Biodiversity for a Better World
Wild Ideas Worth Sharing

St. Louis, MO • April 26-May 1, 2015
BGCI’s 9th International Congress on Education in Botanic Gardens
Ireland’s Generous Nature
—
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
• 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
Dandelion leaves can be used as a vegetable or salad. Roots can be roasted as a vegetable or for coffee. Flowers can be used to make fritters and Dandelion syrup. Additionally, Dandelion can be used to make a 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
Botanic garden collections of wild fruits and nuts – ideal for display and interpretation
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%)

<table>
<thead>
<tr>
<th>Use</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aphrodisiac</td>
<td>10</td>
<td>1 %</td>
</tr>
<tr>
<td>Aromatic</td>
<td>10</td>
<td>1 %</td>
</tr>
<tr>
<td>Beverage</td>
<td>78</td>
<td>8 %</td>
</tr>
<tr>
<td>Dye</td>
<td>102</td>
<td>11 %</td>
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<tr>
<td>Food</td>
<td>173</td>
<td>18 %</td>
</tr>
<tr>
<td>Fibre (including basketry, ropes and thatch)</td>
<td>47</td>
<td>5 %</td>
</tr>
<tr>
<td>Insecticide, pesticide or protection from vermin</td>
<td>12</td>
<td>1 %</td>
</tr>
<tr>
<td>Intoxicant or narcotic</td>
<td>5</td>
<td>0.5 %</td>
</tr>
<tr>
<td>Medicinal</td>
<td>292</td>
<td>33 %</td>
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<tr>
<td>Poison</td>
<td>4</td>
<td>0.4 %</td>
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<tr>
<td>Religious symbolic or as a protective talisman</td>
<td>42</td>
<td>5 %</td>
</tr>
<tr>
<td>Tanning leather</td>
<td>9</td>
<td>1 %</td>
</tr>
<tr>
<td>Timber</td>
<td>31</td>
<td>3 %</td>
</tr>
<tr>
<td>Ornamental</td>
<td>61</td>
<td>7 %</td>
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<tr>
<td>Other uses</td>
<td>137</td>
<td>15 %</td>
</tr>
</tbody>
</table>
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