Coarse Filter Significant Wildlife Habitat: Co-occurrence Scores

The New Hampshire Fish & Game Department has completed a coarse filter analysis of potential significant wildlife habitat for the state based on a protocol modified from that outlined in the manual "Identifying and Protecting New Hampshire's Significant Wildlife Habitat" (Kanter et al. 2001).
This habitat map is being distributed to interested parties in lieu of more specific species habitat maps that will be produced for the Comprehensive Wildlife Conservation Plan which is scheduled to be completed by October 2005.
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UNFRAGMENTED HABITAT BLOCKS

Unfragmented habitat blocks were generated by selecting the natural landcover classes in the 2001 NH Land Cover Assessment data provided by GRANIT. (that is, all classes except 100=comm/ind/res and 140=transportation)
The developed land classes and a combined buffer of NHDOT roads class I-V and USGS 1:24,000-scale class I-IV roads were considered fragmenting features. Any portion of a waterbody wider than 1/4 mile, except those completely within a single habitat block, were also considered fragmenting.

Habitat blocks were then ranked based on size and area/perimeter ratio. Size thresholds were determined from a literature review of species of conservation concern in New Hampshire. Area/perimeter ratio classes are based on natural breaks in the data. Ratios provide a relative measure of the amount of interior habitat available in a given block.

Unfragmented Habitat Block Score
- 0 (less than 25 acres)
- 2 to 4
- 5 to 7
- 8 to 10
- 11 to 15

Co-occurrence Score
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- South-facing Slopes >10 % Score 1 Point

Unfragmented Habitat blocks of natural land cover are scored based on:
-- Size (total land acres)
-- Area/perimeter ratio (only blocks 25+ acres in size)
Habitat co-occurrence scores are based on:
-- Riparian corridors and priority wetlands
-- Agriculture and cleared/other open land
-- Rare unique habitats - pine barrens, saltmarsh, alpine, ledges
-- South facing slopes > 10%
Please refer to accompanying maps and supporting documentation for assistance with interpreting habitat scores and for explanation of the coarse filter analysis.

- Conservation/Public Land
- Town boundary
- Stream or Shoreline
- Surface Water
- National Wetlands Inventory
- Primary Route
- Road or Street
- Watershed boundary
- 100-Ft Contours

Vernon
Lyndeborough
Wilton
Milford
Mason
Brookline
Amherst

WILDLIFE HABITAT

Riparian areas are represented by a 300 foot buffer of all perennial streams and surface waters. Roadways and developed land (GRANIT 2001 landcover data) were used to "erase" sections of the riparian buffer. The final step was to remove areas that did not make contact with a stream or shoreline.

Priority wetlands were identified by creating the following three data layers:
1.) Palustrine emergent wetlands in the National Wetlands Inventory data
2.) Wetland areas 5 acres or larger were selected from a combined layer of palustrine wetlands (NWI) and hydric A soils (NRCS). Note that digital soils data are not yet available for Belknap or Merrimack Counties.
3.) Clusters of 3 or more wetlands less than 5 acres in size, within 1 km of each other, and within the same unfragmented block.

Agriculture and Open land areas were extracted from the 2001 NH Land Cover data (agriculture, other cleared, and disturbed classes)

Rare/Unique habitats were identified by the following data layers:
1.) Pine barrens were estimated by selecting areas 25+ acres in size that were classified as "pitch pine" in the 2001 NHLC data.
2.) Saltmarsh areas are represented by a combination of the "E2EM" class in the NWI data and the "tidal wetland" class in the 2001 NHLC data.
3.) Alpine areas were simply selected from the 2001 NHLC data.
4.) Ledges were simply selected from the 2001 NHLC data ("bedrock/vegetated")

Slopes >10% and facing south, southwest, or southeast were derived from the USGS 30-meter National Elevation Data.

To report errors, or for further information, please contact:
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0 0.25 0.5 Miles
0 2,000 4,000 Feet

Map prepared August 17, 2004 NH Fish and Game Department