

A generic database for tagging data and much more

Julien Barde, Norbert Billet

¹Institut de Recherche pour le développement, UMR EME 212, 65 avenue Jean Monnet,
34200 Sète, France

30-10-2012

Summary

- 1 General context of this work
- 2 Management of tagging data...
- 3 Ongoing developments
- 4 Conclusion and next steps

Summary

- 1 General context of this work
- 2 Management of tagging data...
- 3 Ongoing developments
- 4 Conclusion and next steps

Improving fisheries data management to focus on EAF

EAF requires data from various disciplines:

- different **species** (birds, mammals. . .) and observed characteristics:
 - fishery data (one source of ecological observations among others):
 - before EAF: mainly target species,
 - after: many species with different roles (by-catch, preys. . .),
 - trophic data, contaminants, fatty acids. . . ,
 - . . . **tagging data**, telemetry (spaghetti, pop-up. . .) useful to calibrate models (growth. . .),
- . . . to be combined with **environmental parameters** (gridded data),
 - from sensors (remote sensing or in situ: satellite / aerial, CTD. . .),
 - from models.

Motivation for a new database

- Current situation is a nightmare: too many databases (one per data type), heterogeneous and distributed (RDBMS, codes. . .),
- None of them enables to administrate all these kinds of data.


Set up a long term Information System (IS)

IRD projects related to management of tagging / EAF data:

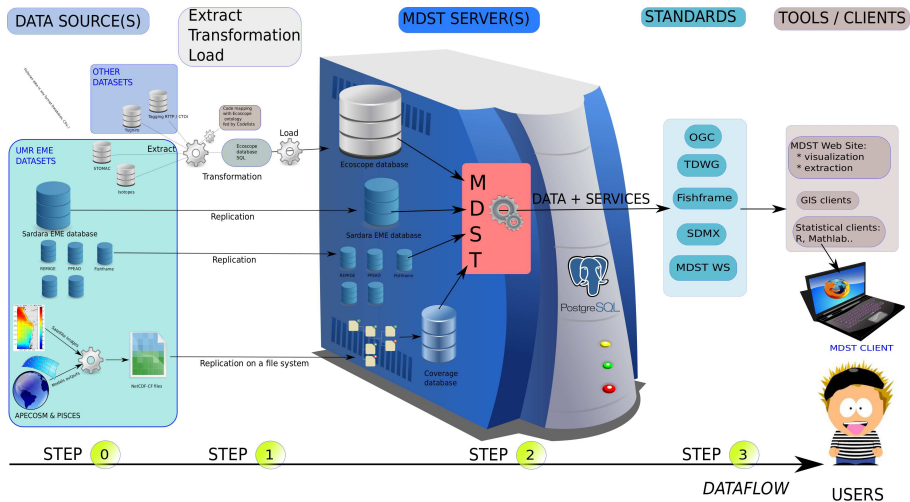
- **REMIGE** (ANR): 4 years (top predators),
- **MACROES** (ANR): 4 years (continuum of Remige, climate change),
- **iMarine** (FP7): 30 months (interoperability),
- ... and future project: **EMOTION** (ANR)...



A single IS whatever the project: Ecoscope / MDST

- Goal: create a new database and IS to administrate as much data as possible within a single model / architecture.
- Reuse and improve it according to projects and fundings,
- Make a first version available through opensource licence 

Overview: main steps



Summary

- 1 General context of this work
- 2 Management of tagging data...**
- 3 Ongoing developments
- 4 Conclusion and next steps

... means nothing but replication(s) of observations

Tagging = **replication(s)** of measures on same individuals collected in different contexts:

- **(1)**: deployment of the tag (scientific context): limited types of observations,
- **(0..n)**: observations inbetween (depending on tags: tracking...),
- **(1)**: final recovery (dead tags or individuals): many possible observations according to the context.

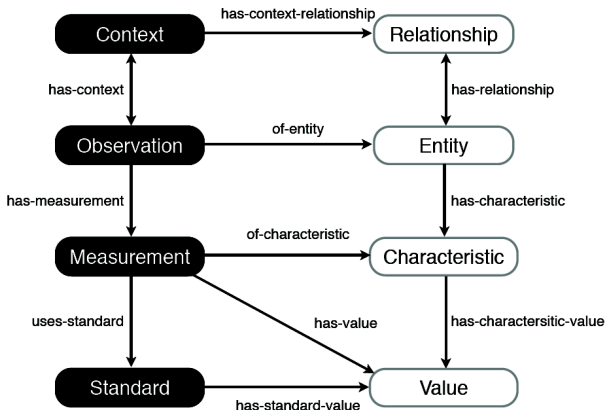
Tagging data = ?

- multiple kinds of (replicated) observations,
- multiple contexts for data collection: heterogeneity of quality.

Fisheries databases models don't fit the needs to manage tagging data: observations just made once.

Tagging & Ecological observations

Observation = "measurements directly linked to real-world phenomena".



[Bowers, 2008]

Tagging & Ecological observations

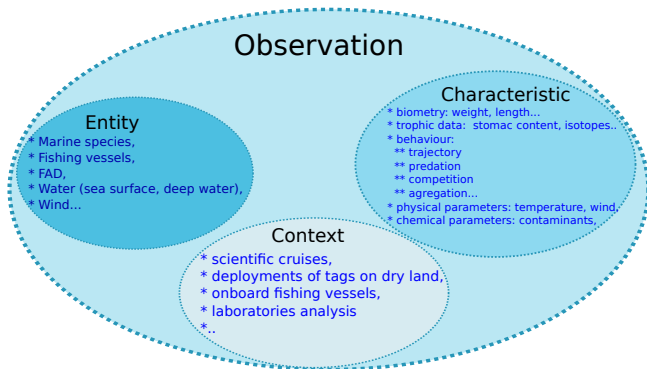
Observation = {characteristic of an entity, measure & value, context}

- **entity**? species, vessels, FAD, school, tissue samples. . . ,
- **characteristic**? weight, length, location. . . ,
- **context**? people/projects, location, date / period, sampling protocols,
- **examples**:
 - 1003={*activity of Kermantxo, tagging operation, 03/05/2006 11am*},
 - {*length of albacares 1234, 77 cm, 1003*},
 - 2434={*activity of Torre Gullia, fishing operation, 15/01/2007 5pm*},
 - {*weight of albacares 1234, 12.5 kg, 2434*},
 - {*length of albacares 1234, 82.8 cm, 2434*}.

Fisheries databases models = semantic traps:

- fishing effort vs observation effort, fishing gear vs sampling protocol,
- by-catch / discards vs species / individuals,
- PS fishing operation vs school occurrence. . .

EAF data & Ecological observations



A generic database model for tagging data...

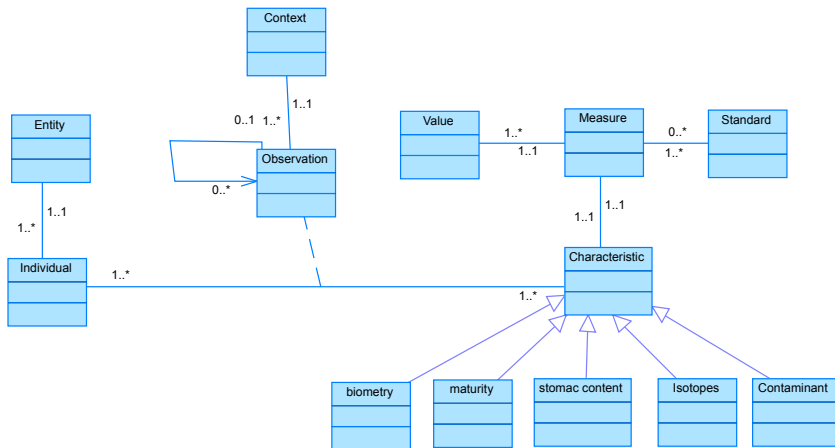
- ... has to be a generic enough for various kinds of observations,
- ... can be used to store EAF data (including fisheries data).

Summary

- 1 General context of this work
- 2 Management of tagging data...
- 3 Ongoing developments**
- 4 Conclusion and next steps

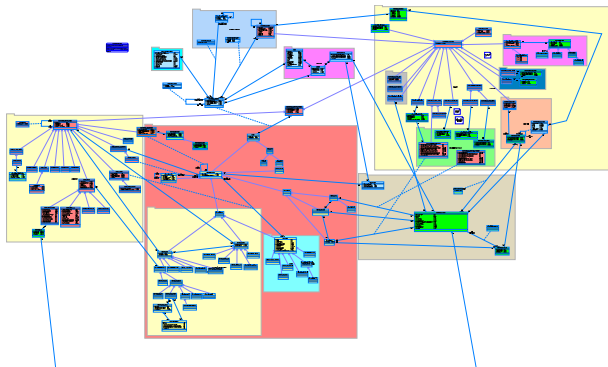
A new database model to store data (step 0)

It starts like this...



A new database model to store data (step 0)

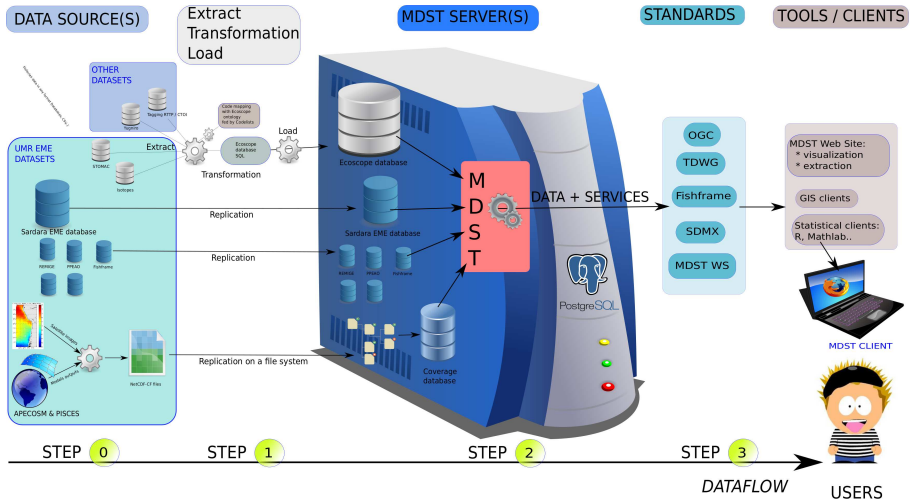
... and it ends up like this.



Implementation

- Postgres & Postgis 2.0,
- A set of common services for all data managed in this database...

Loading tagging data in the new database (step 1)



Loading tagging data in the new database (step 1)

Extract, Transform, Load (ETL), this step requires to::

- change codes (Worms...),
- change uom,
- change semantic of tables and attributes (columns),
- spatialize data.



However the system can combine different approaches:

- transformation of data (a lot of work),
- no transformation (data is served as it is):
 - data stay in the data source,
 - conversion from access to postgres,
 - data types (spatialization...) and codes (worms...).

Dedicated data access on top of the database (step 2)

MACROES MDST server is a Web portal + other data access / services:

- the Web portal enables data access with a single html form whatever the number of data sources,
- ... SQL queries,
- ... Web Services,
- interoperability enables the data to be reused by other data sources.

Formulaire de requetage MDST - Iceweasel

localhost:8080/MDSTWebClient/MDSTQueryForm.action?workspaceURI=13263652443958vustBelUpdated-false

Sources de donnée

- Coverage databases, consultation application
- ADIOS
- Sardara database
- RFI Catches

Submit

Ajouter un critère

Sardara database/RFI Catches/Ocean

Submit

Critères actifs

Éditer Species (SPECIES) Species Éléments sélectionnés : YFT , ALB , BET , SKJ	Éditer Flag (FLAG) Flag Éléments sélectionnés : France , Spain	Éditer Time (TIME) Time Début : 1990/1/01 00:00:00 CET Fin : 2005/12/01 00:00:00 CET
---	---	---

Données disponibles

[SARDARA]
 RFI Catches (RFI_CATCHES) : 138080 données
[13263652443958_RFI_CATV-HES.org](#)

Submit

Connection of data: hybrid approach of MDST (step 2 bis)

Similar GUIs wheter dataset has been transformed or not:

Formulaire de requeteage MDST - Iceweasel

localhost:8080/MDSTWebClient/MDSTQueryForm.action?workspaceURL=1326365244395&mustBeUpdated=false

Sources de donnée

- Coverage database, constellation application
- AOO5
- Sardara database
- RF1 Catches

Submit

Ajouter un critère

Sardara database/RF1 Catches/Ocean

Submit

Critères actifs

<p>Effacer Éditer</p> <p>Species (SPECIES)</p> <p>Species</p> <p>Éléments sélectionnés : YFT , ALB , BET , SKJ</p>	<p>Effacer Éditer</p> <p>Flag (FLAG)</p> <p>Flag</p> <p>Éléments sélectionnés : France , Spain</p>	<p>Effacer Éditer</p> <p>Time (TIME)</p> <p>Time</p> <p>Début : 1990/01/01 00:00:00 CET Fin : 2005/12/01 00:00:00 CET</p>
---	---	--

Données disponibles

(SARDARA)

RF1 Catches (RF1_CATCHES) : 139089 données
1326365244395_RF1_CATCHES.csv

Submit

Connection of data: hybrid approach of MDST (step 2 bis)

Similar GUIs wheter dataset has been transformed or not:

CONTACTS
MAP SITE

DATA BASES

MDST ENTER
 Within the context of global change and its consequences, our project aims to understand and then predict how environmental variability influences the functioning of marine ecosystems. Given the empirical impossibility of estimating the distribution, abundance and spatial.

MACROES ENTER
 Within the context of global change and its consequences, our project aims to understand and then predict how environmental variability influences the functioning of marine ecosystems. Given the empirical impossibility of estimating the distribution, abundance and spatial.

AOS ENTER
 Within the context of global change and its consequences, our project aims to understand and then predict how environmental variability influences the functioning of marine ecosystems. Given the empirical impossibility of estimating the distribution, abundance and spatial.

All data bases

SOMMAIRE
 Sub-category
 Sub-category
 Sub-category
 Sub-category
 Sub-category
 Sub-category
 Sub-category

Login
 Password

Connection of data: hybrid approach of MDST (step 2 bis)

Similar GUIs wheter dataset has been transformed or not:

MODEL DATA TOOL AND SHARING

MACRO-CRITERES > Select

- Valeur géographique
- Valeur temporelle
- Valeur espace
- Valeur autre
- (Cliquez à l'interieur du banni)

SARDARA Données statistiques sur la pêche thonière française et internationale dans les océans Atlantique et Indien

CRITERE 1 CRITERE 2 CRITERE 3 CRITERE 4 CRITERE 5 CRITERE 6 CRITERE 7 CRITERE 8 CRITERE 9 CRITERE 10

Valeur 1
Valeur 2
Valeur 3
Valeur 4
Valeur 5
Valeur 6
Valeur 7
Valeur 8
Valeur 9
Valeur 10
Valeur 11
Valeur 12

Info sur la source

Résultats de votre recherche

Résultats

- Within the context of global change and its consequences, our project aims to understand and then predict how environmental
- variability influences the functioning of marine ecosystems. Given the empirical impossibility of estimating the distribution
- Abundance and spatial

AOOS Atlas Observatoire Océanique Satellite

CRITERE 1 CRITERE 2 CRITERE 3 CRITERE 4 CRITERE 5 CRITERE 6 CRITERE 7

Valeur 1
Valeur 2
Valeur 3
Valeur 4
Valeur 5
Valeur 6
Valeur 7
Valeur 8
Valeur 9
Valeur 10
Valeur 11
Valeur 12

Info sur la source

Résultats de votre recherche

Résultats

- Within the context of global change and its consequences, our project aims to understand and then predict how environmental
- variability influences the functioning of marine ecosystems. Given the empirical impossibility of estimating the distribution
- Abundance and spatial

ECOSCOPE Base de connaissances sur les écosystèmes marins exploités

CRITERE 1 CRITERE 2 CRITERE 3 CRITERE 4 CRITERE 5 CRITERE 6 CRITERE 7 CRITERE 8 CRITERE 9

Valeur 1
Valeur 2
Valeur 3
Valeur 4
Valeur 5
Valeur 6
Valeur 7
Valeur 8
Valeur 9
Valeur 10
Valeur 11
Valeur 12

Info sur la source

Résultats de votre recherche

Résultats

- Within the context of global change and its consequences, our project aims to understand and then predict how environmental
- variability influences the functioning of marine ecosystems. Given the empirical impossibility of estimating the distribution
- Abundance and spatial

Connection of data: hybrid approach of MDST (step 2 bis)

Similar GUIs wheter dataset has been transformed or not:

MODEL DATA TOOL AND SHARING

MACRO-RÉSULTATS Reset
 Région: 30°N-50°N-D°-130°E
 Année: 2000-2010
 Sélection espèces: 3
 Autre sélection: Aucune

SARDARA Données statistiques sur la pêche thonière française et internationale dans les océans Atlantique et Indien
 CRITERE 1 CRITERE 2 CRITERE 3 CRITERE 4 CRITERE 5 CRITERE 6 CRITERE 7 CRITERE 8 CRITERE 9 CRITERE 10
 Valeur 1
 Valeur 2
 Valeur 3
 Valeur 4
 Valeur 5
 Valeur 6
 Valeur 7
 Valeur 8
 Valeur 9
 Valeur 10
 Valeur 11
 Valeur 12
 Info sur la source
 Résultats de votre recherche

AOO S Atlas Observatoire Océanique Satellite
 CRITERE 1 CRITERE 2 CRITERE 3 CRITERE 4 CRITERE 5 CRITERE 6 CRITERE 7
 Valeur 1
 Valeur 2
 Valeur 3
 Valeur 4
 Valeur 5
 Valeur 6
 Valeur 7
 Valeur 8
 Valeur 9
 Valeur 10
 Valeur 11
 Valeur 12
 Info sur la source
 Résultats de votre recherche

ECOSCOPE Base de connaissances sur les écosystèmes marins exploités
 CRITERE 1 CRITERE 2 CRITERE 3 CRITERE 4 CRITERE 5 CRITERE 6 CRITERE 7 CRITERE 8 CRITERE 9
 Valeur 1
 Valeur 2
 Valeur 3
 Valeur 4
 Valeur 5
 Valeur 6
 Valeur 7
 Valeur 8
 Valeur 9
 Valeur 10
 Valeur 11
 Valeur 12
 Info sur la source
 Résultats de votre recherche

Résultats Info Info Info
 Within the context of global change and its consequences, our project aims to understand and then predict how environmental...
 Variability influences the functioning of marine ecosystems. Given the empirical impossibility of estimating the distribution...
 Abundance and spatial...

Connection of data: hybrid approach of MDST (step 2 bis)

Similar GUIs wheter dataset has been transformed or not:

The screenshot shows the pgAdmin III interface. On the left is the 'Navigateur d'objets' (Object Navigator) showing a tree of database objects. The main window is titled 'Propriétés' (Properties) for the 'element_individual' table. It has tabs for 'Propriétés', 'Statistiques', 'Dépendances', and 'Objets dépendants'. The 'Propriétés' tab is active, showing a list of properties and their values. Below this, the 'Processus' (Process) window shows the SQL script for creating the table.

Propriété	Valeur
Nom	element_individual
OID	127214
Propriétaire	common_cotgres
Tablespace	pg_default
ACL	
Clé primaire	element_id_individual_id
Lignes estimées	0
Facteur remplissage	
Lignes complètes	0
Nombre de tables héritées	Non
Avec OID ?	Non
Table système ?	Non
Commentaires	individu

```

-- Table: element_individual
-- DROP TABLE element_individual;
CREATE TABLE element_individual
(
  element_id integer NOT NULL,
  individual_id serial NOT NULL,
  taxon_id integer,
  organ_id character varying(254),
  dataset_taxon_id integer,
  ele_element_id integer,
  CONSTRAINT pk_element_individual PRIMARY KEY (element_id, individual_id),
  CONSTRAINT fk_element_associat element FOREIGN KEY (ele_element_id)
    REFERENCES element_group (element_id) MATCH SIMPLE
    ON UPDATE RESTRICT ON DELETE RESTRICT,
  CONSTRAINT fk_element_associat_organ FOREIGN KEY (organ_id)
    REFERENCES organ (organ_id) MATCH SIMPLE
    ON UPDATE RESTRICT ON DELETE RESTRICT,
  CONSTRAINT fk_element_dataset t_dataset FOREIGN KEY (dataset_taxon_id)
    REFERENCES dataset_taxonomy (dataset_taxon_id) MATCH SIMPLE
    ON UPDATE RESTRICT ON DELETE RESTRICT,
  CONSTRAINT fk_element_generalis element FOREIGN KEY (element_id)
    REFERENCES element_ecosystem (element_id) MATCH SIMPLE
    ON UPDATE RESTRICT ON DELETE RESTRICT,
  CONSTRAINT fk_element_identific referent FOREIGN KEY (taxon_id)
    REFERENCES referential_taxonomy (taxon_id) MATCH SIMPLE
    ON UPDATE RESTRICT ON DELETE RESTRICT
)
WITH (
  OIDS=FALSE
  
```

Connection of data: hybrid approach of MDST (step 2 bis)

Similar GUIs wheter dataset has been transformed or not:

Query -> sardana sur 'lba@sardana@localhost : 5432'

Fichier Édition Requetes Favoris Macros Affichage Aide

Éditeur SQL Constructeur graphique de requetes

Requetes precedentes: Supprimer Tout supprimer

```
1 SELECT * FROM capture_rf1 JOIN pavillon USING(c_pav) WHERE ca_pav='ITA'
```

Panneau sortie

	c_pav numeric(3,0)	id_capt_rf1 integer	id_jeu_d integer	c_ocean numeric(1,0)	c_pecherie numeric(2,0)	c_banc numeric(1,0)	c_esp numeric(3,0)	c_periode numeric(2,0)	id_date integer	c_t_carre numeric(2,0)	id_carre numeric(7,0)	c_g_engine numeric(3,0)	c_engine numeric(3,0)	c_type_capt numeric(1,0)	v_capt_rf1 numeric(12)
1	32	12874330	24	1	3	9	13	12	990	5	5138011	5	20	1	1104,90
2	32	12874331	24	1	3	9	39	12	990	5	5138011	5	20	1	4271,30
3	32	12874333	24	1	3	9	4	12	990	5	5138011	5	20	1	1028,00
4	32	13036646	25	1	2	9	4	1	418	5	5139017	3	20	1	95,75
5	32	13037632	25	1	2	9	4	1	418	5	5142014	3	20	1	130,09
6	32	13037397	25	1	2	9	4	1	418	5	5142014	3	20	1	312,70
7	32	13037777	25	1	2	9	4	1	418	5	5142014	3	20	1	61,80
8	32	13038158	25	1	2	9	4	1	418	5	5142014	3	20	1	138,24
9	32	13038318	25	1	2	9	4	1	418	5	5142014	3	20	1	11,45
10	32	13039056	25	1	2	9	4	1	418	5	5142014	3	20	1	152,10
11	32	13039193	25	1	2	9	4	1	418	5	5142014	3	20	1	9,78
12	32	13039828	25	1	2	9	4	1	418	5	5142014	3	20	1	164,84
13	32	13048821	25	1	2	9	4	1	418	5	5142014	3	20	1	242,89
14	32	13049007	25	1	2	9	4	1	418	5	5142014	3	20	1	12,16
15	32	13078666	25	1	2	9	4	1	418	5	5142014	3	20	1	60,80
16	32	13078958	25	1	2	9	4	1	418	5	5142014	3	20	1	239,61
17	32	13110233	25	1	2	9	4	1	418	5	5142014	3	20	1	20,74
18	32	13117136	25	1	2	9	4	1	418	5	5142014	3	20	1	286,10

Exporter les donnees vers un fichier

Séparateur de ligne
 LF
 CR/LF

Codage
 Jeu de caractères local
 Unicode UTF-8

Sép. de colonne

Caractère d'échappement

Noms des colonnes

Echappement
 Sans guillemets
 Chaînes uniquement
 Toutes les col.

Nom de fichier
 ...

Aide Valider Annuler

OK Unix Ligne 1, Col 72, Caract. 72 38 lignes 72 ms

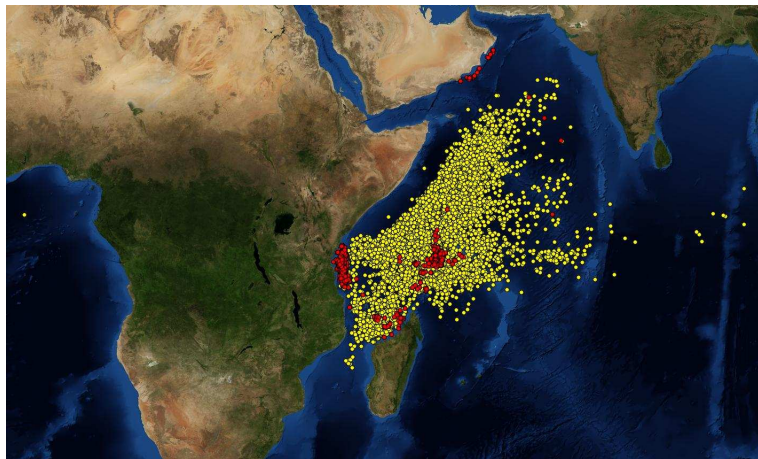
Connection of data: hybrid approach of MDST (step 2 bis)

Similar GUIs wheter dataset has been transformed or not:



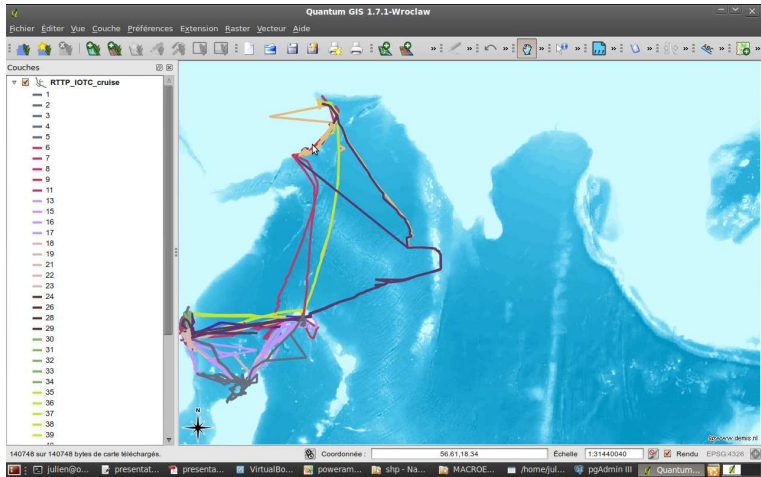
Connection of data: hybrid approach of MDST (step 2 bis)

Similar GUIs wheter dataset has been transformed or not:



Connection of data: hybrid approach of MDST (step 2 bis)

Similar GUIs wheter dataset has been transformed or not:



Data interoperability (step 3)

Data in this database are served with different standards according to the communities of users:

- **Fisheries**: Fishframe (for EU member states: DCF),
- **Biodiversity**: TDWG / GBIF,
- **Spatial information** with OGC standards (INSPIRE in Europe):
 - spatial databases enable to manage more than points: polygons, polylines... (real need for tagging data),
 - Postgis 2.0 enables to query usual RDMS data with environmental parameters managed in raster data formats (netCDF, geoTiff...).
 - same operations are possible with Web Services.
- **Statistical** data: SDMX,
- **Web** / Linked Open data: W3C,
- ...and others to come.

Interoperability results (step 3) for the generic database

GBIF (IPT server of IRD in Montpellier)

email login

GBIF free and open access to biodiversity data
GBIF INTEGRATED PUBLISHING TOOLKIT (IPT)

Home About

Hosted resources available through this IPT

Public resources available through this IPT installation.

Name	Organisation	Type	Records	Last modified
ecoscope observation database	Institute of Research for Development	observation	89,874	2011-02-21
observe tuna ecoscope	Institute of Research for Development	checklist	75,794	2011-07-13
observe tuna bycatch ecoscope	Institute of Research for Development	checklist	170,692	2011-07-13

The most recently updated resources are also available as an [RSS feed](#).

Version 2.0.1-r3048 [About the IPT Project](#) [Report a bug](#) [Request new feature](#) © 2011 GBIF

Interoperability results (step 3) for the generic database

GBIF (IPT server of IRD in Montpellier)

Browser window showing the GBIF Open Geospatial Consortium services interface. The URL is <http://data.gbif.org/species/1335140>.

Type specimens

Catalogue Number	Type Status	Typified Name	Data Publisher	Dataset
CAS 337	Holotype		Fishbase	Fishbase
CAS 338	Holotype		Fishbase	Fishbase

Occurrence overview

Resources providing data for Map

Dataset	Count
NOCC WOD1 Plankton Database <small>Open Biogeographic Information System</small>	2
SeamountsOnline (seamount biota) [COPM] <small>Open Biogeographic Information System</small>	21
Fishbase DIGIR Provider - Philippe Server <small>Open Biogeographic Information System</small>	1
SEAMAP - marine mammals, birds and turtles <small>Open Biogeographic Information System</small>	14

View 61 more datasets...

Rechercher: silvana | Éricodent | Suvart | Surligner tout | Inspecter la casse

Interoperability results (step 3) for the generic database

GBIF (IPT server of IRD in Montpellier)

Firefox: Edition Affichage Historique Banque pages Outils Aide

http://data.gbif.org/species/1335140

Thurnus albacares (Tuna) - GBIF

Type specimens

Catalogue Number	Type Status	Typified Name	Data Publisher	Dataset
CAS 397	Holotype		MiBase	MiBase
CAS 398	Neotype		MiBase	MiBase

Occurrence overview

Note: GBIF Open Geospatial Consortium services

This map only shows records with coordinates (47 608 records from a total of 48 814 records).

Disclaimer: Maps depict density of data registered within the GBIF network index and not necessarily true species occurrence density gradients. The data in the GBIF network index may not represent the full distribution of *Thurnus albacares*.

Resources providing data for Map
show/Hide

Dataset	Count
NOOC WOOD1 Plankton Database	2
Open Biological Information System	
SeamountsOnline (seamount biota) (CoML)	21
Open Biological Information System	
SEAMAP - marine mammals, birds and turtles	14
Open Biological Information System	
South Western Pacific Regional OBIS Data provider for the NIWA Marine Biodata Information System	5
Open Biological Information System	
View 51 more datasets...	

Rechercher: @ Incident @ Suivant @ Retourner tout @ Inspecter la cause

Terminal

azero

Interoperability results (step 3) for the generic database

Web portals via GBIF (EOL, OBIS...)

The screenshot shows a web browser window displaying the EOL (Encyclopedia of Life) page for *Thunnus albacares*. The page title is "EOL: Thunnus albacares - Encyclopedia of Life - Mozilla Firefox". The browser address bar shows the URL "http://eol.org/pages/202934/male". The page header includes navigation links like "DISCOVER", "HELP", "WHAT IS EOL?", "EOL NEWS", and "DONATE". A search bar is present with the text "Search EOL...".

The main content area features the species name "Thunnus albacares" and the common name "yellowfin tuna". Below this, there are tabs for "Overview", "Details", "10 Media", "5 Maps", "Names", "Community", "Resources", "Literature", and "Updates". The "5 Maps" tab is active, displaying a world distribution map with orange and red dots indicating occurrence records. The map includes a legend and a "500 Miles" scale bar. Below the map, there is a section titled "Media tagged as 'map'" with four thumbnails: "BOLD: Map of specimen collection locations for Thunnus albacares", "U.S. States and Canadian Provinces", "AquaMaps for Thunnus albacares (Native range)", and "AquaMaps for Thunnus albacares (NonRange)".

At the bottom of the browser window, the search bar contains the text "Rechercher:" and the page footer shows "Transfert des données depuis 140.247.231.105...".

Interoperability results (step 3) for the generic database

Web portals via GBIF (EOL, OBIS...)

The screenshot shows the EOL web portal for *Thunnus albacares*. The page displays the species name, common name (yellowfin tuna), and a search bar. Below the search bar, there are tabs for Overview, Detail, 10 Media, 5 Maps, Names, Community, Resources, Literature, and Updates. The '5 Maps' tab is selected, showing a table of data providers/resources and their occurrence counts.

SEARCH BY GBIF DATA PROVIDERS/RESOURCES	NUMBER OF OCCURRENCES
Field Museum	1
FieldBase	1
GBIF - Spain	1
GBIF - Sweden	1
Institute of Research for Development	2
ecological_observation_database	1
Encyclopedia of Life	1
Los Angeles County Museum of Natural History	1
Museum national d'Histoire naturelle et Réseau des Herbiers de France	1
Global Biodiversity Information Facility	1

Below the table, there is a note: "This map is based on occurrence records available through the GBIF network and may not represent the entire distribution. Access these data through the GBIF Portal."

The 'Media tagged as 'map'' section shows four map thumbnails:

- IBOL: Map of specimen collection locations for *Thunnus albacares*
- U.S. States and Canadian Provinces
- AquaMaps for *Thunnus albacares* (Native range)
- AquaMaps for *Thunnus albacares* (PortMap)

Interoperability results (step 3) for the generic database

Web portals via GBIF (EOL, OBIS...)

Ocean Biogeographic Information System - Mozilla Firefox

Fichier Édition Affichage Historique Marque-pages Outils Aide

http://www.obis.org/mapper/?language=fr

ADAGUC - Welcom... Formulaire de requ... http://cbc.linternaut... FAO Fisheries & Aq... Observatoire thonie...

Ocean Biogeographic Informati...

OBIS Home Recherche de données Maps About OBIS Contact Library Français

Recherche de Jeux de données

Search by name Selection multiple Sélectionner tout

Nom du fournisseur	#Jeux de don	#entrées	Nom du set de données	Identifiant	#espèces	#entrées	Années
AfrOBIS	27	3,399,325	Ecoscope Observation Database	2474	273	89,874	Could not be determined
ArcODIADIOS	66	323,789	Ecoscope tuna bycatch observer data	2484	104	233,532	Could not be determined
Argentinean RON	15	203,661	Ecoscope tuna observer data	2483	10	183,440	Could not be determined
Australian Antarctic Data Centre	50	813,355					
Australian Institute of Marine Science	21	239,711					
Bigelow Laboratory for Ocean Science	3	4,108					
ColdWaterCorals	1	6,553					
COMARGE	3	29,227					
CoMIL	10	788,842					
ECOCEAN_WhaleSharks	1	8,417					
EurOBIS	257	11,100,673					
FishBase	10	720,562					
Gulf of Maine Census of Marine Life P	2	1,216					
Hexacorals	1	64,518					
ICoMM	1	898,945					
IndOBIS	2	48,657					
Institut de recherche pour le developp	3	506,646					
INVERMAR	1	34,733					
KOBIS	1	27,568					
MGDS	1	979					

Ecoscope tuna bycatch observer data

Metadonnées | Espèces observées

Nom du set de données: Ecoscope tuna bycatch observer data

Citation: Institut de recherche pour le developpement
Cauquil, Pascal
Barde, Julien (julien.barde@ird.fr)

Contact: Rodriguez, Céline (celine.rodriguez@ird.fr)
Chassot, Emmanuel (emmanuel.chassot@ird.fr)
Chavance, Pierre (pierre.chavance@ird.fr)

Résumé: Studies of catches done by tropical tuna fisheries in Atlantic and Indian oceans. Species composition of bycatch in schools caught by different fleet of purse seiners in related areas (France, Spain, Ghana...) funded by european program for fisheries data collection.

Couverture géographique: Latitude -21.866806 to 15.866806; Longitude -24.133472 to 79.68347

OBIS vise à documenter la diversité de l'océan, la distribution et l'abondance de la vie. Créé par le Census of Marine Life, OBIS fait maintenant partie de la Commission océanographique intergouvernementale (COI) de l'UNESCO, en vertu de son programme international d'échange de données et de l'information océanographique (IOOE).

http://www.obis.org/mapper/?language=fr#

Erreur de... Erreur de... Erreur de... Erreur de... presentat... presenta... julien@or... julien@o... Inbox for ... Ocean Bi...

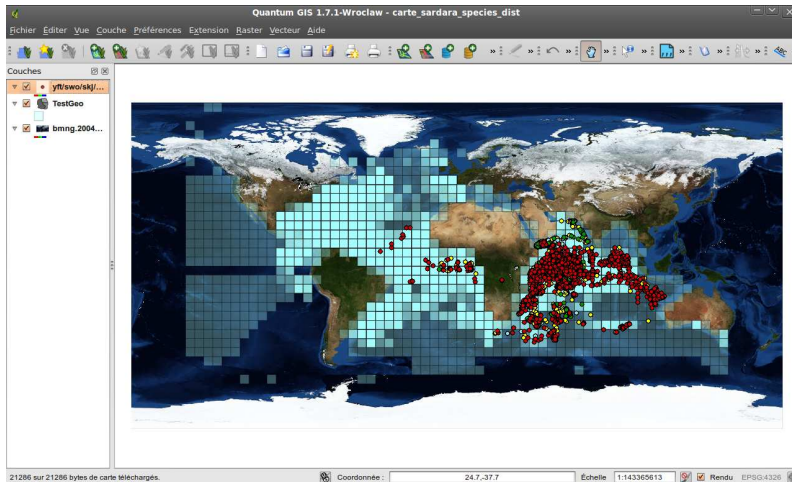
Interoperability results (step 3) for the generic database

Web portals via GBIF (EOL, OBIS...)

The screenshot displays the OBIS web portal interface. The browser window title is "Ocean Biogeographic Information System - Mozilla Firefox". The address bar shows the URL "http://www.iobis.org/mapper/?language=fr". The page navigation includes "Home", "Recherche de données", "Maps", "About OBIS", "Contact", and "Library". The main content area features a map titled "Carte de distribution - Grille à une résolution de 1 degré" showing a distribution grid over the Atlantic and Indian Oceans. The map is overlaid with numerous colored dots (red, yellow, green, blue) representing data points. On the left side, there is a search and filter panel with sections for "Recherche de données", "Espèces", "Jeux de données", "Région", "Date & Saison", and "Océanographie". The footer contains logos for CENSUS OF MARINE LIFE, OBIS, RUTGERS, and OPEN GLO, along with a "Terminé" status and a "zotero" logo. The taskbar at the bottom shows several browser tabs and system icons.

Interoperability results (step 3) for the generic database

GIS (via OGC standards / INSPIRE): Qgis, GvSig through Web Services



Summary

- 1 General context of this work
- 2 Management of tagging data...
- 3 Ongoing developments
- 4 Conclusion and next steps

Achievements

Work done so far:

- new version of the database model to manage replicated observations,
- first steps of data migration and access OK:
 - tagging data and EAF data can be stored together,
 - data can be made available in different ways with a Web portal (MDST) through standards for data formats and access protocols,
 - can be blended with environmental data (Postgis + OGC).
- data can be connected to other infrastructures (GBIF, INSPIRE, ...) through standards / interoperability.



Next steps

Still a lot of work:

- to improve the model of the database,
- to separate raw data from estimated data ...
- ... by embedding libraries of processing in the database:
 - flag the quality of data,
 - location of the recovery with set of points (min, max...),
 - time at liberty... ,
 - density... ,
- loading of similar datasets: MAC (atlantic)... ,
- administration interfaces for the database,
- publication of RTTP CTOI data on INSPIRE, GBIF, OBIS...with MDST ? Not plugged for now.

Additional information

