

The Northeast Terrestrial Habitat Map: Updated Fields and Definitions

The Nature Conservancy, Eastern Conservation Science.

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The Northeast Terrestrial Habitat map was revised in October 2013 with several improvements pertaining to floodplains, Alleghany wetlands, Southern Appalachian grass balds, and the distribution of coastal systems. Additionally, a document detailing the methods used to create the map was released (Ferree and Anderson 2013). With help from the state agency staff, photos and descriptions of each habitat were compiled into a **Habitat Guide** (Anderson et al 2013) that provides detail on associated species, condition, securement and on the NatureServe ecological system classification:

<http://nature.ly/NEhabitatguide>

In November 2014, we posted a revised version of the map with an improved and simplified attribute table. Here we explain the changes to the attribute table, and provide a definition for each field. We hope users find this version easier to use.

Field Names and Definitions

VALUE	A unique identifier for each row in the table
COUNT	Total number of 30 m cells
ACRES_TOT	Total acres
CLASS	Basic hydrologic setting: Upland (terrestrial) or Wetland (palustrine)
MACROGROUP	Formerly MACRO_R: Macrogroups are broad groupings of similar habitats. The classification was developed by NatureServe, and is defined as "combinations of moderate sets of diagnostic plant species and diagnostic growth forms that reflect biogeographic differences in composition and sub-continental to regional differences in mesoclimate, geology, substrates, hydrology, and disturbance regimes" (FGDC 2008).
COLOR_CODE	Numeric code for a premade color legend in the layer file named NE Terrestrial Habitat
HABITAT	Formerly SUMGRPNAME: The standard name of the Terrestrial Habitat. The name is usually a combination of a geographic area (such as Laurentian-Acadian) and a descriptive name (Northern Hardwood Forest). Names are based on Gawler (2008), but have changed slightly since the original version (see the field Gawl2008 for the original version). Maps of the geographic regions used to define the name can be found in the Northeast Habitat Guide
PAGE	The page number in the Northeast Habitat Guide where users can find descriptions, ecology, securement status, associated species, and other information about each habitat. The guide can be found at: http://nature.ly/NEhabitatguide
HAB_CODE	Formerly SUMGRPNUM: A unique identifier for each habitat type

ECOSYSTEM	The standard name of the Ecological System as defined by NatureServe. Ecological systems are defined as “recurring groups of biological communities that are found in similar physical environments and are influenced by similar dynamic ecological processes, such as fire or flooding. They are intended to provide a classification unit that is readily mappable and readily identifiable by conservation and resource managers in the field.” (Comer 2010). They are defined based on biogeographic region, landscape scale, dominant cover type, and disturbance regime. ECOSYSTEM is usually synonymous with the HABITAT except in a few cases where the habitat name is broader. For example the habitat “Acidic Cliff and Talus” corresponds to four ecosystems (e.g Cumberland Acidic Cliff and Rockhouse, Southern Appalachian Montane Cliff and Talus, etc.) ECOSYSTEM is also synonymous with GAWL2008 unless the system name or concept has changed since that publication was released
MODIFIER	The modifier field contains information on finer classification splits available for some habitats. For example, several matrix forming forests can be split into a conifer variant, a moist cool variant, and the typic type. More detail on modifiers can be found below.
PATTERN	The pattern and scale of the habitat. Choices are: Matrix forming, Large or small patch, Wetland, Other.
FORMATION	The Formation is a broad grouping of similar Macrogroups developed by NatureServe
GRP2008	Formerly GRP_130912: A useful grouping of habitats first developed in 2008 .
MACR2008	Formerly MACROGROUP: This is the 2008 Macrogroup name, now slightly obsolete.
GAWL2008	Formerly ES_NAME: This is the original Ecological system name as documented in Gawler 2008. If the name has not changed this field will be synonymous with HABITAT and ECOSYSTEM described above.
CODE2008	Formerly: ES_CODE: This is a numeric code for the Gawler 2008 system classification
COMMENTS	Notes on the mapping of some systems.

Referenced Citations

Anderson, M.G. M. Clark, C.E. Ferree, A. Jospe, A. Olivero Sheldon and K.J. Weaver. 2013. Northeast Habitat Guides: A companion to the terrestrial and aquatic habitat maps. The Nature Conservancy, Eastern Conservation Science, Eastern Regional Office. Boston, MA. <http://nature.ly/HabitatGuide>.

Comer, P. D. et al. 2010. Ecological Systems of the United States: A Working Classification of U.S. Terrestrial Systems. NatureServe, Arlington, Virginia.

FGDC (Federal Geographic Data Committee), Vegetation Subcommittee. 2008. National Vegetation Classification Standard, Version 2. FGDC-STD-005-2008 (Version 2). available at: <http://www.fgdc.gov/standards/projects/FGDC-standards-projects/vegetation/>

Ferree, C and M. G. Anderson. 2013. A Map of Terrestrial Habitats of the Northeastern United States: Methods and Approach. The Nature Conservancy, Eastern Conservation Science, Eastern Regional Office. Boston, MA. <https://www.conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/edc/reportsdata/terrestrial/habitatmap/Pages/default.aspx>

Gawler, S. C. 2008a. Northeastern Terrestrial Wildlife Habitat Classification. Report to the Virginia Department of Game and Inland Fisheries on behalf of the Northeast Association of Fish and Wildlife Agencies and the National Fish and Wildlife Foundation. NatureServe, Boston, Massachusetts. 102 pp. <http://rcngrants.org/project-final-reports?page=1>.

Detail on the Modifiers.

Modifiers are available for some macrogroups and allow users to divide a system into finer, ecologically-relevant units. Here are some examples and definitions

Wetland Modifiers

Macrogroup = Large River Floodplain Forest.

Modifiers These are components of a floodplain ecosystem that could be classified to a different, more detailed, ecological system based solely on composition and structure. For example, a marsh in a large river floodplain is classified as a **Large River Floodplain** in the Northeast Terrestrial Habitat map with a modifier of **floodplain: freshwater marsh**. The full set of floodplain modifiers are:

Floodplain: Acidic Swamp
Floodplain: Alkaline Conifer-Hardwood Swamp
Floodplain: Basin Peat Swamp
Floodplain: Basin Swamp and Wet Hardwood Forest
Floodplain: Brownwater Floodplain Forest
Floodplain: Conifer-Hardwood Acidic Swamp
Floodplain: Eastern Boreal Wet Forest
Floodplain: Floodplain Forest
Floodplain: Freshwater Marsh
Floodplain: Pitch Pine Lowland
Floodplain: Rich Swamp
Floodplain: Wet Meadow-Shrub Swamp

Macrogroups = Coastal Plain Peat Swamp, Coastal Plain Peatland, Coastal Plain Swamp, Emergent Marsh, Northern Peatland, Northern Swamp, Southern Bottomland Forest, Wet Meadow / Shrub Marsh

Modifiers: These indicate the context of the wetland

Smaller river floodplain/riparian:	The examples of the habitat are associated with a stream or small river as mapped in the National Hydrography (NHD) dataset.
Isolated	Not associated with a stream or river
Isolated -- conifer-dominated	(Piedmont Ecoregion only)
Isolated, -- bedrock not mafic	"
Isolated, -- mafic bedrock	"
Isolated,-- oak-dominated	"
Isolated/headwater streams	Isolated or associated with a small headwater stream
Great Lakes	Associated with one of the Great Lakes

Macrogroup = Tidal Marsh, Tidal Swamp

Modifier

Tidal or Tidal/salt/brackish/oligohaline (e.g. tidally influenced)

Macrogroup = Central Hardwood Swamp, Northern Peatland

Modifier

Undifferentiated or Undifferentiated by hydrology: relationship to NHD stream or river not specified

Upland Modifiers

Macrogroup = Northern Hardwood & Conifer

Modifier This modifier indicates the probable pH class based on bedrock

Acid

Calcareous

Circumneutral

Macrogroup = Central Oak-Pine, Northern Hardwood & Conifer

Modifiers

Drier

Drier topographic settings: ridges, summits

Moist-cool

Moister topographic settings: coves, footslopes, basins

Typic

Typical expression of the ecological system

High conifer

Examples with strong conifer component

state	NH WAP Habitat (excluding aquatic)	Northeast Terrestrial HABITAT SYSTEM	ESLF	Macrogroup	NLCD
NH	Alpine	Acadian-Appalachian Alpine Tundra	5210	Alpine	52 - Scrub/Shrub
NH	Alpine	Acadian-Appalachian Subalpine Woodland and Heath-Krummholz	5320	Alpine	52 - Scrub/Shrub
NH	Appalachian Oak Pine Forest	Central Appalachian Dry Oak-Pine Forest	4312	Central Oak-Pine	43 - Mixed Forest
NH	Appalachian Oak Pine Forest	Northern Atlantic Coastal Plain Hardwood Forest	4130	Central Oak-Pine	41 - Deciduous Forest
NH	Cliffs	Laurentian-Acadian Acidic Cliff and Talus	3188	Cliff and Talus	31 - Barren Land
NH	Cliffs	North-Central Appalachian Circumneutral Cliff and Talus	3153	Cliff and Talus	31 - Barren Land
NH	Cliffs	Laurentian-Acadian Calcareous Cliff and Talus	3144	Cliff and Talus	31 - Barren Land
NH	Coastal Islands	North Atlantic Cobble Shore	3132	Rocky Coast	32 - Unconsolidated Shore
NH	Coastal Islands	Acadian-North Atlantic Rocky Coast	3189	Rocky Coast	31 - Barren Land
NH	Coastal Sand Dunes	Northern Atlantic Coastal Plain Sandy Beach	3124	Coastal Grassland & Shrubland	72 - Grassland/Herbaceous
NH	Coastal Sand Dunes	Northern Atlantic Coastal Plain Dune and Maritime Grassland	7149	Coastal Grassland & Shrubland	72 - Grassland/Herbaceous
NH	Floodplain forest - Major river silver maple floodplains	Laurentian-Acadian Floodplain Systems	9144	Northeastern Floodplain Forest	90 - Woody Wetlands
NH	Floodplain forest - Major river silver maple floodplains	Central Appalachian River Floodplain	9333	Northeastern Floodplain Forest	90 - Woody Wetlands
NH	Floodplain forest - Montane/near-boreal floodplains	Laurentian-Acadian Floodplain Systems	9144	Northeastern Floodplain Forest	90 - Woody Wetlands
NH	Floodplain forest - Temperate minor river floodplains	Central Appalachian Small Stream Riparian	9331	Northeastern Floodplain Forest	90 - Woody Wetlands
NH	Grasslands	Powerline Right-of-Way	8302	Ruderal Shrubland & Grassland	52 - Scrub/Shrub OR 72 - Grassland/Herbaceous
NH	Grasslands	Pasture/Hay	81	Agricultural	81 - Pasture/Hay
NH	Grasslands	Residential - Rural / Sparse	21	Urban & Residential	21 - Developed, Open Space
NH	Grasslands	Urban & Recreational Grasses	21	Maintained Grasses and Mixed Cover	21 - Developed, Open Space
NH	Grasslands	Ruderal Upland - Old Field	8301	Ruderal Shrubland & Grassland	52 - Scrub/Shrub OR 72 - Grassland/Herbaceous
NH	Hemlock Hardwood Pine Forests	Laurentian-Acadian Pine-Hemlock-Hardwood Forest	4308	Northern Hardwood & Conifer	43 - Mixed Forest
NH	Hemlock Hardwood Pine Forests	Appalachian (Hemlock)-Northern Hardwood Forest	4313	Northern Hardwood & Conifer	43 - Mixed Forest
NH	High Elevation Spruce Fir Forests - High elevation balsam fir forests	Acadian-Appalachian Montane Spruce-Fir Forest	4317	Boreal Upland Forest	42 - Evergreen Forest
NH	High Elevation Spruce Fir Forests - Montane black spruce-red	Acadian-Appalachian Montane Spruce-Fir Forest	4317	Boreal Upland Forest	42 - Evergreen Forest

NH	High Elevation Spruce Fir Forests - Northern hardwood-spruce-fir	Acadian-Appalachian Montane Spruce-Fir Forest	4317	Boreal Upland Forest	42 - Evergreen Forest
NH	Lowland Spruce Forest	Acadian Low-Elevation Spruce-Fir Forest and Flats	4316	Boreal Upland Forest	42 - Evergreen Forest
NH	Lowland Spruce Forest	Acadian-Appalachian Conifer Seepage Forest	9344	Northern Swamp	90 - Woody Wetlands
NH	Lowland Spruce Forest	Acadian Sub-Boreal Spruce Barrens	9133	Boreal Upland Forest	42 - Evergreen Forest
NH	Marsh and Shrub Wetlands	Laurentian-Acadian Wet Meadow-Shrub Swamp	9406	Wet Meadow / Shrub Marsh	95 - Emergent Herbaceous Wetland
NH	Marsh and Shrub Wetlands	Modified/Managed Marsh	8511	Modified/Managed Marsh	95 - Emergent Herbaceous Wetland
NH	Marsh and Shrub Wetlands	Laurentian-Acadian Freshwater Marsh	9405	Emergent Marsh	95 - Emergent Herbaceous Wetland
NH	Northern Hardwood – Conifer Forest	Laurentian-Acadian Northern Hardwoods Forest	4108	Northern Hardwood & Conifer	41 - Deciduous Forest
NH	Northern Hardwood – Conifer Forest	Laurentian-Acadian Northern Pine-(Oak) Forest	4265	Northern Hardwood & Conifer	42 - Evergreen Forest
NH	Peatlands - Forested Peatlands	Boreal-Laurentian Conifer Acidic Swamp	9177	Boreal Forested Peatland	90 - Woody Wetlands
NH	Peatlands - Open Peatlands	Laurentian-Acadian Alkaline Fen	9198	Northern Peatland	90 - Woody Wetlands
NH	Peatlands - Open Peatlands	Boreal-Laurentian-Acadian Acidic Basin Fen	9353	Northern Peatland	90 - Woody Wetlands
NH	Peatlands - Open Peatlands	North-Central Interior and Appalachian Acidic Peatland	9193	Northern Peatland	90 - Woody Wetlands
NH	Pine Barrens	Northern Atlantic Coastal Plain Pitch Pine Barrens	4258	Central Oak-Pine	42 - Evergreen Forest
NH	Pine Barrens	Northeastern Interior Pine Barrens	4257	Central Oak-Pine	42 - Evergreen Forest
NH	Salt Marshes	Acadian Estuary Marsh	9292	Salt Marsh	96 - Palustrine Emergent Wetland (Persistent)
NH	Salt Marshes	Northern Atlantic Coastal Plain Tidal Salt Marsh	9282	Salt Marsh	96 - Palustrine Emergent Wetland (Persistent)
NH	Salt Marshes	Acadian Coastal Salt Marsh	9278	Salt Marsh	96 - Palustrine Emergent Wetland (Persistent)
NH	Shrublands	Quarries/Pits/Stripmines	32	Extractive	31 - Barren Land
NH	Shrublands	Ruderal Upland - Old Field	8301	Ruderal Shrubland & Grassland	52 - Scrub/Shrub OR 72 - Grassland/Herbaceous
NH	Talus Slopes and Rocky Ridges - Rocky Ridges	Laurentian-Acadian Calcareous Rocky Outcrop	5461	Outcrop/Summit Scrub	52 - Scrub/Shrub
NH	Talus Slopes and Rocky Ridges - Rocky Ridges	Northern Appalachian-Acadian Rocky Heath Outcrop	5462	Outcrop/Summit Scrub	52 - Scrub/Shrub
NH	Talus Slopes and Rocky Ridges - Rocky Ridges	Central Appalachian Pine-Oak Rocky Woodland	4320	Central Oak-Pine	43 - Mixed Forest
NH	Talus Slopes and Rocky Ridges -	Central Appalachian Pine-Oak Rocky Woodland	4320	Central Oak-Pine	43 - Mixed Forest