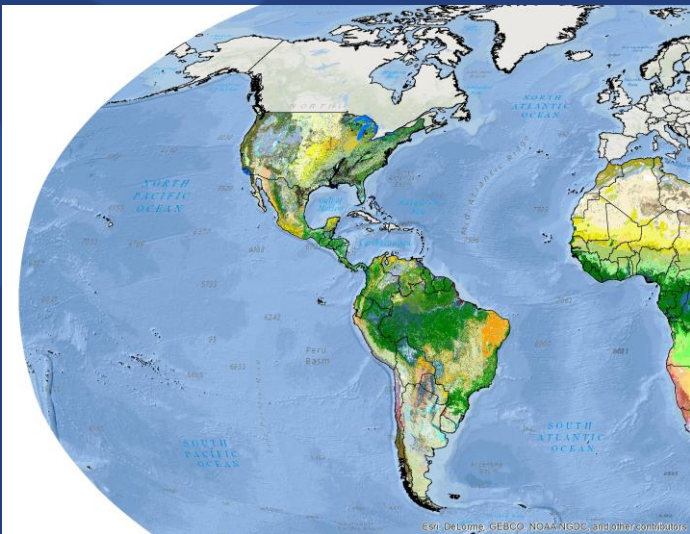


NatureServe Mapping



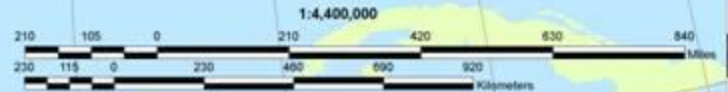
Pat Comer and
Regan Smyth



NatureServe effort over time

- (1990s-2000s) Needs for multi-state mapping
 - TNC ecoregional planning, Terr. ecological systems classification
- 2000-2007 support to ReGAP efforts
- 2005-2009 support to national LANDFIRE
- 2009 national map reconciliation
- 2013 Midwest map revision
- 2013 incorporated Texas map into national map
- 2013-14 national map revisions for IUCN RLE
- 2015 – support to LANDFIRE national and other regional/state mapping at finer resolution and new imagery

Terrestrial Ecological Systems and Land Cover in the Conterminous United States



Midwest review and update of NatureServe National Map



Updates to EVT and BpS for IUCN Red Listing

National map reconciliation of SE ReGAP with LANDFIRE

Summary of editing decisions

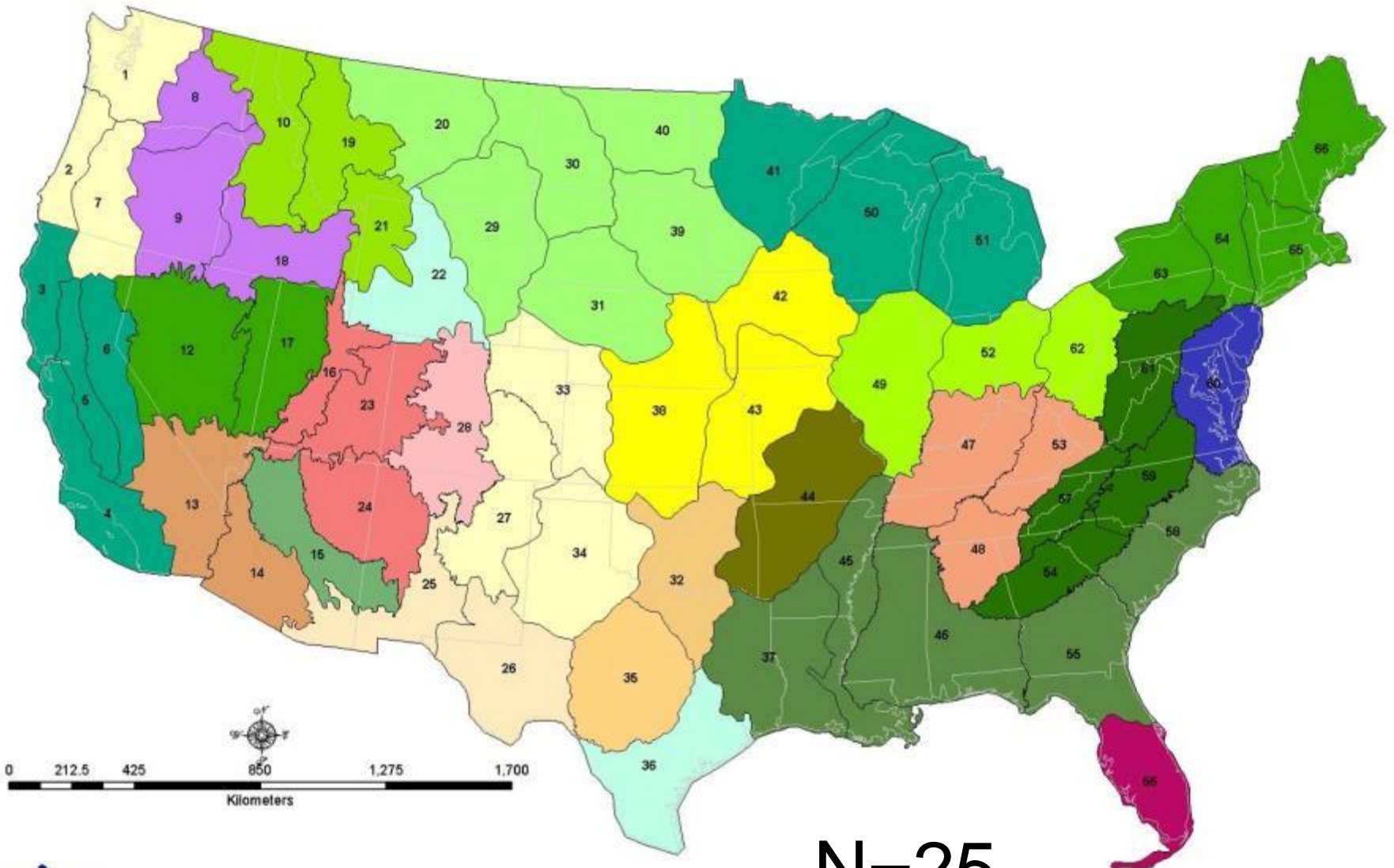
- Major forest types in SE ReGAP LF interface (reviewed as Gettysburg BWB conference 2009)
- Major wetland types split from LF aggregates
- Midwest review and update

Mapping Outcomes

- Changes to 70 systems and 20% of the mapped area (MW update)
- Documented both changes made and observations on observed accuracy

System Name	Area in Final Map (ha)	Notes on Accuracy of Source Data	Actions Taken	Notes on Accuracy of the Final Map
Appalachian (Hemlock)-Northern Hardwood Forest	644,786	Mapped outside its elevational and geographic range.	Restricted to elevations >1000 feet in Ecoregions 221 Fa and 221Fb, and removed entirely from Ecoregions 222H and 222I. Pixels classified as this types in those areas were reclassified as North-Central Interior Beech-Maple Forest.	Restrictions based on ecoregions and elevation helped restrict this type to more probable areas of occurrence, but such changes were by necessity overly simplistic.
Boreal White Spruce-Fir-Hardwood Forest	0	Within the Midwest, all occurrence will be reclassified as Eastern Hemi-Boreal Mesic Balsam Fir-Spruce Hardwood Forest. See comments under that type for additional mapping notes.	Reclassified as Eastern Hemi-Boreal Mesic Balsam Fir-Spruce-Hardwood forest, unless mapped in ecoregion 222. If in 222, this was changed to Ruderal Forest.	No longer mapped in the Midwest.
Central Interior Highlands Calcareous Glade and Barrens	176,464	Mapped in northern Illinois and northern Indiana outside its geographic range. Overmapped in northern Missouri and central Illinois.	Restricted distribution to ecoregions 221E, 221H, 223B, 223D, 223E, 223F. Where this was mapped elsewhere, we reclassified it as Ruderal Forest (if >10% tree cover) or Ruderal Upland - Old Field (if <10% tree cover).	Restrictions based on ecoregion helped restrict this type to more probable areas of occurrence, but such changes were by necessity overly simplistic.

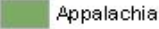
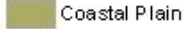
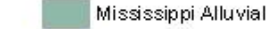
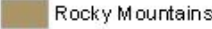
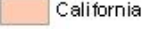
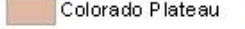
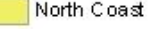

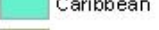
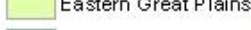
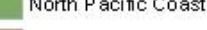
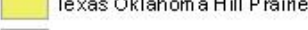
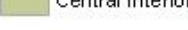
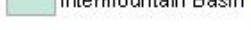
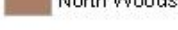
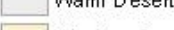
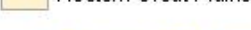
Map Zone Groups for Landfire Legend



N=25



LANDFIRE Auto Key Regions - Natural Legend

			
Appalachia	Coastal Plain	Mississippi Alluvial	Rocky Mountains
			
California	Colorado Plateau	North Coast	Texas Louisiana Coast
			
Caribbean	Eastern Great Plains	North Pacific Coast	Texas Oklahoma Hill Prairie
			
Central Interior	Intermountain Basin	North Woods	Warm Desert
			
			Western Great Plains



LANDFIRE Auto Key Regions - Cultural and Semi-Natural Legend

- | | | | |
|---|---|---|---|
|  California and Basins |  Mountain West |  South Gulf and Caribbean |  Warm Desert |
|  Great Plains |  Northeast |  Southeast Coastal Plain | |

Mapping methods

- Inductive modeling of biophysical setting
- Stepwise modeling using the hierarchy
- Deductive and 'burn in' approaches to odd and distinctive types.
- Hybrid approaches with image objects
- Mapping zones and border reconciliation
- Fuzzy accuracy assessment and documenting map quality for intended uses.