

HIGHEST RANKED WILDLIFE HABITAT BY ECOLOGICAL CONDITION
New Hampshire Fish and Game Department, March 2010.

Information about habitat condition was analyzed to develop a statewide and regional ranking and identify the highest condition habitat relative to all polygons of a given habitat type in the state. The goal is to provide regional planners and conservation professionals a tool in identifying the most critical wildlife habitat locations. Results will be re-evaluated in the future to monitor the effectiveness of conservation actions and respond appropriately to new information or changing conditions. The overall condition of each polygon was assigned a relative rank based on all polygons of a habitat type that occur in NH.

Tier 1 Habitats of Highest Relative Rank by Ecological Condition in NH

Tier 2 Habitats of Highest Relative Rank by Ecological Condition in Biological Region

Tier 3 Supporting Landscapes

HABITAT	TIER	FACTOR	LEVEL
Matrix Forests (except HESF)	1	COND	Top 15% in NH by area
	2	COND	Top 15% in Subsection by area
	3	COND	Top 30% in Subsection by area
High-elevation Spruce-fir	1	COND	Top 15% in NH by area
	2	COND	Top 100% in Subsection by area
Pine Barrens	1	COND	Top 10% in NH by area
	2	COND	Top 50% in Subsection by area
Rocky Ridges/Talus Slopes	1	COND	Top 10% in NH by area
	2	COND	Top 50% in Subsection by area
Cliffs	1	COND	Top 10% in NH by quantity
	2	COND	Top 50% in Subsection by quantity
Grassland	1	COND	Top 10% in NH by area
	2	COND	Top 50% in Subsection by area
Wet Meadow/Shrub Wetland	1	COND	Top 10% in NH by area
	2	COND	Top 50% in Watershed Group by area
Peatland	1	COND	Top 10% in NH by area
	2	COND	Top 50% in Watershed Group by area
Floodplain Forest	1	COND	Top 10% in NH by area
	2	100%	Top 100% in Watershed Group by area
Watersheds (HUC12s)	1	COND	Top 15% in Watershed Group by area (entire HUC12 watershed)
	2	COND	Top 30% in Watershed Group by area (100m buffer of water bodies in these HUC12)
Lakes/Ponds	1		TNC's Top 10 most intact lakes, by lake class (including a 200m buffer of these lakes)
Saltmarsh	1	100%	100%
Coastal Islands	1	100%	100%
Dunes	1	100%	100%
Alpine	1	100%	100%
TNC top forest blocks	3		TNC forest blocks top-ranked in ELU Group and/or Ecoregion Subsection
Aquatic habitat	1		Species of concern (100m water body buffer)
Wildlife occurrences	1 or 3		Species of concern (1); Modeled habitat (3)
Ecological features (NHB)	1		Important ecological areas per NHB

The overall condition of each habitat polygon was assigned a relative rank based on all polygons of a given habitat type that occur in New Hampshire. Generally, condition is based on:

- 1.) landscape diversity (biological)
- 2.) landscape integrity (landscape)
- 3.) minimum human influence (human)
- 4.) documented rare wildlife (NH Fish & Game Department)
and significant ecological features (NH Natural Heritage Bureau)

The first three factors were equally weighted; however, we couldn't afford errors for specialist species with imperiled populations, so a select set of wildlife Element Occurrences were used either to elevate underlying habitat polygons to the top rank (highest ranked in NH), or where the EOs only overlaid a matrix forest then a buffered location of the occurrence was added to the highest ranked habitat in NH. The same was done for significant ecological features identified by NH Natural Heritage Bureau. Both additions are incorporated in the WAPTIERs data layer.

Item definitions for WAP Tiers polygon attributes:

<u>ITEM NAME</u>	<u>DESCRIPTION</u>
FGID	<i>(unique, sequential ID number)</i>
GRIDCODE	1 = Top-ranked habitat in NH 2 = Top-ranked Habitat in Region 3 = Supporting landscapes
PRIORITY	WAP Priority (with brief description of feature type)
ACRES	area (acres)
HECTARES	area (hectares)
C_ISLAND	Polygon is concurrent with coastal island (all top-ranked)
DUNE	Polygon is concurrent with dune (all top-ranked)
SALTMARSH	Polygon is concurrent with salt marsh (all top-ranked)
CLIFF	Polygon is concurrent with top-ranked cliff
RRTALUS	Polygon is concurrent with top-ranked rocky ridge/talus slope
ALPINE	Polygon is concurrent with alpine (all top-ranked)
HESF	Polygon is concurrent with high-elevation spruce fir (all top-ranked tier 1 or 2)
PITCHPINE	Polygon is concurrent with top-ranked pine barren
GRASSLAND	Polygon is concurrent with top-ranked grassland
FF	Polygon is concurrent with top-ranked floodplain forest
PEATLAND	Polygon is concurrent with top-ranked peatland complex
MARSH	Polygon is concurrent with top-ranked wet meadow/shrub wetland/marsh complex
T1HY100M	Polygon is concurrent with tier 1 aquatic feature
T2HY100M	Polygon is concurrent with tier 2 aquatic feature
T3HY100M	Polygon is concurrent with tier 3 aquatic feature
TOP10LAKE	Polygon is concurrent with TNC top ranked lake/pond
TNCFOBLOCK	Polygon is concurrent with TNC top-ranked forest block
EO	Polygon is concurrent with animal, plant, or natural community occurrence

GRIDCODE: Use this field for display.

PRIORITY: This field is intended to provide a brief explanation of what top-ranked feature is represented.

Values: "Great Bay" = all of Great Bay is Tier 1; "Tier 1 EO addin" = a custom delineated polygon added in to Tier 1 due to element occurrence; "Tier 1 EO elevated" = a habitat polygon was elevated to Tier 1 due to element occurrence; "Tier 1 Matrix forest" = top-ranked matrix forest in NH; "Tier 1 Top-ranked in NH" = top-ranked other habitat in NH; "Tier 1 watershed" = top-ranked watershed (whole wshed is Tier 3, aquatic features within Tier 1); "Tier 2 Matrix forest" = top-ranked matrix forest in region; "Tier 2 top-ranked in region" = top-ranked other habitat in region; "Tier 2 Top-ranked in wsgroup" = top-ranked in watershed group (marshes and peatland complexes); "Tier 2 watershed" = Top-ranked watershed in watershed group