APPLICATIONS

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Habitat Priority Planner → Species Monitoring

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Introduction

The New England cottontail was added to the endangered species list because of habitat loss, predation, and competition. The species relies on early successional habitat, or areas that coincide with utility corridors, are near protected areas, and are close to other suitable habitat. Establishing a monitoring program is important in evaluating the New England cottontail population.

This document illustrates an example spatial approach to identify areas appropriate for a New England Cottontail monitoring program. The information and table below show the process steps needed to conduct spatial analysis using the Habitat Priority Planner for the objectives described. Developing a clearly defined goal and objectives helps *spatial analysis* run more smoothly and ensures that the appropriate *datasets* are identified.

Goal

Identify areas appropriate for a New England cottontail monitoring program.

Objectives

- Identify areas of early successional habitat, such as shrub lands, grassy areas, old fields, or pastures, that would be appropriate places to monitor for the presence of New England cottontail.
- Identify habitat that coincides with utility corridors, are near protected areas, and are close to other suitable New England cottontail habitat.

Spatial Analysis Steps Using the Habitat Priority Planner

1. Use the Habitat Classification module to run a Unique Classification using the base dataset, Land Cover.
2. Use the Habitat Priority Planner's Habitat Analysis module to select a series of analyses that will help identify key areas that fit the criteria:
   - Presence/Absence
     - Identify areas where Utility Corridors are present.
   - Distance To
     - Calculate the distance from early successional habitat to Protected Areas.
   - Nearest Neighbor
     - Measure the distance between patches of early successional habitat.

3. Use the Data Explorer module to narrow down from all available habitats to those that meet the specific criteria:
   o Select only those land cover types that are 25 acres or larger in size.
   o Select habitat that has utility corridors present.
   o Select habitat within 500 feet of protected land.
   o Select habitat within 500 feet of the nearest like habitat patch.

Describe Objectives	Data	Analysis	Selection Criteria
Early successional habitat	2006 Maine C-CAP	Unique Classification	Size = 25 acres or larger (OR)
Coincides with Utility Corridors	Utility Corridors	Presence/Absence	Presence = True (AND)
Near Protected Areas	Protected Areas	Distance To	0-500 feet (AND)
Close to other suitable habitat	2006 Maine C-CAP	Nearest Neighbor	0-500 feet

Results

Of the original 27,320 acres, the final output from the Habitat Priority Planner shows 13,440 acres of early successional habitat that would be appropriate to monitor for New England cottontail.

Priority habitat for a Cottontail monitoring program contains early successional habitats (25 acres or greater) or coincides with utility corridors, near protected areas, and close to other suitable habitat.