The Los Amigos Geographical Information System (GIS)*

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Abstract

Overview of the Los Amigos Geographical Information System

1 The Los Amigos Geographic Information System (GIS)

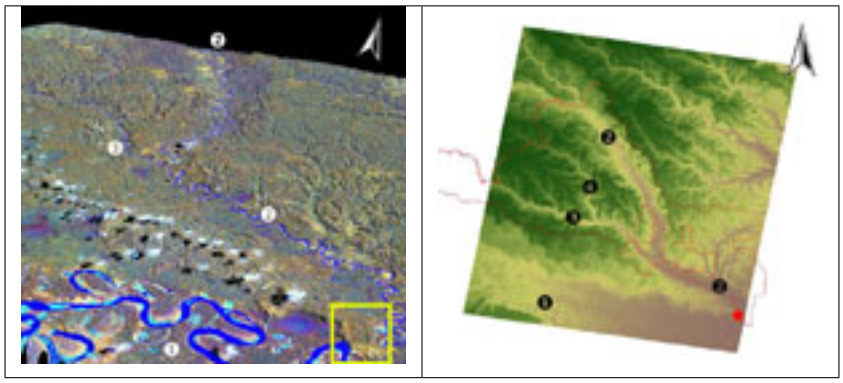

Table 1

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2 Overview

Since August 2002, we have been actively working toward a Geographic Information System (GIS) for the Los Amigos Conservation Area. Our objectives have been to:

- collect and organize available geographic data
- to show possible use of the system in education, training and research; and
- present research results through print and digital means of publication.

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A geographic metadatabase has been compiled from various sources, including important files for the Los Amigos Conservation Area provided by colleagues at the Amazon Conservation Association, and files for Madre de Dios, Peru, and the American tropics that have been opportunistically collected during the last year. We continue to gather and input general basemaps, satellite images, climatic data, human population data, and more. In October 2002 we added 15-meter resolution Aster imagery and the first author used them to generate a Digital Elevation Model of the Los Amigos Conservation Area (see DEM imagery at left). A 2000 Landsat TM image was then overlaid on the digital elevation model to create a 3D view of the area (see images at left). We also just received our first IKONOS image from Satellite Imaging Inc. (www.spaceimaging.com), which we will use to produce a high-resolution vegetation map of the area.

Due to the scale of data available for the region, the Los Amigos GIS has quickly expanded to encompass the entire geopolitical region of the Department of Madre de Dios, Peru, and vicinity. This GIS system is currently being used to support studies of the biodiversity in the Los Amigos Conservation Area, but will soon be used for a broadened analysis of the diversity, distribution, collection patterns, and conservation of the plant diversity of Madre de Dios.

Currently, all GIS to Internet presentation is driven by the software HTML Image Mapper offered by Alta 4 (www.alta4.com). Plans for the immediate future are to convert the entire interactive system over to ArcIMS, an internet map server technology by ESRI, while we will continue to use Alta 4 for smaller scale presentations of specific geospatial patterns.

See the Los Amigos GIS Photographic Essay.

Last updated: October 2002. Contact John Janovec at jjanovec@nybg.org.