

Program Overview

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In the last year, the Gap Analysis Program (GAP) took a subtle shift in direction that we hope will have a significant impact.

In the Fall of 2008, GAP underwent a program review organized by the Ecological Society of America (ESA). Largely complimentary of recent projects completed by GAP, the ESA panel made several recommendations about the future direction of the program. The panel strongly recommended that solely emphasizing a regional model of operation, given existing resources, was not the best strategy for the near future. Instead of building national datasets from a revolving series of regional projects, the panel suggests that creating national-scale data quickly is imperative for GAP to be better poised to participate in other national efforts, such as global climate change research and monitoring.

After completing GAP analysis projects in the 50 states and Puerto Rico several years ago, GAP focused on updating the country through regional projects. We are changing this strategy, to focus on providing national data layers of vegetation, species distributions and stewardship in a short time frame. In a sense, this alters our management and organization so that we focus on these national products, rather than on state or regional “gap analyses.” Previously, these geographic assessments were the focus of activity, even though national assessment has always been the ultimate goal.

Clearly there is no silver bullet. Limited resources constrain how much work we can do, whether the programmatic focus is thematic or geographic. However, we are aggressively implementing the ESA recommendations, focusing on the production of national scale datasets by using existing data when possible and working with partners to streamline the process. Our partners and customers should note that our website and other information outlets will be organized around these major product releases and the status of national efforts. The Bulletin this year is also organized to be a clear statement of annual progress, which was a need stated by the ESA report.

In summary, the major findings of the ESA panel are as follows:

- The mission and objectives of the program are important and should not change.
- Methods used are appropriate and the work products are of high quality.
- Given funding limitations and current needs, national data sets should be prioritized and developed as quickly as possible.

- Partnerships should be pursued wherever possible to help build national data sets.
- GAP needs to increase efforts to collaborate with other national efforts to evaluate the status of biodiversity and monitoring programs.
- Outreach should be emphasized more than it is currently.
- Scientific review should be more regularly pursued, and an ongoing panel should be initiated.

GAP program managers have strategized about the best route to meeting the short term recommendations from ESA. While we will continue to develop primary data to improve data products, our first step is to assess the status of national products and to incorporate the best resources available at this time to bring them into fairly consistent and seamless national layers. With this objective in mind, these are the issues of immediate concern, the strategies that we are carrying out and that we are reporting on in this Bulletin.

- Vegetation mapping has long been the most time-intensive part of any GAP project because it requires collection and processing of remotely sensed data, collection of field data, modeling, a quality assessment process, and often organization of other data sets subsequent to modeling so revisions can be made through manipulation in a GIS environment. For large projects this may take as long as three years, prolonging the time before other work, such as species distribution modeling, that builds on the vegetation information can be done. As a result regional projects may take five years. If funding only supports a third or less of the country to be included in ongoing projects, this means completion of national data will take 15 years or more.
- The Landscape Fire and Resource Management Planning Tools Project (LANDFIRE), an effort led by the Forest Service, has developed data within the last three years for areas of the country where GAP has not been able to initiate vegetation mapping. In anticipation

of the needs specified by the ESA panel, we have developed working relationships with the LANDFIRE Business Leads, EROS staff assigned to LANDFIRE, Natureserve and the Missoula Fire Lab to increase the usability of LANDFIRE data for GAP. LANDFIRE has altered its processing protocols in the Eastern US and has worked with GAP to assess the ecological validity of its data in many parts of the country. We continue to work with them to improve the quality of modeling inputs, which we identified to them as a problem during their initial efforts. We now have a national data set to work with. While it is a compromise, it is the best available and meets the intent of the ESA recommendations.

- GAP initiated several major projects over a year ago to “jump-start” a national Protected Areas Database. Funds were prioritized so that 11 Midwest States, the Northwest and California were updated. Simultaneously, GAP entered into the PAD-US Partnership involving BLM, the Forest Service, The Nature Conservancy, Greeninfo, the Conservation Biology Institute and others. Because GAP was already advancing its efforts, this Partnership endorsed GAP’s new version of the national protected areas data as its premier product. This is being used to leverage funds from philanthropic organizations. The first version of this national data set was released in April of 2009
- Species distribution modeling is GAP’s greatest challenge. We are currently completing range data at 12-digit hydrologic units for the country. More refined distribution modeling is prioritized in the current fiscal year. In addition to species that have been modeled at their full extent in some of the West and the Southeast, GAP is working with partners to provide models for another several hundred species over the next year. This work will allow GAP, one year from now, to have enough of the work (universe of 1900 species nationwide) completed so that analysis of biodiversity will have merit to the conservation community. We will continue to emphasize this part of the program and continue to pursue partnerships and additional funds.