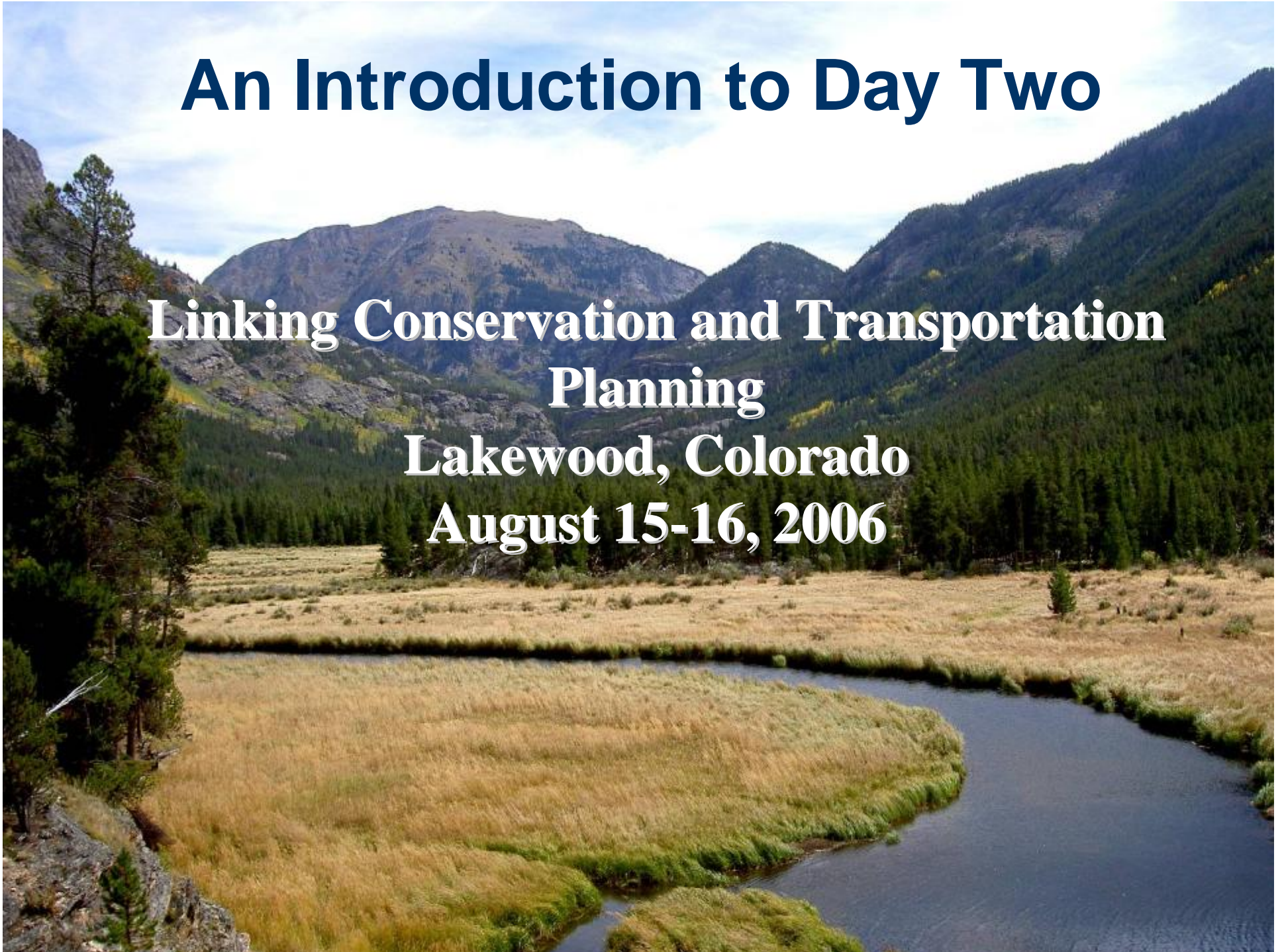


An Introduction to Day Two

**Linking Conservation and Transportation
Planning
Lakewood, Colorado
August 15-16, 2006**



Agenda

Day One

- § Transportation Planning
- § Heritage Program
- § State Wildlife Action Plan
- § Conservation initiatives
- § Transportation initiatives
- § Group discussion: Section 6001

Focus on: Transportation and Conservation Planning Approaches

Day Two

- § Conservation Context
- § NatureServe VISTA, Quantm, Community Viz
- § Environmental Geodatabase
- § STEP-UP
- § Mitigation Strategies
- § Discussion, discussion, discussion

Focus on: Conservation Methods and Tools

Agenda

Day Two

- § Conservation Context
- § NatureServe VISTA – Tool for development of standard land use plan that is goal based and dynamic
- § Quantm – Tool for evaluation of Route Alignment Options
- § Community Viz – Tool that creates 3D Visualizations of Growth Models
- § Environmental Geodatabase
- § STEP-UP
- § Mitigation Strategies
- § Discussion, discussion, discussion

Agenda

Day Two

- § Conservation Context
- § NatureServe VISTA
- § Quantm
- § Community Viz
- § Environmental Geodatabase – Enterprise system that integrates environmental geographic and tabular data (overview of data available and uses of data)
- § STEP-UP
- § Mitigation Strategies
- § Discussion, discussion, discussion

Agenda

Day Two

- § Conservation Context
- § NatureServe VISTA, Quantm, Community Viz
- § Environmental Geodatabase
- § **STEP-UP – Standard process that promotes coordination with other agencies and consideration of environmental impacts very early in planning stages in order to streamline transportation efforts**
- § Mitigation Strategies
- § Discussion, discussion, discussion

Agenda

Day Two

- § Conservation Context
- § NatureServe VISTA, Quantm, Community Viz
- § Environmental Geodatabase
- § STEP-UP
- § Mitigation Strategies – Short-grass Prairie Initiative
- § Discussion, discussion, discussion

Agenda

Day Two

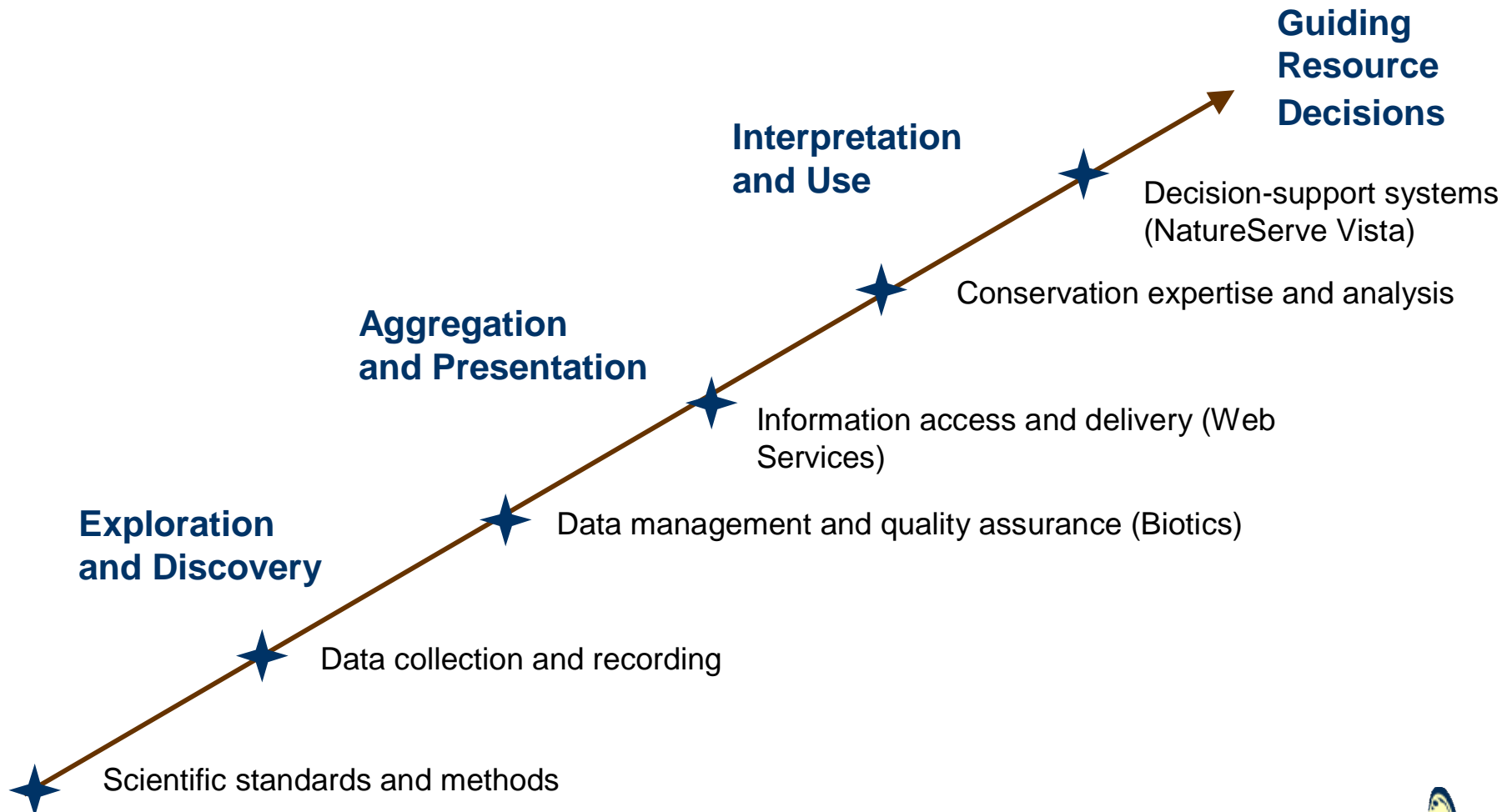
- § NatureServe VISTA
- § Quantm
- § Community Viz
- § Environmental Geodatabase
- § STEP-UP
- § Mitigation Strategies
- § Discussion, discussion, discussion – Agreement on a revised cooperative transportation planning process with specific next steps and leads to ensure implementation

NatureServe in Brief

- § An independent, non-profit conservation organization
- § Provides the scientific basis for effective conservation and natural resource management
- § Coordinates and supports the network of state natural heritage programs (public-private partnership)
- § Carrying forward 30 years of scientific experience
- § Collaboration and service to all sectors—government, conservation NGOs, academia, and industry.

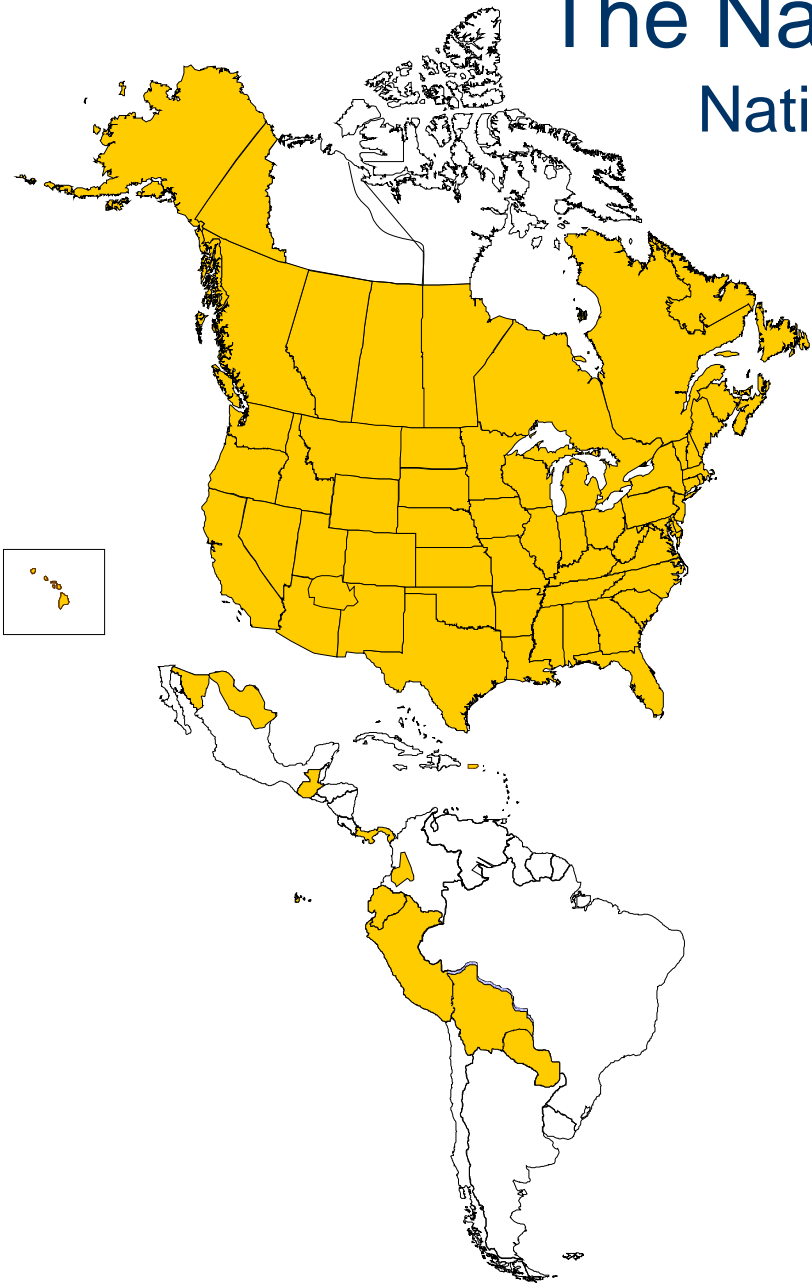


NatureServe Information Value Chain



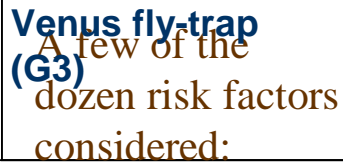
The NatureServe Network

Nationwide and Beyond

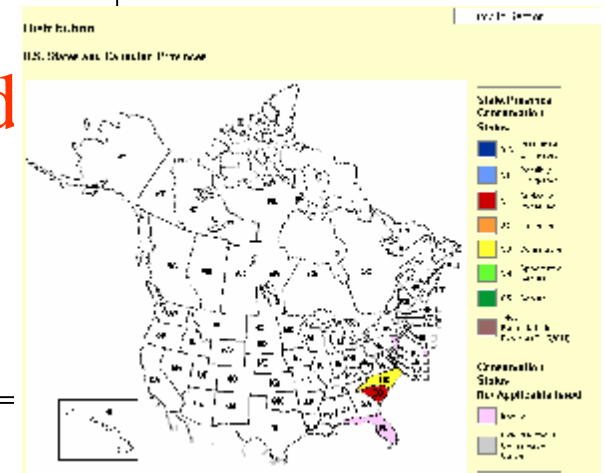


- NatureServe's Member Programs operate across the Americas to distribute authoritative information critical to conservation
- Member Programs use standard methods for collecting and managing biodiversity data
- Over 800 scientists and technology specialists working locally

Range-wide Evaluations using NatureServe Conservation Status Ranks



- GX** - Extinct
- GH** - Possibly extinct
- G1** – Critically imperiled
- G2** – Imperiled
- G3** - Vulnerable
-
- G4** - Uncommon
but apparently secure
- G5** - Widespread,
abundant and secure



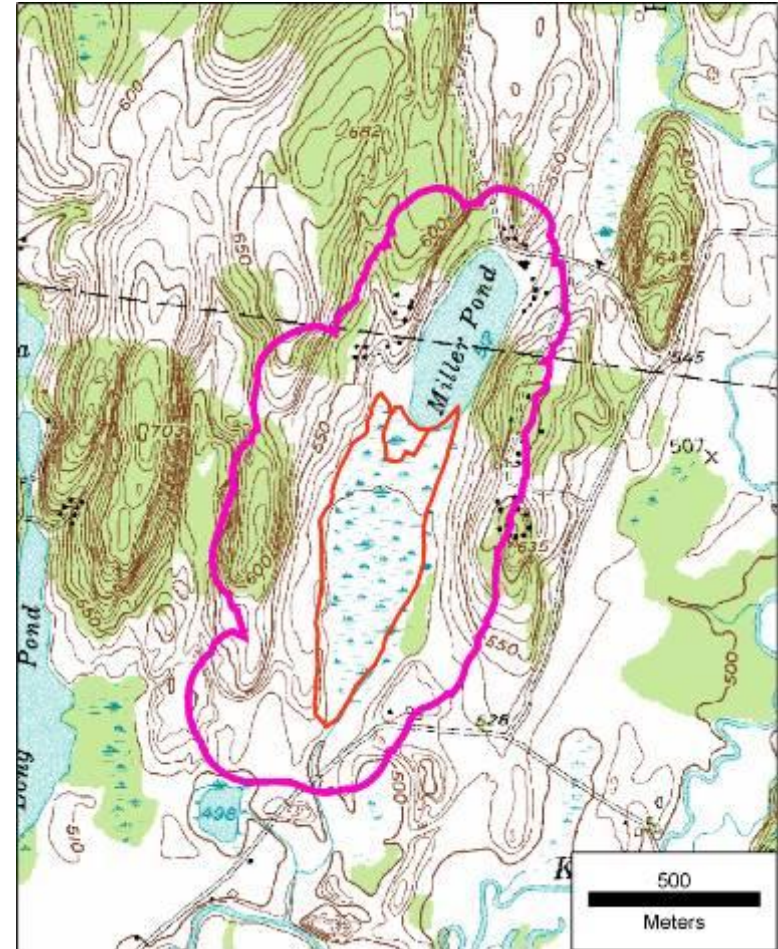
Evaluating Occurrences



Size: Area, population density, minimum area supporting disturbance patch dynamics

Condition: Composition, Structure, and biotic and/or abiotic interactions

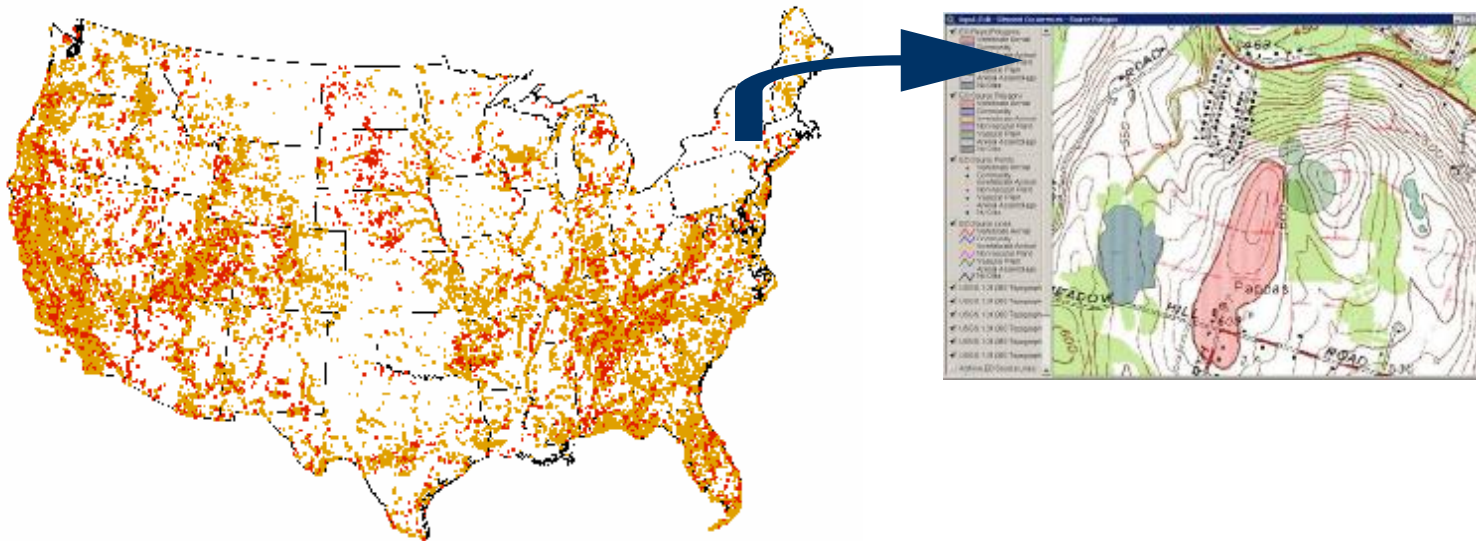
Landscape Context: Connectivity and other ecological dynamics of supporting land/waterscape



Ranked as Very Good (A), Good (B), Fair (C), Poor (D)

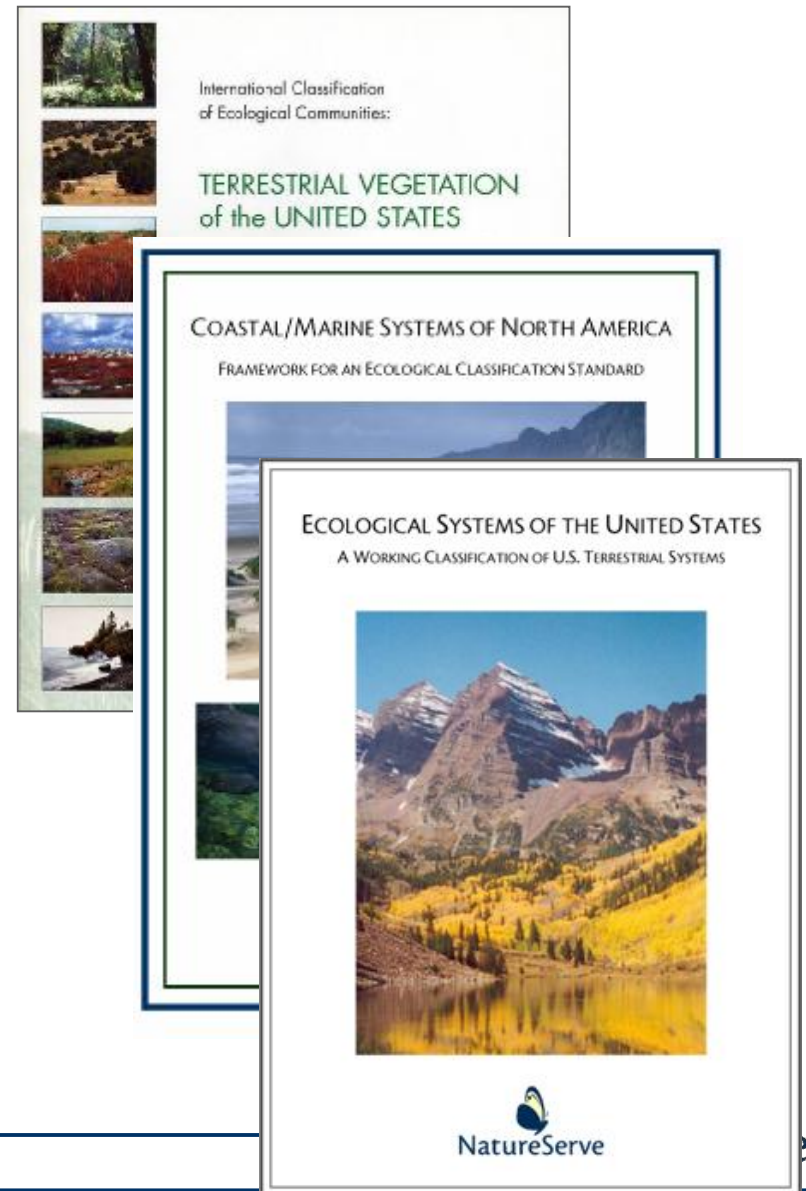
Detailed Mapping of At-Risk Species and Ecological Communities

- § State natural heritage programs map population and stand-level occurrences using nationally consistent standards.
- § NatureServe maintains an aggregated national data set with more than 500,000 occurrences, and millions of individual observations.



Standard Ecological Classifications

- § U.S. National Vegetation Classification – developed by TNC/NatureServe; now the federal data standard for veg. description
- § Terrestrial Ecological Systems of the United States – being mapped nationally
- § Terrestrial Ecological Systems of Latin America; mapped regionally
- § Canadian National Vegetation Classification – under development, beginning with forest ecosystems
- § Coastal/Marine Systems for Western Hemisphere – draft published December 2004

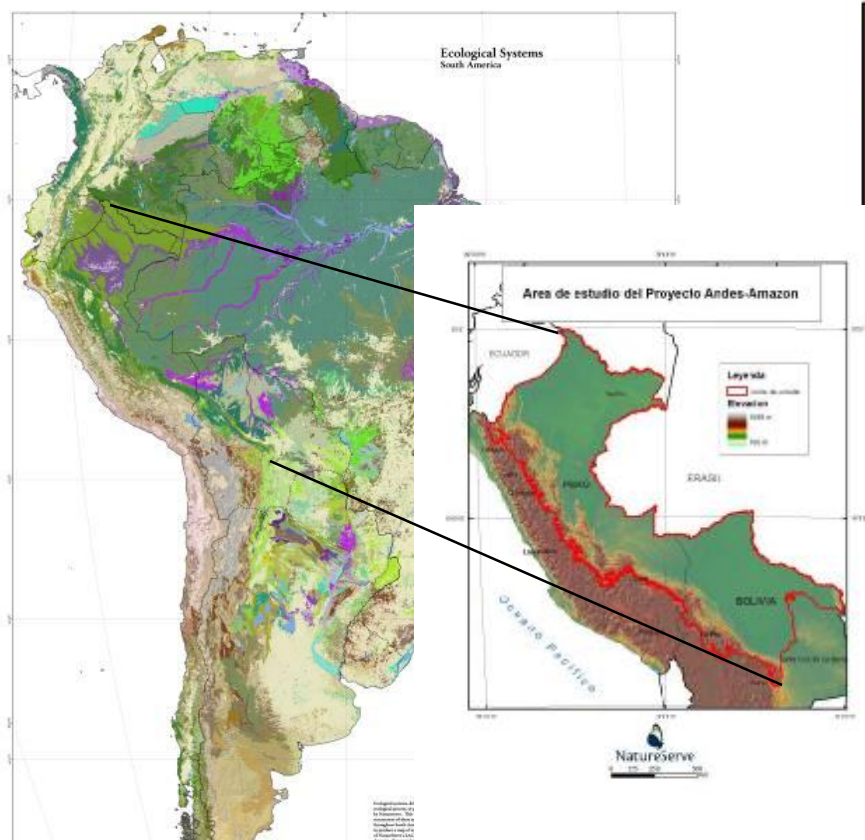


Status of mapping terrestrial ecological systems in the hemisphere

§ Systems have been mapped across much of the Western U.S. and Canada, as well as other areas in the Americas (Central and South)

§ U.S.: Inter-agency LANDFIRE project/USGS Gap Analysis Program

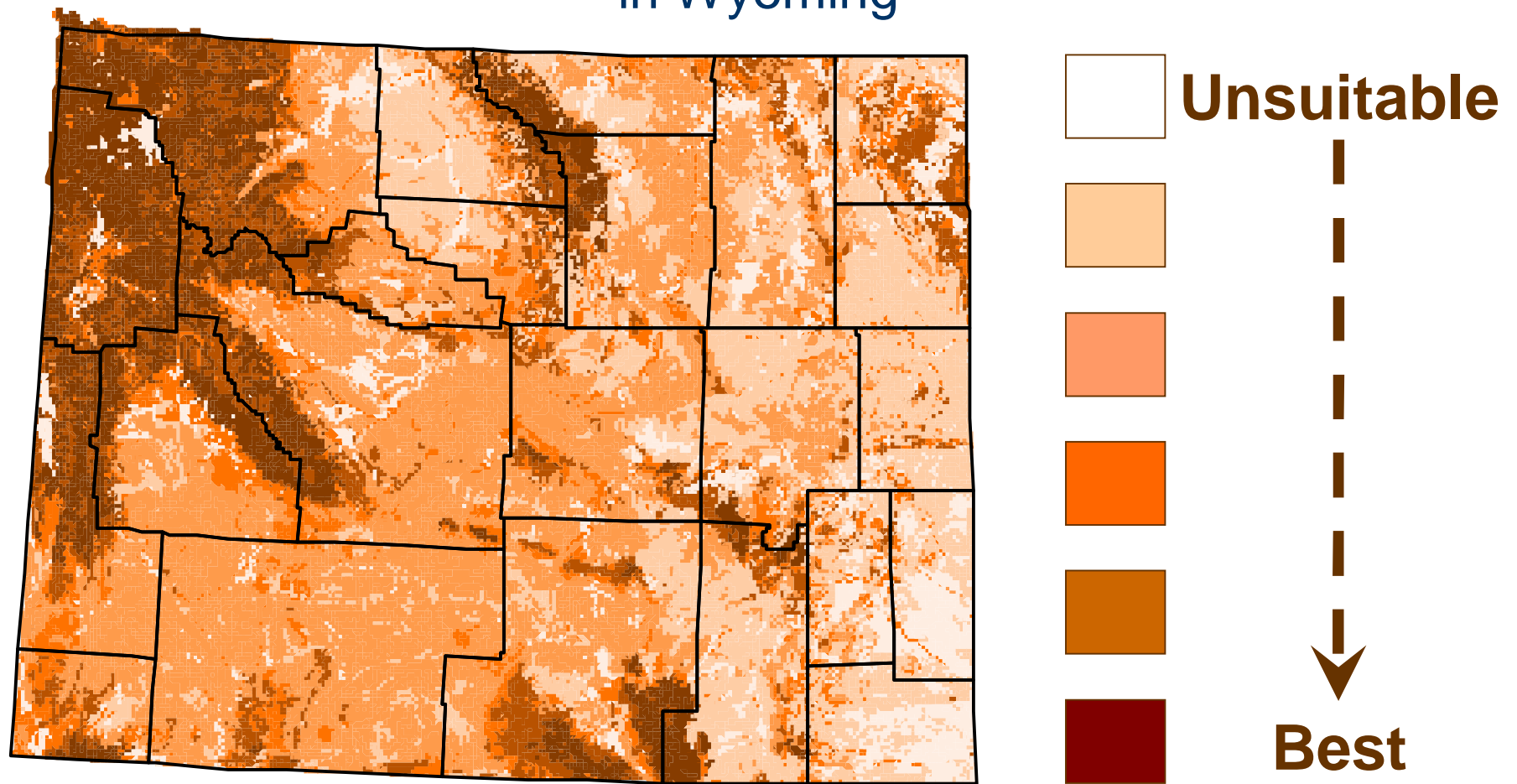
§ Latin America: Moore Foundation/The Nature Conservancy





Predictive Distribution Modeling

Canada lynx (*Lynx canadensis*) habitat in Wyoming



Source: Wyoming Natural Diversity Database

Uses of NatureServe Data



Department of Transportation

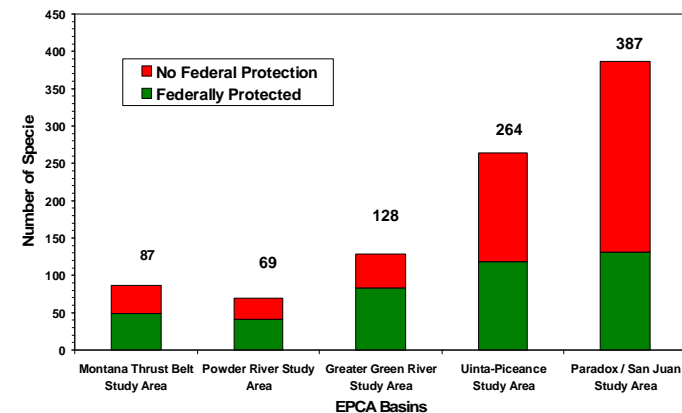
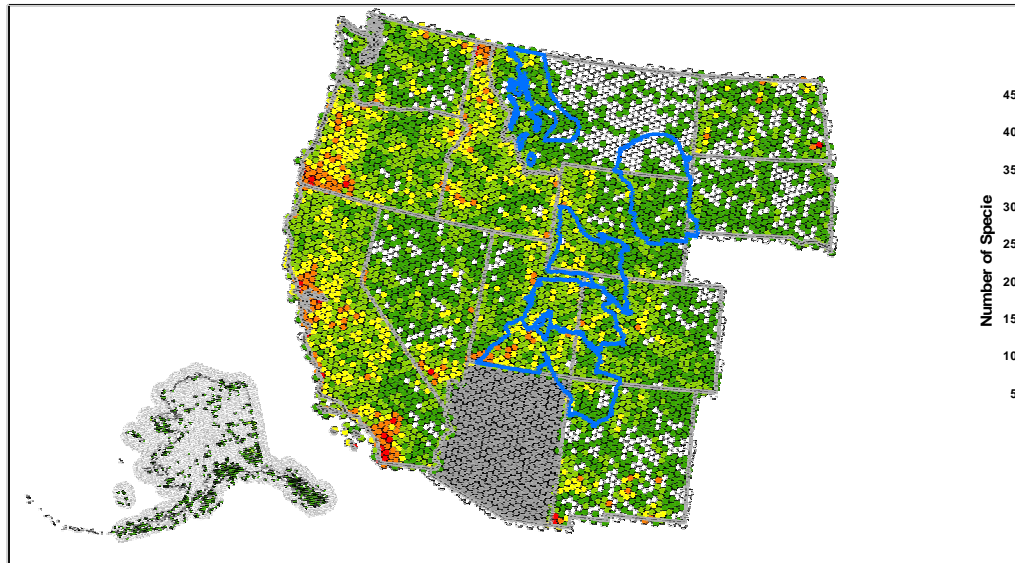
Pipeline Safety Risk Mitigation

- § Formal rule for unusually sensitive areas (USAs) under the Pipeline Safety Act relies on NatureServe conservation status ranks (G1 and G2 species)
- § Nationwide mapping of ecological USAs relies on consistent NatureServe locational data for federally listed and G1G2 species



Bureau of Land Management

A regional context for Species of Concern in BLM
Resource Development Planning Areas



- § Document the importance of populations on BLM planning areas compared to other known populations
- § Quality and quantity measures

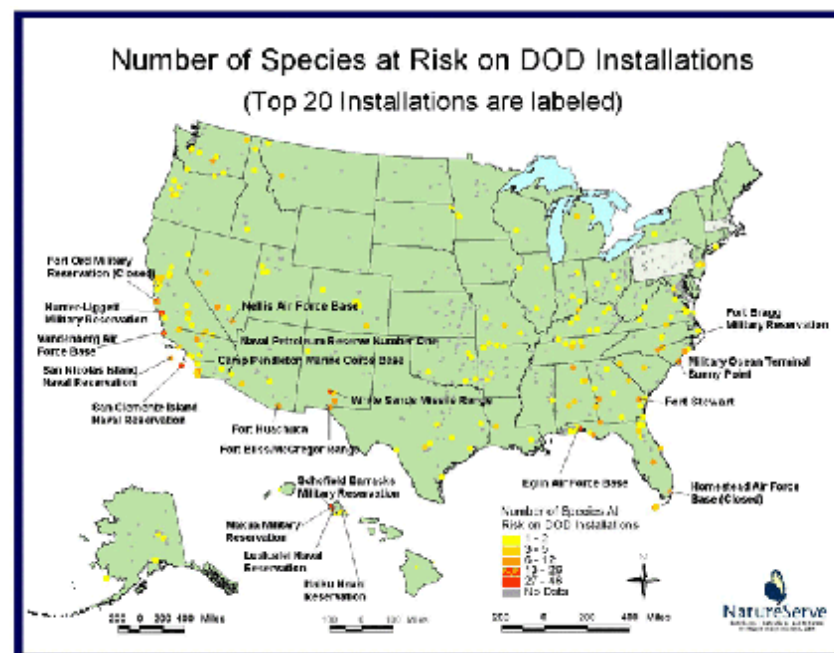
Department of Defense

- Mapped the locations of at-risk plants and animals lacking federal protection
- The military incorporates this information into natural resource management plans to help protect these species before they are listed as threatened or endangered



**Longleaf Pine Regeneration
at Fort Benning**

Photo by Milo Pyne



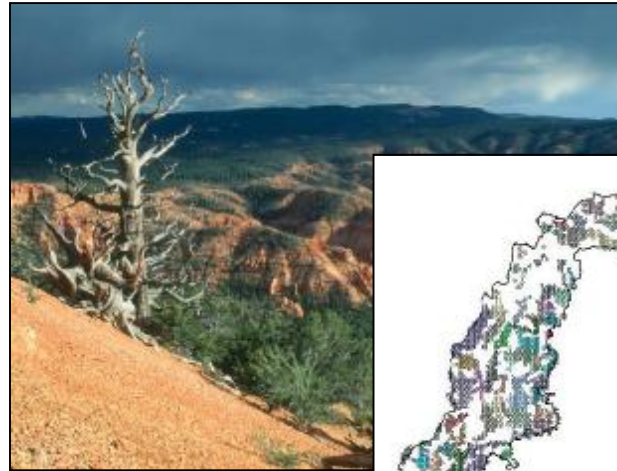
Informing Conservation Decisions By...

§ Effective approaches to prioritize conservation investments

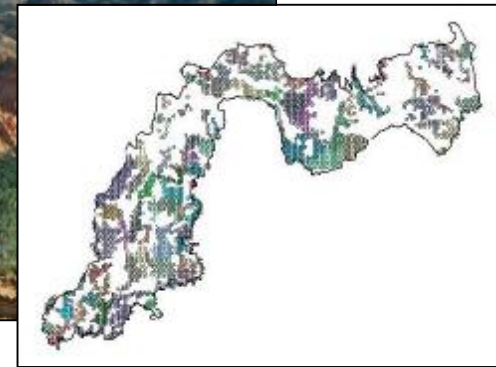
§ Identifying priority areas for protection and management

§ Directing development activities away from sensitive habitats

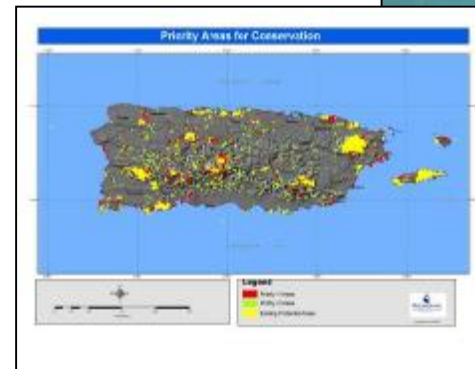
§ Clarify sustainable land and water management strategies



*Inter-agency Planning in
UT High Plateaus
ecoregion*



*Strengthening a planning
infrastructure in Puerto Rico*





In Summary:

Conservation is a public objective. This workshop presents tools and approaches that can assist us in identifying and preserving the unique and irreplaceable areas in Colorado.

