

# The ECPGR *Prunus* Database

## Current status



# The new EPDB

## 1. The database is based on recent technologies (freely available)

MySQL 5.1+ is the database management system

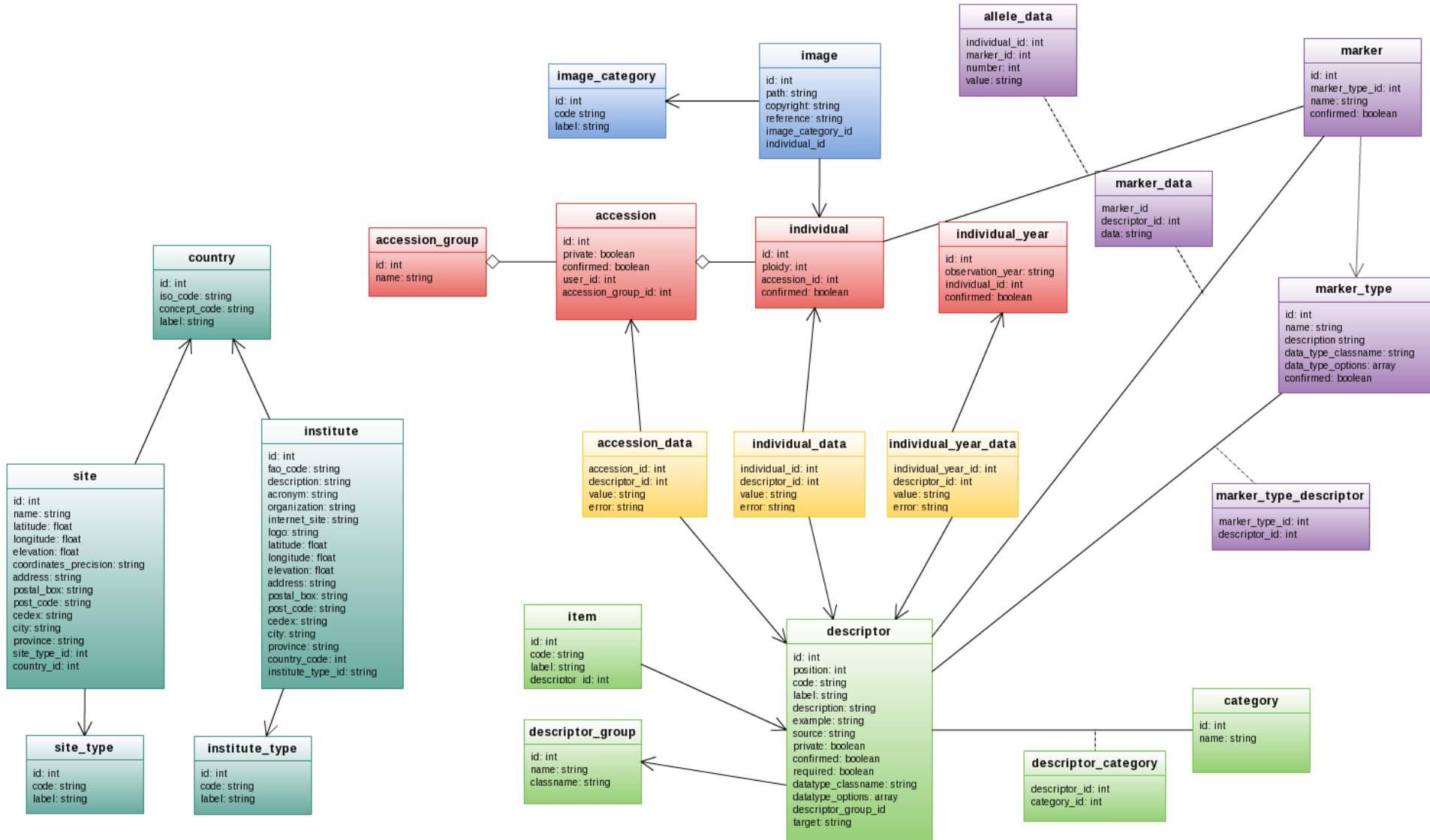
Apache 2 is the Web Server

PHP 5.2.4+ is the scripting language

## 2. Different levels of access

- **Public access** to “public accessions” only
- **Partner access** with specific login and password for each partner
  - Each partner is responsible of its own accessions. The accessions could be “public” or “accessible only to partners”
  - Data of chosen descriptors, e.g. molecular data, could be available only to partners
- **Private access** reserved to the database administrator

# Database Class Diagram



# The database philosophy

**ACCESSION\_GROUP**

**ACCESSION**

**INDIVIDUAL**

Passport  
data

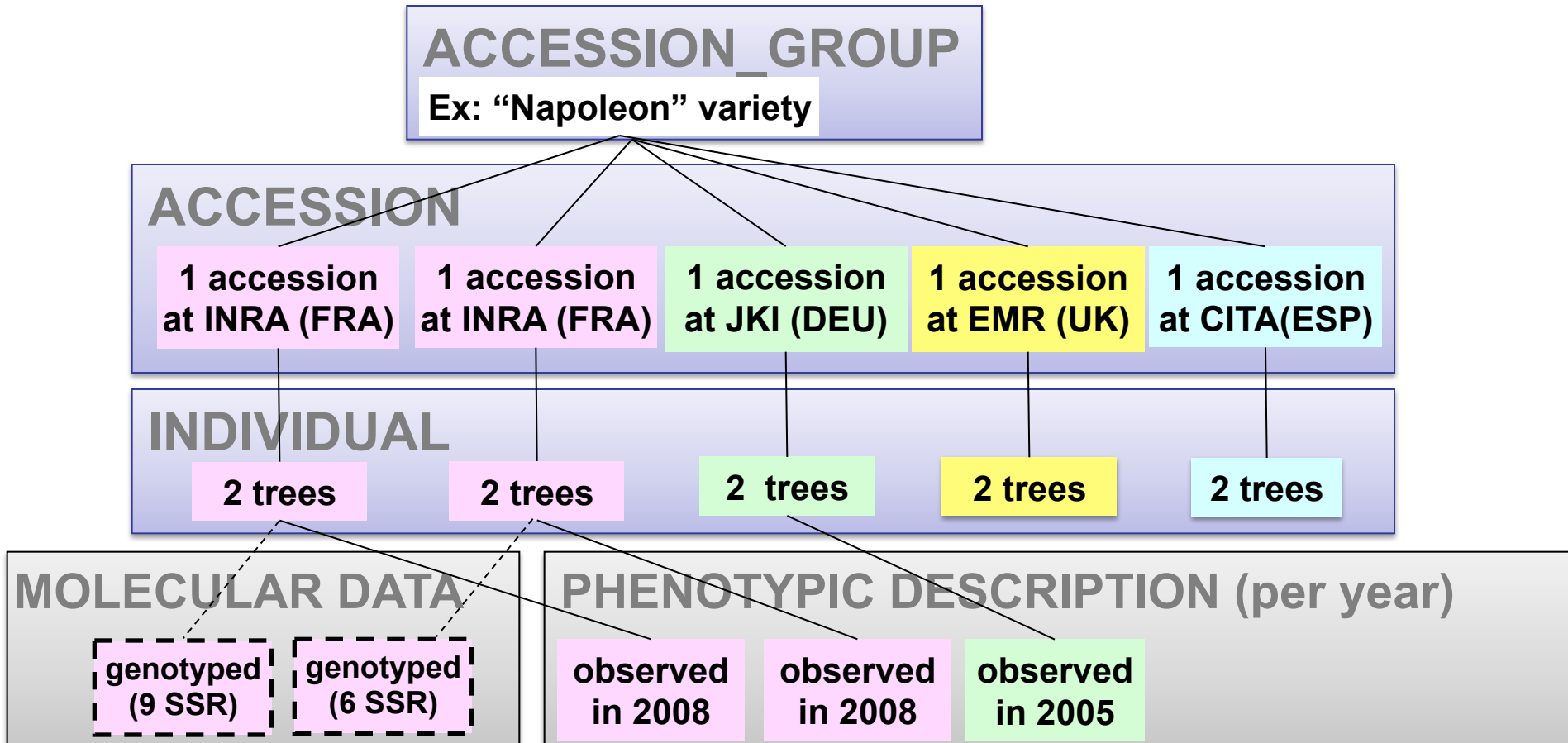
**MOLECULAR DATA  
(SSR or SNP)**

**PHENOTYPIC DESCRIPTION (per year)**

**INRA**

# The database philosophy

Example: 5 accessions representing “Napoleon” cherry variety



# The main functionalities

## 1. Search for information about one or several accessions

Using a quick search tool or an advanced search tool

## 2. Compare accessions maintained at different sites

- ✓ Possibility to compare phenotypic and/or molecular data among several accessions of the same variety
- ✓ Possibility to compare pictures

## 3. Export data in different output formats

- Search results in PDF or tabular formats (.csv)
- Molecular data directly compatible for a wide range of software for genetic analysis such as Structure, DARwin, Genetix, and genetic analysis R packages (0-1 matrix or individual/variable matrix)

## 4. Use the “Accession\_Group” level to link accessions

# The current status of the EPDB

1. The technical development of the EPDB tool is finished
2. The *Prunus* databases structures for cherry, plum, almond, apricot, peach cultivated species and their related species are developed
3. Data into the new *Prunus* databases are included
4. A new web site is created with common EPDB portal and links between crop databases

Almond DB  
1,004 accessions  
18 institutes  
13 countries

Cherry DB  
5,117 accessions  
40 institutes  
17 countries

Plum DB  
3,303 accessions  
32 institutes  
16 countries

Apricot DB  
1,926 accessions  
17 institutes  
12 countries

Peach DB  
1,334 accessions  
15 institutes  
10 countries

The EPDB will be on line at the end of 2012

INRA

# The home page



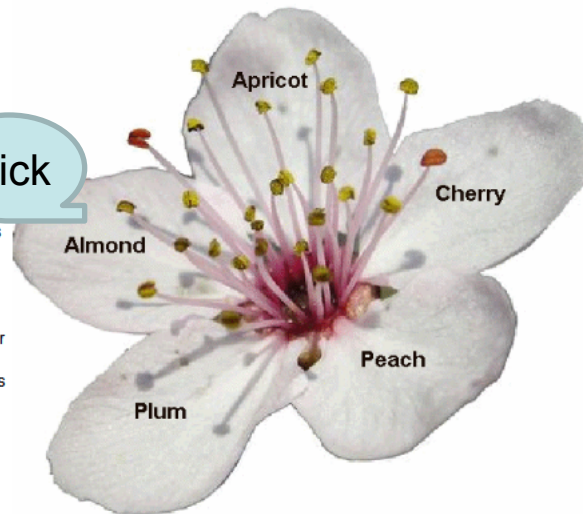
## The European *Prunus* Database: Stone Fruit Genetic Resources maintained by European countries



The European *Prunus* Database was originally established at the Nordic Gene Bank in 1983 and then maintained by the French National Institute for Agricultural Research (INRA) at Bordeaux, under the auspices of the European Crop Programme for Genetic Resources (ECPGR) Networks since 1994.

The database contains data of **European collections** of all *Prunus* species, cultivated stone fruits and their related species as well as the wild ones. The EPDB portal provides access to 5 distinct databases providing passport, characterisation, and evaluation data.

click



The **passport data** consist of a list of 13 passport descriptors defined by the ECPGR *Prunus* working group (WG), plus the 34 EURISCO descriptors, derived from the FAO-IPGRI Multi Crop Passport Descriptors.

**Phenotypic data** consist of characterisation and evaluation descriptors defined by the ECPGR *Prunus* WG and pictures of trees, fruits, flowers and leaves.

**Molecular data** consist of descriptors describing both molecular markers (i.e. SSR primer sequences) and genotypes (i.e. in general 2 allele sizes for diploid species).

To access to the database, click on one of the petal, or click on one of the following links: [Almond](#) / [Apricot](#) / [Cherry](#) / [Peach](#) / [Plum](#)

Different **levels of access** are possible: public access and password-protected partner access reserved to the ECPGR *Prunus* WG. The database philosophy allows distinguishing individual trees of each accession and grouping accessions into accession groups (i.e. varieties). Phenotypic descriptions made in different years and molecular assessments are also traceable to the individual trees that were characterized.


**Acknowledgements:** thanks to all partners that had contributed to get passport and characterization data.

Last update: September 2011







# The Almond DB



## eualmondDB: The European Prunus Database for Almond Genetic Resources

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- Accessions**
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  - [Quick search](#)
  - [Advanced search](#)
  - [Photo search](#)
  - [Synonym search](#)
- Molecular markers**
  - [Marker search](#)
  - [Molecular data search](#)
- Descriptors**
- User handbook**
- Important links**
- Contact**



### Holding institutes



### Overall statistics

The current database contains **1003** accessions physically represented by **1003** individuals maintained by **17** institutes from **12** countries.

Country, institute	Expand	Number of accessions
ESP Spain		224
FRA France		33
GBR United Kingdom		1
GRC Greece		39
HUN Hungary		106
ISR Israel		40
ITA Italy		94
ROU Romania		49
SVK Slovakia		14
SVN Slovenia		46
TUR Turkey		253
UKR Ukraine		97

[View detailed statistics by species](#)



# The Apricot DB



euapricotdb: The European Prunus Database for Apricot Genetic Resources

Sign in



[Home page](#)

### Accessions

- [List all accessions](#)
- [Quick search](#)
- [Advanced search](#)
- [Photo search](#)
- [Synonym search](#)

### Molecular markers

- [Marker search](#)
- [Molecular data search](#)

### Descriptors

[User handbook](#)

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### Holding institutes



### Overall statistics

The current database contains **1947** accessions physically represented by **1947** individuals maintained by **17** institutes from **12** countries.

Country, institute	Expand	Number of accessions
BEL Belgium		2
CZE Czech Republic		81
FRA France		90
GRC Greece		5
HUN Hungary		408
ISR Israel		169
ITA Italy		129
NOR Norway		3
ROU Romania		56
SVK Slovakia		15
TUR Turkey		236
UKR Ukraine		753

[View detailed statistics by species](#)



# The Cherry DB



## eucherrydb: The European Prunus Database for Cherry Genetic Resources

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[Home page](#)

### Accessions

- [List all accessions](#)
- [Quick search](#)
- [Advanced search](#)
- [Photo search](#)
- [Synonym search](#)

### Molecular markers

- [Marker search](#)
- [Molecular data search](#)

### Descriptors

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- [Important links](#)
- [Contact](#)



### Holding institutes




### Overall statistics

The current database contains **5117** accessions physically represented by **5117** individuals maintained by **40** institutes from **17** countries.


Country, institute	<a href="#">Expand</a>	Number of accessions
BEL Belgium		485
CZE Czech Republic		328
DEU Germany		338
ESP Spain		121
FRA France		168
GBR United Kingdom		464
GRC Greece		30
HUN Hungary		209
ISR Israel		49
ITA Italy		1063
LVA Latvia		45
POL Poland		123
PRT Portugal		24
ROU Romania		103




# The Peach DB




## eupeachdb: The European Prunus Database for Peach Genetic Resources

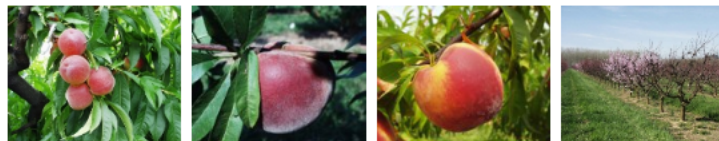


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- Molecular markers**
  - [Marker search](#)
  - [Molecular data search](#)
- Descriptors**
- [User handbook](#)
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### Holding institutes



### Overall statistics

The current database contains 1273 accessions physically represented by 1273 individuals maintained by 15 institutes from 10 countries.

Country, institute	Expand	Number of accessions
ESP Spain		281
FRA France		276
GBR United Kingdom		20
GRC Greece		26
HUN Hungary		201
ISR Israel		245
ROU Romania		34
SVK Slovakia		8
TUR Turkey		85
UKR Ukraine		97

[View detailed statistics by species](#)



# The Plum DB



## euplumdb: The European Prunus Database for Plum Genetic Resources

Sign in



[Home page](#)

### Accessions

- [List all accessions](#)
- [Quick search](#)
- [Advanced search](#)
- [Photo search](#)
- [Synonym search](#)

### Molecular markers

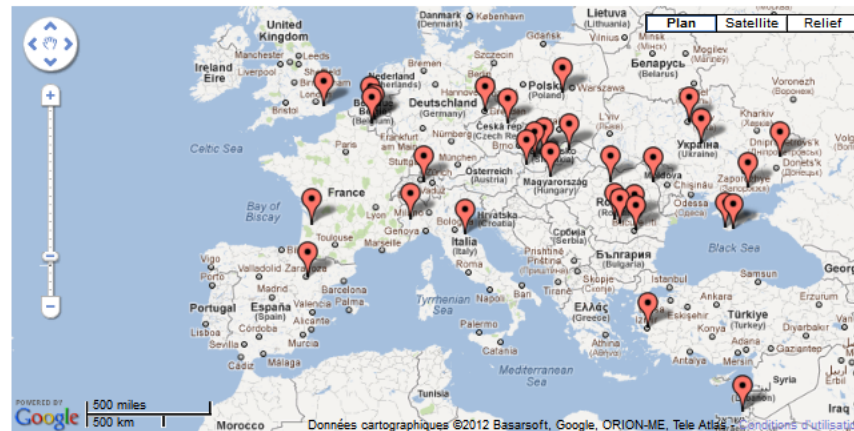
- [Marker search](#)
- [Molecular data search](#)

### Descriptors

- [User handbook](#)
- [Important links](#)
- [Contact](#)



### Holding institutes



### Overall statistics

The current database contains 3303 accessions physically represented by 3303 individuals maintained by 32 institutes from 16 countries.

Country, institute	<a href="#">Expand</a>	Number of accessions
BEL Belgium		156
CHE Switzerland		371
CZE Czech Republic		128
DEU Germany		188
ESP Spain		93
FRA France		70
GBR United Kingdom		32
HUN Hungary		421
ISR Israel		102
ITA Italy		87
NOR Norway		21
POL Poland		127
ROU Romania		292





# People involved

## **New EPDB Design and Structure**

Emilie Balsemin and Thomas Persohn

## **Data uploading and Common Portal**

Emilie Balsemin

**The EPDB model was developed thanks to:**

- **the EU GEN RES 036 « GenBerry » project on Strawberry Genetic Resources (<https://www.bordeaux.inra.fr/genberry/>)**

Coordinated by Béatrice Denoyes-Rothan

- **An additional contract between ECPGR and INRA Bordeaux**

Coordinated by Emilie Balsemin

**Currently EPDB contact person:** Teresa Barreneche

