# Appendix 2 - Threatened and Endangered Species and Habitat Scoring Guide

## **Scoring Table**

Use the following scoring table to determine the number of points – up to 15 – to assign to an acquisition project:

Species/Critical Habitat	Listing Status	Occurrence	Potential benefit to the species		Magnitude of benefit	Species Score (Multiply criteria scores)
Bird X						
Bird Y						
Bird Z						
Fish A						
Fish B						_
Total T&E Score						

#### Criteria

- A. **Listing Status**: enter the number that corresponds best to the species status on the parcel:
  - a. Occupied Threatened/Endangered Critical Habitat (CH) = 4
  - b. Threatened/Endangered; unoccupied CH = 3
  - c. Proposed T/E; proposed CH = 2
  - d. Candidate/Regional Forester's Sensitive Species (RFSS)/Species of Conservation Concern (SCC) = 1
- B. Occurrence: enter the number that best describes the occurrence of the species on the parcel:
  - a. Species is known to use the parcel from positive identifications in the past 3 years OR occupied CH is designated on the parcel = 1
  - b. Species is highly anticipated to use the parcel, but no surveys have been performed in the past 3 years OR unoccupied CH is designated on the parcel = 0.75
  - c. Species occurrence and use of the parcel is generally anticipated to occur but in a limited capacity or occurrence is based solely on predictive modeling. = 0.5
  - d. Species occurrence and use of the parcel is unknown. = 0.25
  - e. The most recent survey indicated the species is not present on the parcel nor currently using it = 0
- C. **Potential benefits**: enter the number that best represents the potential benefit USFS management of the parcel will be for species recovery:
  - a. If the proposed management of the parcel will accomplish or substantially contribute to one or more approved recovery tasks from a final recovery plan or similar document = 1.5
  - b. If proposed management will benefit the species by creating habitat or improving on-the-ground conditions, but not accomplish a recovery task = 0.75
  - c. Proposed management is expected to be minorly beneficial to the species = 0.5
  - d. Proposed management will have no impact on the species = 0.25
  - e. Proposed management is likely to conflict with species recovery = 0
- D. **Likelihood of benefit**: enter the number that best expresses the likelihood of potential benefits occurring:
  - a. Proven track record shows proposed or anticipated forest management is certain to have benefits to the species. = 1

- b. Best available science suggests proposed or anticipated forest management has a high likelihood of benefiting the species. = 0.75
- c. Benefits are aspirational or desired but there is no clear information the species will respond positively. = 0.5
- d. Best available science suggests the benefits to the species are unlikely to be realized. = 0

#### E. Magnitude of benefit:

- a. Parcel is large and adds substantial habitat under FS management relative to the total range of the species OR parcel is of specific management interest to the species for connectivity, migration, special needs, etc. = 1
- b. Parcel is neither large nor special = 0.5

#### **Supporting Narrative**

Briefly describe each species listed along with an explanation of the benefit to the species the acquisition will provide.

### Sample T&E Scoring Table

Species/Critical Habitat	Listing Status	Occurrence	Potential benefit to the species	Likelihood the benefit will occur	Magnitude of benefit	Species Score (multiply criteria scores)
Bird X	3	1	0.75	1	1	2.25
Bird Y	3	0.75	0.75	0.75	1	1.265625
Bird Z	2	0.75	0.75	0.5	0.5	0.28125
Fish A	1	0.5	0.5	0.5	0.5	0.0625
Fish B	1	1	0.5	0.5	0.5	0.125
Total T&E Score						3.984375

## Chequamegon-Nicolet National Forest I Example:

Species/Critical Habitat	Listing Status	Occurrence	Potential benefit to the species	Likelihood the benefit will occur	Magnitude of benefit	Species Score (multiply criteria scores)
Botrychium mormo	1	0.25	0.25	0.5	0.5	0.016
Botrychium oneidense	1	0.25	0.25	0.5	0.5	0.016
Total T&E Score						

<u>Little Goblin Moonwort (Botrychium mormo)</u>: The Regional Forester Sensitive Species (RFSS) little goblin moonwort is known from scattered sites in north-central Minnesota, northern Wisconsin, upper Michigan and one site from Quebec, Canada. The species is found in mesic, mid-age or older northern hardwood forests with deep leaf mold or duff. Little goblin moonwort has been documented at 152 sites on the Chequamegon-Nicolet National Forest (CNNF), of which the vast majority (139) are on the Nicolet land base (east zone of the Forest). There are 82 sites on the Lakewood-Laona Ranger District. These parcels provide potential suitable habitat. The nearest known occurrence is < 5 miles from the parcels. Threats include loss of habitat and invasive earth worms which reduce the duff layer. Federal ownership of these large parcels would maintain them under forest management, allow for surveys for the species, and if found, the application of protective buffers.

Bluntlobe Grapefern (Botrychium oneidense): The RFSS bluntlobe grapefern is a small fern that ranges from New Brunswick to Minnesota, south to Wisconsin, Indiana, Kentucky, and North Carolina. The species occurs in northern hardwood forests, often at the edges of seasonally wet areas. Limiting factors for bluntlobe grapefern include changes in soil characteristics (e.g., pH, structure, aeration, nutrients, mycorrhizal fungi, and organic layer) due to invasive earthworms, forestry practices, and road building. Reduction of canopy cover below 80 percent is detrimental to the species. Bluntlobe grapefern has been documented at 100 sites on the CNNF, the vast majority (95) are on the Nicolet land base. There are 48 sites on the Lakewood-Laona Ranger District. These parcels provide potential suitable habitat. The nearest known occurrence is < 1 mile from the parcels. Federal ownership of these large parcels would maintain them under forest management, allow for surveys for the species, and if found, the application of protective buffers.