LBA-ECO LC-13 GIS Coverages of Logged Areas, Juruena, Mato Grosso, Brazil: 2002

Summary:

This data set contains GIS coverages constructed from measurements taken of logged areas in Juruena, Mato Grosso. Classes include roads, skids trails, tree crowns, tree-fall locations, and block boundary (Asner et al., 2004). Coverages are in ArcInfo SHAPE format (*.shp), UTM projection, using the WGS84 datum.
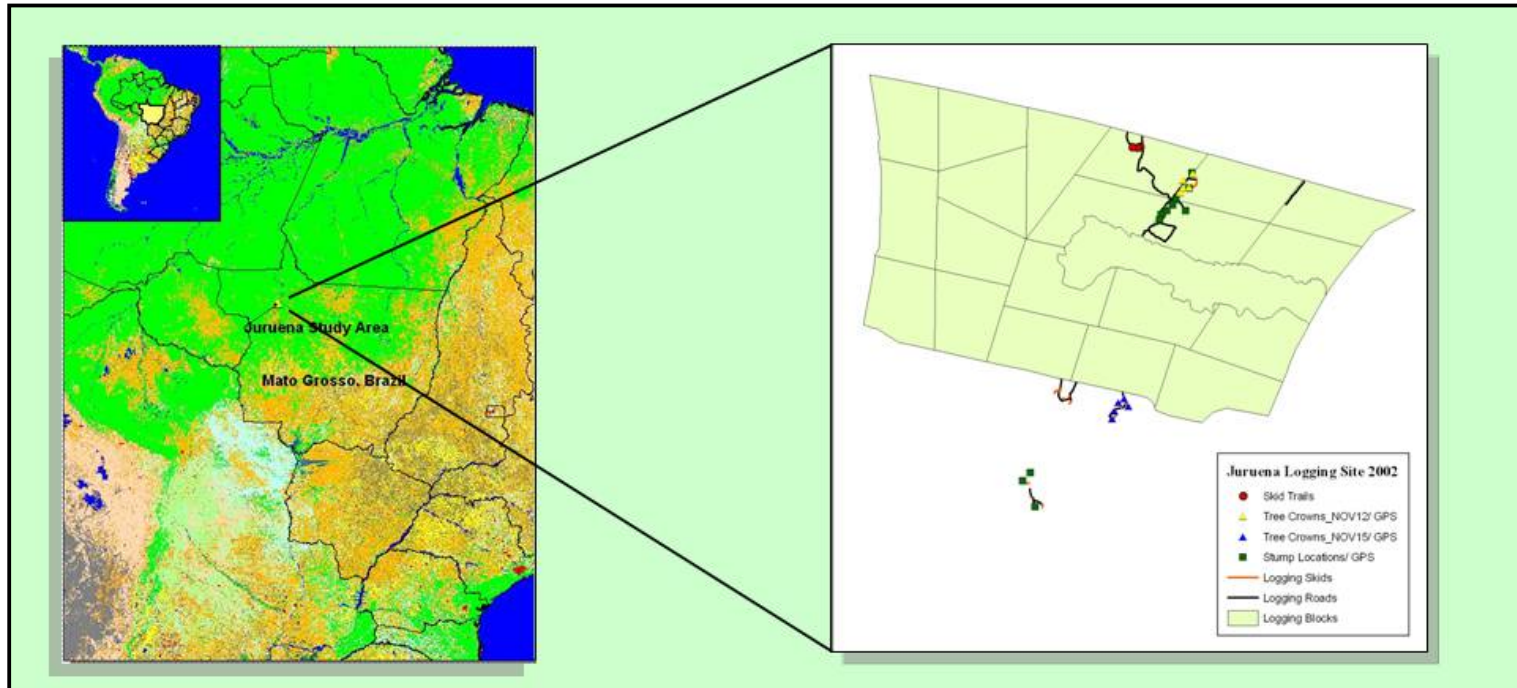
Figure 1. Location of logged areas in Juruena, Mato Grosso and typical study block showing tree-fall location, skid trail, and road coverages.

Data Citation:

Cite this data set as follows:

Asner, G.P., M. Keller, R. Pereira Jr., J.C. Zweede, and J.N.M. Silva. 2008. LBA-ECO LC-13 GIS Coverages of Logged Areas, Juruena, Mato Grosso, Brazil : 2002. Data set. Available on-line [http://daac.ornl.gov] from Oak Ridge National Laboratory Distributed Active Archive Center, Oak Ridge, Tennessee, U.S.A. doi:10.3334/ORNLDAAC/888.

Implementation of the LBA Data and Publication Policy by Data Users:

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This data set was archived in July of 2008. Users who download the data between July 2008 and June 2013

<u>must comply with the LBA Data and Publication Policy.</u>

Data users should use the Investigator contact information in this document to communicate with the data provider. Alternatively, the LBA Web Site [http://lba.inpa.gov.br/lba/] in Brazil will have current contact information.

Data users should use the Data Set Citation and other applicable references provided in this document to acknowledge use of the data.

Table of Contents:

1. Data Set Overview:

Project: LBA (Large-Scale Biosphere-Atmosphere Experiment in the Amazon)

Activity: LBA-ECO

LBA Science Component: Land Use and Land Cover

Team ID: LC-13 (Asner / Silva)

The investigators were Asner, Gregory Paul; Silva, Jose Natalino Macedo; Cooper, Amanda Naslund; Hare, Anna Quinn; Harris III, Albert Thomas; Keller, Michael M.; Knapp, David E.; Olander, Lydia Pauline; Palace, Michael William and Warner, Amanda Susan . You may contact Asner, Gregory P. (greg@globalecology.stanford.edu) and Knapp, David E. (deknapp@stanford.edu).

LBA Data Set Inventory ID: LC13_GIS_Juruena

These data are GIS data layers in SHAPE format of logging areas in Juruena, Mato Grosso. There is a separate SHAPE file for roads, skids trails, tree crowns, tree-fall locations, and block boundary. The Juruena data are in UTM using the WGS84 datum.

Related Data Sets:

- LBA-ECO TG-07 Fallen Necromass in Tapajos, Fazenda Cauaxi, Juruena Forests in Brazil (Coarse woody debris data collected by another team in the same area).

2. Data Characteristics:

The data files for each parameter (e.g., skids, roads) are in the SHAPE file format and are combined in compressed files for each parameter and time frame as appropriate. These data are in the SHAPE file format in the UTM projection, using the WGS84 datum, Zone 21S.

Files include:

Juruena_Blocks_Polygons_UTM.zip   This layer shows the logging blocks as polygons.

Juruena_Blocks_Roads_GIS_UTM.zip   This layer shows the logging roads in the various blocks.

Juruena_Blocks_Skids_GIS_UTM.zip   This layer shows the logging skids in the various blocks.

Juruena_TreeCrowns_GIS_UTM_2002NOV12.zip and **Juruena_TreeCrowns_GIS_UTM_2002NOV15.zip**

These two layers show the GPS locations of tree crowns (copa) after cutting, on 12-Nov-2002 and 15-Nov-2002, respectively.

Juruena_SkidTrails_GIS_UTM_2002_Nov.zip   This layer shows skid trails during field work in November of 2002.

Juruena_TreeFalls_GIS_UTM_2002_Nov.zip   This layer shows GPS locations of tree falls (stump location) during field work in November of 2002.

* "Skid or Skid Trail" means a temporary pathway principally used to drag or transport felled trees or logs or other material to a landing.

* "Road or Access Road" means a temporary or permanent access route.

Site boundaries: (All latitude and longitude given in degrees and fractions)

Site (Region)	Westernmost Longitude	Easternmost Longitude	Northernmost Latitude	Southernmost Latitude	Geodetic Datum
Mato Grosso - Juruena (Mato Grosso)	-58.591167	-58.360617	-10.422198	-10.602652	World Geodetic System, 1984 (WGS-84)

Time period:
- The data set covers the period 2002/11/12-2002/11/15.
- Temporal Resolution: 2002/11/12-2002/11/15.

Platform/Sensor/Parameters measured include:
- FIELD INVESTIGATION / GPS (GLOBAL POSITIONING SYSTEM) / LANDSCAPE PATTERN

3. Data Application and Derivation:

These data can be used to identify how logging activity affects reflectance measurements from multi- and hyper-spectral imagery.

4. Quality Assessment:

These data were compared with imagery of the area to visually confirm the location of roads and other features visible in the imagery.

5. Data Acquisition Materials and Methods:

A Leica GPS unit was used to collect the location of the features in the field.

Sensors used include:
- GPS (GLOBAL POSITIONING SYSTEM)

6. Data Access:

This data is available through the Oak Ridge National Laboratory (ORNL) Distributed Active Archive Center (DAAC) or the EOS Data Gateway.

Data Archive Center:

Contact for Data Center Access Information:

E-mail: uso@daac.ornl.gov
Telephone: +1 (865) 241-3952
FAX: +1 (865) 574-4665

7. References:

Asner, Gregory P., Michael Keller, Rodrigo Pereira Jr., Johan C. Zweede, and Jose N. M. Silva. 2004. Canopy Damage and Recovery Selective Logging in Amazonia: Field and Satellite Studies. Ecological Applications 14(4): S280-S298.

Related Publications:

- Pereira, R., J. Zweede, G.P. Asner, and M. Keller. 2002. Forest canopy damage and recovery in reduced-impact and conventional selective logging in eastern Para, Brazil. Forest Ecology and Management 168(1-3):77-89.
- Asner, G.P., M. Keller, R. Pereira, and J.C. Zweede. 2002. Remote sensing of selective logging in Amazonia - Assessing limitations based on detailed field observations, Landsat ETM+, and textural analysis. Remote Sensing of Environment 80(3):483-496.
- Palace, M., M. Keller, G.P. Asner, J.N.M. Silva, and C. Passos. 2007. Necromass in undisturbed and logged forests in the Brazilian Amazon. Forest Ecology and Management 238(1-3):309-318.