

Passport Data Quality: the case of EURISCO and SINGER

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Passport Data Quality: the case of EURISCO and SINGER

1. EURISCO and Passport Data Quality

- Introduction to EURISCO
- Data Quality & Availability
- Lessons learnt

2. SINGER and Passport Data Quality

- Introduction to SINGER
- Data Quality & Availability
- Lessons learnt

3. A view on Global Data Quality Services

- Examples of Global Services

Passport Data Quality: the case of EURISCO and SINGER

1. EURISCO and Passport Data Quality

- Introduction to EURISCO
- Data Quality & Availability
- Lessons learnt

EURISCO

Passport Data Quality: the case of EURISCO and SINGER

Introduction to EURISCO

EURISCO

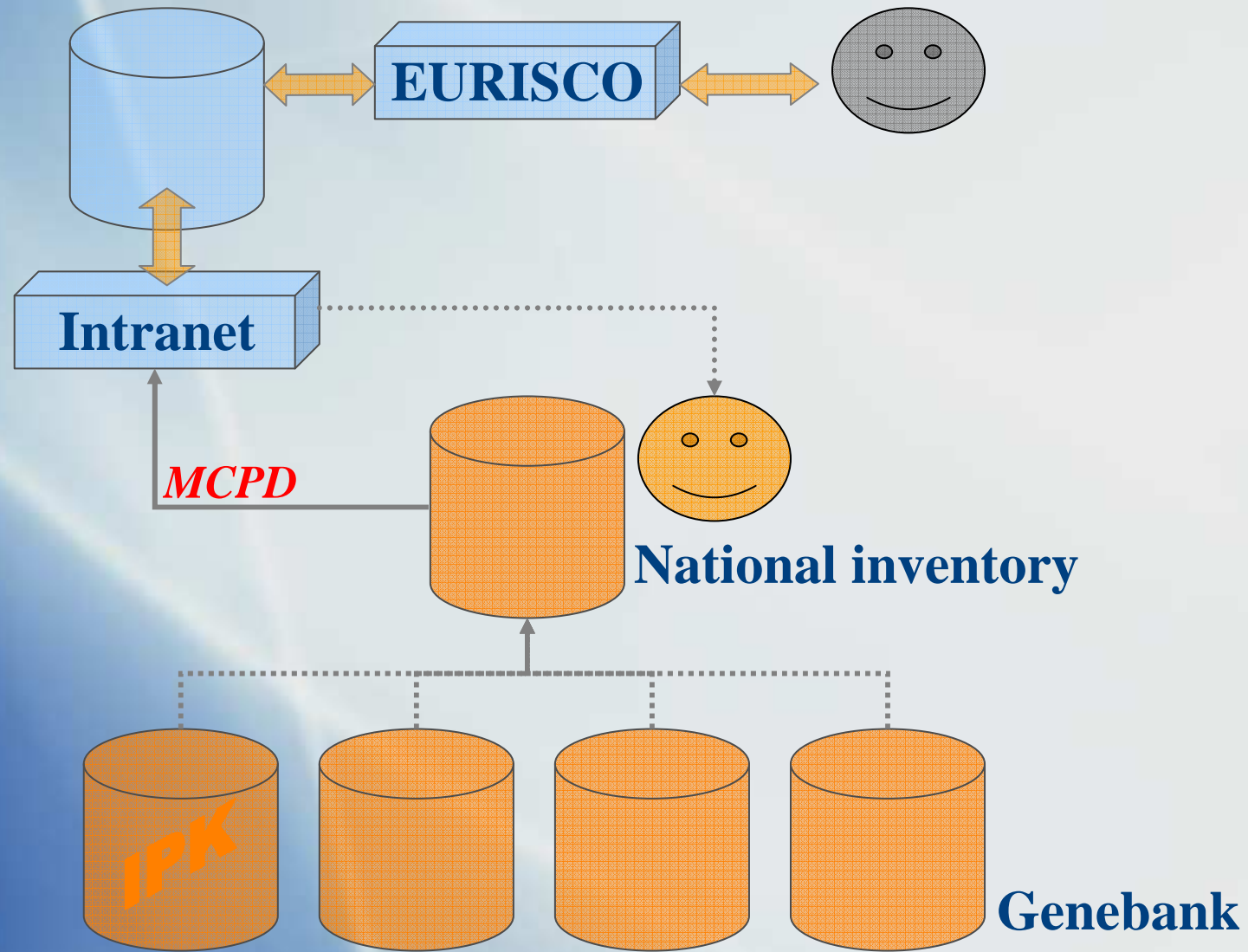
- ✓ 1,066,884 accessions
- ✓ Held by 230 institutions in 35 countries
- ✓ Of 8,683 species⁽¹⁾ from 1,382 genera
- ✓ Collected in 19,302 sites in 199 countries by 336 institutions from 56 countries
- ✓ Donated by 1,165 institutions from 78 countries
- ✓ Bred by 1,029 institutions from 72 countries

(1) Latest analysis shows risk of at least 4-5% error



The screenshot shows the EURISCO website homepage. At the top left is the EURISCO logo, which consists of a stylized green and red leaf-like shape next to the word "eurisco" in a bold, lowercase font. Below the logo is the tagline "Finding seeds for the future". To the right of the logo is a "Home" link. Below the logo is a vertical menu with the following items: "About EURISCO", "Finding Seeds", "Download data", "News", "Meetings", "Contacts", "Documents", and "Intranet". To the right of the menu is a large heading "Welcome to the EURISCO site !". Below this heading is a photograph of a golden wheat field under a blue sky. To the right of the photograph is a text box that reads "Creating a European Plant Genetic Resources Search Catalogue with passport data on *ex situ* collections maintained in Europe". Below the photograph is another text box that reads "Supporting the creation and providing technical support to National Plant Genetic Resources Inventories". To the right of this text box is a photograph of a large, leafy tree.

Passport Data Quality: the case of EURISCO and SINGER



EURISCO

Passport Data Quality: the case of EURISCO and SINGER

EURISCO

- **Data availability:**
 - Country of origin: 63%
 - Biological status: 49%
 - Collecting site: 18%
 - Collecting/acquisition source: 16%
 - Collecting institute: 14%
 - Donating institute: 11%
 - Site coordinates: 7%
 - Duplicates holder: 6%
 - Breeding institute: 4%

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EURISCO

Collecting MCPD Concepts:

- COLLNUMB (55%)
- COLLDATE (27%)
- COLLSRC (86%)
- COLLSITE (18%)
- LAT/LON (8%)
- ORIGCTY (96%)
- ...

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EURISCO

		LAT/LON	
		✓	✗
COLLSITE	✓	7,6%	10,3%
	✗	0,2%	81,9%

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EURISCO

		COLLNUMB	
		✓	✗
COLLDATE	✓	22,1%	4,6%
	✗	32,7%	40,6%

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EURISCO

		COLLSRC	
		✓	✗
SAMPSTAT	✓	12,0%	32,5%
	✗	2,6%	52,9%

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EURISCO

Collecting/acquisition source:

- 10%: Institute, Experimental station, Research organization, Genebank
- 3%: Farm or cultivated habitat
- 1%: Wild habitat
- 0.6%: Weedy, disturbed or ruderal habitat
- 0.4%: Market or shop
- 0.05%: Seed company
- **84%: Unknown**

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EURISCO

Biological status:

- 15%: Traditional cultivar / Landrace
- 14%: Advanced / Improved cultivar
- 13%: Breeding / Research material
- 5%: Wild
- 0.07%: Weedy
- **51%: Unknown**

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Sampstat # 0

Inventory

Size of Inventory

ARM	100%	2202
FRA	100%	3019
LVA	100%	967
NGB	100%	19590
YUG	100%	5475
CYP	100%	468
GEO	99%	440
ROU	98%	42985
GRC	97%	6084
SVN	97%	1776
ITA	96%	20954
AZE	96%	7171
ISR	96%	3127
ESP	95%	17531
IRL	93%	314
SVK	92%	15029
MKD	92%	887
CZE	91%	49069
DEU	91%	153796
NLD	89%	23709
LTU	88%	1681
UKR	65%	62257
RUS	63%	217206
AUT	53%	10950
POL	47%	57499
HUN	23%	39737
BGR	22%	56078
GBR	12%	233421
CHE	0%	10402
EST	0%	480
PRT	0%	2580

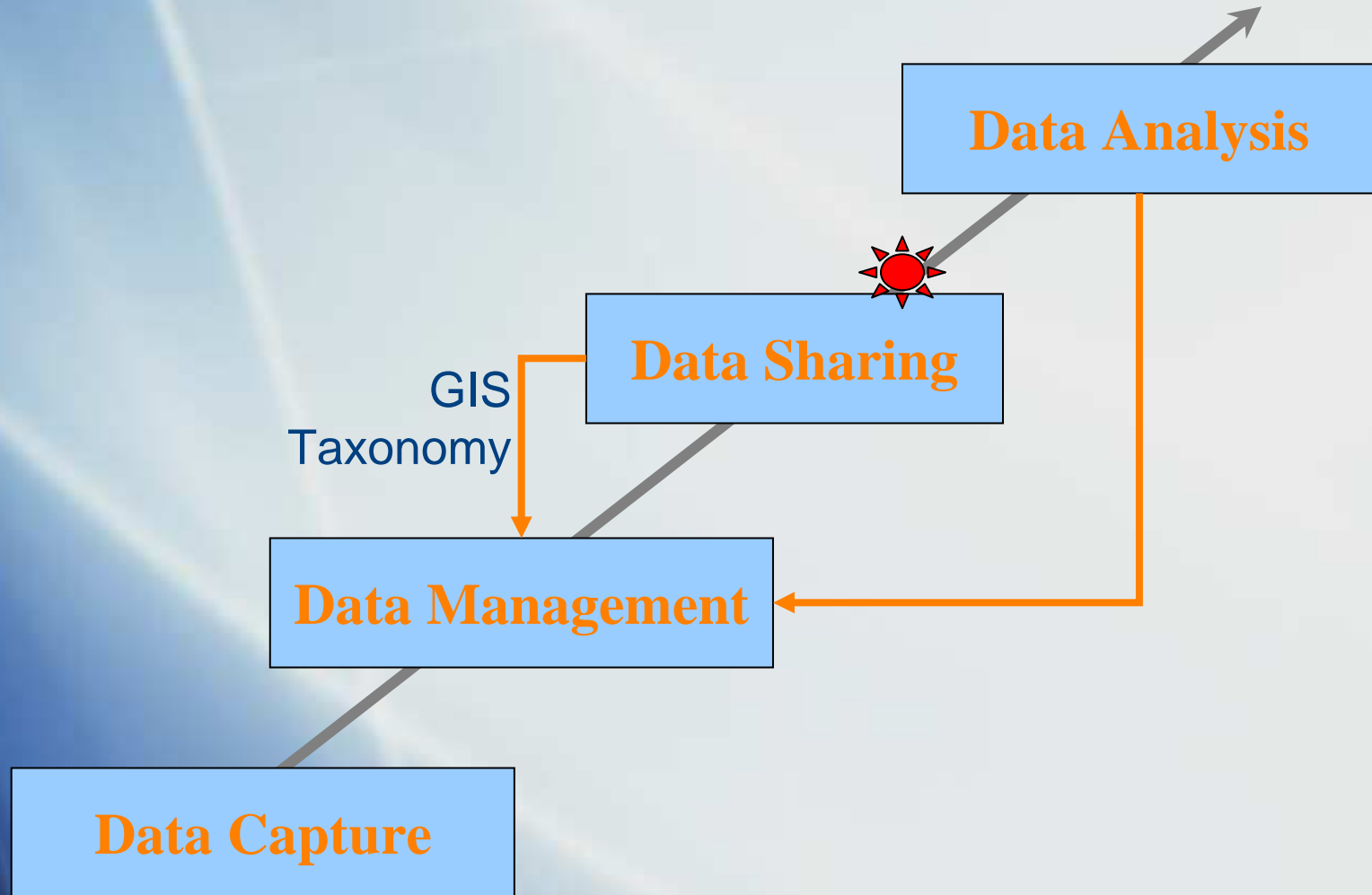
Biological status:

- 15%: Traditional cultivar / Landrace
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- 5%: Wild
- 0.07%: Weedy
- **51%: Unknown**

EURISCO

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EURISCO



Passport Data Quality: the case of EURISCO and SINGER

EURISCO

- **Lessons learnt: Genebanks**
 - **Lack of staff capacity** at genebank level to undertake data quality activities.
 - **Lack of training** to genebank staff.
 - **Lack of funds** for data management.
 - **Poor concepts to mapping.** Is the information available? Should we prioritize the work on some concepts?
 - **Lack of methods/tools** (or knowledge of)

Passport Data Quality: the case of EURISCO and SINGER

EURISCO

- **Lessons learnt: Nat^l Focal Point**
 - **Difficulties to coordinate** with all genebank curators (e.g. the big genebanks are synchronized but not the others).
 - **Difficulties to harvest data** (e.g. still many using off-line replication, limited concept mapped).
 - **Lack of training** for managing national inventories and their upload to EURISCO.
 - Which concepts to focus on?

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EURISCO

- **Lessons learnt: EURISCO Coordinator**
 - **Strengthen central data quality routines** and report back to countries.
 - **Promote use of data in EURISCO** (e.g. MSc student, interns, etc...).
 - **Build on EURISCO expert groups** (e.g. EPGRIS 3, D&I Committee).
 - **Match data** with other global data sets (e.g. USDA, SINGER etc.... through GBIF).
 - ...

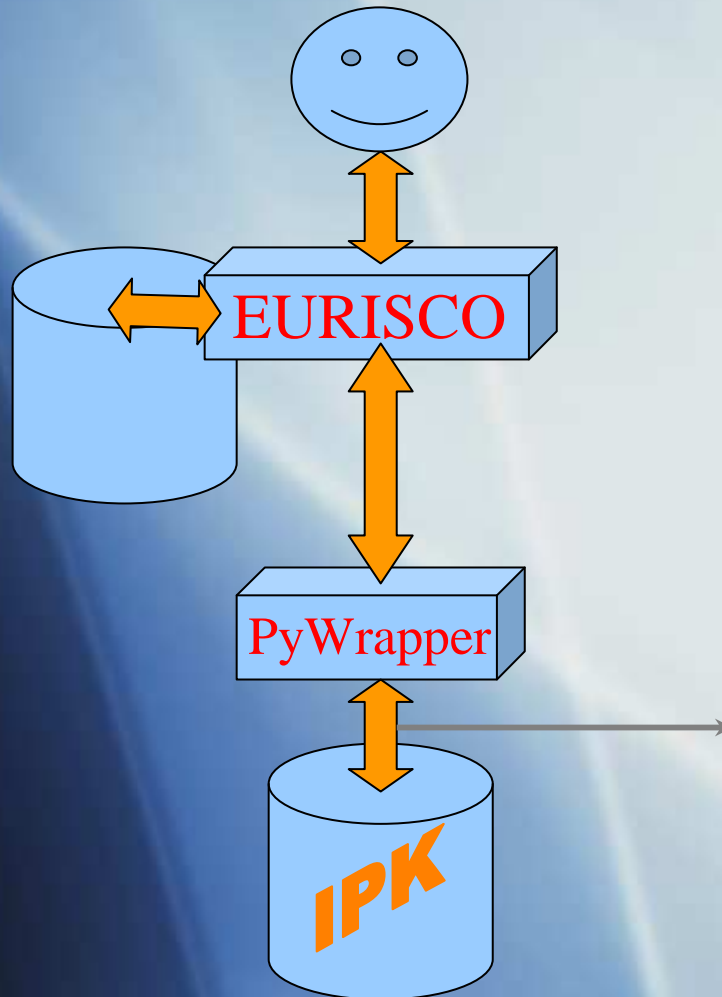
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- Francis O'Regan, MSC thesis University of Birmingham
- Received full datasets from EURISCO and SINGER
- USDA dataset in the pipeline (Milko)
- Some questions raised:
 - ✓ *“Multi-crop descriptors % fill of fields”*
 - ✓ *“How data held in EURISCO compare with national inventories and is there any obvious loss of data between the national inventories and EURISCO?”*
 - ✓ *“How does data held in EURISCO compare with individual genebank data for the same accessions and is there an obvious loss of data between the genebank and EURISCO?”*
 - ✓ *“What percentage of the accessions are duplicated, how many duplicates and where? (a) Does this show an efficient use of resources? (b) Are there any unduplicated accessions?”*
 - ✓ *“Is it possible to calculate the percentage of accessions with incorrect or suspicious metadata?”*
 - ✓ *“Thanks for the SINGER data. Can you send me the full USDA data set too...”*

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Next Steps: streamline access to data...

EURISCO



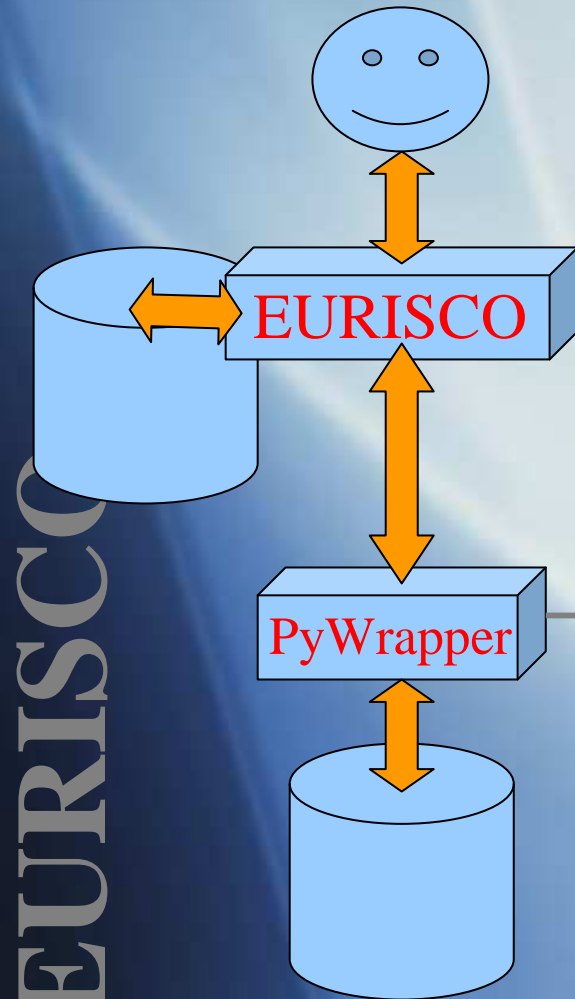
DataSets	
DataSet	
3	CenterCode
4	CenterName
5	ContactEmail
6	ContactName
7	Coverage
8	Crop
9	Description
10	Remarks
11	Status
12	Subject
13	Title
GermplasmSamples	
GermplasmSample	
16	AcquisitionDate
65	CollectionName
66	DateLastModified
81	GeneralRemarks
82	GermplasmID
83	GermplasmSampleUrl
96	IsGenebankAccession
97	IsPartGCPCore
98	LocalUniqueID
AdditionalPassportDataItems	
AdditionalPassportDataItem	
19	Accuracy
24	DescriptorDescription
25	DescriptorShortName
26	Domain
27	IsQuantitative
28	Method
29	RecordedDate
30	Subdomain
31	UnitOfMeasurement
32	Value
AdditionalPassportDataReference	
21	CitationDetail
22	TitleCitation
23	Url
AlternativeGenebankID	
AlternativeGenebankID	
35	AccessionNumber
36	GermplasmCollectionName
GermplasmHoldingInstitute	
38	CityAndState
39	Country
40	FAOInstituteCode
41	Fax
42	InstitutionalEmail

Mapping your data

GCP Passport 1.03

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Next Steps: streamline access to data...



Harvest Data

IPK

PyWrapper Manual Query Form

Start » Utilities » QueryForms » Manual

Wrapper:
Debugging:
Protocol:

```
<?xml version='1.0' encoding='UTF-8'?>
<request xmlns='http://www.biocase.org/schemas/protocol/1.3'>
  <header><type>search</type></header>
  <search>
    <requestFormat>http://www.ipgri.org/schemas/gcp_pass/1.03</requestFormat>
    <responseFormat start='0' limit='10'>http://www.ipgri.org/schemas/gcp_pass/1.03</responseFormat>
    <filter>
      <like path='/DataSets/DataSet/GermplasmSamples/GermplasmSample/Classification/Taxonomy/FullScientificN'>
        </filter>
      <count>>false</count>
    </search>
  </request>
</pre>

Replace form with templates for a :  
ABCD scan, ABCD search, ABCD2 scan, ABCD2 search, DWC Scan, DWC Search, Metaprofile Scan, Metaprofile Search, SPICE-1 Scan, SPICE-1 Search, SPICE-2 Scan, SPICE-2 Search, SPICE-4 Search, SPICE-5 Search, GCP Passport 1.03 Scan, GCP Passport 1.03 Search, GCP Passport 1.04 Scan, GCP Passport 1.04 Search, TCS 1.01 Scan, TCS 1.01 Search



The BioCASE protocol filter operators



| Comparison operators |           | Logical operators |        |       |
|----------------------|-----------|-------------------|--------|-------|
| binary               | unary     | unbound           | binary | unary |
| equals               | isNull    | in                | and    | not   |
| notEquals            | isNotNull |                   | or     |       |
| lessThan             |           |                   |        |       |
| lessThanOrEquals     |           |                   |        |       |
| greaterThan          |           |                   |        |       |
| greaterThanOrEquals  |           |                   |        |       |
| like                 |           |                   |        |       |

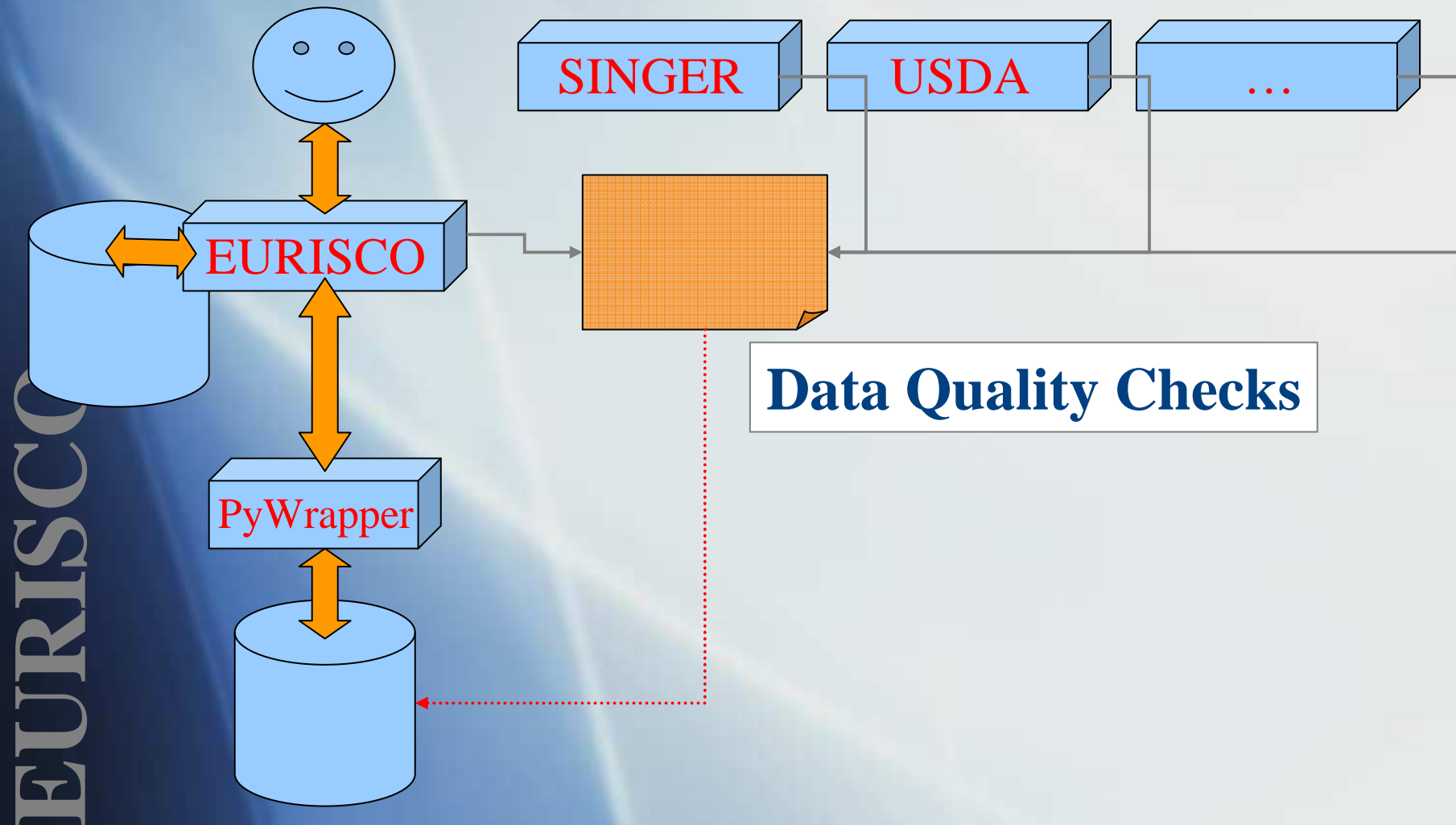


Capabilities (show)


```

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Next Steps: streamline access to data...



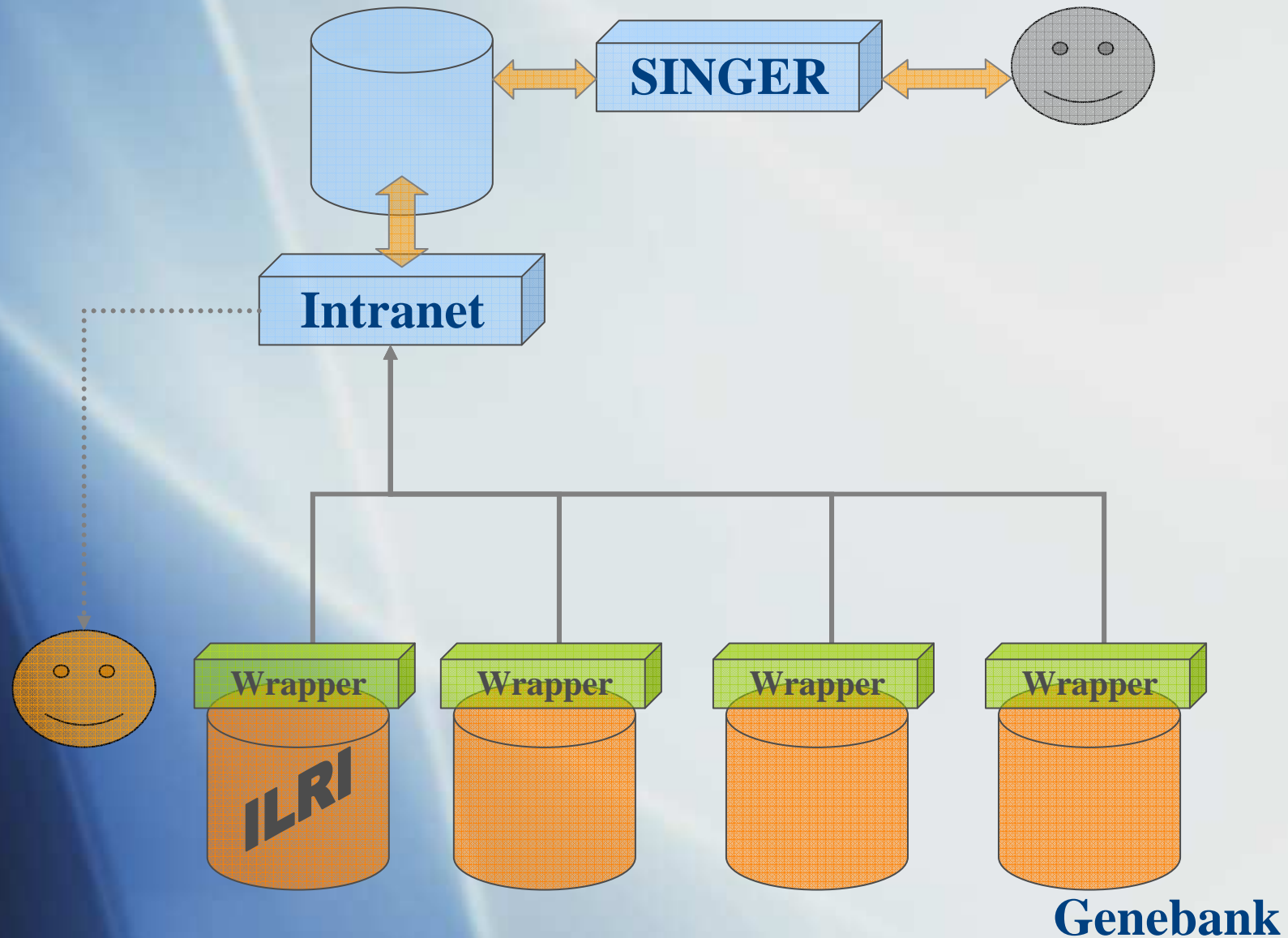
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2. SINGER and Passport Data Quality

- Introduction to SINGER
- Data Quality & Availability
- Lessons learnt

SINGER

Passport Data Quality: the case of EURISCO and SINGER



Passport Data Quality: the case of EURISCO and SINGER

SINGER

- **Data availability:**
 - Country source⁽¹⁾: 83% (63%)
 - Biological status: 67% (49%)
 - Collecting site: 43% (18%)
 - Collecting/acquisition source: 19% (16%)
 - Site coordinates: 35,5% (7%)
 - ...

(1) instead of “country of origin”

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SINGER

■ History:

Phase I

- ✓ 1995: Creation of SINGER (11 members)
- ✓ 1995-1997: > 2 M\$ in Documentation activities
- ✓ 1997: Public release

Phase II

- ✓ 1999: SGRP Core >200K\$ in data quality
- ✓ 2000: Enforcement of MCPD (revised) by Project Coordinator and acceptance of “concept mapping”.
- ✓ 2003: GPG1 Project, >2M\$ in Documentation
- ✓ 2007: GPG2 Project, >1,5 M\$ in Documentation

Passport Data Quality: the case of EURISCO and SINGER

EURISCO

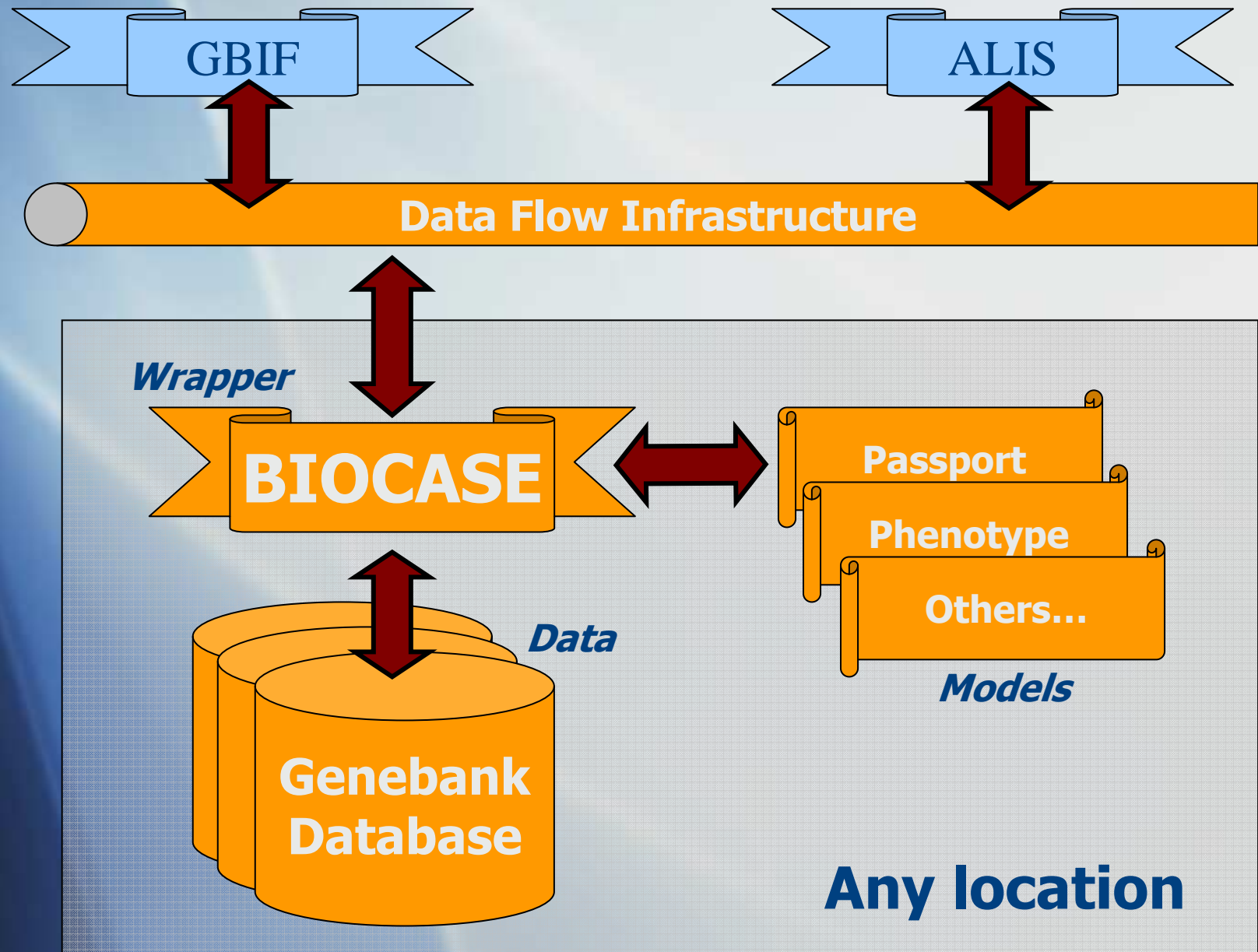
- **Lessons learnt (MCPD):**
 - **Disagreements with some definitions**
e.g “Country of Origin” # “Country Source”.
 - **Incompatibility** for some standards (e.g. lat/lon in decimal, date format, instcode...)
 - **Absence** of some key concepts (e.g. MLS, in-trust, etc...)
 - **No changes at genebank management systems** => “compliance” to most MCPD concepts. SINGER is MCPD compliant.
 - **Preference for an extended passport schema** such as the GCP Passport schema.

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3. A view on Global Data Quality Services

- Examples of Global Services

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Global Services

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PyWrapper Query Forms

http://gbif.grinfo.net/biocase/utilities/quer...

PyWrapper Manual Query Form

Start » Utilities » QueryForms » Manual

Wrapper: http://gbif.grinfo.net/biocase/pywrapper.cgi?dsa=TEST

Debugging: off

Protocol: Submit

```
<request>
  <header><type>search</type>
</header>
<search>
  <requestFormat>http://www.ipgri.org/schemas/gcp_pass/1
  <responseFormat start='0' limit='10'>http://www.ipgri.
  <filter>
    <like path='/DataSets/DataSet/GermplasmSamples/Germplas
    Taxonomy/FullScientificName'>*SATIVA*</like>
  </filter>
  <count>>false</count>
</search>
</request>
```

Replace form with templates for a :
 ABCD scan, ABCD search, DWC Scan, DWC Search, Metaprofile Scan, Metaprofile S
 SPICE-1 Scan, SPICE-1 Search, SPICE-2 Scan, SPICE-2 Search, SPICE-4 Search

The BioCASE protocol filter operators

Comparison operators			Logical operators	
binary	unary	unbound	binary	unary
equals	isNull	in	and	not
notEquals	isNotNull		or	
lessThan				
lessThanOrEquals				
greaterThan				
greaterThanOrEquals				
like				

Mozilla Firefox

http://localhost:81/testxml/testbiocase1.php

Getting Started Latest Headlines


http://loc...ocase1.php http://www...?dsa=ICIS Results of your query... gel molecular - RicerC...

This XML file does not have any style information associated with it. The document tree is shown below.

```
<!--
  XML generated by BioCASE PyWrapper software version 1.6.2 written by Markus Doering, Botanic Garden and Botani
-->
<response xsi:schemaLocation="http://www.biocase.org/schemas/protocol/1.3 http://www.bgbm.org/biodivinf/schema/protocol_1_3.xsd">
  <header>
    <version software="Python Interpreter">
      2.4.1 (#2, May 5 2005, 11:32:06) [GCC 3.3.5 (Debian 1:3.3.5-12)]
    </version>
    <version software="Wrapper">1.6.2</version>
    <version software="DB module"/>
    <version software="OS">posix</version>
    <sendTime>2005-09-28T00:08:35+08:00</sendTime>
    <source>66.102.11.99</source>
    <destination>83.103.94.50</destination>
    <type>search</type>
  </header>
  <content recordDropped="10" recordCount="0" recordStart="0" totalSearchHits="11">
    <DataSets>
      <DataSet>
        <GermplasmSamples>
          <GermplasmSample>
            <GermplasmID>PHL001:Genebank:1</GermplasmID>
            <HoldingInstitute>
              <FAOInstituteCode>PHL001</FAOInstituteCode>
              <NameOrganization>
                International Rice Research Institute - Philippines
              </NameOrganization>
              <Street>Los Banos, Laguna</Street>
              <CityAndState>Metro Manila</CityAndState>
              <ZipCode>4030</ZipCode>
              <Country>PHILIPPINES</Country>
              <InstitutionalEmail>postmaster@irri.cgiar.org</InstitutionalEmail>
              <InstitutionalTelephone>+63 2-8450563</InstitutionalTelephone>
              <Fax>+63 2-8450606</Fax>
              <Url>http://www.cgiar.org/irri</Url>
              <PrimaryContactName>Ruaraidh,Sackville Hamilton</PrimaryContactName>
            </HoldingInstitute>
            <CollectionName>IRRI-GRC</CollectionName>
            <LocalUniqueID>1</LocalUniqueID>
            <IsGenebankAccession>Y</IsGenebankAccession>
          </DataSet>
          <Classification>
            <CropNames>
              <CropName>Rice</CropName>
            </CropNames>
            <Taxonomy>
              <FullScientificName>O. SATIVA</FullScientificName>
              <ScientificNameAuthor></ScientificNameAuthor>
              <Genus></Genus>
              <Species>O. SATIVA</Species>
              <Cultivar>T 1242</Cultivar>
              <CultivarGroup></CultivarGroup>
            </Taxonomy>
          </Classification>
        </GermplasmSample>
      </DataSet>
    </DataSets>
  </content>
</response>
```

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HOME | GBIF | BROWSE TAXONOMY | SEARCH | DATA PROVIDERS | COUNTRIES | DATA USE



Prototype data portal
Global Biodiversity Information Facility

Data provider: Bioversity International

Description <http://www.biodiversityinternational.org/>
E-mail technical: singer@cgiar.org / administrative: singer@cgiar.org / technical: m.skofic@cgiar.org / administrative: eurisco@cgiar.org

Service: The System-wide Information Network for Genetic Resources (SINGER) (biocase.grinfo.net)

Type of data Specimen/observation
Description The System-wide Information Network for Genetic Resources (SINGER) is an information exchange network of the Future Harvest Centres of the Consultative Group on International Agricultural Research (CGIAR) and associated partners.
Access point (BioCASE) <http://biocase.grinfo.net/pywrapper.cgi?dsa=SINGER>

Resource: The System-wide Information Network for Genetic Resources (SINGER)

Description The System-wide Information Network for Genetic Resources (SINGER) is an information exchange network of the Future Harvest Centres of the Consultative Group on International Agricultural Research (CGIAR) and associated partners.
Contact Samy Galji, SINGER Project Leader
E-mail singer@cgiar.org
Web site <http://singer.grinfo.net/>
Use of data Legal Notice and License Agreement
Number of records indexed 466706
Taxon count 3186 - [Browse taxonomy](#) - [List taxa](#)

Service: EURISCO (biocase.grinfo.net)

Type of data Specimen/observation
Description The EURISCO web catalogue automatically receives data from the National Inventories (NI). It effectively provides access to all ex situ PGR information in Europe and thus facilitates locating and accessing PGR.
Access point (BioCASE) <http://biocase.grinfo.net/pywrapper.cgi?dsa=EURISCO>


Resource: EURISCO

Description EURISCO
The EURISCO web catalogue automatically receives data from the National Inventories (NI). It effectively provides access to all ex situ PGR information in Europe and thus facilitates locating and accessing PGR. EURISCO is hosted at and maintained by the Bioversity International on behalf of the Secretariat of the European Cooperative Programme for Plant Genetic Resources (ECPGR).

Passport Data Quality: the case of EURISCO and SINGER

Examples of Global Services: GBIF

HOME | GBIF | BROWSE TAXONOMY | SEARCH | DATA PROVIDERS | COUNTRIES | DATA USE | BACK



Prototype data portal
Global Biodiversity Information Facility

List taxa

Resource: [The System-wide Information Network for Genetic Resources \(SINGER\) \(biocase.grinfo.net\)](#): [The System-wide Information Network for Genetic Resources \(SINGER\)](#)

Browse taxonomy for The System-wide Information Network for Genetic Resources (SINGER)

Hybrid	aegilops 90200 x aest.	
Hybrid	aegilops 90213 x tritic.	
Hybrid	aegilops 90217 x aest.	
Species	Aegilops bicornis	Plantae
Hybrid	aegilops biunc. x cylin.	
Hybrid	aegilops biunc. x triar.	
Hybrid	aegilops biunc. x triun.	
Species	Aegilops biuncialis	
Species	Aegilops caudata	
Hybrid	aegilops colum. x durum	
Hybrid	aegilops colum. x triun.	
Species	Aegilops columnaris	
Species	Aegilops comosa	Plantae
Species	Aegilops crassa	Plantae
Hybrid	aegilops cylin. x aest.	
Hybrid	aegilops cylin. x triar.	
Hybrid	aegilops cylin. x triun.	
Species	Aegilops cylindrica	Plantae
Species	Aegilops geniculata	Plantae
Species	Aegilops juvenalis	
Species	Aegilops kotschyi	
Species	Aegilops longissima	Plantae
Species	Aegilops neglecta	
Hybrid	aegilops ovata x aest.	
Hybrid	aegilops ovata x peregr.	
Hybrid	aegilops ovata x tritic.	
Hybrid	aegilops ovata x triun.	
Species	Aegilops peregrina	
Subspecies	aegilops peregrina brachyathera	
Species	Aegilops searsii	Plantae
Species	Aegilops sharonensis	
Species	Aegilops sp.	

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Species: *Aegilops bicornis* (Forsskal) Jaub. & Spach **Goatgrass**

Resource: The System-wide Information Network for Genetic Resources (SINGER) (biocase.grinfo.net): The System-wide Information Network for Genetic Resources (SINGER)

Browse taxonomy for The System-wide Information Network for Genetic Resources (SINGER) | List taxa for The System-wide Information Network for Genetic Resources (SINGER) (All taxa) | Switch to global view

Status of name

Status	Authority		Details	User feedback
Accepted name	Catalogue of Life: Integrated Taxonomic Information System		+	✉

Higher taxonomy

Rank	Name	Authority		Details	User feedback
Kingdom	Plantae				
Phylum	Magnoliophyta				
Class	Liliopsida				
Order	Cyperales	Catalogue of Life: Integrated Taxonomic Information System		+	✉
Family	Poaceae				
Genus	Aegilops				

Common names

Language	Name	Authority		Details	User feedback
English	Goatgrass	Catalogue of Life: Integrated Taxonomic Information System		+	✉

Images

Service	Resource	Record	Name	Image	User feedback
Herbarium GJO (herbarium.botanik.univie.ac.at)	Herbarium GJO	GJO-0015265	Aegilops bicornis (Forsskal) Jaub. & Spach	NULL	✉

Specimens/observations

Including records from: Cyprus; Egypt; Germany; Iran; Israel; Jordan; Libya; Russian Federation; Syria; Turkey; United Kingdom; United States; Uzbekistan

Service	Resource	All	La/Long
EURISCO (biocase.grinfo.net)	EURISCO	34 + -	0
GBIF-Spain (taray.csic.es)	Real Jardin Botanico (Madrid), Vascular Plant Herbarium (MA)	1 + -	0
GBIF-Spain (taray.csic.es)	Institut Botanic de Barcelona, BC	1 + -	0
GRIN (198.77.175.232)	National Small Grains Collection	2 + -	0
Herbarium GJO (herbarium.botanik.univie.ac.at)	Herbarium GJO	1 + -	0
Herbarium W (herbarium.botanik.univie.ac.at)	Herbarium W	13 + -	0
Intermountain Herbarium (utc.usu.edu)	USU-UTC Specimen Database	1 + -	0
IPK Gatersleben Genebank accessions (ww3.bgbm.org)	IPK Gatersleben Genebank accessions	6 + -	0
Israel Nature and Parks Authority (ww3.bgbm.org)	Israel Nature and Parks Authority	1 + -	1 + -
NGB - The Nordic Gene Bank (geifir.ngb.se)	Nordic Gene Bank	1 + -	0
The System-wide Information Network for Genetic Resources (SINGER) (biocase.grinfo.net)	The System-wide Information Network for Genetic Resources (SINGER)	19 + -	15 + -
University of Washington Burke Museum (UWBM) (biology.burke.washington.edu)	WTU Herbarium vascular plant collection	1 + -	0
Total		81 + -	16 + -

Passport Data Quality: the case of EURISCO and SINGER

Examples of Global Services: GBIF

[Home](#) English

Integrated Taxonomic Information System
- ITIS * North America
[Canada](#) · [Mexico](#) · [United States](#)

ITIS*ca

[Get the following data in XML format](#)

Scientific Name: *Aegilops bicornis* (Forsskal) Jaub. & Spach
TSN: 506689

Taxonomy and Nomenclature

Kingdom:	<i>Plantae</i>
Rank:	Species
Vernacular name(s):	goatgrass [English]
Taxonomic Status:	
Current Standing:	accepted
Data Quality Indicators:	
Record Credibility Rating:	verified - standards met

Taxonomic Hierarchy

[Get the following data in XML format](#)

- up to the kingdom
[Get the following data in XML format](#)

Kingdom	Plantae -- plants
Subkingdom	Tracheobionta -- vascular plants
Division	Magnoliophyta -- flowering plants, angiosperms
Class	Liliopsida -- monocotyledons
Subclass	Commelinidae
Order	Cyperales
Family	Poaceae -- grasses
Genus	Aegilops -- goatgrass
Species	Aegilops bicornis -- goatgrass

References

Expert(s):	Mark W. Skinner: USDA-NRCS, National Plant Data Center
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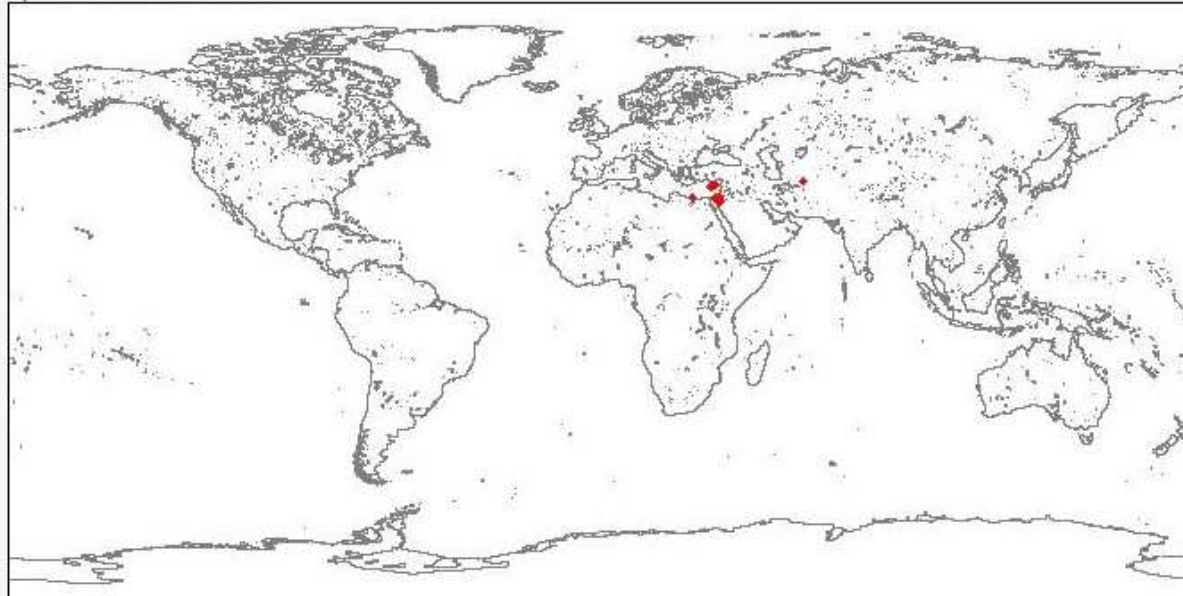
Passport Data Quality: the case of EURISCO and SINGER

Examples of Global Services: GBIF

Species: *Aegilops bicornis* (Forsskal) Jaub. & Spach

Goatgrass

Specimens/observations



Mapping service provided by Belgian Biodiversity Information Facility



Dynamic map service from Canadian Biodiversity Information Facility



Passport Data Quality: the case of EURISCO and SINGER

Examples of Global Services: GBIF

Service IPK Gatersleben Genebank accessions (ww3.bgbm.org) ABCD provider of IPK Gatersleben Genebank accessions

Resource IPK Gatersleben Genebank accessions

Record	Scientific name	Date	Country/Territory	Location	Latitude	Longitude	User feedback
1047	<i>Aegilops bicornis</i>	-	Jordanien	Ma'an, 2 km W von 172-174	-	-	<input checked="" type="checkbox"/>
1048	<i>Aegilops bicornis</i>	-	Jordanien	Ma'an, Wadi Rum	-	-	<input checked="" type="checkbox"/>
125	<i>Aegilops bicornis</i>	-	-	-	-	-	<input type="checkbox"/>
126	<i>Aegilops bicornis</i>	-	-	-	-	-	<input type="checkbox"/>
1429	<i>Aegilops bicornis</i>	-	-	-	-	-	<input type="checkbox"/>
767	<i>Aegilops bicornis</i>	-	-	-	-	-	<input type="checkbox"/>

Service EURISCO (biocase.grinfo.net) The EURISCO web catalogue automatically receives data from the National Inventories (NI). It effectively provides access to all ex situ PGR information in Europe and thus facilitates locating and accessing PGR.

Resource EURISCO The EURISCO web catalogue automatically receives data from the National Inventories (NI). It effectively provides access to all ex situ PGR information in Europe and thus facilitates locating and accessing PGR. EURISCO is hosted at and maintained by the Bioversity International on behalf of the Secretariat of the European Cooperative Programme for Plant Genetic Resources (ECPGR).

Record	Scientific name	Date	Country/Territory	Location	Latitude	Longitude	User feedback
1426902	<i>Aegilops bicornis</i> (Aschers.) Eig var. mutica	19820530	LIBYAN ARAB JAMAHIRIYA	Area: Cyrenaika, District: Ajdabiyah, Locality: 35 km W Marsa Brega	-	-	<input checked="" type="checkbox"/>
1427839	<i>Aegilops bicornis</i> (Forssk.) Jaub. et Spach	-	Jordan	Ma'an, Wadi Rum	-	-	<input checked="" type="checkbox"/>
1427841	<i>Aegilops bicornis</i> (Forssk.) Jaub. et Spach	-	Jordan	Ma'an, 2 km W von 172-174	-	-	<input checked="" type="checkbox"/>
1427862	<i>Aegilops bicornis</i> var. <i>bicornis</i>	-	UNKNOWN	-	-	-	<input checked="" type="checkbox"/>
1427873	<i>Aegilops bicornis</i>	-	-	-	-	-	<input type="checkbox"/>
2411013	<i>Aegilops bicornis</i>	-	-	-	-	-	<input type="checkbox"/>
2414347	<i>Aegilops bicornis</i>	-	-	-	-	-	<input type="checkbox"/>
2422400	<i>Aegilops bicornis</i>	-	-	-	-	-	<input type="checkbox"/>
4103759	<i>Aegilops bicornis</i>	-	-	-	-	-	<input type="checkbox"/>
4109624	<i>Aegilops bicornis</i>	-	-	-	-	-	<input type="checkbox"/>
4197374	<i>Aegilops bicornis</i>	-	-	-	-	-	<input type="checkbox"/>
4197375	<i>Aegilops bicornis</i>	-	-	-	-	-	<input type="checkbox"/>
4197376	<i>Aegilops bicornis</i>	-	-	-	-	-	<input type="checkbox"/>

Service The System-wide Information Network for Genetic Resources (SINGER) (biocase.grinfo.net) The System-wide Information Network for Genetic Resources (SINGER) is an information exchange network of the Future Harvest Centres of the Consultative Group on International Agricultural Research (CGIAR) and associated partners.

Resource The System-wide Information Network for Genetic Resources (SINGER) The System-wide Information Network for Genetic Resources (SINGER) is an information exchange network of the Future Harvest Centres of the Consultative Group on International Agricultural Research (CGIAR) and associated partners.

Use of data Legal Notice and License Agreement

Citation null

Record	Scientific name	Date	Country/Territory	Location	Latitude	Longitude	User feedback
ICARDA-46855	<i>Aegilops bicornis</i>	-	Turkey	-	-	-	<input checked="" type="checkbox"/>
ICARDA-47037	<i>Aegilops bicornis</i>	-	UNKNOWN	-	-	-	<input checked="" type="checkbox"/>
ICARDA-47058	<i>Aegilops bicornis</i>	-	UNKNOWN	-	-	-	<input checked="" type="checkbox"/>
ICARDA-47401	<i>Aegilops bicornis</i>	-	Jordan	Humaima; off road Ras el Naab-Quweira	29.917	35.4	<input checked="" type="checkbox"/>
ICARDA-47403	<i>Aegilops bicornis</i>	-	Jordan	2 km W of site 75 (samples 172-174)	29.933	35.35	<input checked="" type="checkbox"/>
ICARDA-47404	<i>Aegilops bicornis</i>	-	Jordan	Wadi Rum	29.6	35.417	<input checked="" type="checkbox"/>
ICARDA-47572	<i>Aegilops bicornis</i>	-	Egypt	Um-Raham; just E of Ajiba	31.333	27.167	<input checked="" type="checkbox"/>
ICARDA-47573	<i>Aegilops bicornis</i>	-	Egypt	Wadi El Habs	31.35	27.167	<input checked="" type="checkbox"/>
ICARDA-47585	<i>Aegilops bicornis</i>	-	Egypt	6 km E El Arish	31.083	33.95	<input checked="" type="checkbox"/>
ICARDA-47586	<i>Aegilops bicornis</i>	-	Egypt	2 km W Rafah	31.233	34.233	<input checked="" type="checkbox"/>
ICARDA-47588	<i>Aegilops bicornis</i>	-	Egypt	at Rafah	31.233	34.15	<input checked="" type="checkbox"/>
ICARDA-47593	<i>Aegilops bicornis</i>	-	Cyprus	Just SW Ayia Irini	35.283	32.967	<input checked="" type="checkbox"/>
ICARDA-47595	<i>Aegilops bicornis</i>	-	Cyprus	3 km W Ayia Irini	35.283	32.95	<input checked="" type="checkbox"/>

Passport Data Quality: the case of EURISCO and SINGER

Examples of Global Services: GBIF

IPK (ABCD 2)

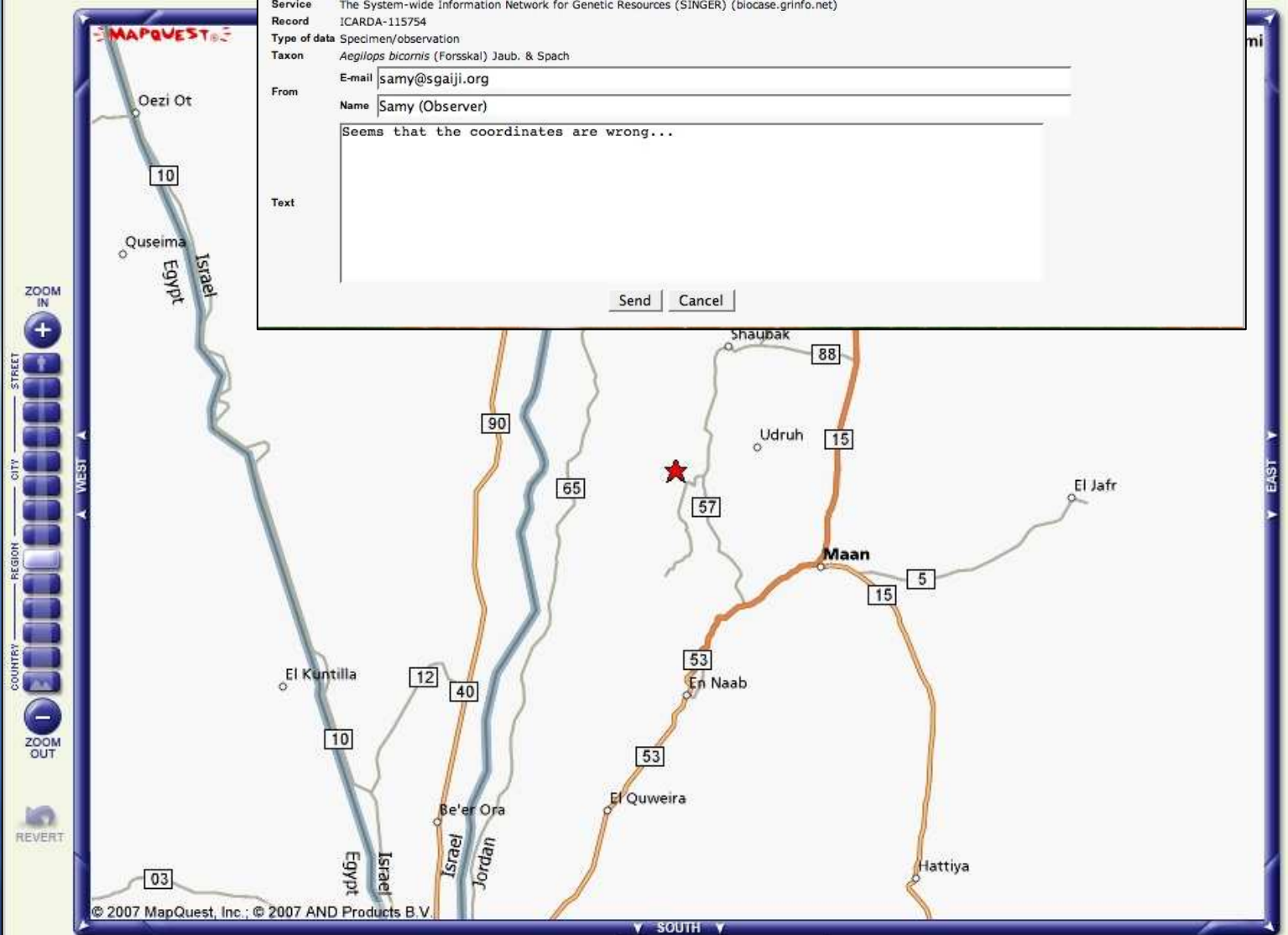
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    - <Country>
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SINGER
(GCP 1.03)

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<LocalUniqueID>ICARDA-47403</LocalUniqueID>
<IsGenebankAccession>Y</IsGenebankAccession>
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- <Taxonomy>
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  <Species>bicornis</Species>
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  <CollectingSourceRemarks>Unknown collecting source</CollectingSourceRemarks>
</CollectingSource>
- <SiteLocation>
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  <CountryOfOrigin>JOR</CountryOfOrigin>
  <Locality>2 km W of site 75 (samples 172-174)</Locality>
  <LatitudeString>N29 56</LatitudeString>
  <LatitudeDecimalValue>29.9333</LatitudeDecimalValue>
  <LongitudeString>E35 21</LongitudeString>
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</SiteLocation>
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</Origin>
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Passport Data Quality: the case of EURISCO and SINGER

Examples of Global Services: GBIF



The map shows the border between Israel and Egypt, with several towns and roads labeled. A red star is placed on a road near Maan, indicating a location of interest. The map includes a navigation toolbar on the left with zoom and revert buttons, and a copyright notice at the bottom: © 2007 MapQuest, Inc.; © 2007 AND Products B.V.

User feedback

Use this form to provide feedback on data presented through the GBIF Biodiversity Data Portal. Comments will be forwarded to the providers of the data. Any comments relating to the GBIF Portal itself should be sent to the GBIF Webmaster (see below).

Service: The System-wide Information Network for Genetic Resources (SINGER) (biocase.grinfo.net)
Record: ICARDA-115754
Type of data: Specimen/observation
Taxon: *Aegilops bicornis* (Forsskal) Jaub. & Spach

E-mail:
From: Name:

Text:

Clicking on map will: Zoom and Re-Center Re-Center

Passport Data Quality: the case of EURISCO and SINGER

Examples of Global Services: GBIF



Passport Data Quality: the case of EURISCO and SINGER

Another example...

Species: *Aegilops neglecta*

Resource: The System-wide Information Network for Genetic Resources (SINGER) (biocase.grinfo.net): The System-wide Information Network for Genetic Resources (SINGER)

Browse taxonomy for The System-wide Information Network for Genetic Resources (SINGER) | List taxa for The System-wide Information Network for Genetic Resources (SINGER) (All taxa) | Switch to global view

Higher taxonomy

Rank	Name	Authority	Details	User feedback
Division	Magnoliophyta			
Class	Liliopsida			
Order	Cyperales	<i>Tentative position in taxonomy</i>		<input checked="" type="checkbox"/>
Family	Poaceae			
Genus	Aegilops			

Images

Service	Resource	Record	Name	Image	User feedback
Herbarium GJO (herbarium.botanik.univie.ac.at)	Herbarium GJO	GJO-0015403	Aegilops neglecta Req. ex Bertol.	NULL	<input checked="" type="checkbox"/>
Herbarium GJO (herbarium.botanik.univie.ac.at)	Herbarium GJO	GJO-0015404	Aegilops neglecta Req. ex Bertol.	NULL	<input checked="" type="checkbox"/>
Herbarium GJO (herbarium.botanik.univie.ac.at)	Herbarium GJO	GJO-0015405	Aegilops neglecta Req. ex Bertol.	NULL	<input checked="" type="checkbox"/>
Herbarium GJO (herbarium.botanik.univie.ac.at)	Herbarium GJO	GJO-0015411	Aegilops neglecta Req. ex Bertol.	NULL	<input checked="" type="checkbox"/>
Herbarium GJO (herbarium.botanik.univie.ac.at)	Herbarium GJO	GJO-0015418	Aegilops neglecta Req. ex Bertol.	NULL	<input checked="" type="checkbox"/>
Herbarium GJO (herbarium.botanik.univie.ac.at)	Herbarium GJO	GJO-0015420	Aegilops neglecta Req. ex Bertol.	NULL	<input checked="" type="checkbox"/>

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Taxonomic Nomenclature Checker



Examples of Global Services: GBIF

taxon name check results

taxon matches found:

genus matches found, no taxon matches found:

genus matches found, but no taxon matches found:

incorrect genus names:

aegilops neglecta

checking statistics:

records in GRIN: 87824

user records processed: 1

taxon matches found: 0

genus matches found, no taxon matches found: 0

no genus matches found: 0

incorrect genus names: 1

processing time (seconds): 1

species name check results

genus and species matches found:

genus matches found, no species matches found:

genus matches found, but no species exist in MANSFELD for that genus:

genus matches not found:

aegilops neglecta

checking statistics:

records in MANSFELD: 30167

user records processed: 1

genus and species matches found: 0

genus matches found, no species matches found: 0

no genus matches found: 0

incorrect genus names: 1

processing time (seconds): 1

Passport Data Quality: the case of EURISCO and SINGER

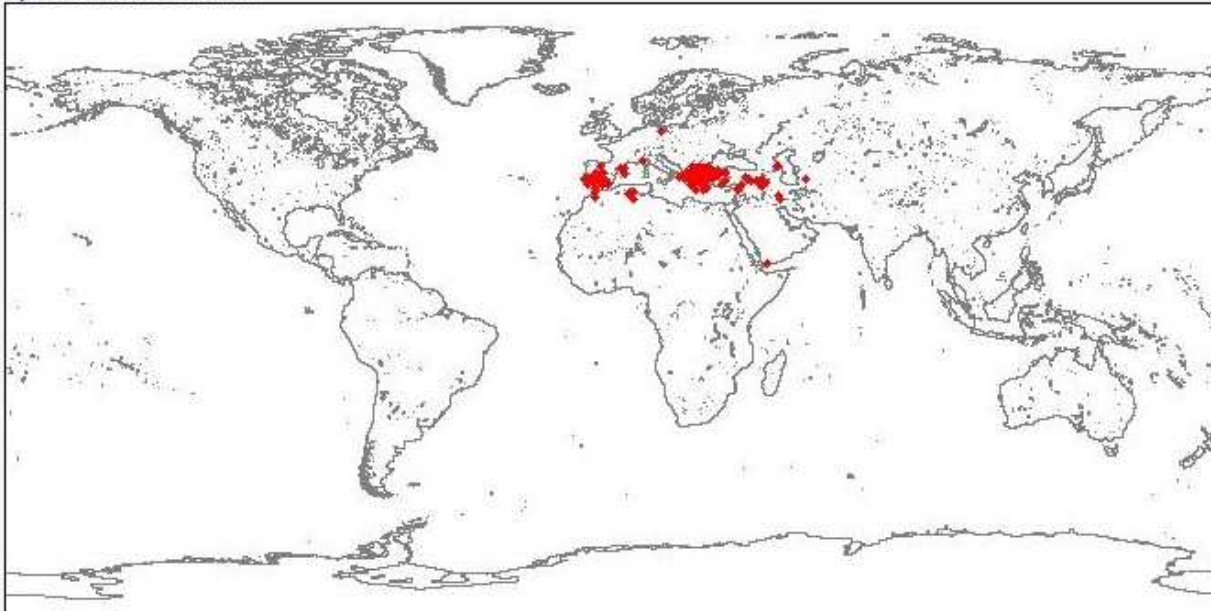
Specimens/observations		All	Lat/Long
Service	Resource		
Including records from: Albania; Algeria; Armenia; Azerbaijan; Bulgaria; Canada; Croatia; France; Germany; Greece; Iran; Iraq; Italy; Macedonia, Former Yugoslav Republic of; Morocco; Palestinian Territory, Occupied; Portugal; Romania; Russian Federation; Serbia and Montenegro; Spain; Syria; Turkey; Turkmenistan; Ukraine; United States			
Botanical Garden of Warsaw University (www.garden.uw.edu.pl)	Botanical Garden Collection	1	0
Bundesamt für Naturschutz / Zentralstelle für Phytodiversität Deutschland (www.floraweb.de)	Bundesamt fuer Naturschutz / Zentralstelle fuer Phytodiversitaet Deutschland	1	1
EUNIS DIGIR Provider (woodpecker.eea.eu.int)	EUNIS	10	1
EURISCO (biocase.grinfo.net)	EURISCO	184	10
GBIF-MNHN (Paris) (dsibib.mnhn.fr)	Phanerogamie	6	0
GBIF-Spain (taray.csic.es)	Real Jardín Botánico (Madrid), Vascular Plant Herbarium (MA)	7	6
GBIF-Spain (taray.csic.es)	Universidad de Almería, HUAL	2	2
GBIF-Spain (taray.csic.es)	Jardín Botánico de Córdoba: Herbarium COA	1	1
GBIF-Spain (taray.csic.es)	Universidad de Extremadura, UNEX	15	12
GBIF-Spain (taray.csic.es)	Herbario Universidad de Málaga: MGC-Cormófitos	2	2
GBIF-Spain (taray.csic.es)	Dirección General de Investigación, Desarrollo Tecnológico e Innovación de la Junta de Extremadura(DGIDTI): HSS	6	6
GBIF-Spain (taray.csic.es)	Dpto de Botánica, Ecología y Fisiología Vegetal (herbario_cofc).Facultad de Ciencias.Universidad de Córdoba	2	0
GBIF-Spain (taray.csic.es)	Institut Botanic de Barcelona, BC	23	14
GBIF-Spain (taray.csic.es)	Hortus Botanicus Sollerensis Herbarium (Fbonafè)	2	1
GBIF-Spain (taray.csic.es)	Institut Botanic de Barcelona, BC-Histórico	1	0
GBIF-Spain Herbario de la Universidad de Granada (granatensis.ugr.es)	Universidad de Granada, Herbario: GDA,GDAC	3	0
GBIF-Spain Herbario de la Universidad de Granada (granatensis.ugr.es)	Universidad de Granada, Herbario: GDAC	7	0
GBIF-Sweden Provider (www.gbif.se)	Herbarium of Oskarshamn (OHN)	5	0
GBIF-Sweden Provider (www.gbif.se)	Lund Botanical Museum (LD)	22	22
GRIN (198.77.175.232)	National Small Grains Collection	110	0
Herbario SANT (sant.usc.es)	SANT herbarium vascular plants collection	3	0
Herbarium GJO (herbarium.botanik.univie.ac.at)	Herbarium GJO	6	2
Herbarium RNG (www.herbarium.rdg.ac.uk)	Herbarium RNG	8	5
Herbarium W (herbarium.botanik.univie.ac.at)	Herbarium W	15	0
Herbier de Strasbourg (www.gbif.fr)	Herbier de Strasbourg	4	0
Intermountain Herbarium (utc.usu.edu)	USU-UTC Specimen Database	6	1
IPK Gatersleben Genebank accessions (ww3.bgbm.org)	IPK Gatersleben Genebank accessions	75	0
Leiner-Herbar Konstanz (www.konstanz.de)	Leiner-Herbar Konstanz	2	0
NGB - The Nordic Gene Bank (gelfir.ngb.se)	Nordic Gene Bank	1	1
NMNH Botany Collections (acsmith.si.edu)	NMNH Botany Collections	1	0
Plant Breeding and Acclimatization Institute (gbif.ihar.edu.pl)	National Centre for Plant Genetic Resources, Poland	10	0
Systax - garden data (www.biologie.uni-ulm.de)	Botanischer Garten Marburg	1	0
The System-wide Information Network for Genetic Resources (SINGER) (biocase.grinfo.net)	The System-wide Information Network for Genetic Resources (SINGER)	140	126
Tiroler Landesmuseum Ferdinandeum (81.223.215.146)	Tiroler Landesmuseum Ferdinandeum	1	0
University of California, Davis Association of Biological Collections DIGIR Provider (herbsoc.ucdavis.edu)	California State University, Chico	1	0
University of Washington Burke Museum (UWBM) (biology.burke.washington.edu)	WTU Herbarium vascular plant collection	1	0
Total		685	213

Passport Data Quality: the case of EURISCO and SINGER

Examples of Global Services: GBIF

Species: *Aegilops neglecta*

Specimens/observations



Mapping service provided by Belgian Biodiversity Information Facility



Dynamic map service from Canadian Biodiversity Information Facility



Passport Data Quality: the case of EURISCO and SINGER

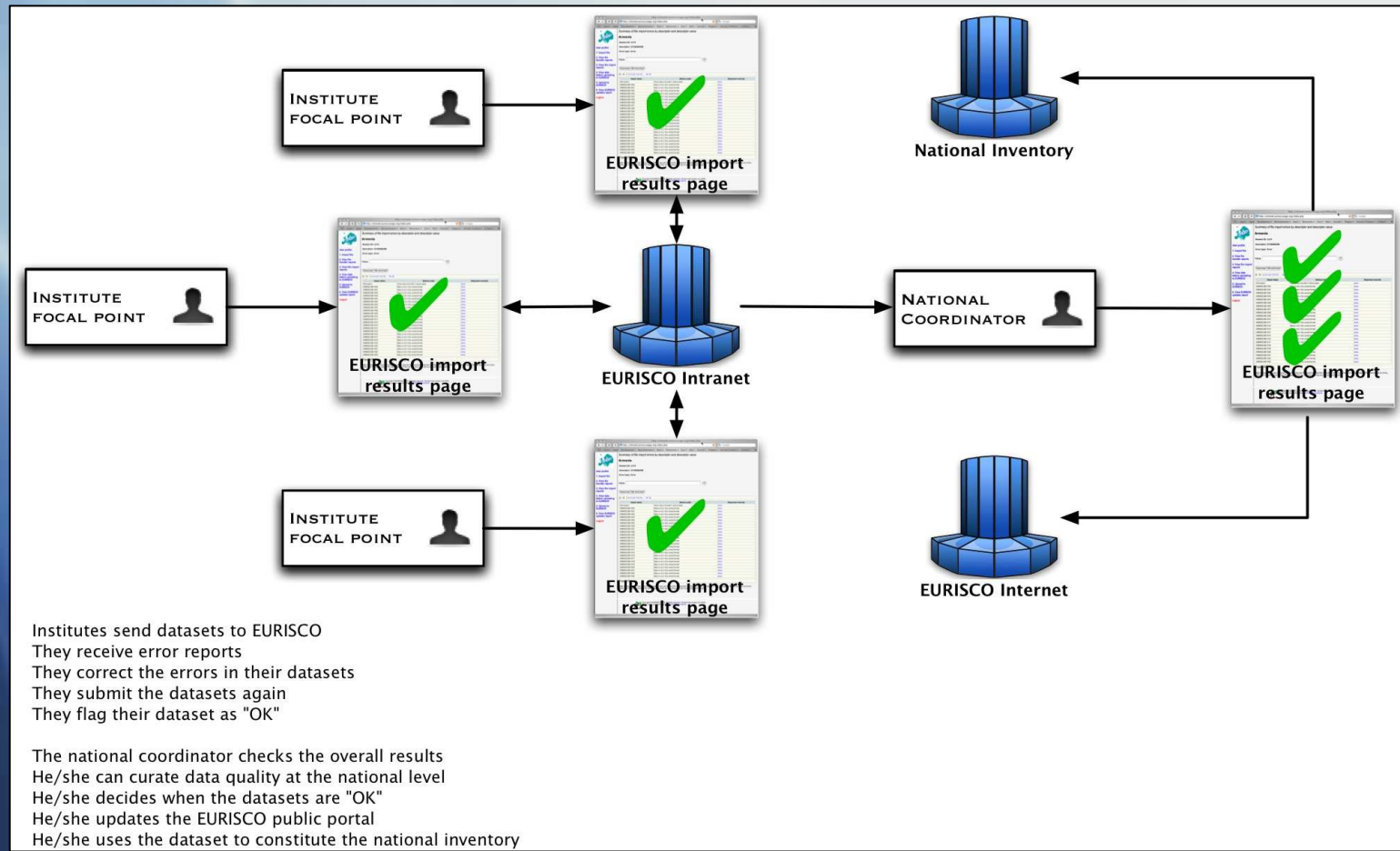
*Have you seen the
latest GBIF Portal?*

Passport Data Quality: the case of EURISCO and SINGER

Thank you...

Passport Data Quality: the case of EURISCO and SINGER

Introduction to EURISCO



EURISCO