Linaria: a set of information management tools to aid environmental decision making in Sierra Nevada LTER platform (Spain)

Pérez-Pérez, R.[1], Bonet, F.J.[2]; Pérez-Luque, A.J.[3]; Zamora, R.

Laboratorio de Ecología. Centro Andaluz de Medio Ambiente.
Universidad de Granada. Granada (SPAIN)
1: ramon@ugr.es; 2: fjbonet@ugr.es; 3: ajperez@ugr.es

These institutions relied on these guys to do this job.

Linaria is a web portal to download raw data, execute complex queries and view dynamic graphics. Datasets are connected with bibliography, metadata and the workflows created to analyze them. The access is free, but you have to register.
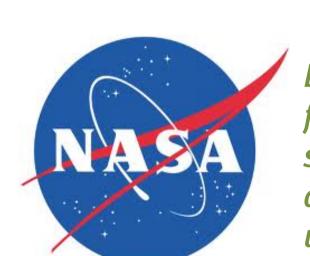
http://linaria.obsnev.es

Collected data is stored in a PostgreSQL database. This database is the core of the information system. It has more than 600 millions or records.

All analytic procedures are documented by ModeleR. This tool is a model repository that host the "recipes that we use to cook our data". Kepler is the core of ModeleR

http://modeler.obsnev.es

Graph showing the conservation status of oak forests. This indicator system gather and analyze all the available information.

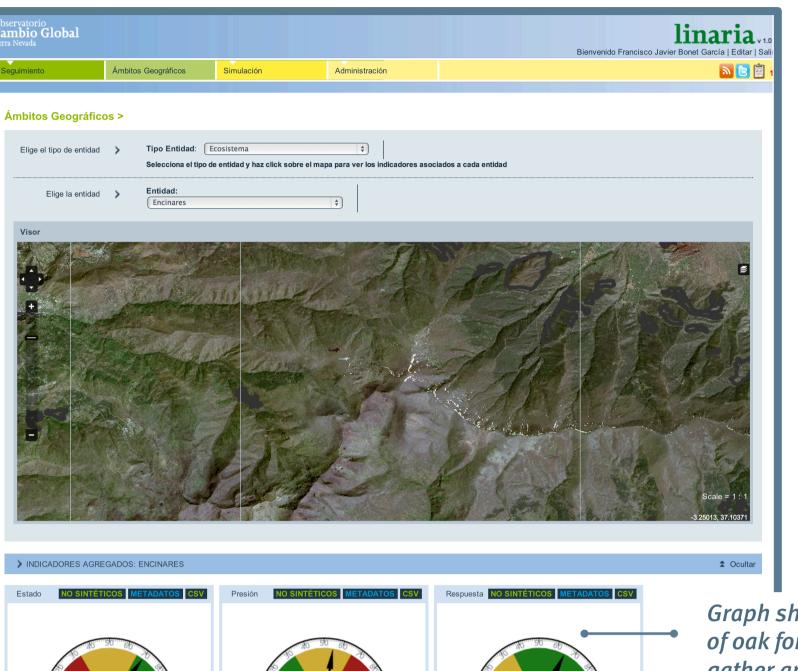Data coming from meteo/flux stations and satellites are automatically gathered using Kepler workflows

Bibliography is managed by refbase, a free software which can import and export references in various formats. We have more than 2500 references in the database.

http://refbase.iecolab.es

All the datasets are documented. Our metadata system is compatible with EML and ISO19115 (INSPIRE EU Directive). We are also using metacat as harvester. Our metadata are accesible via KNB

http://metacat.iecolab.es/knb/

Evolution of snow extent in Sierra Nevada, via MODIS products. You can customize the graph and see the algorithms used to create the graph.

Normal people

Environmental managers

Scientists

Collecting   Storing   Documenting   Analyzing   Viewing

Real world

Simplified reality

We have created a collaborative encyclopedia with information about monitoring protocols, results, etc. We have more than 70.000 visits / year
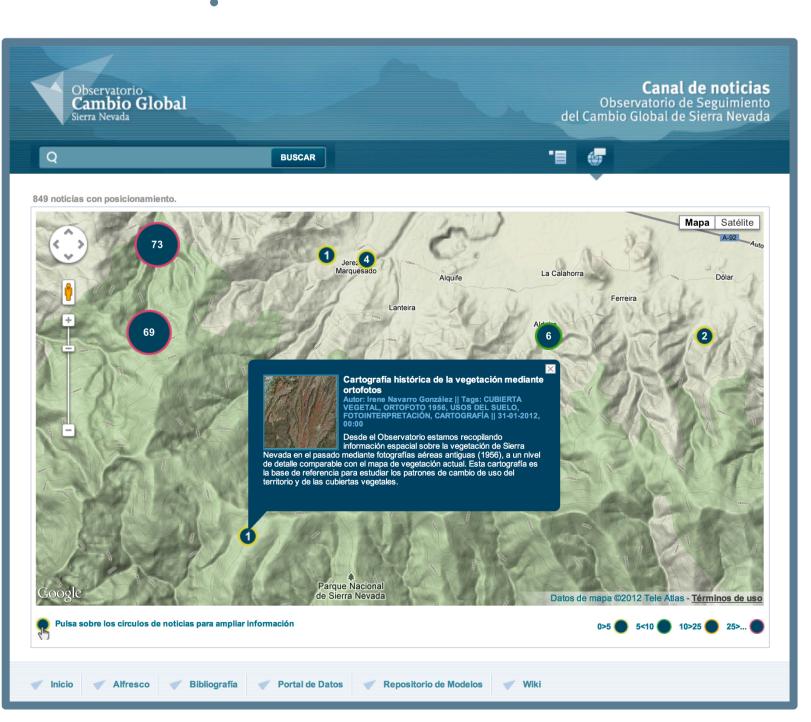
http://wiki.obsnev.es

Thanks to Mondrian we can create multidimensional cubes and run OLAP (Online analytical processing) queries to analyze complex datasets.

http://sl.ugr.es/OLAP_flora

We are using cybertracker and Open Data Kit to gather field information via smarphones and PDA's

Alfresco is being used as content manager software. All documents (bibliography, slides, reports, etc.) are indexed and documented.

We have also created a news portal that acts as a news aggregator and has web 2.0 functionallity. It is connected with all the workflows that analyze the raw data and shows synthetic information about Sierra Nevada. News can be geolocated. You can also access RSS feeds, share, tweet, etc.

http://obsnev.es
http://obsnev.es/feed
@obssierranevada