



**David Martí Pino & Xavier Font**

Dpt. of Plant Biology, University of Barcelona, Barcelona, Spain  
david.marti-pino@ub.edu | xfont@ub.edu



## Motivation

- Reduce observations' registering time
- Benefit from new technologies

## Goals

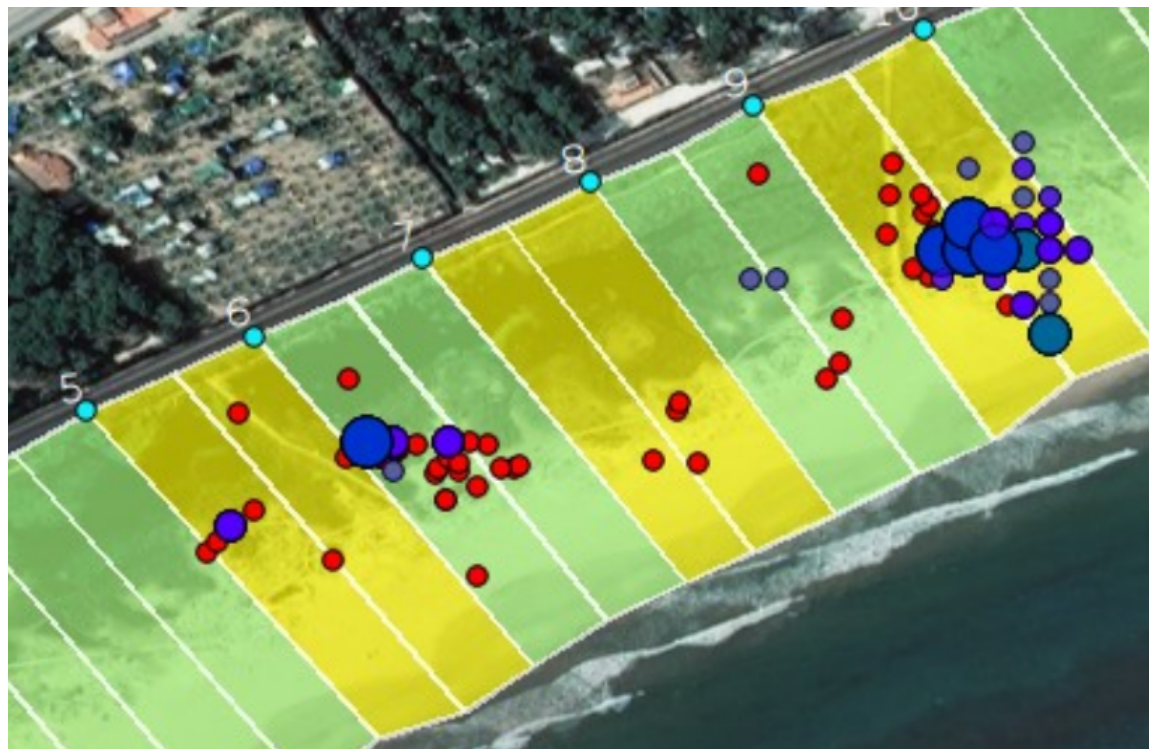
- Software created for mobile devices:**
- Register biological field data
- Access to published information

## Data formats

### TAB files (Excel / Calc)

	A	B	C	D	E	F
1	CitationCoordinates	SecondaryCitationCC	Date	Taxon	Altitud	David Martí
2	41.64851804521501	31TDG211711186	2011-mai-03 10:56:32	Ruscus aculeatus L.	446	David Martí
3	41.64852021072441	31TDG211711186	2011-mai-03 10:56:54	Quercus ilex L. subsp. ilex	448	David Martí
4	41.64922223634602	31TDG2109611265	2011-mai-03 11:01:36	Teucrium botrys L.	435	David Martí
5	41.64923849958162	31TDG2109611267	2011-mai-03 11:02:21	Teucrium botrys L.	435	David Martí
6	41.64930945688707	31TDG2109511274	2011-mai-03 11:02:40	Arenaria conimbricensis Brot. subsp.	445	David Martí
7	41.64917604893102	31TDG2109711260	2011-mai-03 11:03:22	Euphorbia exigua subsp. exigua L.	466	David Martí
8	41.65112913998951	31TDG2098411478	2011-mai-03 11:12:20	Aquilegia vulgaris L.	453	David Martí
9	41.65168790082781	31TDG2093111540	2011-mai-03 11:20:36	Helianthus foetidus L.	458	David Martí
10	41.65174514203212	31TDG2092611547	2011-mai-03 11:21:10	Celtis australis L.	458	David Martí
11	41.651671871334606	31TDG2076811540	2011-mai-03 11:26:43	Cytisophyllum sessilifolium (L.) O.	460	David Martí
12	41.65166769714138	31TDG2076311540	2011-mai-03 11:28:33	Valeriana excelsa Poir.	461	David Martí
13	41.65157796606502	31TDG2075511530	2011-mai-03 11:30:13	Alliaria petiolata (Bieb.) Cavara et	463	David Martí
14	41.65177625788975	31TDG2070411553	2011-mai-03 11:30:29	Tamus communis subsp. communi	464	David Martí

### GIS (KML)

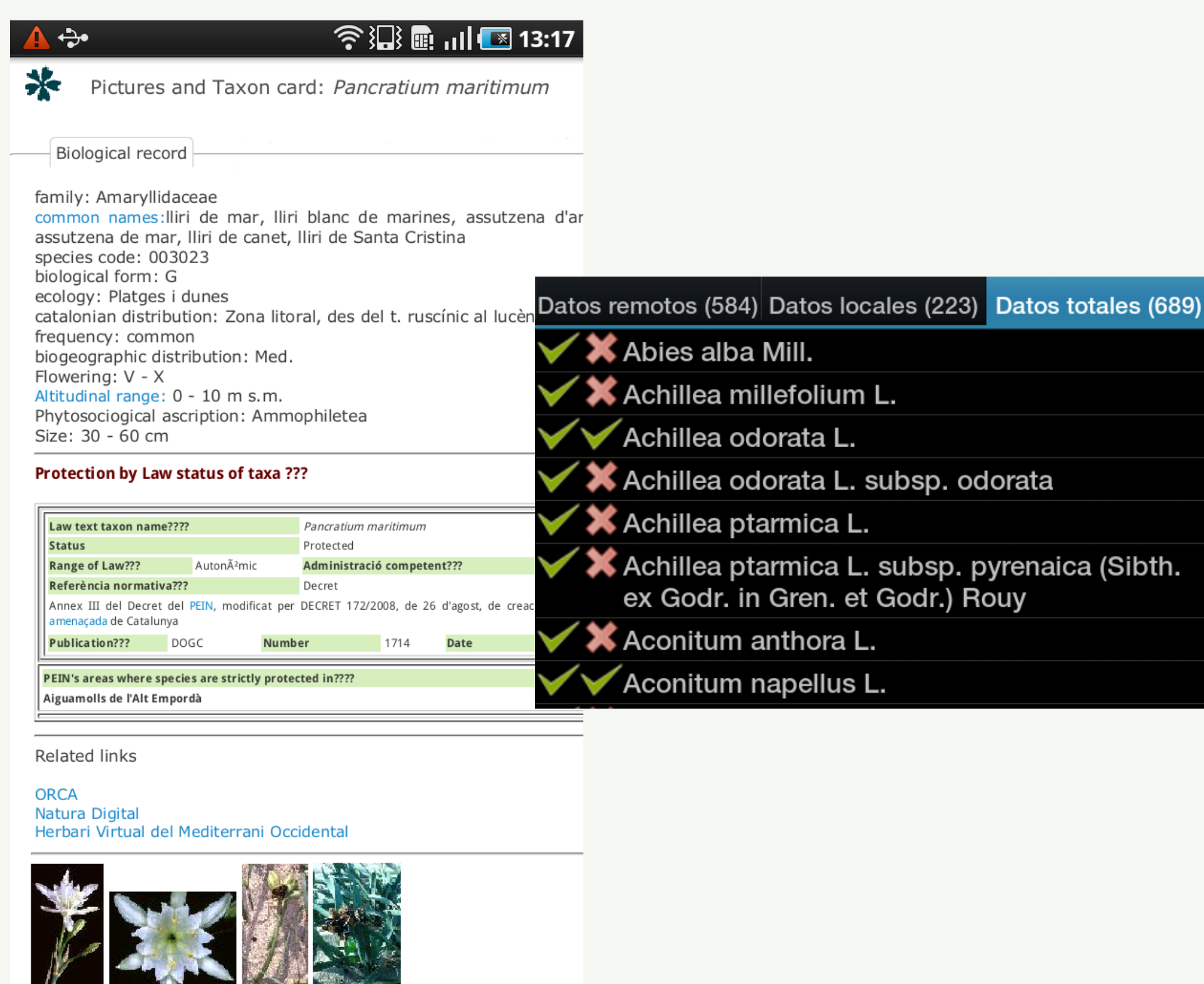


### Fagus and Quercus (S-Vegana)

- Fagus provides an efficient method to enter floristic citations
- Quercus is oriented to the creation and management of relevés.

## Databases

- Access to biological records and photos for concrete species
- Presences' grid export
- Access to a set of species from:
  - Biodiversity data bank of Catalonia (BDBC)
  - Iberian and Macaronesian Vegetation Information System (SIVIM)
  - Global Biodiversity Information Facility (GBIF)



## Main Idea



## Main concepts

### Default data

- Geo-location (degrees | UTM)
- Date and time
- Altitude

### Custom data

- Fields defined by the user

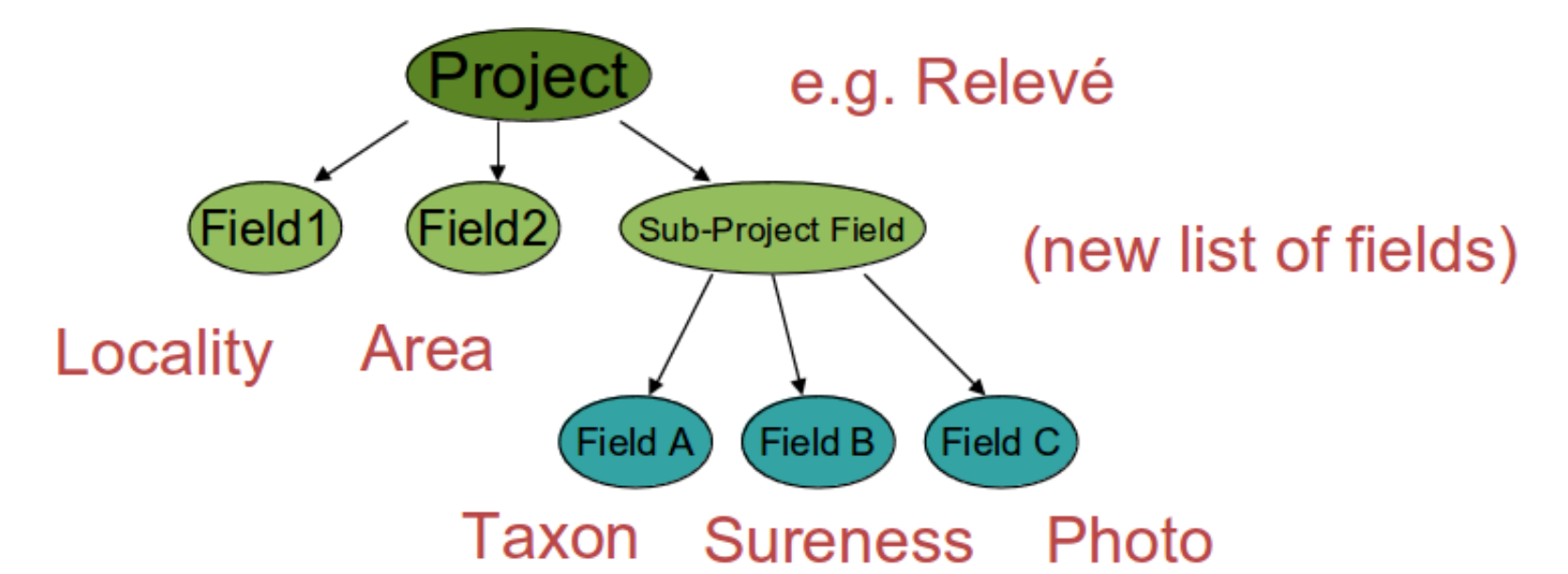
## Project (forms)

### Field types

### Free fields (text, numerical or boolean)

### Photo fields

### Sub-project fields



### Predefined or complex fields (with a list of items)

### Thesaurus fields

Taxon	ach
Comer	✓ Achillea ageratum L.
Localit	✓ Achillea biebersteinii Afan.
Plec	✓ Achnatherum calamagrostis (L.) Beauv.
Altitud	✓ Achillea chamaemelifolia Pourr.
	✓ Achillea collina Becker
	✓ Achillea ligustica All.
	✓ Achillea microphylla Willd.
	✓ Achillea millefolium L.
	✓ Achillea millefolium L. subsp. ceretanica (Sennen) O. Robes et Vire

export

data collection

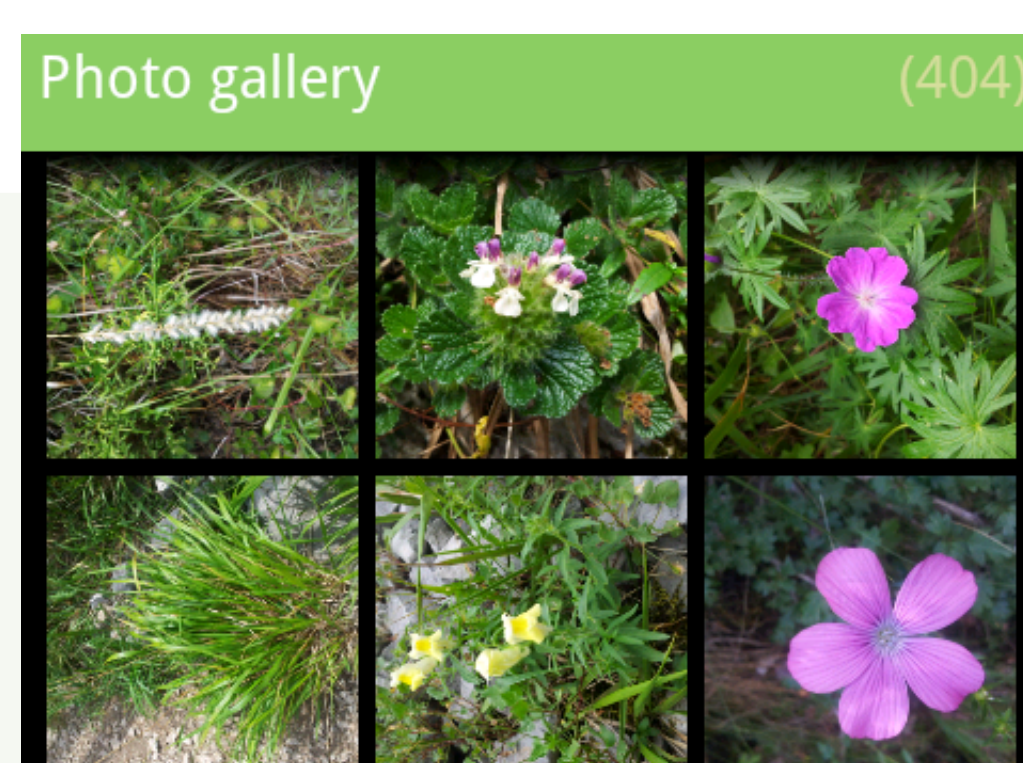
definition

query

visualization

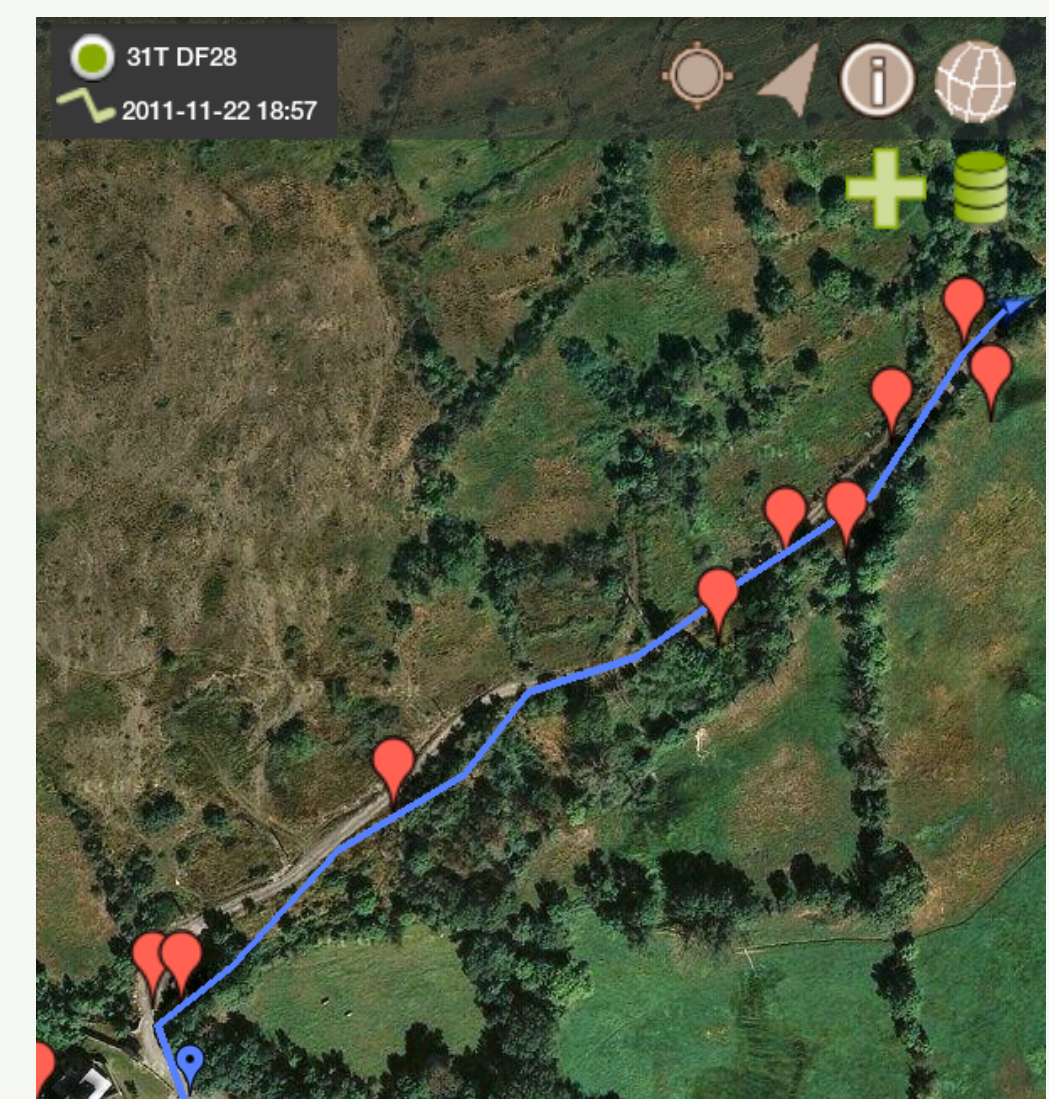
other features

- Remote server: projects and thesaurus
- Multilingual Interface: Catalan, Spanish, English & French
- Image gallery



## Maps

- Observation info, scale, location and walking direction
- Observation creation on the map
- UTM grid and Database connection
- Record GPS tracks



ZamiaDroid is **openSource** software, everybody can use it in a free way, study it and adapt it to their own needs.

<http://biodiver.bio.ub.es/zamiaDroid/>  
[zamiadroid@gmail.com](mailto:zamiadroid@gmail.com)  
<https://play.google.com/store/apps/details?id=uni.projecte>