japanese honeysuckle)
<i>Lonicera morrowii</i>	(bush honeysuckle)
<i>Lythrum salicaria</i>	(purple loosestrife)
<i>Microstegium vimineum</i>	(Japanese stiltgrass)
<i>Phalaris arundinacea</i>	(reed canarygrass)
<i>Phragmites australis</i>	(common reed)
<i>Polygonum cuspidatum</i>	(Japanese knotweed)
<i>Polygonum perfoliatum</i>	(mile-a-minute)
<i>Rosa multiflora</i>	(multiflora rose)
<i>Trapa natans</i>	(water chestnut)

## **Hit List Questionnaire**

The Hit List Questionnaire is adapted from TNC's Weed Ranking Criteria (WRC), developed by John Randall (TNC's Wildland Invasive Species Team) and Nancy Benton (NatureServe). The WRC is currently still a draft, but it is being tested and will hopefully be published within the next year or so. If it receives positive reviews (and it has so far), it may serve as a basis for creating invasive species lists regionally and nationally.

The WRC is designed to rank invasive plant species by evaluating their invasiveness, impact, distribution and abundance, biology and dispersal ability, and management challenge. It is intended to assign one of four ranks to species, reflecting its invasiveness and impacts throughout its U.S. range.

I selected and modified questions from the WRC for the attached Questionnaire. My goal was to capture the most essential elements of the WRC, and to gather from you the information that I could not get from the available literature.

### **Instructions:**

1. I have attached 12 copies of the questionnaire – it has 6 questions, and is double sided.
2. Please complete a questionnaire for each species on the “starting point” list, which you X'd and left unbracketed. This should not be more than 12 species (it can be less).
3. If you would prefer to cover the questions in a phone interview instead of in writing, mail just the annotated list back, and I will contact you by phone.
4. Mail the annotated list and the completed questionnaires back in the enclosed envelope.

**Hit List Questionnaire**

**Species:** \_\_\_\_\_

1. In your experience with this species, which of the following choices best characterizes its ability to invade natural systems?
  - a) Not known to spread into natural areas on its own (e.g., species may persist from former cultivation)
  - b) Establishes only in areas where major disturbance has occurred in last 20 years (e.g., post-hurricane sites, highway corridors)
  - c) Often establishes in mid- to late-successional natural areas where minor disturbances may occur (e.g., tree falls, hiking trails, streambank erosion), but no major disturbance in last 20-75 years
  - d) Often establishes in intact or otherwise healthy natural areas with no major disturbance for at least 75 yrs

Comments:

2. What impacts on ecosystems, community structure or native species have you observed or suspected this invasive species to have? Are there any impacts you suspect but have not clearly seen?
  
  
  
  
  
  
  
  
  
  
3. Have you observed this species impacting (or threatening to impact) any native species or communities of conservation concern? If yes, please briefly note species or communities, and describe impact.

From your experience, how would you characterize this species' rate of spread in the landscape? (i.e. how fast are we seeing it "pop-up" at new sites?)

Consider these choices:

- a) Does not spread
- b) Slow -- doubling time (new local reports) > 50 years
- c) Moderate -- doubling time (new local reports) 10-50 years
- d) Rapid -- doubling time (new local reports) < 10 years

Comments:

4. How widely distributed is this species currently? Roughly estimate the number of natural areas where you know this species to occur.

5. From your experience, what is the potential cover of this species in the strata were it occurs?

- a) Infrequent (less than 10%)
- b) Fair coverage but less than half (10 - 50%)
- c) Dominant (50 - 90%)
- d) Monospecific stand (90 - 100%)

Comments: