

SeagrassDB

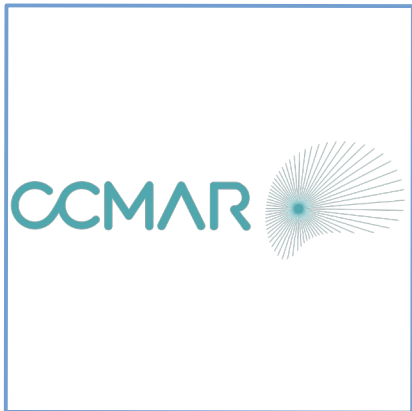


Seagrass Database

10/12/2020

Cymon Cox & João Machado

SeagrassDB



- Marine Plant Ecology Research Group (CCMAR/UALG)

Dr. Rui Santos

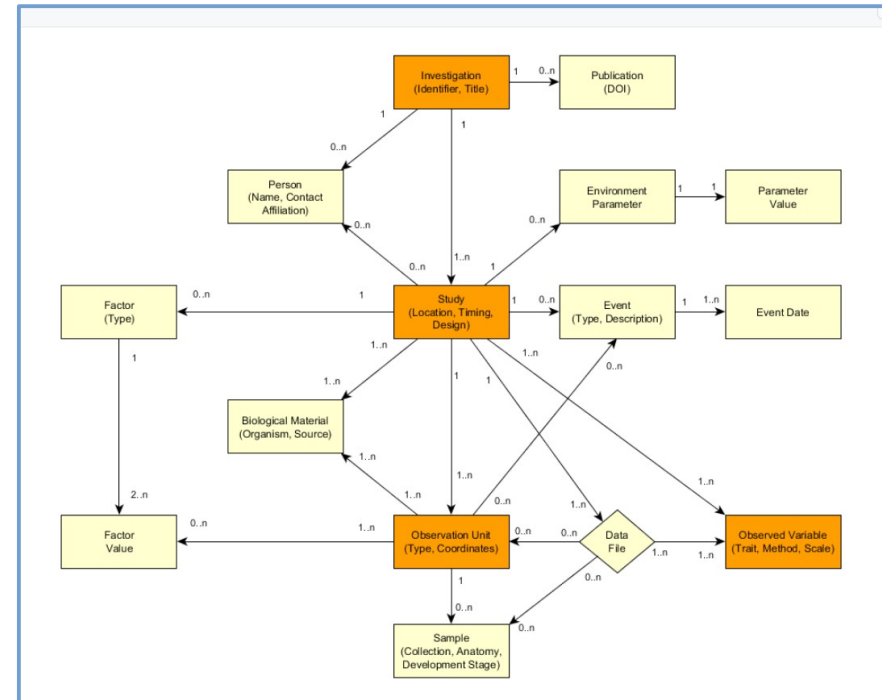
Dra. Carmen De Los Santos

Seagrass database

- Web resource to shared datasets of seagrasses:
 - 206 traits (biochemistry, growth and development, morphology, physiology)
 - 86 species (NCBI ID, algabase, aphialID)

MIAPPE

- Minimum Information About a Plant Phenotyping Experiment
- MIAPPE is an open project to harmonize data from plant phenotype
- Software to validate, store and disseminate MIAPPE-compliant data



Technologies

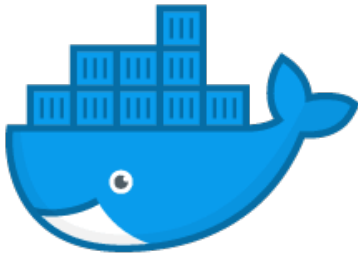


PostgreSQL



python™

django

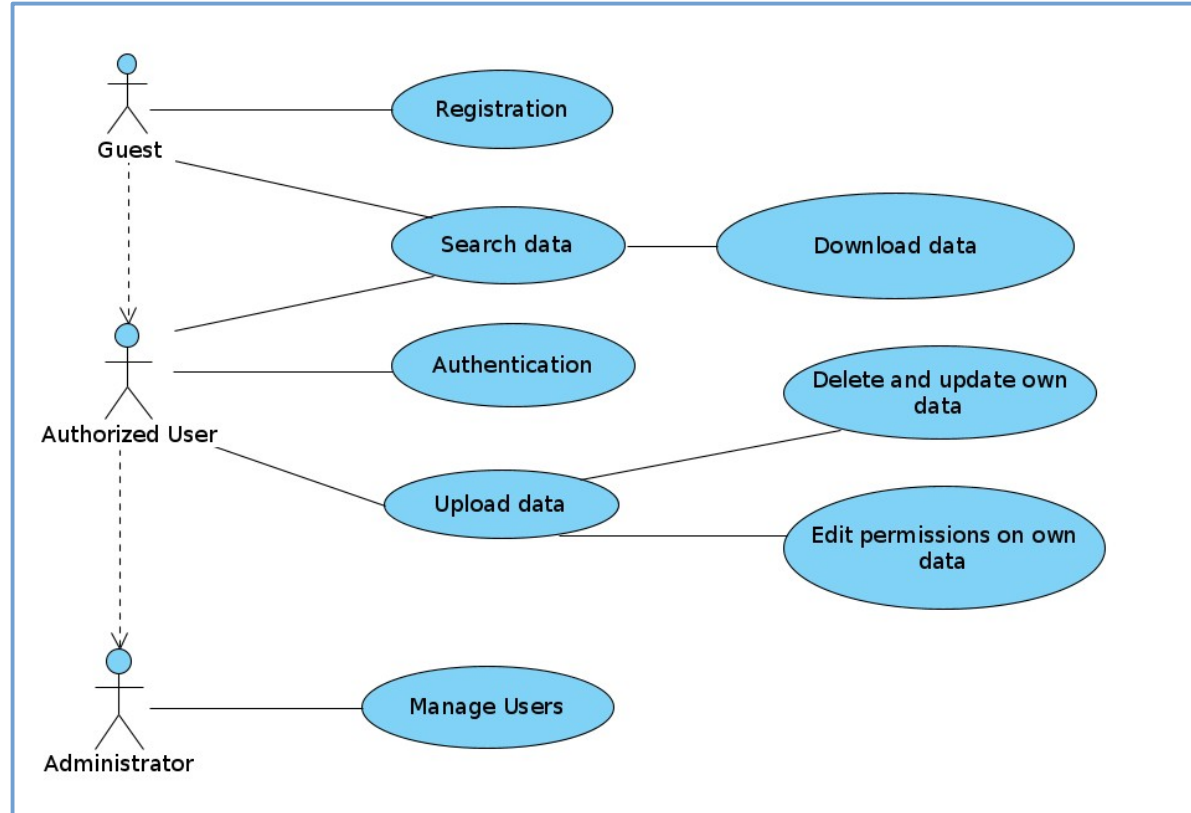


docker

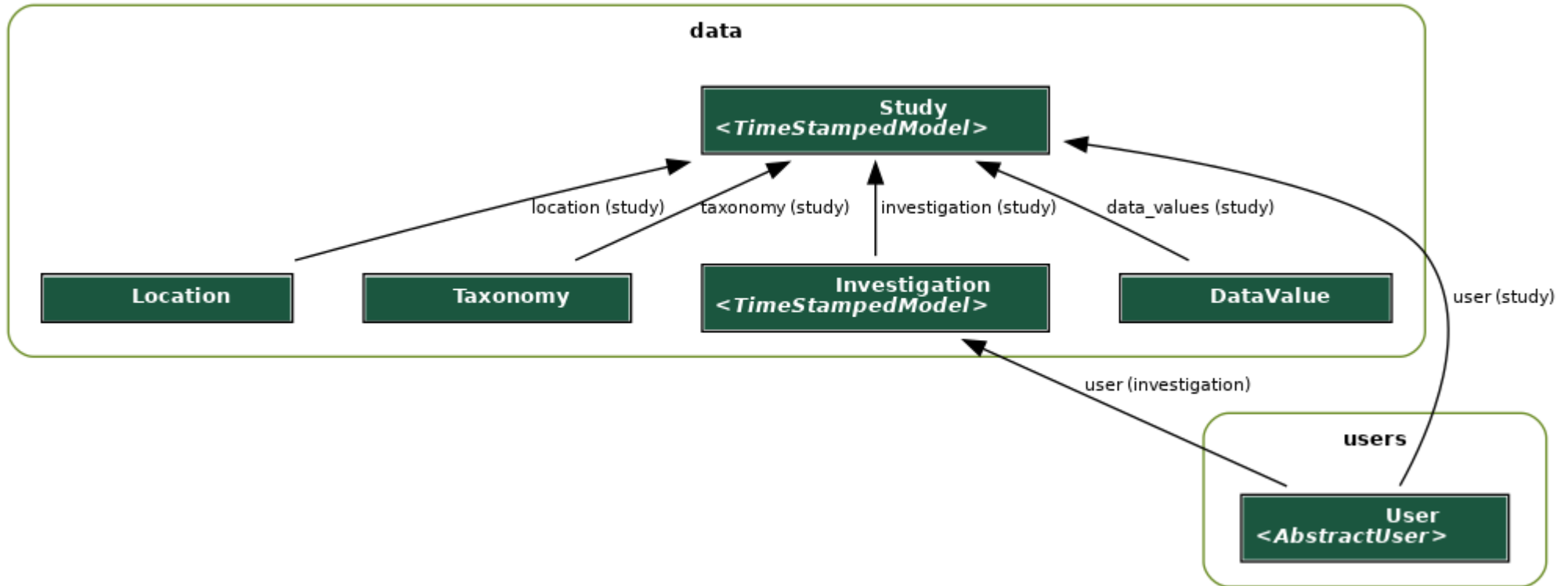


jQuery

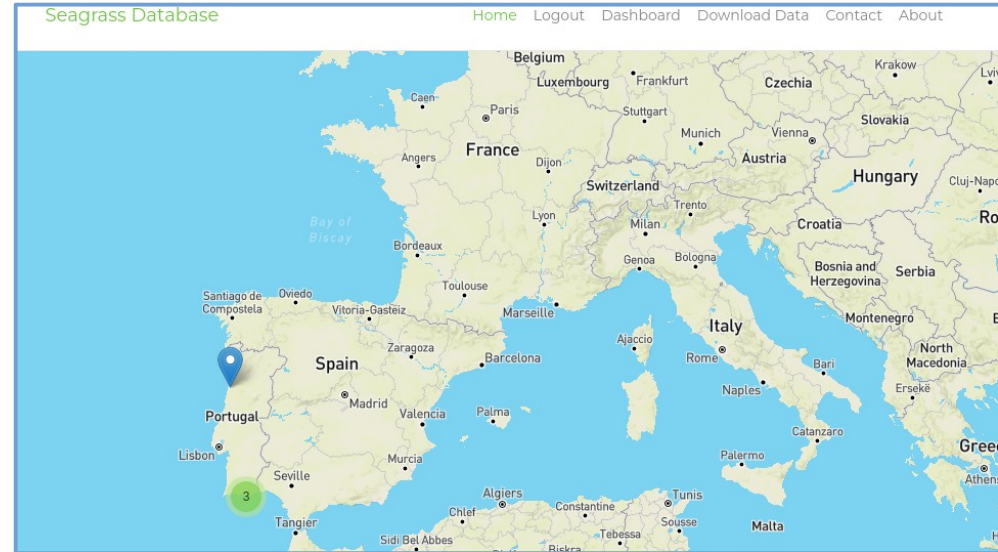
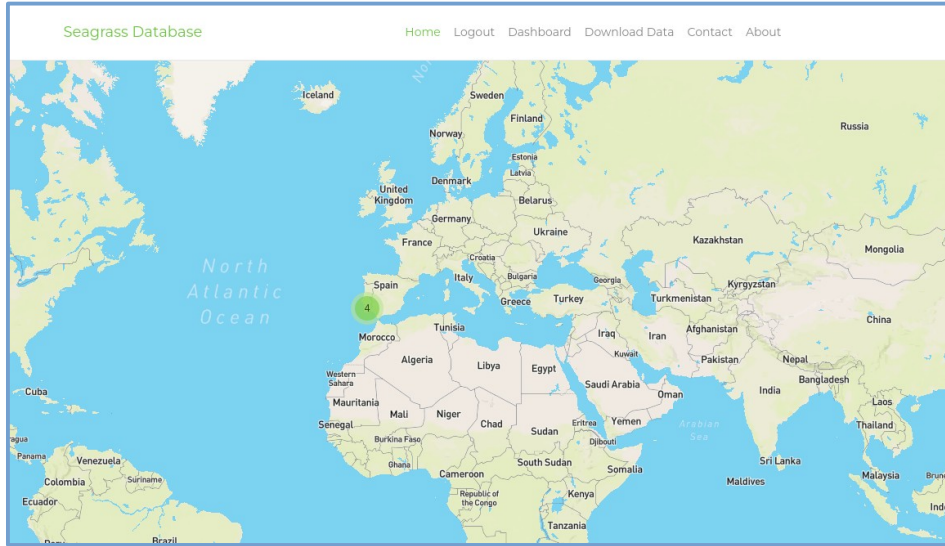
Roles and Use Cases



Simplified DB Schema



Landing Page



Administrator (Users management)

View Pending Users

View Active Users

Import Dataset

List Available Datasets

List My Dataset

Pending Approval Users

ID	Name	E-Mail	Institution	Activation	User Actions
2	user user1	email_user1@mail.com	CCMAR	True	Approve Deny

Profile

View Pending Users

View Active Users

Import Dataset

List Available Datasets

List Users

ID	Name	E-Mail	Institution	Activation	Disable
2	user user1	email_user1@mail.com	CCMAR	True	Disable User

Upload data

Download Template

Trait group	Entity group PO	Trait id SEADB	Trait name SEADB	Trait description	Format	Scale	Trait
physiology (nutrients)	leaf (PO:0025034)	T_0164	Leaf amino acid uptake rate per leaf dry mass	Lorem ipsum	float	μmol g ⁻¹ DW h ⁻¹	not_f
physiology (nutrients)	ramet or whole plant (PO:0000003)	T_0175	amino acid acropetal translocation rate	Lorem ipsum	float	μmol g ⁻¹ DW h ⁻¹	not_f
physiology (nutrients)	ramet or whole plant (PO:0000003)	T_0178	amino acid basipetal translocation rate	Lorem ipsum	float	μmol g ⁻¹ DW h ⁻¹	not_f
physiology (nutrients)	ramet or whole plant (PO:0000003)	T_0181	amino acid uptake rate per ground area	Lorem ipsum	float	μmol m ⁻² h ⁻¹	not_f
physiology (nutrients)	ramet or whole plant (PO:0000003)	T_0173	ammonium (NH4 ⁺) acropetal translocation rate	Lorem ipsum	float	μmol g ⁻¹ DW h ⁻¹	not_f
physiology (nutrients)	ramet or whole plant (PO:0000003)	T_0176	ammonium (NH4 ⁺) basipetal translocation rate	Lorem ipsum	float	μmol g ⁻¹ DW h ⁻¹	not_f

Metadata

Investigation

Investigation title*

Embargo

Public release date*

Associated publication investigation*

Study

Study title*

Country*

Associated publication study

Document*

Choose File No file chosen

Data (CSV file)

S	T	U	V	W
Leaf iron content per leaf dry mass	Leaf sulfur content per leaf dry mass	Rhizome carbon content per rhizome dry mass	Rhizome carbon isotope signature	Rhizome nitrogen content per rhizome dry mass
32.3725520876059	6.42948638788397		6.42948638788397	17.23883415
21.5881775432297	1.41173865029151		1.41173865029151	5.561795855
42.04148968531			44.9674813772144	45.61947573
24.1079368477162			48.1523598952602	42.58764910
37.1105731805995			26.0039228984398	1.208891933
22.11347758988			30.9465961703411	15.76415487
38.8971056110847			25.652961852964	48.70290658
14.0475304046888			18.8208998317043	23.3703294
17.5372089314406			35.9852863367514	34.10534775
8.02041120146614			31.8382696931273	39.04222698
27.7810072171591			32.7578755859525	4.987627299
13.739933777367			31.8863639145781	19.53318979
2.6618613963796			42.1698328474068	18.92596403
42.514347664541			5.47746112629437	3.59507504
4.52366074748068			11.250375013454	50.29041022
33.4638159412723			38.6379098439334	45.41179677
21.8906190984712			43.2968195596192	17.6232416
28.8788596649838			19.345554481457	18.72571097
26.8486416981426			11.6283147902981	3.180504765
21.6362803321352			24.5936889649875	30.34130016
4.59689281129108			49.1356902715018	49.17029773
37.7240597421739			40.839700802274	47.87115638
18.3302484950596			9.7751463675559	6.049790922
11.6700293852294			33.6424331649461	39.35627114
18.5994763618633			45.3508833481954	47.46416745
19.3376861388489			15.545632562676	21.20311514
50.3096950510911				43.63151892

Filter Datasets

- Filter datasets using metadata
- Only public or datasets that user have permissions to view and
- download

ssDB

Country

Investigation

Location

User

Taxonomy

Associated publication study

filter

ID	Created	Modified	Study title	Country	Investigation	Location	User	Taxonomy	Associated p
1	12/09/2020 10:35 a.m.	12/09/2020 12:18 p.m.	study_2	Portugal	investigation_1 id: 1	Faro	user user1	Zostera marina	-

View Investigations

Home Logout

Detail View: investigation_1

Data Map Statistics Details

Show/Hide Columns

Show 25 entries

CSV Excel

Study Title	Location name	Longitude	Latitude	Bioregion	Family	Genus	Species	
study_3	Faro	-7.93225	37.01937	1	Cymodoceaceae	Cymodocea	Cymodocea angustata	1
study_2	Faro	-7.93225	37.01937	1	Zosteraceae	Zostera	Zostera marina	1
study_1	Faro	-7.93225	37.01937	1	Zosteraceae	Zostera	Zostera capensis	1

Showing 1 to 3 of 3 entries

Home Logout

Detail View: investigation_1

Data Map Statistics Details

Show/Hide Columns

Show 25 entries

CSV Excel

Study Title	Location name	Longitude	Latitude	Bioregion	Family	Genus	Species	Leaf carbon dry mass
study_1	Faro	-7.93225	37.01937	1	Zosteraceae	Zostera	Zostera capensis	1

Showing 1 to 1 of 1 entries (filtered from 3 total entries)

Future

- Download data in CSV and metadata as text file (zip package)
- Provide a public URL with the investigation/study in text format and/or JSON
- Download in a format compatible with ISA-tools