processes and structure and on other park resources. The ranking system also predicts the potential of a species to become a pest in the future. Normally, applying the system will greatly reduce the list of exotic species with which a park manager needs to be concerned. The decision to take management action against a species determined to be disruptive then can be weighed on the basis of the level of impact, the feasibility of successful control, and the prediction of the cost of delay in action. The information accumulated in the system's application serves as solid documentation to support management's decisions and to justify program funding.

Description
The Exotic Species Ranking System in Table 1 uses numerical ratings, is written in outline format, and is divided into two main sections: I. Significance of Impact and II. Feasibility of Control or Management. Each section is based on a scale of 100 points.

Table 1. Exotic Species Ranking System (Ronald D. Hiebert)

I. Significance of Impact

A. Current Level of Impact
1. Distribution relative to disturbance regime
   a. found only within sites disturbed within the last 3 years of sites regularly disturbed -10
   b. found in sites disturbed within the last 10 years 1
   c. found in midsuccesisonal sites disturbed 11-50 years before present (BP) 2
   d. found in late-succesisonal sites disturbed 51-100 years BP 5
   e. found in high-quality natural areas with no known major disturbance for 100 years 10
2. Abundance
   a. number of populations (stands)
      (1) few; scattered (<5) 1
      (2) intermediate number; patchy (6-10) 3
      (3) several; widespread and dense (>10) 5
   b. areal extent of populations
      (1) <5 ha 2
      (2) 5-10 ha 3
      (3) 11-50 ha 3
      (4) >50 ha 5
3. Effect on natural processes and character
   a. plant species having little or no effect 0
   b. delays establishment of native species in disturbed sites up to 10 years 3
   c. long-term (more than 10 years) modification or retardation of succession 7
   d. invades and modifies existing native communities 10
   e. invades and replaces native communities 15
4. Significance of threat to park resources
   a. threat to secondary resources negligible 0
   b. threat to areas' secondary (successional) resources 2
   c. endangerment to areas' secondary (successional) resources 4
   d. threat to areas' primary resources 8
   e. endangerment to areas' primary resources 10
Table 1 (cont).

5. Level of visual impact to an ecologist
   a. little or no visual impact on landscape 0
   b. minor visual impact on natural landscape 2
   c. significant visual impact on natural landscape 4
   d. major visual impact on natural landscape 5

B. Innate Ability of Species to Become a Pest

1. Ability to complete reproductive cycle in area of concern
   a. not observed to complete reproductive cycle 0
   b. observed to complete reproductive cycle 5

2. Mode of reproduction
   a. reproduces almost entirely by vegetative means 1
   b. reproduces only by seeds 3
   c. reproduces vegetatively and by seed 5

3. Vegetative reproduction
   a. no vegetative reproduction 0
   b. vegetative reproduction rate maintains population 1
   c. vegetative reproduction rate results in moderate increase in population size 3
   d. vegetative reproduction rate results in rapid increase in population size 5

4. Frequency of sexual reproduction for mature plant
   a. almost never reproduces sexually in area 0
   b. once every five or more years 1
   c. every other year 3
   d. one or more times a year 5

5. Number of seeds per plant
   a. few (0-10) 1
   b. moderate (11-1,000) 3
   c. many-seeded (>1,000) 5

6. Dispersal ability
   a. little potential for long-distance dispersal 0
   b. great potential for long-distance dispersal 5

7. Germination requirements
   a. requires open soil and disturbance to germinate 0
   b. can germinate in vegetated areas but in a narrow range or in special conditions 3
   c. can germinate in existing vegetation in a wide range of conditions 5

8. Competitive ability
   a. poor competitor for limiting factors 0
   b. moderately competitive for limiting factors 3
   c. highly competitive for limiting factors 5

9. Known level of impact in natural areas
   a. not known to cause impacts in any other natural area 0
   b. known to cause impacts in natural areas, but in other habitats and different climate zones 1
   c. known to cause low impact in natural areas in similar habitats and climate zones 3
   d. known to cause moderate impact in natural areas in similar habitats and climate zones 5
   e. known to cause high impact in natural areas in similar habitats and climate zones 10

Total Possible = 50