

History of Representative Species in the Service's Northeast Region

Rick Bennett
FWS Northeast Region & NALCC



U.S. Fish & Wildlife Service
Conserving the Nature of America



What Is a Representative Species?

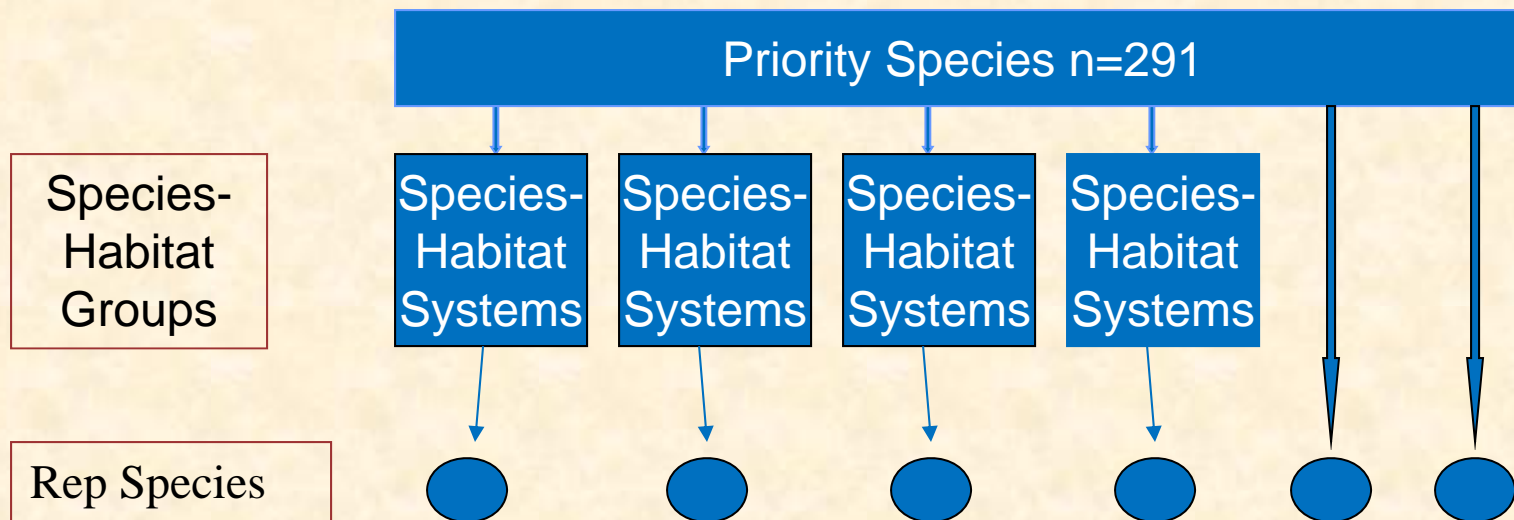
As defined by NALCC

- ..a species whose habitat needs, ecosystem function, or management responses are similar to a group of other species.
 - It is assumed that conservation planning and actions for a representative species will also address the needs of other species.



Selecting Representative Species & Habitats

- Reduce the numbers of priority species & habitat systems in the classification
- Identify suites of representative species for biological planning & conservation design



Priority Species List

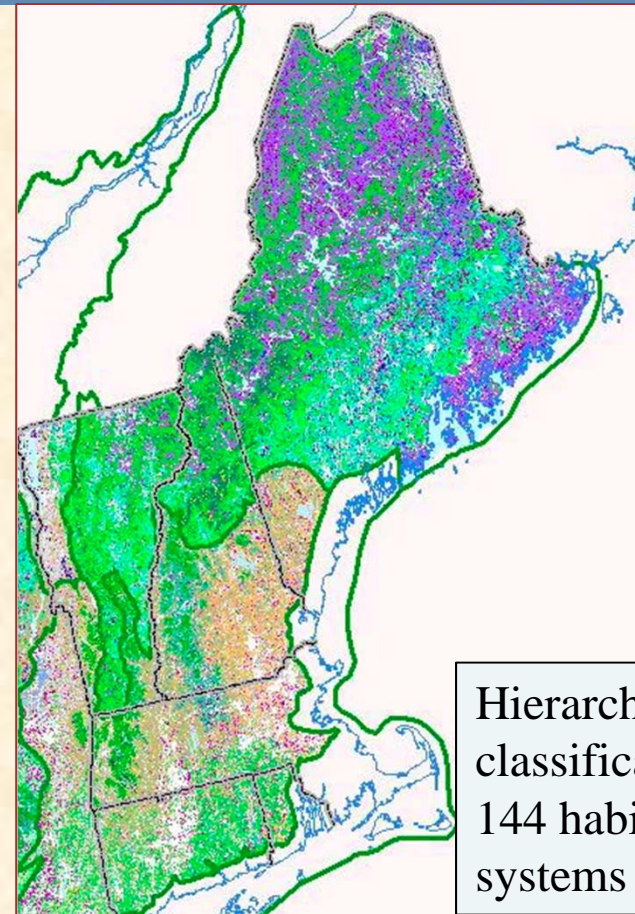
- Priority species lists provided by FWS & SGCN (total = 411)
 - terrestrial (341)
 - aquatic (70)
 - threatened and endangered (106)
 - SGCN (32)
- Dropped 120 species for various reasons
 - extirpated from or does not occur in NALCC
 - exclusively marine
 - of concern only in BCR 27 (southern boundary of NALCC)
 - occurs only in BCR 27 and/or 28
 - distribution too localized or no threats
 - unreviewed or incomplete review by experts



Habitat Classification - Terrestrial

TNC - NE Wildlife Habitat Classification & Mapping Project

NLCD	# of Habitat systems
21 - Developed, Open Space	2
22 - Developed, Low Intensity	2
23 - Developed, Medium Intensity	1
24 - Developed, High Intensity	1
31 - Barren Land	17
32 - Unconsolidated Shore	3
41 - Deciduous Forest	15
42 - Evergreen Forest	14
43 - Mixed Forest	11
52 - Scrub/Shrub	15
72 - Grassland/Herbaceous	6
81 - Pasture/Hay	1
82 - Cultivated Crops	1
90 - Woody Wetlands	40
95 - Emergent Herbaceous Wetland	9
96 - Palustrine Emergent Wetland (Persistent)	5



Hierarchical
classification
144 habitat
systems



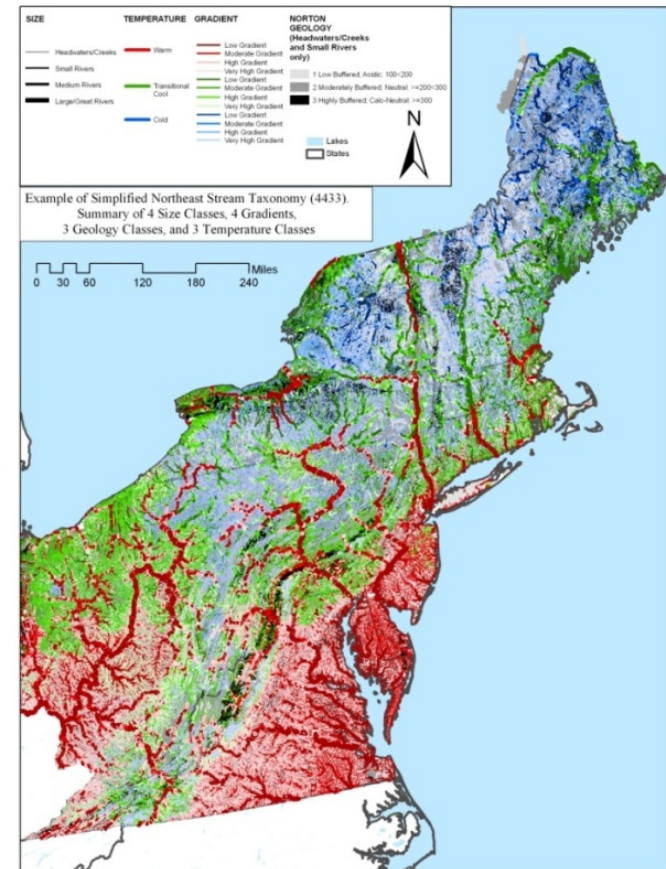
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Habitat Classification

TNC – NE Aquatic Habitat Classification

- 92 simplified aquatic habitat types
 - Size
 - gradient
 - geologic setting & buffering capacity
 - temperature
- No lake habitat classification developed (size dataset)
- No marine/estuarine systems



Example of Species/Habitat Cluster

Habitat Types Associated with Spruce-fir Forest

Acadian-Appalachian Montane Spruce-Fir Forest
Acadian Low-Elevation Spruce-Fir Forest and Flats
Acadian Sub-Boreal Spruce Barrens
Boreal-Laurentian Conifer Acidic Swamp
Boreal Jack Pine-Black Spruce Forest

Representative Species

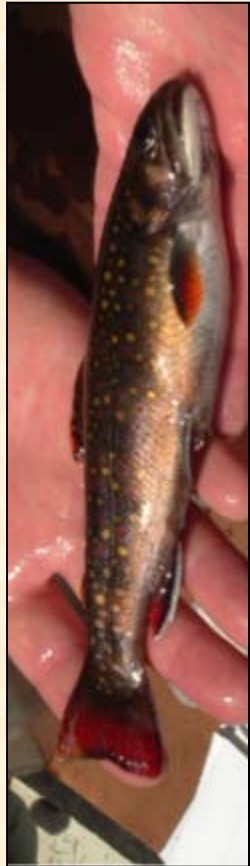
- American Marten
- Blackpoll Warbler
- Spruce Grouse
- White-throated Sparrow

Species Represented of those considered (18)

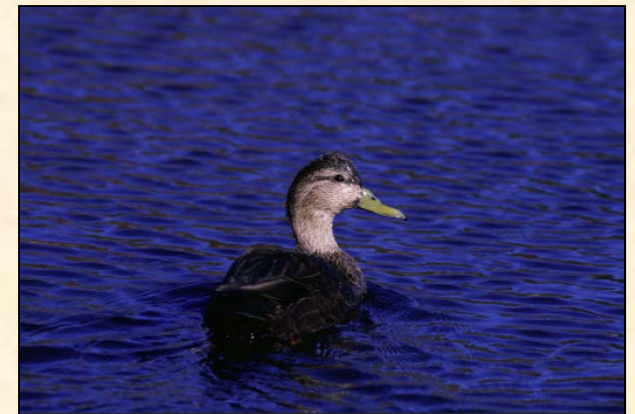
Bay-breasted Warbler
Bicknell's Thrush
Black-backed Woodpecker
Blackburnian Warbler
Black-throated Green Warbler
Bonaparte's Gull
Boreal Chickadee
Boreal Owl
Brown Creeper
Cape May Warbler
Gray Jay
Lynx
Northern Saw-whet Owl
Olive-sided Flycatcher
Palm Warbler
Pine Grosbeak
Purple Finch
Sharp-shinned Hawk



Results



- 87 terrestrial species selected
 - 66 birds;
 - 13 herps;
 - 4 mammals;
 - 2 plants;
 - 2 invertebrates
- 12 aquatic species selected
 - 10 fish;
 - 1 mussel;
 - 1 salamander



Lessons Learned

- Lack of familiarity with TNC's classification systems
- Lack of detailed knowledge of species associations with the detailed habitat system level of classification hierarchy
- Complex Aquatic habitat classification system
- Not enough aquatic species identified
- The NALCC boundaries did not include complete watersheds

