



Short report from Portugal

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MAP EUROCOLLECTION
Braga, Portugal, 27-28 April 2017

There is a clear industrial demand for MAPs thanks to the increased production of herbal health care formulations; herbal based cosmetic products and herbal nutritional supplements.

In addition, traditional health care practitioners, traditional healers and consumption at the household level have all contributed to the demand for herbal medicinal products.

Portugal and MAP

- a rich flora, *comprising 3,800 described species of which 500 are of aromatic and/or medicinal potential.*
- These species are distributed mainly by the families **Apiaceae**, **Asteraceae**, Cupressaceae, **Hypericaceae**, **Lamiaceae**, Lauraceae, Leguminosae, Liliaceae, Malvaceae, Myrtaceae, Oleaceae, Pinaceae, Rosaceae and Rutaceae.
- Some of these species are **endemic**, sometimes with very vulnerable ecological niches.

In recent decades, research programs on MAP RG in Portugal have been focusing on the biochemical evaluation of wild material.

In the last decade, efforts have been made to preserve this genetic material *in situ* and *ex situ*, along with morphological and chemical evaluation and ethnobotanical studies.



Impact of the MAP on the latest initiatives



www.valuepam.eu/proyecto.php?l=2

Aplicações Pedro Abrunhosa - "F" BRASSICA 2017 Daucus carota L. (Carr) Invitation - ISEO 2017 relógio de ponto Quality management FACCE/PI - Grasslands BioChemCore - Projeto Minho em antigas im GRIN National Genet Seed pretreatment of www.mapsdatabase.c

HOME | PROJETO | PARCEIROS | RESULTADOS | NOTÍCIAS | COMERCIALIZAÇÃO | CONTATO | ACESSO

Interreg Sudoe European Regional Development Fund

Value PAM

2016.11.28. El proyecto de valorización de plantas aromáticas y medicinales "ValuePAM" ha irrancado oficialmente y se desarrollará en espacios protegidos y zonas de la Red Natura 2000 en Andalucía, Cataluña, Portugal y Francia.

Projecto

Valorização das Plantas Aromáticas e Medicinais Silvestres: Gestão sustentável da biodiversidade vegetal e desenvolvimento socioeconómico das zonas rurais do espaço SUDOE.

O ValuePAM é um projecto cofinanciado a 75 % pelo Fundo Europeu de Desenvolvimento Regional (Feder), através do programa Interreg SUDOE (Programa de Cooperação Interreg V-B Sudoeste Europeu). Tem como objectivo melhorar a gestão, planificação e valorização das Plantas Aromáticas e Medicinais (PAM) e o seu uso como ferramenta de diversificação económica e desenvolvimento sustentável das áreas naturais e zonas rurais do espaço SUDOE.

Para tal, o projecto levará a cabo acções de caracterização das PAM nos espaços implicados, assim como análise de espécies, criação de planos de gestão e diversas experiências piloto.

O projecto incidirá em varias áreas naturais protegidas das regiões SUDOE sócias do projecto: As 24



SUSTAINABLE MANAGEMENT AND SOCIO-ECONOMIC DEVELOPMENT OF RURAL AREAS

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Impact of the MAP on the latest initiatives

← → ↺ ↻ epam.pt/about-the-project/

epam  **EMPREENDER NA FILEIRA DAS plantas aromáticas e medicinais EM PORTUGAL**

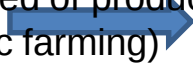
2011

It acts at the levels of network animation, research and availability of information, training, promotion (internal and external) and representation, assuming itself as a strategic and innovative platform, at the service of the agents of the sector.

guide to grower



Recorded of producers
(organic farming)



Adult training project



EPAM Project – Business development in the aromatic and medicinal plant sector in Portugal

Objectives

The EPAM Project aims to:

- foster the development of a national network related to the production and sale of aromatic and medicinal plants (PAM);
- support entrepreneurship within the sector and develop the capacity of its agents;
- increase and disseminate knowledge within the sector; and
- build on experience and prepare policy proposals.

Areas of Activity

- **KNOWLEDGE:** Document innovation and best practice in the PAM sector at national and international level | Create a database of producers and other agents in the sector – **view MAP OF PRODUCERS here.**
- **RELATIONSHIP:** Hold National and Local Meetings | Foster the development of common practices within the sector (including work groups and study visits)
- **DISSEMINATION:** Publish information in newspapers and other media | Create a Manual on Good Practices for Production, Sale and Promotion of PAM | Train PAM rural development agents
- **POTENTIAL:** Cooperate with the public sector on issues related to the development of the sector | Develop expertise for sale and marketing of products (cooperation, domestic and international promotion, differentiation)

Promoters / Funding

The EPAM Project is coordinated by the Portuguese non-governmental organisation ADCMoura – Associação para o Desenvolvimento do Concelho de Moura and received support under the European Agricultural Fund for Rural Development (FEADER) for its start.

February 25, 2017

Center of competences created by protocol of cooperation between several entities

Expo Eco Salud 2017 (Barcelona)
Abril 21 - Abril 23

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18 480 vistas

PARTILHAR

Lista de produtores

- 6aromas
- Açafrão do Tejo
- A Estufa de Vilar
- AmorAroma
- ... Mais 123

2009 – 93 growers
2016 - 127 growers

Mapa de Produtores | Ervital | epam.pt | Aromaticland | epam.pt

217 Daucus carota L. (Car) | Invitation - ISEO 2017 | relógio de ponto | Quality management | FACCE/PI - Grassland | BioChemCore - Projec | Minho em antigas in | GRIN National Geneti

Home | produtor

Guia para a Produção de Plantas Aromáticas e Medicinais

Mapa de Produtores

Investigação em PAM

HERBARTIS | Erasmus+

CC-PAM
Centro de Competências das Plantas Aromáticas, Medicinais e Condicionantes

Publicidade

Anuncie aqui. Apoie este projecto. Fale connosco.

Agenda

34º Ovideja
Abril 27 - Maio 1

Workshop Produção de Plantas Aromáticas (V.N.Gaia)
Abril 29 - Abril 30

Biocultura Barcelona
Maio 4 - Maio 7

Ervital

Posted by Clara Lourenço | Date: Novembro 22, 2013 | in: produtor | Leave a comment

Nome: Ervital – Plantas Aromáticas e Medicinais

Descritivo: A ERVITAL- Plantas Aromáticas e Medicinais, Lda, com sede no lugar de Mezio – Castro Daire, foi constituída como sociedade por quotas em 1997, tendo iniciado a actividade experimental nesta área já em 1991. Trata-se duma empresa que produz, transforma e comercializa PAM e seus derivados, em modo de produção biológico, utilizadas, principalmente, na preparação de infusões e como condimentos. Paralelamente, presta serviços de consultoria e formação nas áreas da Agricultura Biológica, PAM e criação/recuperação de espaços verdes e jardins de baixa manutenção (privilegiando a utilização das PAM), assim como acolhe visitantes (cerca de 2500 em 2012). Além de produtos embalados também comercializa plantas vivas (a empresa está licenciada como viveirista em MPB), factores de produção (MPB), assim como publicações técnicas relativas a estas áreas. Ao longo dos anos, a empresa tem evoluído de forma gradual e sustentada, contribuindo para o

EMBALAGEM DE INFUSÃO gourmet

Ervital



Criado com Google Us meus Mapas

Dados do mapa ©2017 GeoBasis-DE/BKG (©2009), Google, Inst. Geogr. Nacional | Termos de Utilização | 50 km

Google My Maps

Impact between MAPs and several subjects

Biological material

Spontaneous material > cultivated material

MAP Research domains today

Inventory, identification

Taxonomic, botanical and phytosociological

Agronomic science

Markets and commercialization

Ornamental adaptation

Chemical diversity and composition of essential oils

Molecular diversity

Biological activity

Industrial innovation

Medicinal, Pesticide, Agrifood applications

Pharmaceuticals, cosmetics and perfumery

Economical Activities - organic farming, bioeconomics, tourism, training, gastronomy, alternative and traditional medicines, ...

Collections in Portugal



- 1** - Aromáticas e Medicinais; Cereais; Fibras; Forragens e Pastagens; Hortícolas; Leguminosas grão, Outras Espécies
- 2** - Aromáticas e Medicinais; Cereais; Fibras; Forragens e Pastagens; Hortícolas; Leguminosas grão
- 3** - Cucurbitaceas
- 4** - Lupinus
- 5** - Fibras, Forragens e Pastagens; Leguminosas grão
- 6** - Macieiras – **Coleção de referência**
- 7** - Macieiras – **Coleções Regionais**
- 8** - Pereiras – **Coleção de Referência**
- 9** - Pereiras – **Coleções Regionais**
- 10** - Cerejeiras, Ginjeiras – **Coleção de Referência**
- 11** - Cerejeira, Ginjeira – **Coleções Regionais**
- 12** - Ameixeiras – **Coleções Regionais**
- 13** - Figueiras – **Coleção de Referência**
- 14** - Amendoeira, Citrinos, Alfarrobeiras e Nespereiras, Romãzeiras, Pêros – **Coleções Regionais**
- 15** - Oliveira
- 16** - Videira



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MAP Ex Situ Conservation



In 1998, existing valid information considered the existence of 5 MAP field collections with a total of 61 species and 582 registered accessions and long-term seed conservation still in the early stages of development (source: Bettencourt and Gusmão, 1998).

Today the *ex situ* MAP collection has 70 species, 1185 Accessions, in seed collections, in field and *in vitro* collections.

MAP Strategy started with the cultivated species and in 2000 the wild ones were included in the MAP conservation objectives.

The target species of the Portuguese flora were those belonging to the most important Families and supported by ethnobotanical studies.



Mentha sp.



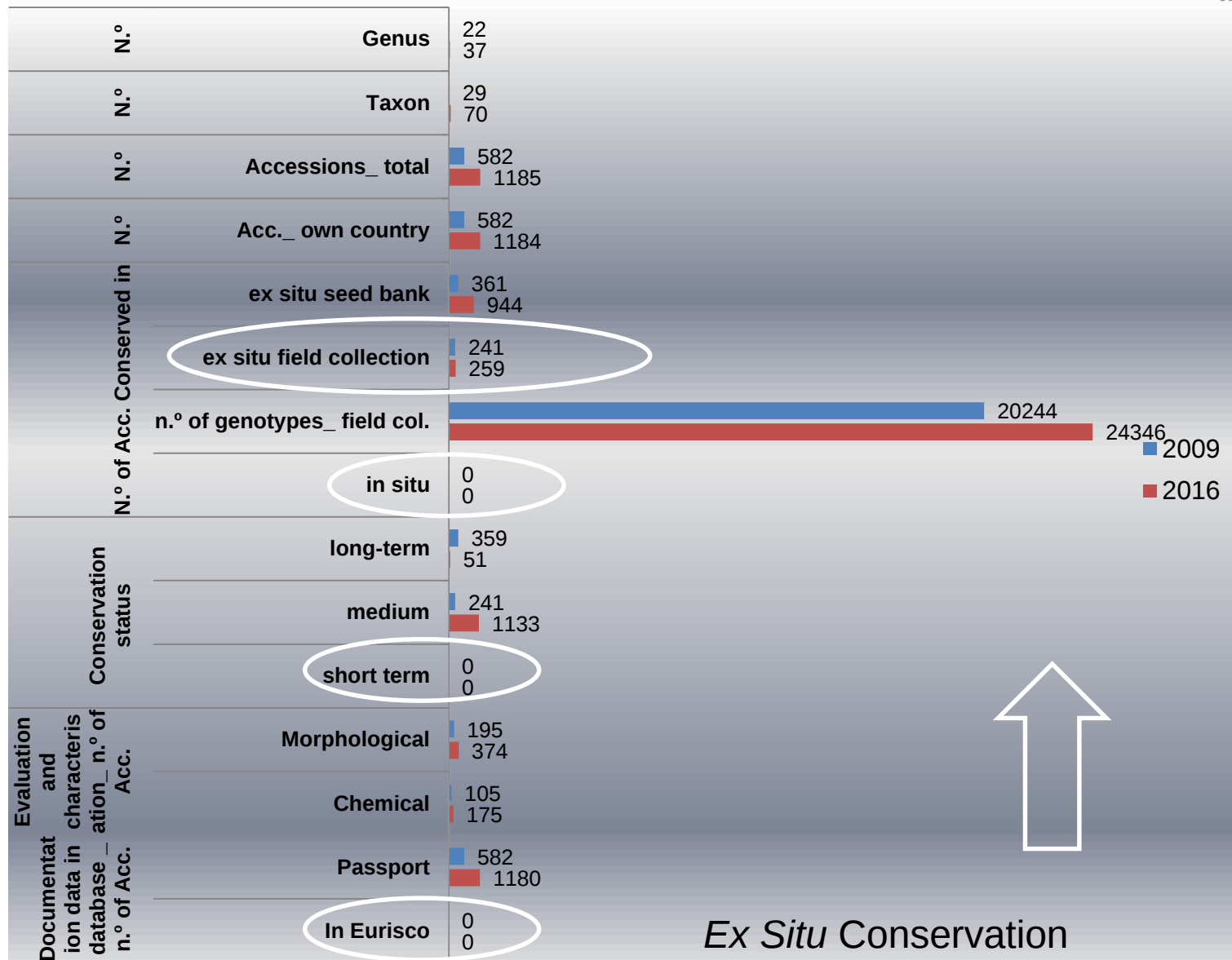
MAP Ex Situ Conservation



Humulus lupulus L

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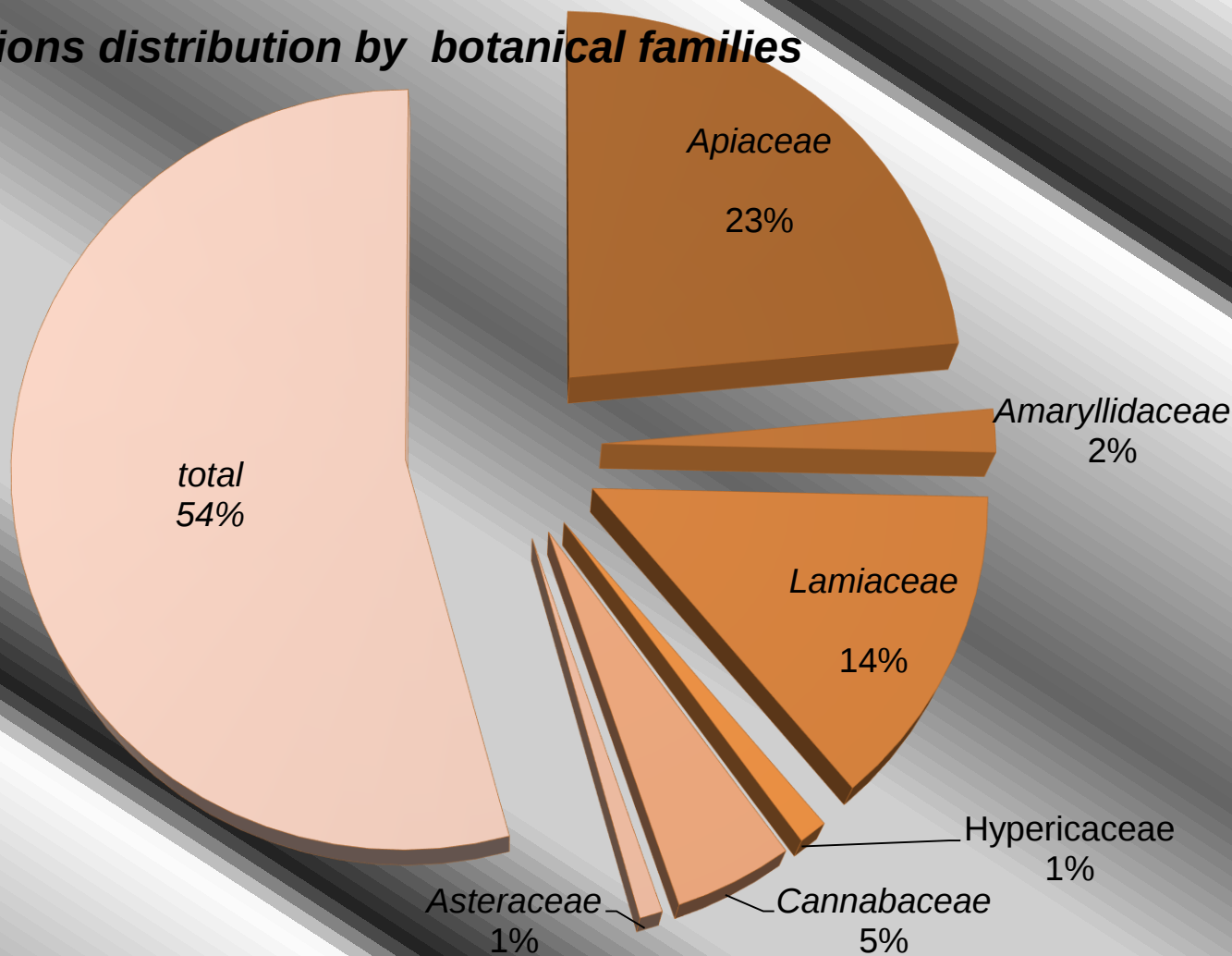
Evolution of MAP *ex situ* collection between 2009 and 2016

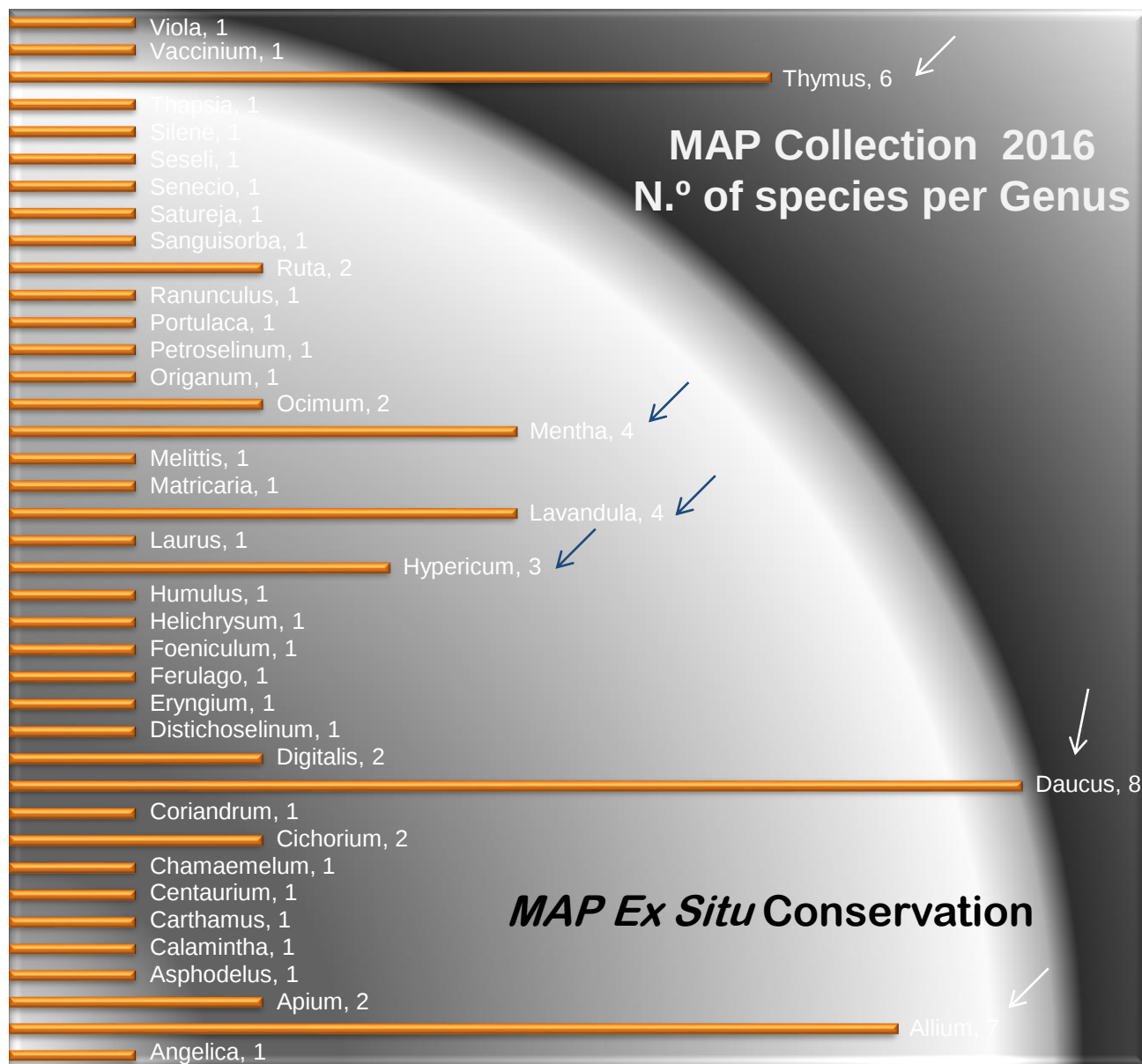


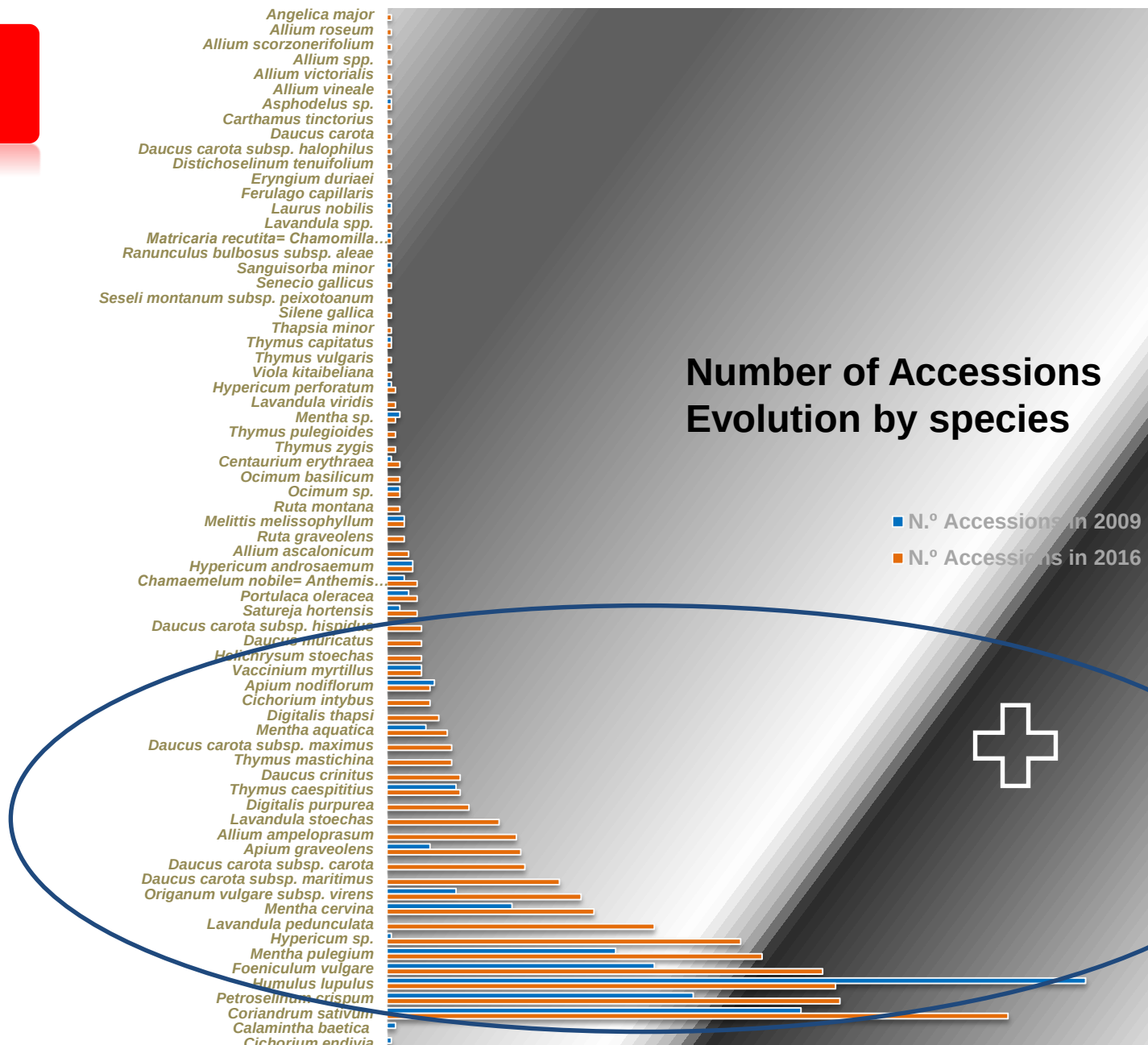
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N.º Accessions distribution by botanical families









MAP Ex Situ Conservation



MAP Collection

North and Alentejo Regions

Wild (78%) and Landraces (21,5%)

Landraces were collected in farms

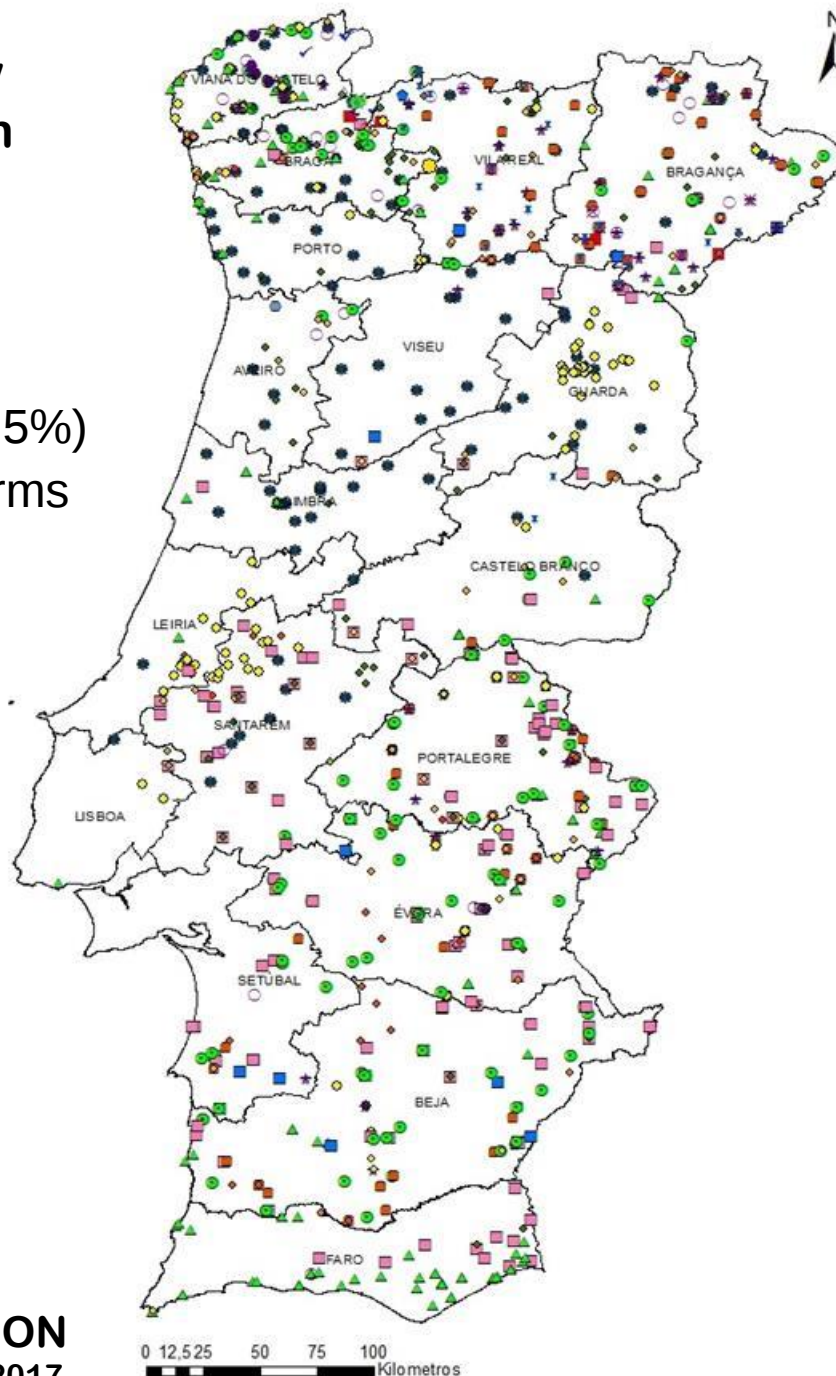
Species

Allium spp.

Coriandrum sativum

Petroselinum crispum

Georeferenced passport data



- *Allium ampeloprasum* L.
- *Allium ascalonicum* L.
- *Allium roseum* L.
- *Allium* spp.
- *Allium vineale* L.
- *Apium graveolens* L.
- *Apium nodiflorum* (L.) Lag.
- *Asphodelus* spp.
- *Campanula primulifolia* Brot.
- *Centaurium erythraea* Rafn
- *Chamaemelum nobile* (L.) All.
- *Cichorium intybus* L.
- *Coriandrum sativum* L.
- *Daucus carota* L.
- *Daucus carota* subsp. *carota* L.
- *Daucus carota* subsp. *hispidus* (Desf. ex Arcang.) Heywood
- *Daucus carota* subsp. *maritimus* (Lam.) Batt.
- *Daucus carota* subsp. *maximus* (Desf.) Ball
- *Daucus crinitus* Desf.
- *Daucus muricatus* (L.) L.
- *Digitalis purpurea* L.
- *Digitalis thapsi* L.
- *Foeniculum vulgare* Mill.
- *Helichrysum stoechas* (L.) Moench
- *Humulus lupulus* subsp. *lupulus* L.
- *Hypericum androsaemum* L.
- *Hypericum perforatum* L.
- *Hypericum* spp.
- *Iris boissieri* Henricq.
- *Lavandula pedunculata* (Mill.) Cav.
- *Lavandula* spp.
- *Lavandula stoechas* L.
- *Lavandula viridis* L'Her.
- *Lilium martagon* L.
- *Matricaria recutita* L.
- *Meissa officinalis* L.
- *Melittis melasophyllum* L.
- *Mentha aquatica* L.
- *Mentha cervina* L.
- *Mentha pulegium* L.
- *Mentha* spp.
- *Nardus pseudonardus* subsp. *nobilis* (Haw.) A. Fern.
- *Ocimum basilicum* L.
- *Ocimum* spp.
- *Origanum vulgare* subsp. *virens* (Hoffmanns. & Link) Letsov.
- *Petroselinum crispum* (Mill.) Fuss
- *Portulaca oleracea* L.
- *Ruta graveolens* L.
- *Ruta montana* L.
- *Sanguisorba minor* Scop.
- *Sanguisorba verrucosa* (Link ex O. Don) Ces.
- *Satureja hortensis* L.
- *Silene gallica* L.
- *Thymus caespitosus* Brot.
- *Thymus capitatus* (L.) Hoffmanns. & Link
- *Thymus mastichina* L.
- *Thymus pulegioides* L.
- *Thymus vulgaris* L.
- *Thymus zygis* L.
- ✓ *Vaccinium myrtillus* L.

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MAP Ex Situ Conservation

Conservation *in vitro*

5 accessions
of *Allium
ampeloprasum*

5 accessions
of *Allium
ascalonicum*

18 accessions
of *Mentha
pulegium*

In vitro as tool of
regeneration of
field collection



Humulus lupulus



Allium ascalonicum



Allium ampeloprasum

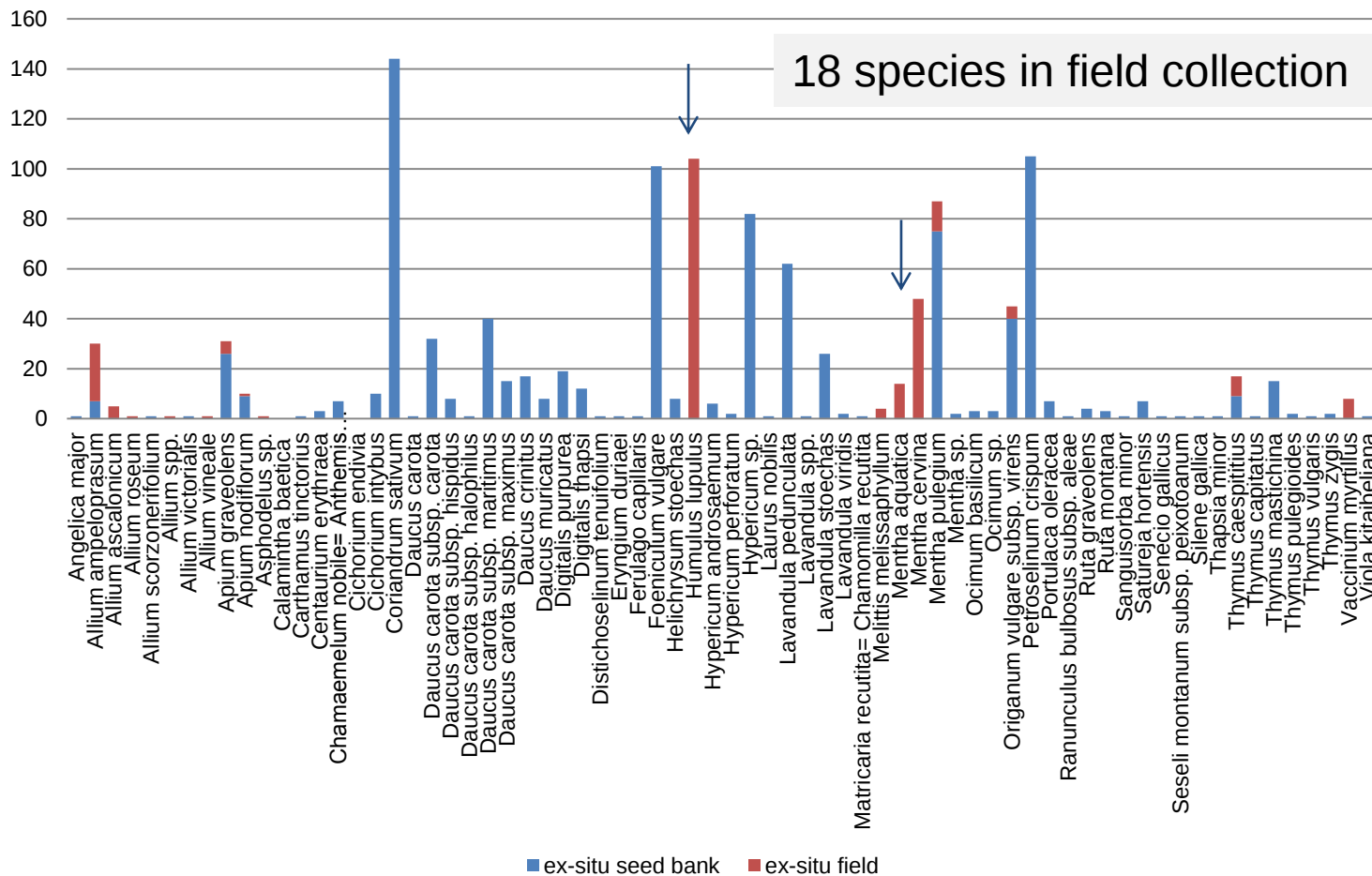


Mentha pulegium



MAP Ex Situ Conservation

Impact of field collection n.º accessions



MAP Ex Situ Conservation

Collection management

Regeneration

Seeds

started in 2011
28 accessions
15 acc. from field collection
18 acc. Now

Field collection

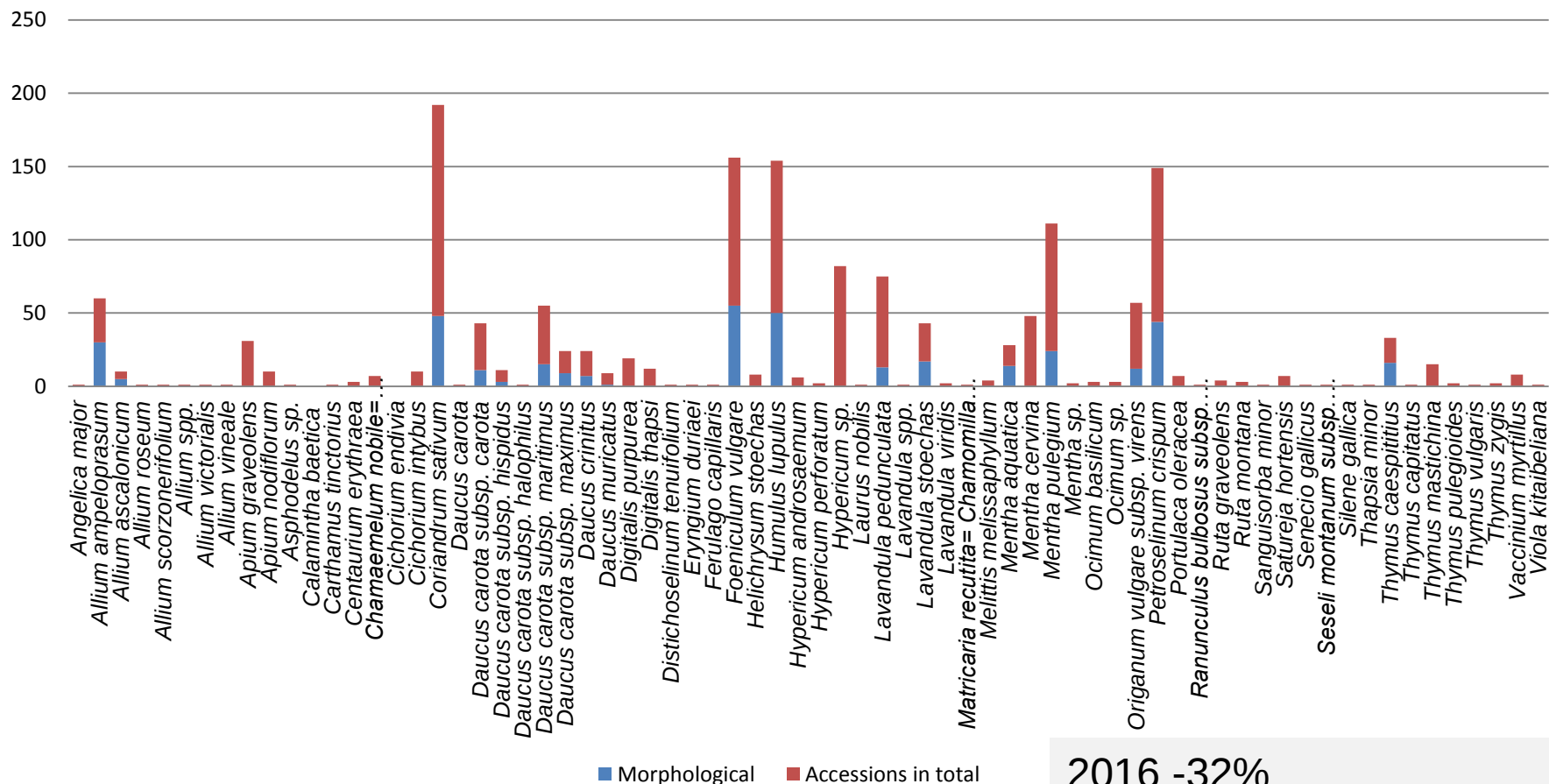
Cycles of 4 years

Duplicates *in vivo* collections
each 2 years

MAP Ex Situ Conservation

Impact of characterization

N.º Accessions characterized in relation to total collection

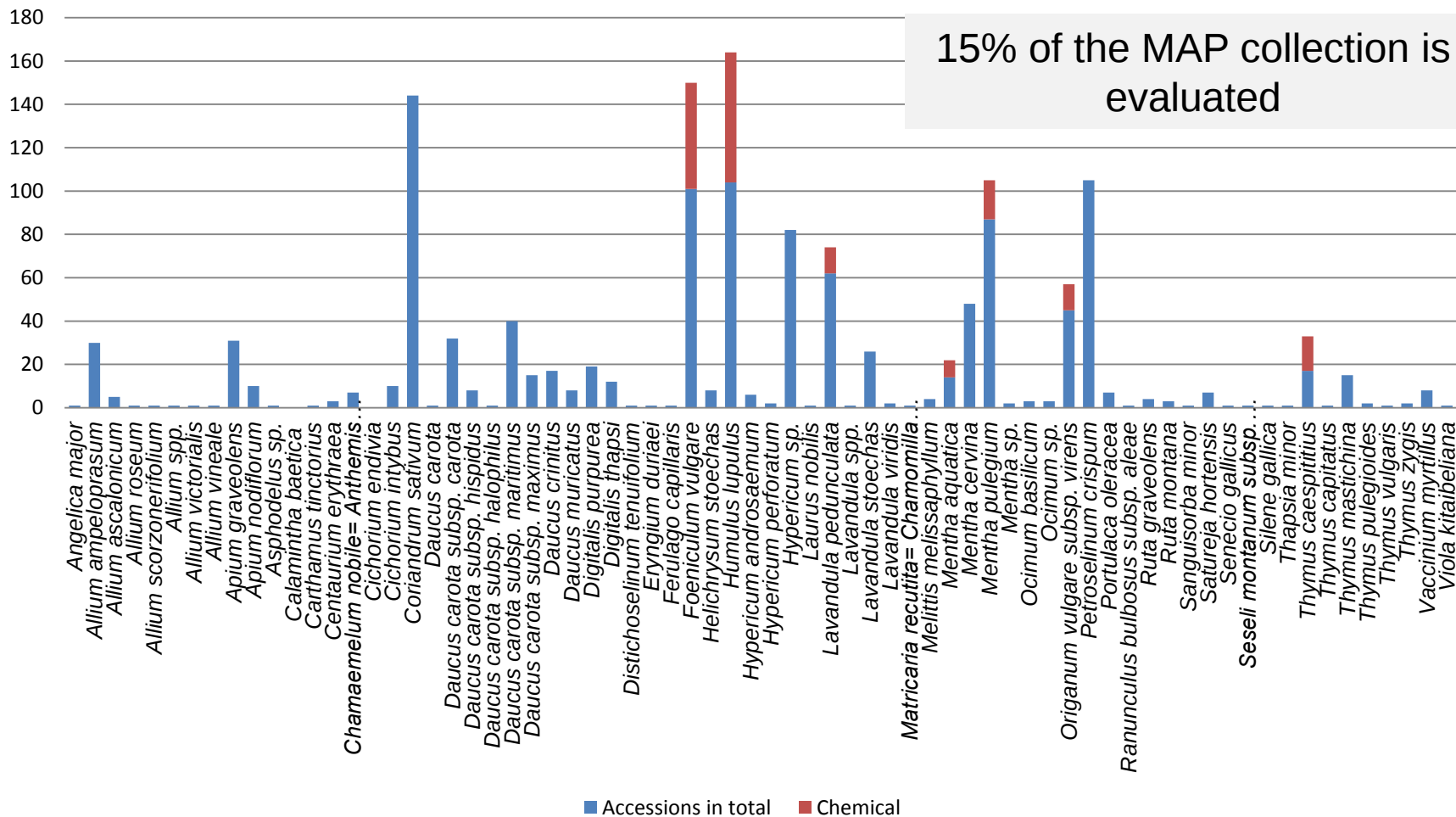


2016 -32%
Main species of MAP
collection

MAP Ex Situ Conservation

Impact of characterization

Main achievements to chemical evaluation



> 69 accessions

Due to collaboration with other research labs.

MAP Impact in *Ex Situ* Conservation

2004 – 2007 Network for the conservation and sustainable use of MAP Plants

2009-2010 Conservation and characterization of oregano (*Origanum vulgare* L.) wild populations in South - Eastern of Europe

2008 – 2011 Genetic resources Conservation and Recuperation from Alentejo and Extremadura(Portugal and Spain)

2011 – 2013 GRUDTVIG WILD PLANT: Forests Plants Wild Harvesting Learning in Europe



PLANT WILD
Forest Plants
Wild Harvesting
Learning
in Europe



Education and Culture DG
Lifelong Learning Programme

2011 – 2015 PRODER 18636 MAP Collection, Conservation and Documentation

MAP *Ex Situ* collection upgrade

NO EURISCO - BY THE END OF APRIL 2017

NO *IN SITU* COMPLEMENTARY CONSERVATION

FIELD AND *IN VITRO* COLLECTION STABLE

SEED COLLECTION INCREASED

MAIN BOTANICAL FAMILIES – *APIACEA* AND *LAMIACEAE*

MAIN GENUS – *ALLIUM*, *DAUCUS*, *LAVANDULA*, *MENTHA* AND *THYMUS*

MORPHOLOGICAL CHARACTERIZATION AND CHEMICAL EVALUATION INCREASED

REGENERATION IN INITIAL STAGE

MAP RESEARCH ON THE TOP

Thank you for your attention



MAP *EX SITU* WG

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