

## GAP Data goes Mainstream: Recent Applications of GAP Data

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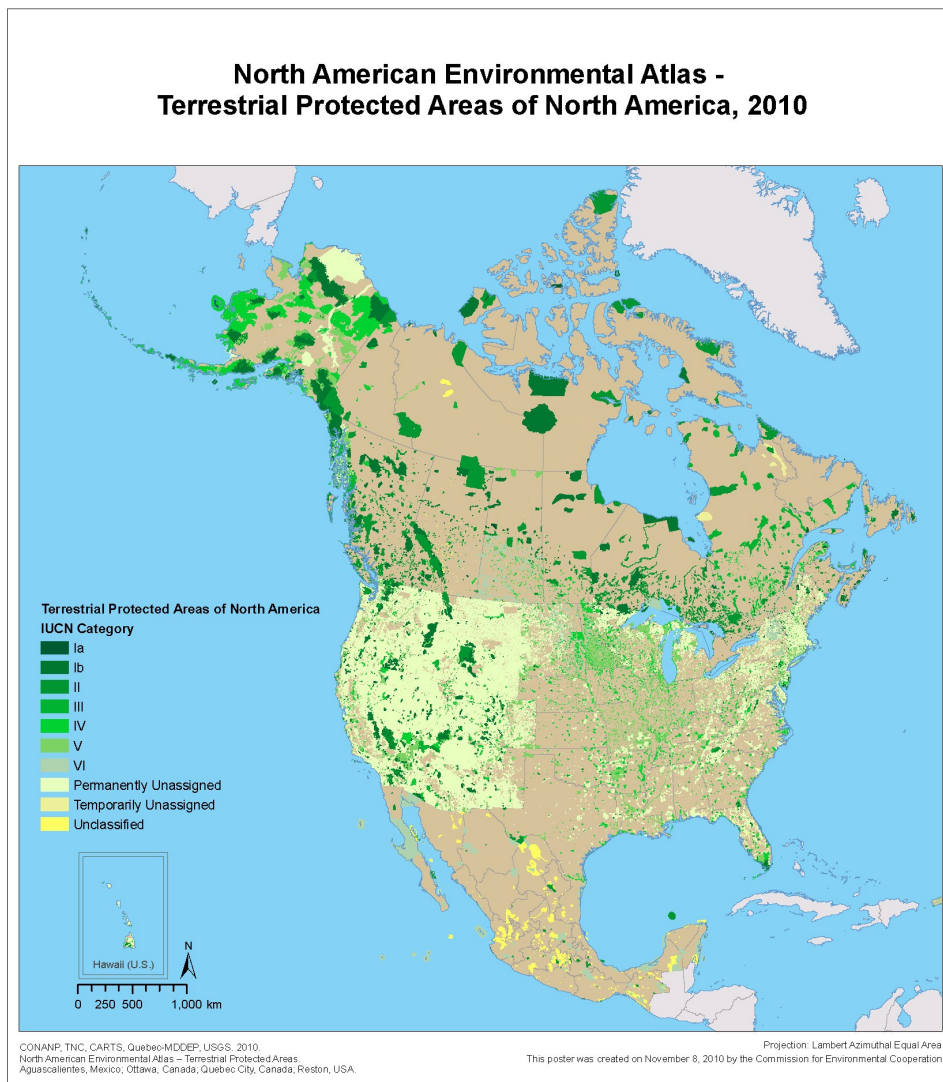
Over the course of 2010 we have seen GAP data used in several new and interesting projects. One of our primary goals is to provide our data and maps to the public, so that it can be used to inform and educate the public about conservation and natural resources management issues. In the paragraphs below, some innovative uses of our data are highlighted.

### 2010 Terrestrial Protected Areas Atlas

The Commission on Environmental Cooperation (CEC) recently published the 2010 Terrestrial Protected Areas Atlas and database as part of its initiative to harmonize environmental data for Canada, Mexico and the United States. The atlas includes an updated terrestrial protected areas map which includes federal and state data from PAD-US version 1. The atlas also incorporates IUCN categorized parcels from Canada, the US and Mexico as well as “other conservation lands” (GAP 3 in the US). The Terrestrial Protected Areas map depicts protected areas that are managed by national, state, provincial or territorial authorities throughout North America. These areas constitute a system of ecologically-based protected areas subject to broad and regional cooperation.

### State of the Birds

In 2011, the annual State of the Birds report ([www.stateofthebirds.org](http://www.stateofthebirds.org)) will focus on birds on public lands. The source for the public lands data is USGS GAP's Protected Areas Database for the US, Version 1.1 (PAD-US 1.1). GAP's data is an appropriate source for this analysis. Furthermore, USGS GAP's national land cover data are being



**Figure 1: Map showing terrestrial protected areas of North America.**



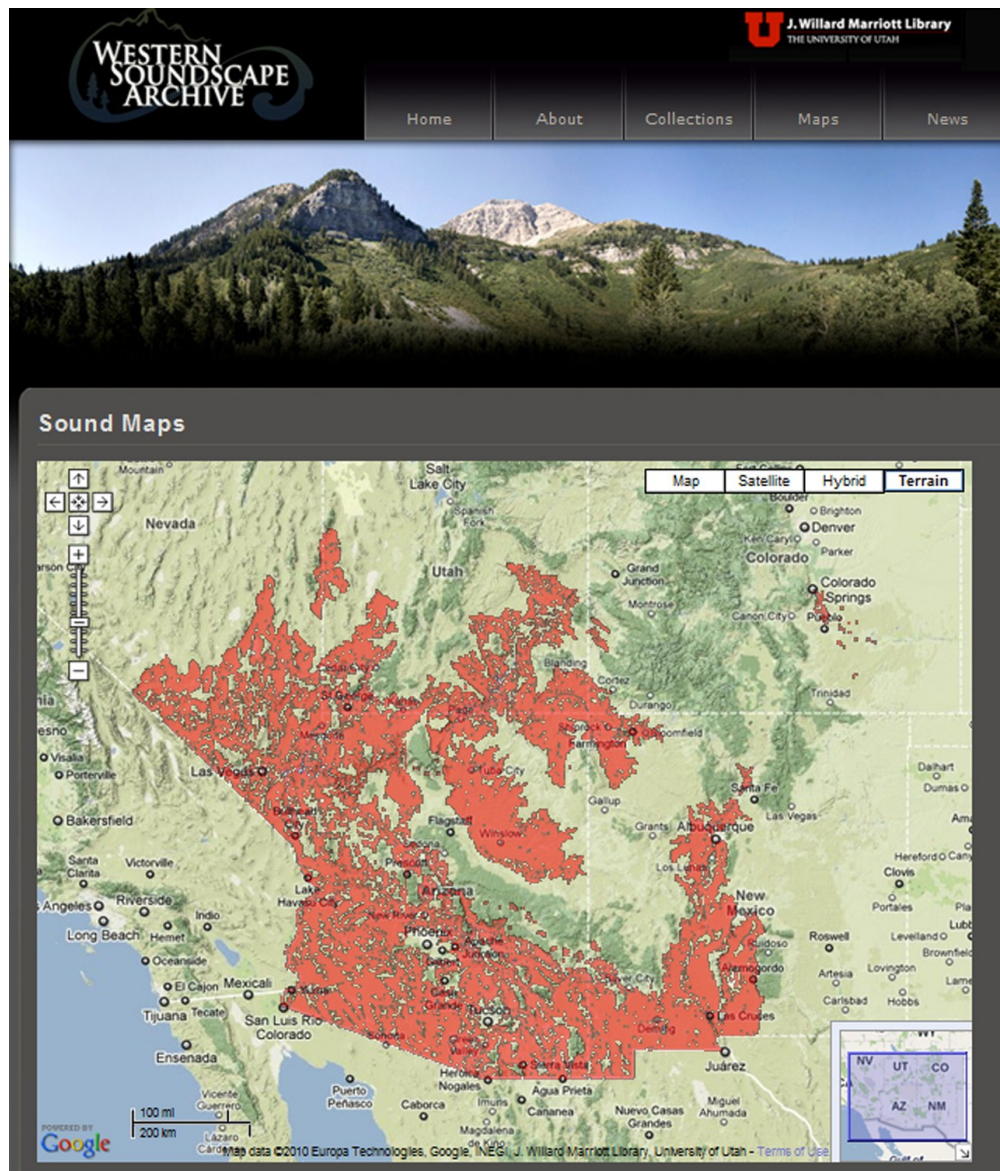
Credit: John Bedell

**Figure 2: The American Avocet (*Recurvirostra Americana*) whose population has declined during the past 40 years.**

used to identify nationwide biomes for an overall assessment of bird habitat on public lands by biome. Lastly, Alaska GAP bird ranges were included in the analysis of public lands available to birds in Alaska.

The yearly report synthesizes data from three long-running bird censuses conducted by thousands of citizen scientists and professional biologists. It is the product of a collaborative effort as part of the U.S. North American Bird Conservation Initiative, between federal and state wildlife agencies, and scientific and conservation organizations including partners from the American Bird Conservancy, Association of Fish and Wildlife Agencies, Cornell Lab of Ornithology, Klamath Bird Observatory, National Audubon Society, The National Fish and Wildlife Foundation, The Nature Conservancy, U.S.D.A. Forest

**Figure 3: Screen shot of the Western Soundscape Archive's use of SWReGAP species distribution data as a component of its species sound maps. The red-dish areas show the distribution of Bendire's Thrasher (*Toxostoma bendire*).**



Service, U.S. Fish and Wildlife Service, and the U.S. Geological Survey. The State of the Birds Report will be released in March 2011.

## Western Soundscape Archive

The Western Soundscape Archive (WSA), begun in November of 2007, features recordings of animals and environments throughout the western United States. The website currently includes representative sounds of 95% of the West's bird species, all of the region's frogs and toads, and more than 100 different types of mammals and reptiles. The site

has incorporated predicted distribution maps (Figure 3) from the Southwest Regional Gap Analysis Project (SWReGAP) into its site, so that users can not only hear an animal’s voice, but also see its distribution across the southwest.

### Southern Forests for the Future

The forests of the southern United States are a vast local, national, and global treasure. Spanning approximately 214 million acres, they stretch from Texas to Virginia and from Kentucky to Florida. They comprise 40 percent of the land area of the 13 states that constitute the U.S. Forest Service’s “southern region,” and 29 percent of the total forestland in the United States. They are the dominant form of land cover throughout the region. The World Resources Institute (WRI) Southern Forests

for the Future project seeks to raise awareness of the threats facing the forests of the southern United States and lay the foundation for increasing the acreage that is conserved or managed in a sustainable manner. To address this, WRI has created time-series maps that reveal trends and changes in southern forests and has developed a new web portal that allows schoolchildren, universities, citizens, interest groups, and others to access these maps and other information. To facilitate learning about the southern forests, the organization has created an online map viewer (Figure 4) that incorporates GAP protected areas data as one of the key layers.

The viewer is accessible through the Southern Forests of the Future web site <<http://www.seesouthernforests.org/explore-maps>>.

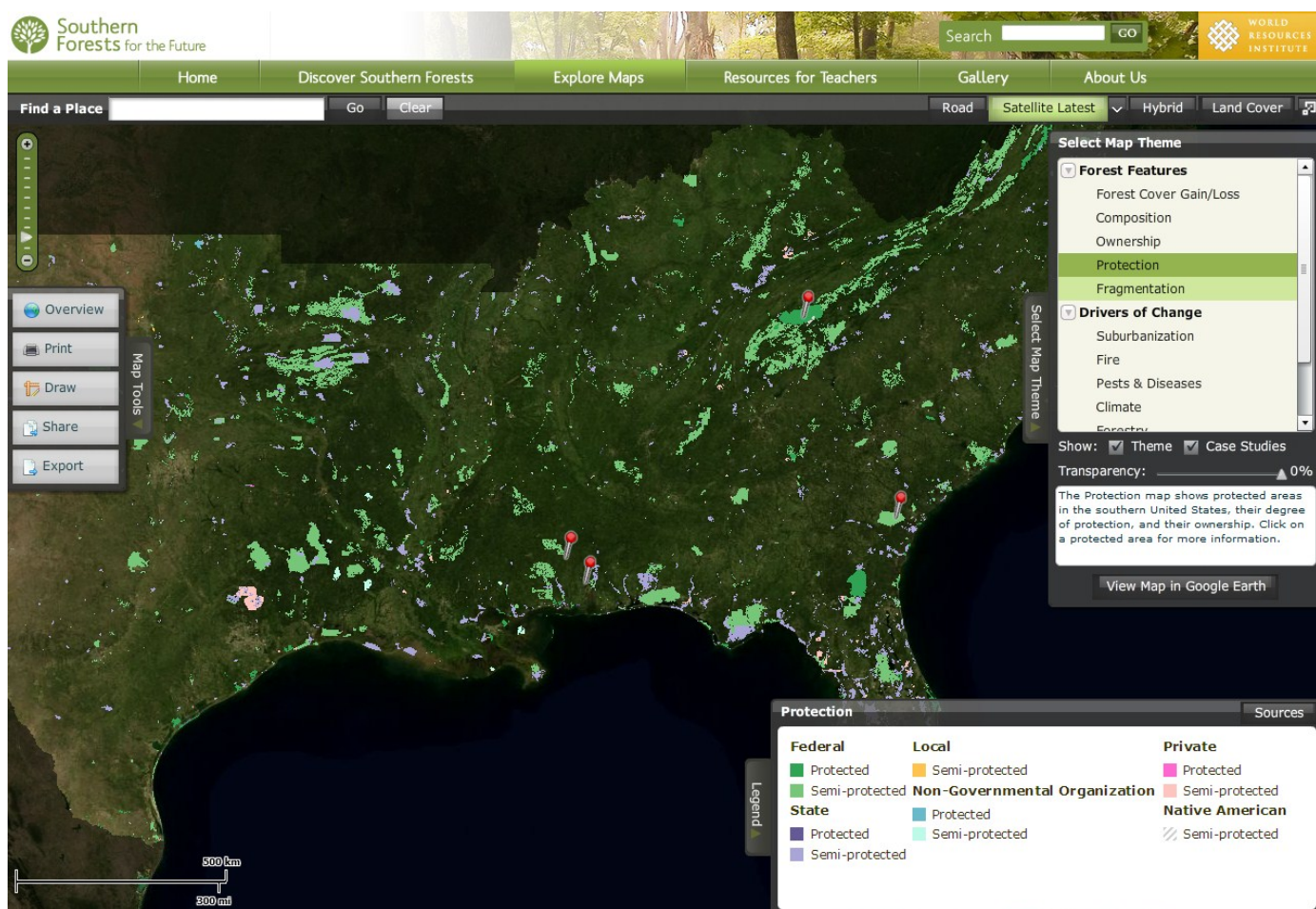


Figure 3: The Southern Forests of the Future map viewer incorporated GAP PAD-US data. This screen shot shows the location of protected areas in the Southeastern United States.

## United States Department of Interior Strategic Plan for Fiscal Years 2011-2016

The Department of Interior (DOI) is the steward of 20 percent of the Nation's lands including national parks, national wildlife refuges, and other public lands. It is responsible for migratory wildlife conservation; historic preservation; endangered species conservation; surface-mined lands protection and restoration; mapping, geological, hydrological, and biological science for the Nation. In its strategic plan for fiscal years 2011-2016, the DOI has

included a map of the Protected Areas of the United States' Database (PAD-US), version 1.1, as an example of how the USGS will deliver high resolution geospatial databases and maps to support public purposes and enhance resource management. PAD-US will help the DOI achieve one of its core missions; ie., to provide a scientific foundation for decision making for the country. The plan states, "We will deliver high resolution geospatial databases and topographic map images to support public purposes and enhance resource management."

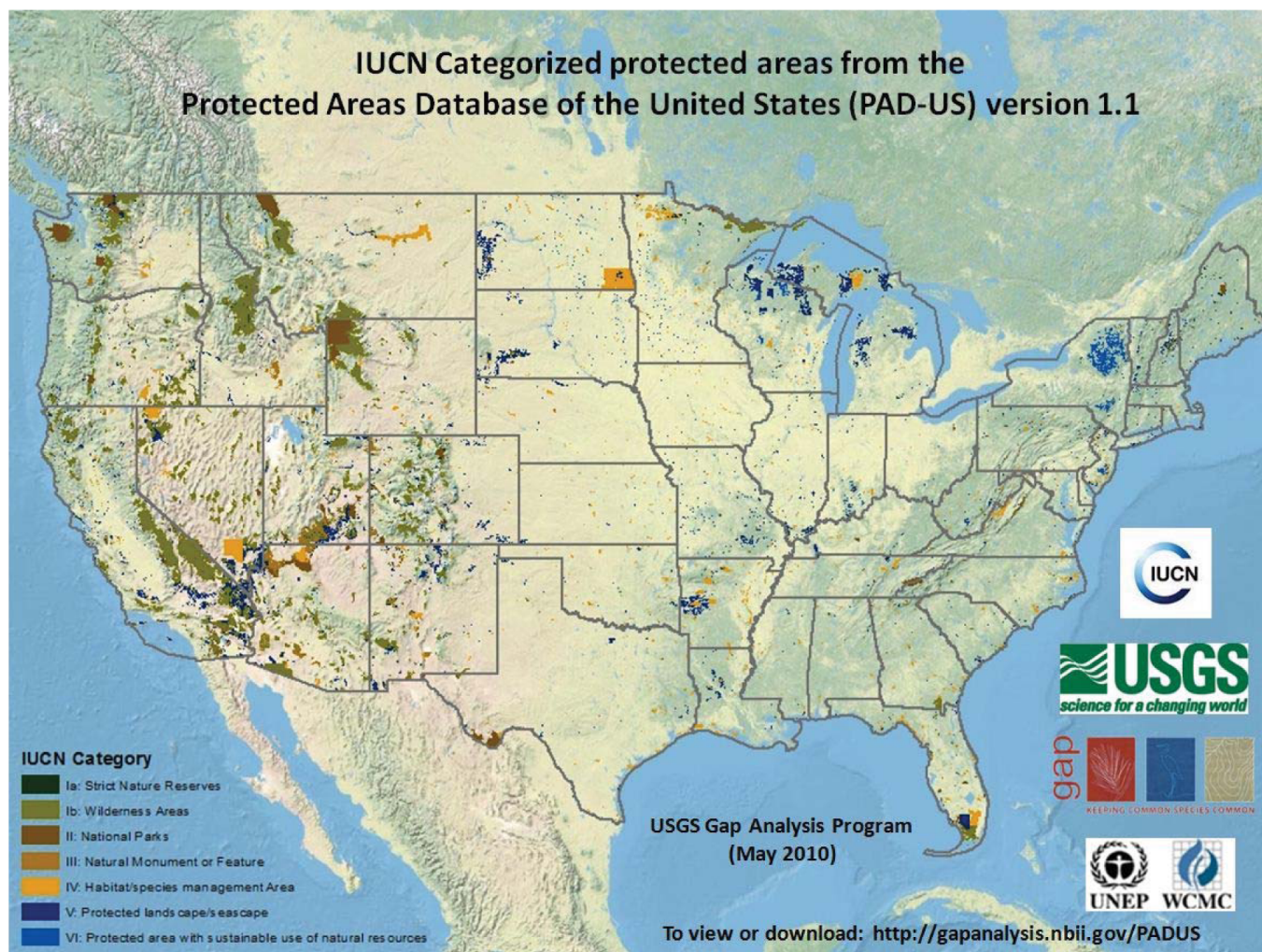


Figure 4: The United States' Department of Interior Strategic Plan includes this image of the Protected Areas of the United States Database (PAD-US), version 1.1, as an example of how the USGS will deliver high resolution geospatial databases and maps to support public purposes and enhance resource management.