

# Banco de Dados - abióticos



PostgreSQL

## PostgreSQL + PostGIS

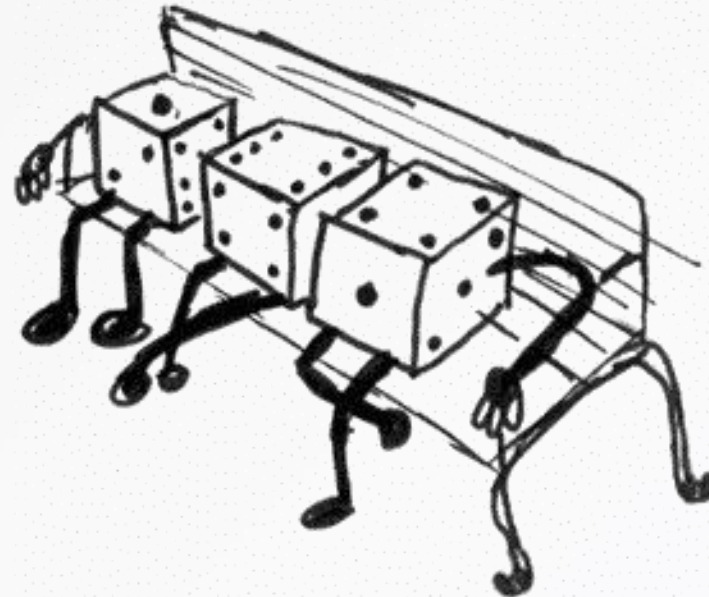


PESQUISAS ECOLÓGICAS  
DE LONGA DURAÇÃO

# O que é um Banco de dados?

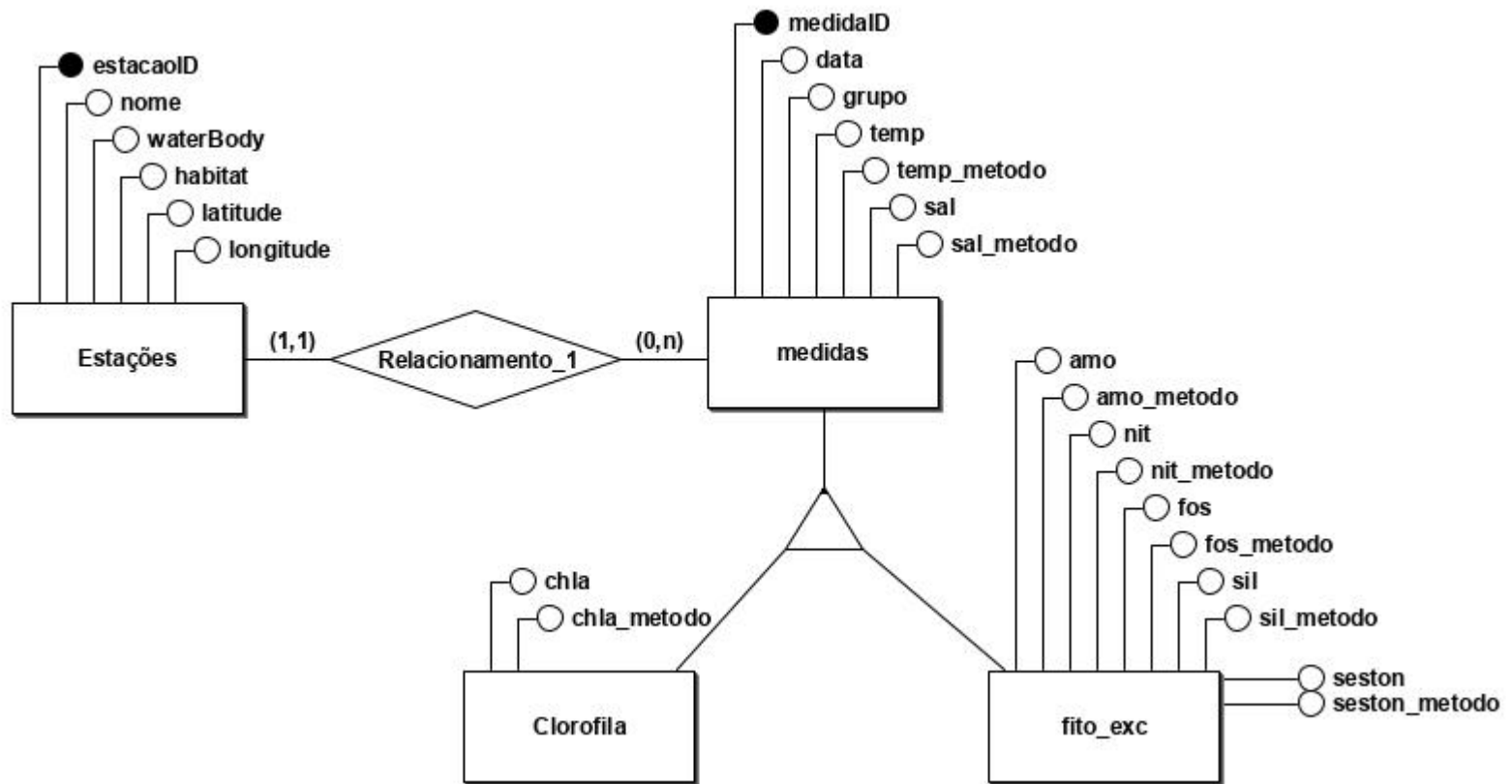
Conjunto de dados integrados que tem por objetivo atender a uma comunidade de usuários.

O BANCO DE DADOS

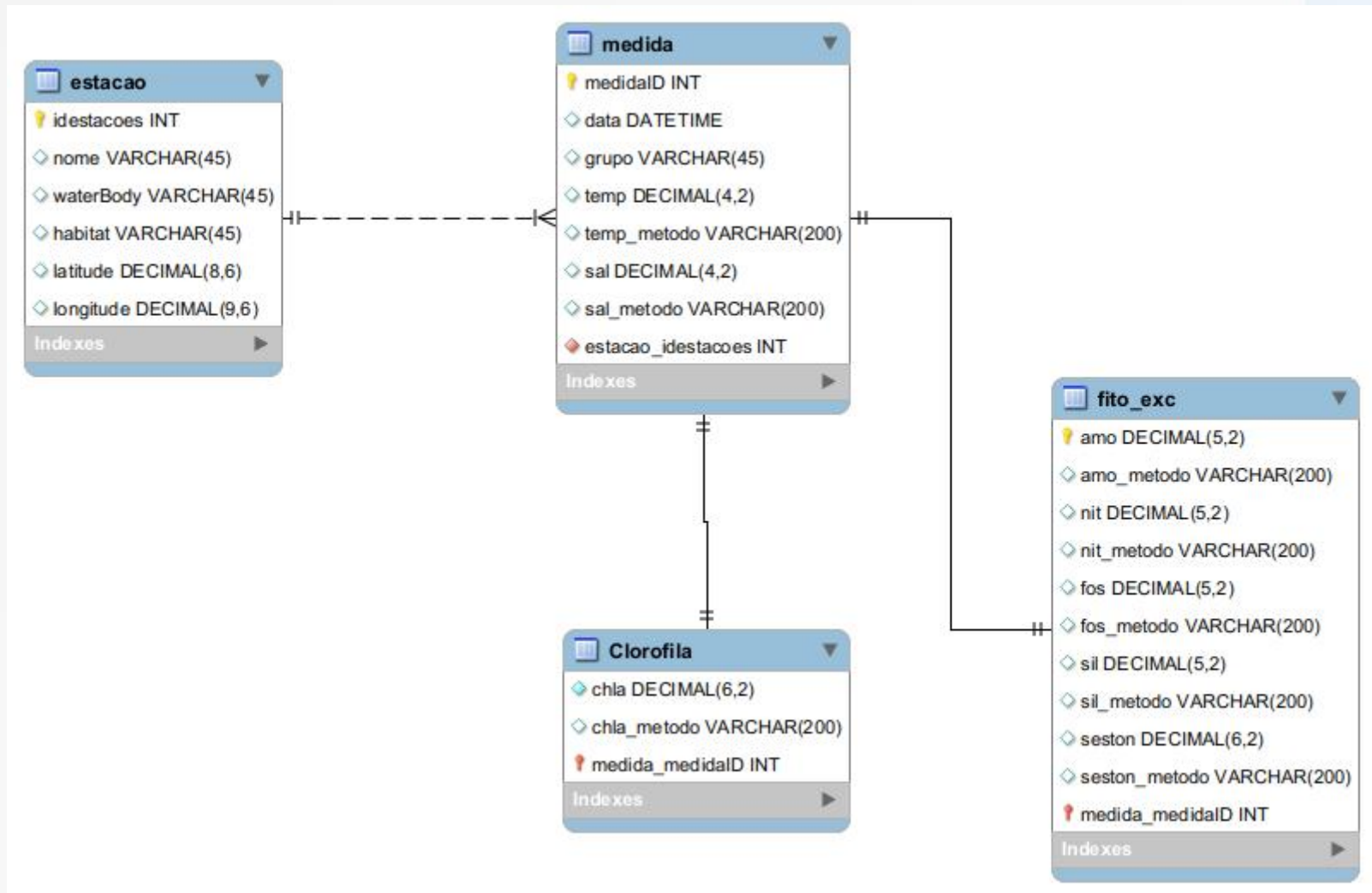


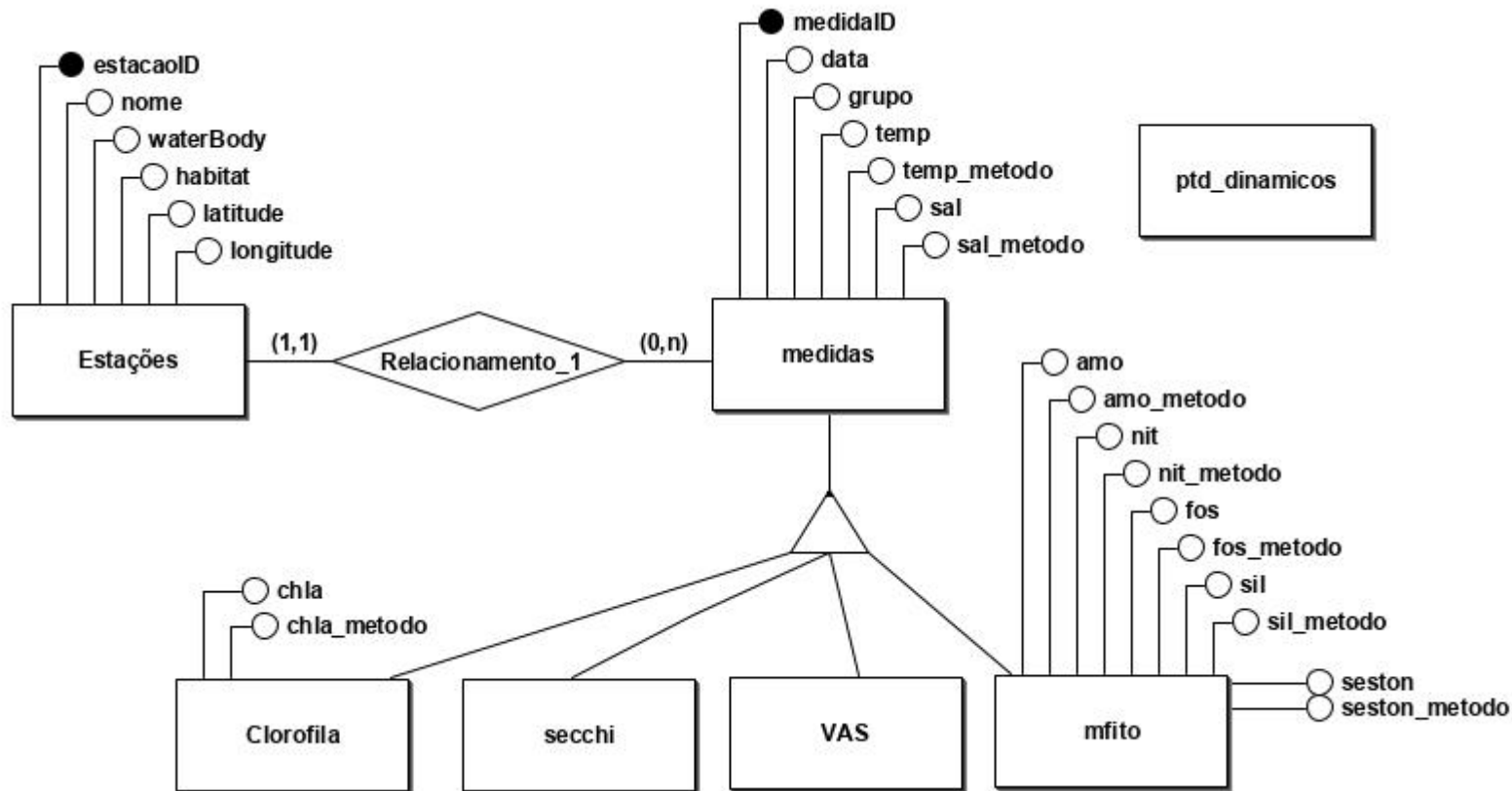
# Modelo Conceitual

- Atualização e modificação conforme novos dados são apresentados



# Modelo Lógico





# Exemplificando - scheme.tables

## estacao

	id [PK] smallserial	nome character varying(100)	norig character varying(100)	grupo character	corpodagua character varying	habitat character varying	latitude numeric(8,6)	longitude numeric(9,6)
1	6	PORTO REI	Porto Rei embayment	elpa	Patos Lagoon es	estuary	-32.020000	-52.140000
2	37	MUSEU	Inner estuary	zoo	Patos Lagoon es	estuary	-32.030000	-52.110000
3	38	EMA	Cassino beach	zoo	Patos Lagoon es	sandy beach	-32.210000	-52.180000

## medida

	id [PK] serial	data date	temp numeric(4,2)	temp_metodo character varying(200)	sal numeric(4,2)	sal_metodo character varying(200)	idestacao smallint
3	3	1998-01-03	23.00	Mercury thermometer w	0.00	Portable optical refracto	6
4	4	1998-01-04	23.00	Mercury thermometer w	3.00	Portable optical refracto	6
5	5	1998-01-05	23.00	Mercury thermometer w	2.00	Portable optical refracto	6
6	6	1998-01-06	21.00	Mercury thermometer w	3.00	Portable optical refracto	6

## mfito

	idmedida [PK] smallint	amo numeric(5,2)	amo_metodo character varying(200)	nit numeric(5,2)	nit_metodo character varying(200)	fos numeric(5,2)	fos_metodo character varying(200)	sil nu
3	26558	0.03	Colorimetric methods (	10.71	Colorimetric methods	0.87	Colorimetric methods	14
4	26559	0.10	Colorimetric methods (	0.63	Colorimetric methods	0.34	Colorimetric methods	26
5	26560	0.01	Colorimetric methods (	8.87	Colorimetric methods	0.73	Colorimetric methods	29

# Exemplificando - scheme.views

mbasica

	estação	data ↓	grupo	temp	sal
1	BAR STATION	1992-11-03	fito	20.00	1.50
2	MUSEU	1992-11-03	fito	22.00	4.00
3	MUSEU	1992-12-01	fito	22.00	13.00
4	BAR STATION	1992-12-01	fito	22.00	6.00
5	MUSEU	1993-01-06	fito	25.50	5.00
6	EMA	1993-01-06	fito	23.00	30.00
7	BAR STATION	1993-01-06	fito	25.50	8.00
8	MUSEU	1993-02-03	fito	26.00	21.00
9	EMA	1993-02-03	fito	25.50	29.50
10	BAR STATION	1993-02-03	fito	26.00	30.00
11	BAR STATION	1993-03-02	fito	25.00	28.00
12	EMA	1993-03-02	fito	21.00	28.00
13	MUSEU	1993-03-02	fito	25.00	27.00
14	EMA	1993-04-02	fito	25.00	32.00
15	BAR STATION	1993-04-02	fito	25.00	11.00

# Integração e consulta

- Shiny app - hospedagem no servidor sob um domínio:
  - <https://peld.furg.br/uso-restrito/banco-de-dados>

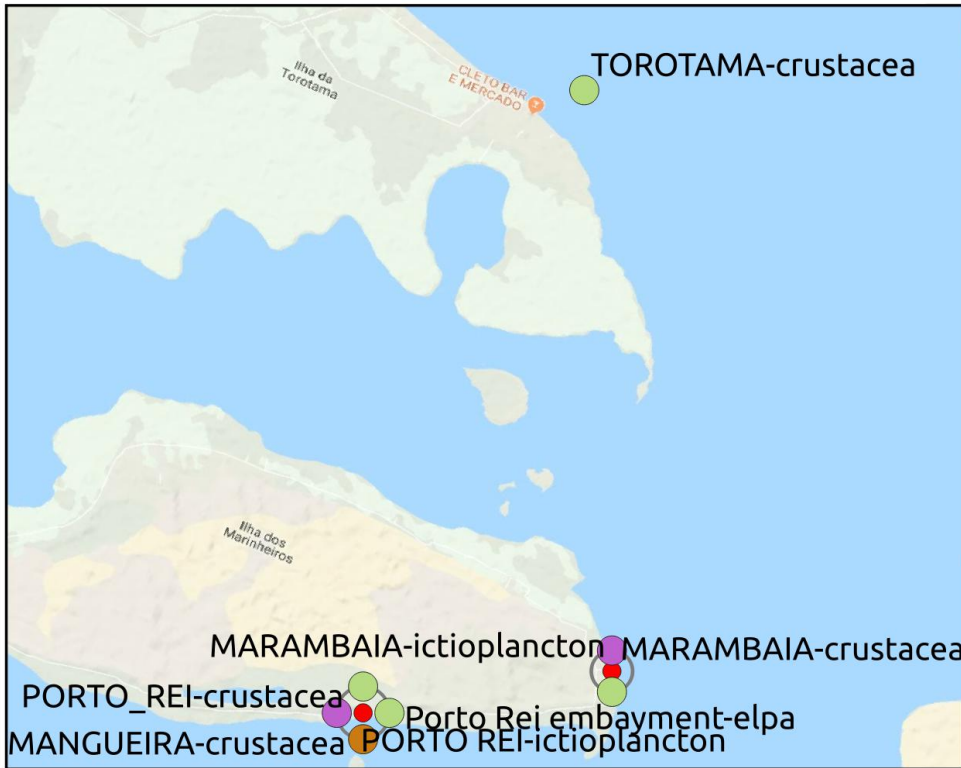
- R

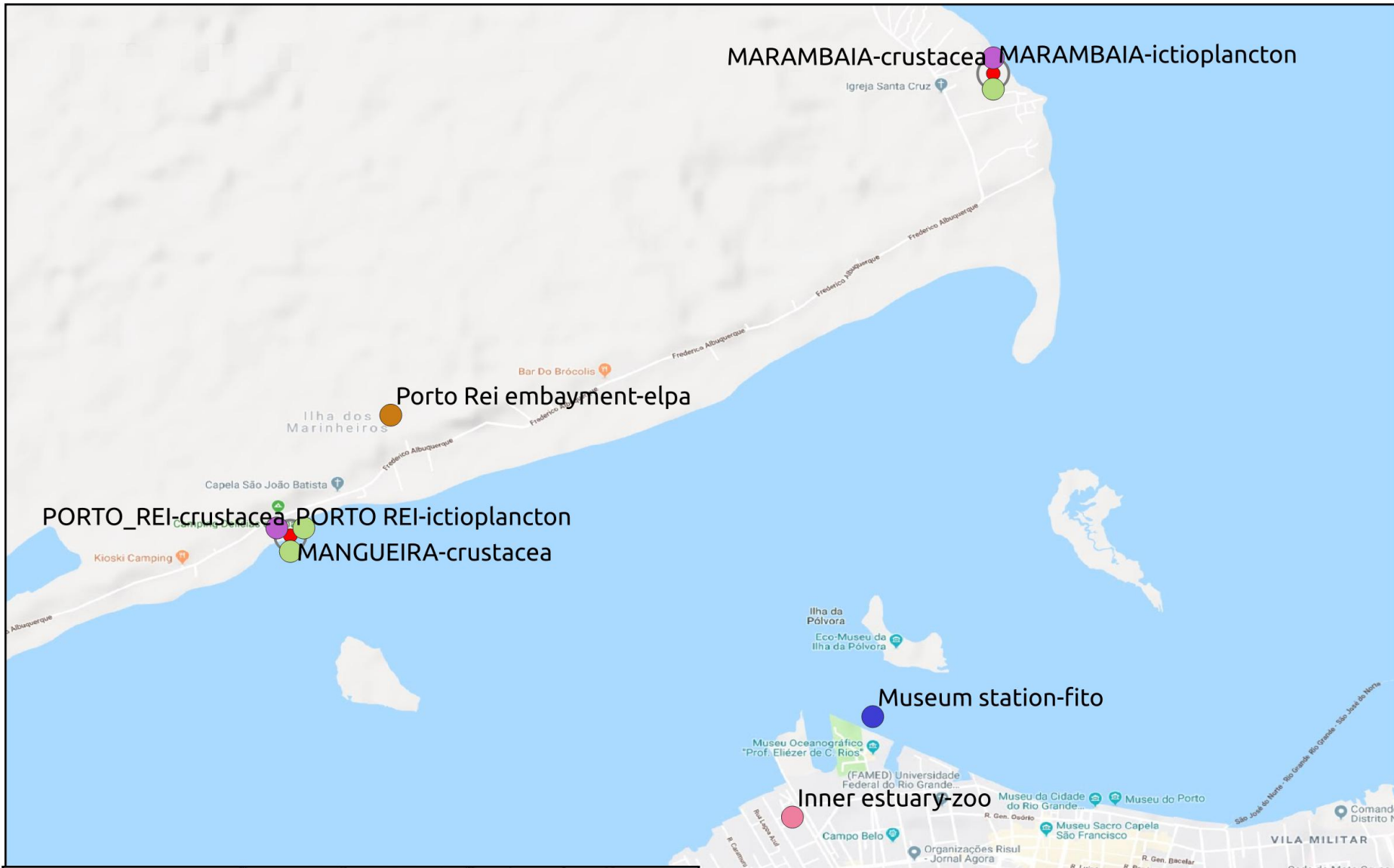
```
pw <- {"PELD@abioticos"}
con <- dbConnect(drv, dbname = "peld01",
                host = "200.132.211.167", port = 5432,
                user = "peld-visitante", password = pw)
rm(pw) # removes the password
```

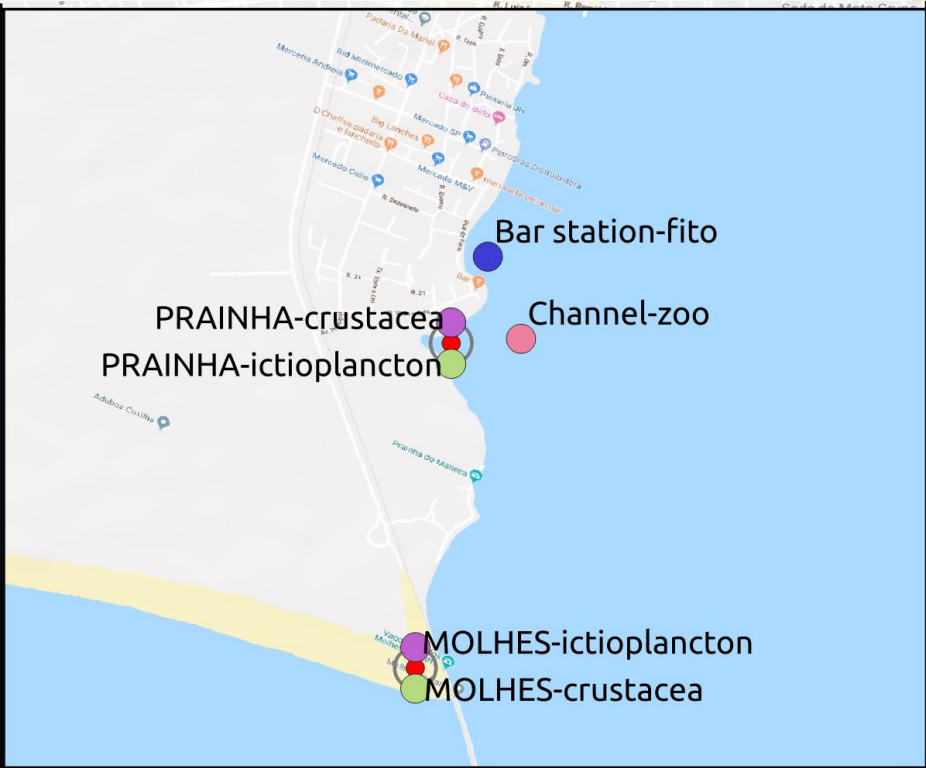
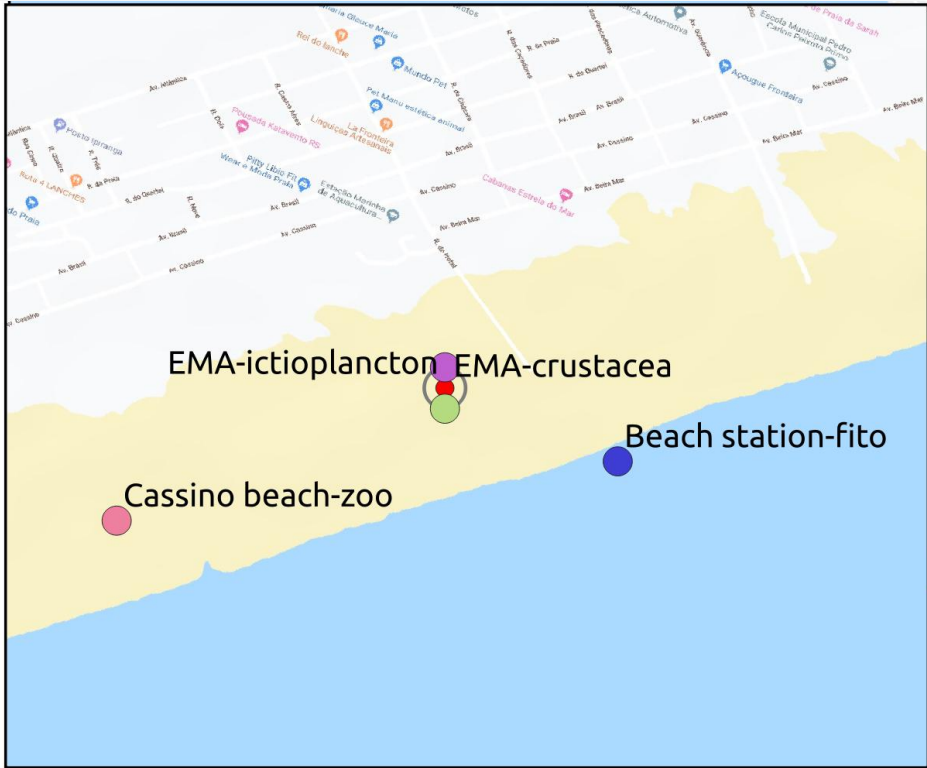
- QGIS

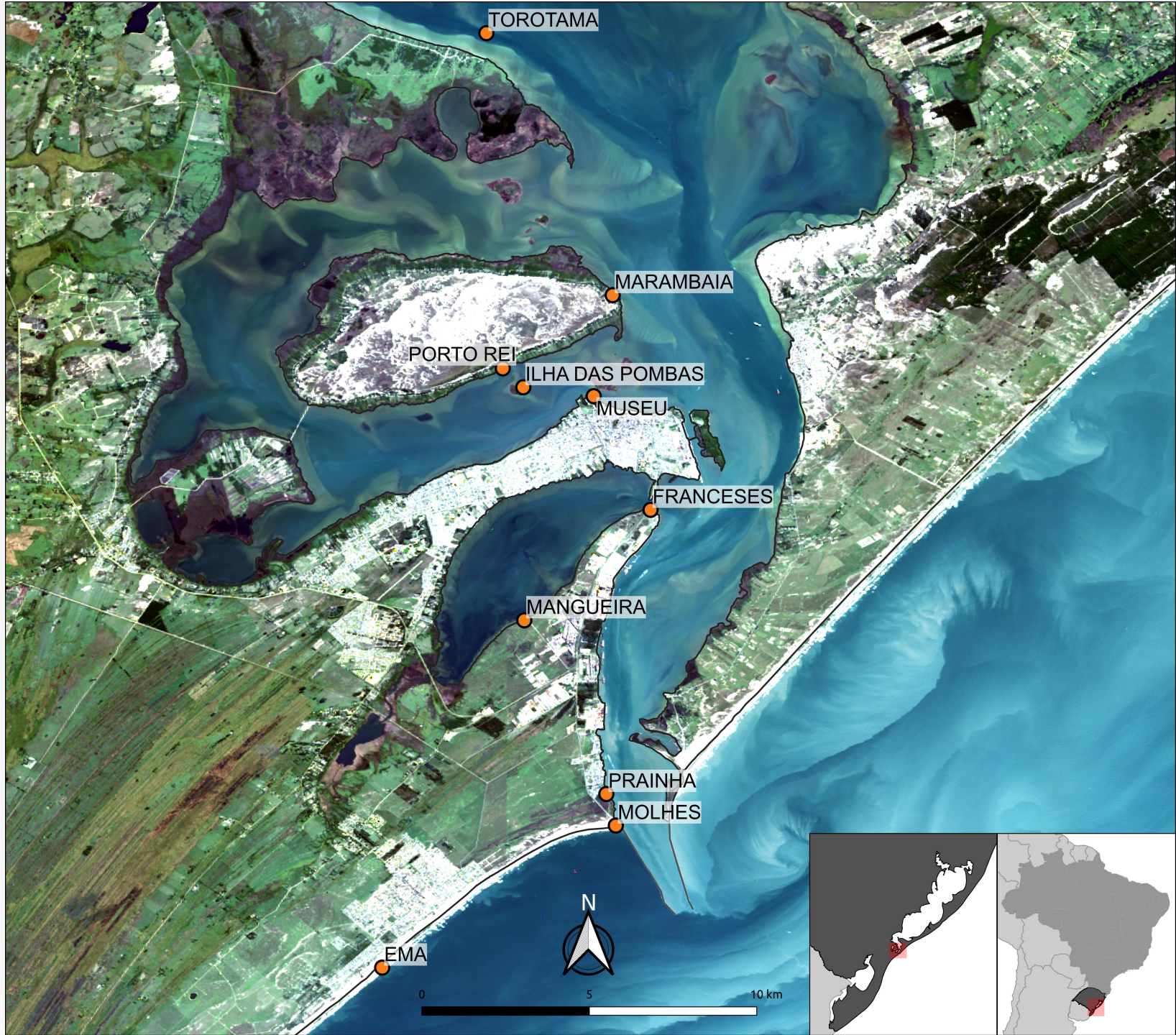












# BD Peld

- Implementado no servidor IO:
- Eleger algum dado biológico para implementação;
- Workshop BD/R
- Visitar <https://shiny.rstudio.com/gallery/>