



# BIODIVERSITY

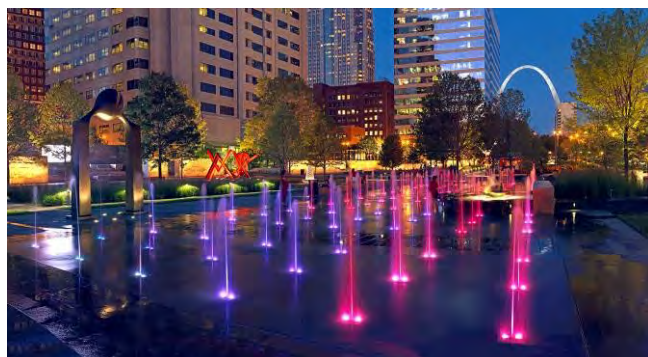
## FOR A BETTER WORLD

Wild Ideas Worth Sharing

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St. Louis, MO • April 26–May 1, 2015

BGCI's 9<sup>th</sup> International Congress on Education in Botanic Gardens







## Ireland's Generous Nature

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A botanic garden case study in conservation and use of traditional knowledge







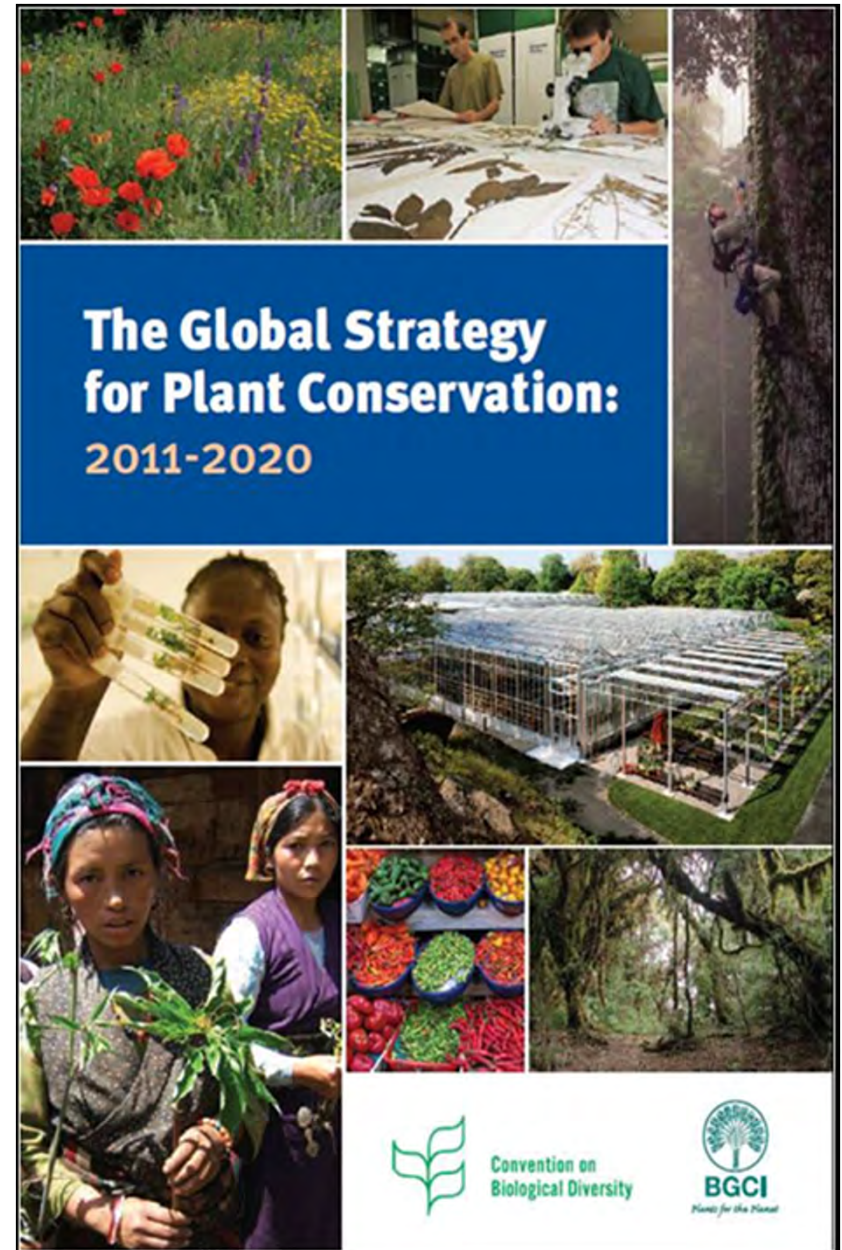
**Traditional knowledge** amongst local people about plants, nature and their environment is one of the world's most valuable and most endangered resources





# Global Strategy for Plant Conservation

- **Target 13:** *Indigenous and local knowledge, innovations and practices associated with plant resources maintained or increased, as appropriate, to support customary use, sustainable livelihoods, local food security and health care.*
- **Target 14:** *The importance of plant diversity and the need for its conservation incorporated into communication, education and public awareness programmes.*





# International Workshop at the Missouri Botanical Garden 1-2 May 2013 - William L. Brown Center



**A Global Program on Conservation of Useful Plants and  
Traditional Knowledge: A Call to Action**



PETER WYSE JACKSON

WYSE  
JACKSON

IRELAND'S GENEROUS NATURE  
THE PAST AND PRESENT USES OF WILD PLANTS IN IRELAND



# IRELAND'S GENEROUS NATURE

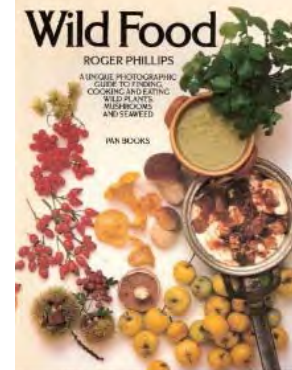


THE PAST AND PRESENT USES OF WILD PLANTS IN IRELAND

- Conserve disappearing traditional knowledge on wild plants and their use in Ireland
- Make it accessible and available to support public awareness of native plants
- Raise awareness of the value and utility of wild plants
- Provide a botanic garden source book for education and interpretation
- Complete a compendium of ethnobotanical knowledge and vernacular names in Ireland

# Ethnobotany and Botanic Gardens

- Important and accessible entry point for visitors to wild plant diversity
- Seeing the familiar through different eyes
- Intersection of science, botany, history, folklore, agriculture, horticulture ...
- Supporting a growing interest in foraging and wild food and herbal healthcare







## *Taraxacum officinale*

### Dandelion

- Leaves as a vegetable or salad
- Roots roasted as vegetable or for coffee
- Flowers as fritters and to make Dandelion syrup
- Liqueur





... nine traditional and locally grown & wild harvested botanicals:

*Juniperus communis* – juniper

*Coriandrum sativum* - coriander

*Sorbus aucuparia* - rowan berry

*Fuchsia magellanica* – fuchsia

*Myrica gale* - bog myrtle

*Erica cinerea* – heather

*Anthriscus cerefolium* - chervil

*Crataegus monogyna* – hawthorn

*Angelica sylvestris* - angelica







Hawthorn



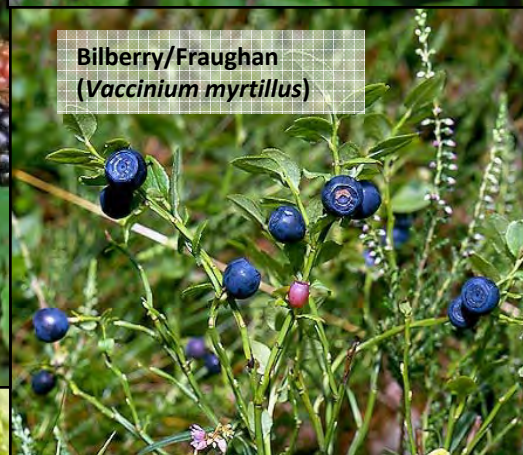
Sloe or Blackthorn



Crab Apple



Blackberry



Bilberry/Fraughan  
(*Vaccinium myrtillus*)



Rowan or Mountain Ash



Hazel – *Corylus avellana*

Botanic garden  
collections of  
wild fruits and  
nuts – ideal for  
display and  
interpretation



Wild Rose



Wild Cherry



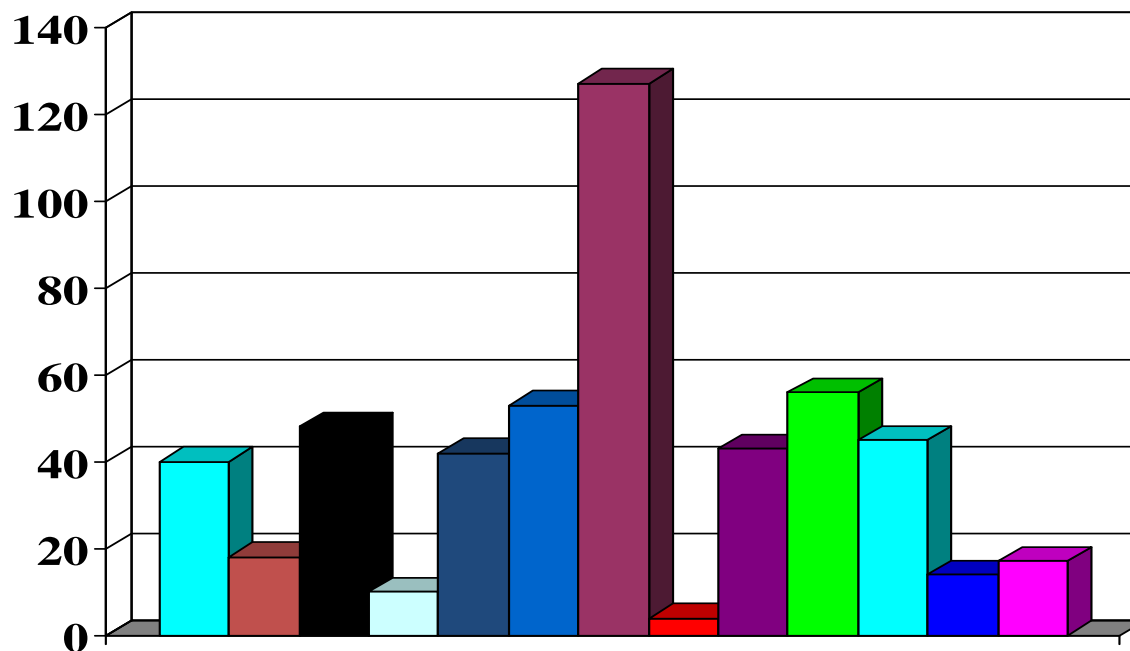


Collections of  
artefacts





# Distribution of medicinal plant collections in botanic gardens





# First European botanic gardens – Physic Gardens

- Pisa (1543)
- Padua (1545)
- Florence (1545)
- Bologna (1547)
- Zurich (1560)
- Valencia (1567)
- Leiden (1577)
- Leipzig (1579)
- Paris (1597)
- Montpellier (1598)
- Oxford (1621)
- Uppsala (1655)
- Edinburgh (1670)
- Chelsea (1673)
- Berlin (1679)
- Amsterdam (1682)
- Trinity College Dublin (1687)



Dipartimento di Scienze Botaniche  
Orto Botanico di Pisa



MISSOURI BOTANICAL GARDEN





# National Botanic Gardens of Ireland,

Glasnevin, Dublin







## Organic fruit and vegetable garden















**Great opportunities for hands-on classes, demonstrations – Making *Arbutus unedo* jam**







Trying to piecing together a picture of plant use in Ireland when many of the pieces are missing.

Apparently little knowledge on wild plant use survives today in Ireland as part of an oral tradition.

**Is present day usage of wild plants in Ireland a part of an unbroken tradition or a rediscovery of former knowledge?**



## Ireland's tragic disaster

- The Potato Famine (1845-1852)
- 1 million people died
- 1 million people emigrated

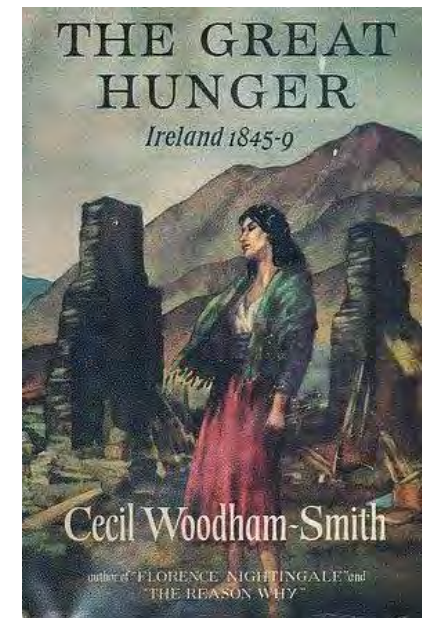
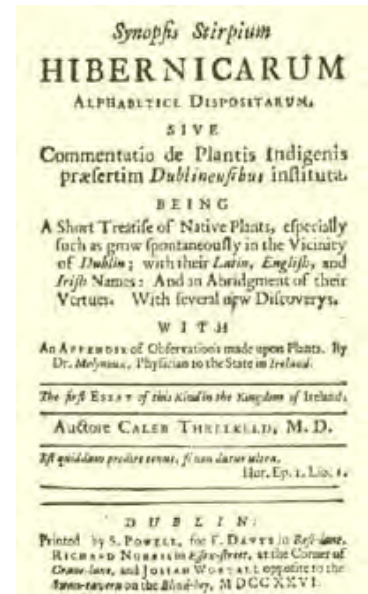




# Methodologies – Gathering the traditional knowledge

- Literature sources
  - Botanical publications
  - Folklore texts
  - Historical travelogues
  - Biographies
  - Topographical and agricultural descriptions
  - Image collections (photographs and paintings)

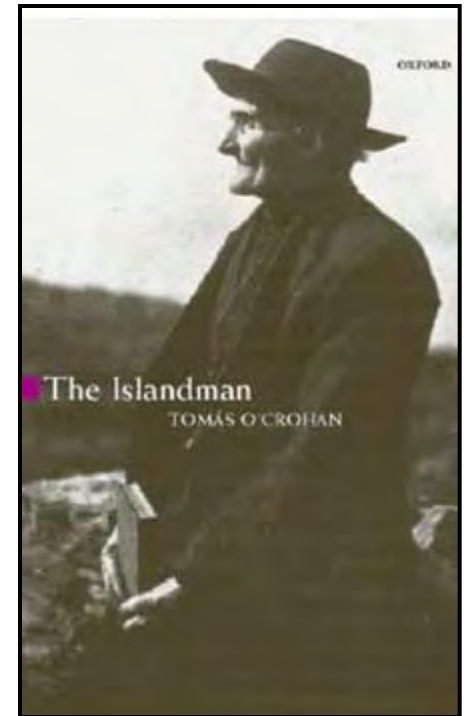
- Place names
- Plant names
- Museum collections
- Interviews, questionnaires and other contemporary sources





Plants were the greatest renewable natural resource in Ireland – food, shelter, fuel, fibers, medicines, timber .....

- Literary sources are often the only evidence of former use. E.g. Tomás Ó Crohan (*The Islandman - the Blasket Islands, Co. Kerry*)







## 468 species used (>50%)

- Aphrodisiac
- Aromatic
- Beverage
- Dye
- Food
- Fibre (including basketry, ropes and thatch)
- Insecticide, pesticide or protection from vermin
- Intoxicant or narcotic
- Medicinal
- Poison
- Religious symbolic or as a protective talisman
- Tanning leather
- Timber
- Ornamental
- Other uses

| Total | %     |
|-------|-------|
| 10    | 1 %   |
| 10    | 1 %   |
| 78    | 8 %   |
| 102   | 11 %  |
| 173   | 18 %  |
| 47    | 5 %   |
| 12    | 1 %   |
| 5     | 0.5 % |
| 292   | 33 %  |
| 4     | 0.4 % |
| 42    | 5 %   |
| 9     | 1 %   |
| 31    | 3 %   |
| 61    | 7 %   |
| 137   | 15 %  |





## Medicinals – 292 species used



“In every plant a cure; for every  
cure a plant”

- C. one third of all native Irish plants formerly used for medicinal purposes





# Ethnobotany and traditional knowledge

## - an opportunity for more botanic gardens

- Clear opportunities for many more botanic gardens to develop new and innovative education and awareness programmes related to ethnobotany
- Demonstrating the relevance of plants in people's lives
- Promoting greater connections between people, plants and the natural environment
- Contribution to conservation of traditional knowledge about the use of native and introduced plants
- Revitalisation of awareness of the utility of wild plants

