

The why & the how ...

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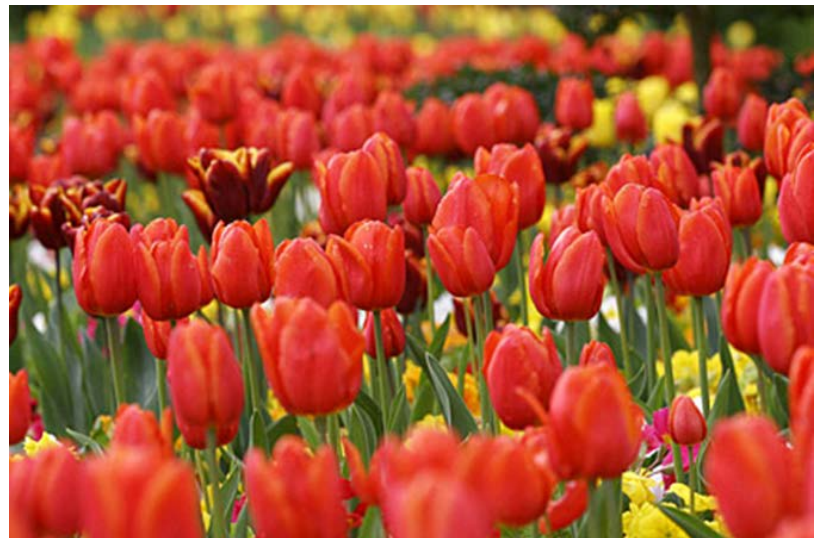




Why conserve cultivated plants?

‘ ... a unique gene pool of accumulated variation from centuries of selection and breeding ... a resource of great economic potential and heritage value’

(Brickell, 1977)



Why conserve cultivated plants? Aichi Biodiversity Target 13 (2011)

‘the **genetic diversity of cultivated plants** and farmed and domesticated animals and of wild relatives, including socio-economically as well as **culturally valuable** species, is maintained, and strategies have been developed and implemented for minimising genetic erosion and **safeguarding their genetic diversity**’.



Malus 'Pitmaston Pineapple'



Lavandula angustifolia

A Changing Climate



TL – *Galanthus*
BL – *Lysichiton americanus*
M – *Chimonanthus praecox*
R – *Emmenopterys henryii*

A Changing Climate Heat, drought & flooding



A Changing Climate Helping our Pollinators





‘ecosystem services’

- *Hedera helix* best at cooling buildings
- Internal wall dropped 7.2°C and external wall temperature with 5.7°C
- Keep buildings less humid in winter months.

Well being Wisley Hilltop Gardens



‘ A National Plant Collection entails the stewardship of a well-defined set of plants in cultivation that represents part of our national heritage ’

Flexibility & scope

- **Historic** – a collection of plants that have been grown in British & Irish gardens that have a common history or association **(70)**
- **Horticultural** – a collection of garden plants of aesthetic or functional value **(303)**
- **Reference** – A taxonomic representation of a group with importance for both taxonomic reference and research **(294)**



Making a difference

Encouraging new collections

Collections – last 2 years

- 58 new collections
- 95 proposal stage
- 28 withdrawn



Withdrawal's & succession planning



Scilla (Chionodoxa)



Buxus

Hosta

Improving our coverage 'Missing Genera'



Improving coverage – Irises

‘Unique gene pools’



Iris (Arthur J Bliss introductions)
Iris (dwarf irises of J. D. Taylor)
Iris (Dykes Medal Winners)
Iris (Grace Sturtevant & Olive Murrell introductions)
Iris (Sir Cedric Morris introductions)
Iris (Sir Michael Foster introductions)
Siberian Iris (hybrids by Jan Sacks & Marty Schafer)
Siberian Iris cvs. (British Award winners & historically significant)
Iris Suffolk collection pre 1985 (inc Morris, Long & Chadburn introductions)
Iris Tall Bearded (raised by Bryan Dodsworth)
Iris Tall Bearded (Space Age cvs. 1950-2000)
Iris Intermediate Bearded (Langport cvs.)
Iris sibirica with the RHS AGM

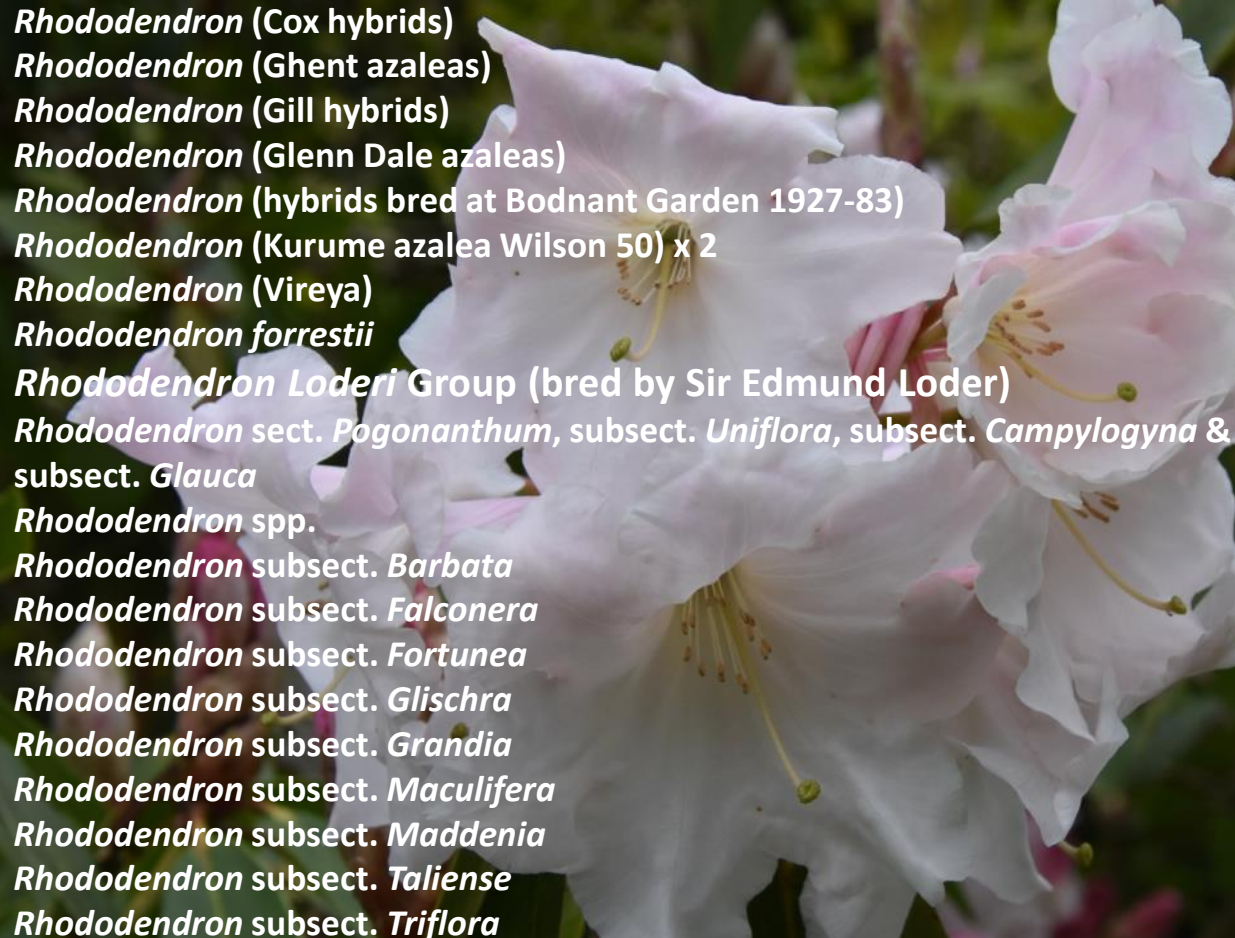
Iris Bearded
Iris ensata
Iris germanica
Iris sect. *Sibiricae*
Iris series *Spuriae*
Iris subgenus *Iris* sect. *Iris* (Pogon)
Iris subgenus *Scorpiris*
Iris unguicularis

Improving coverage – Apples

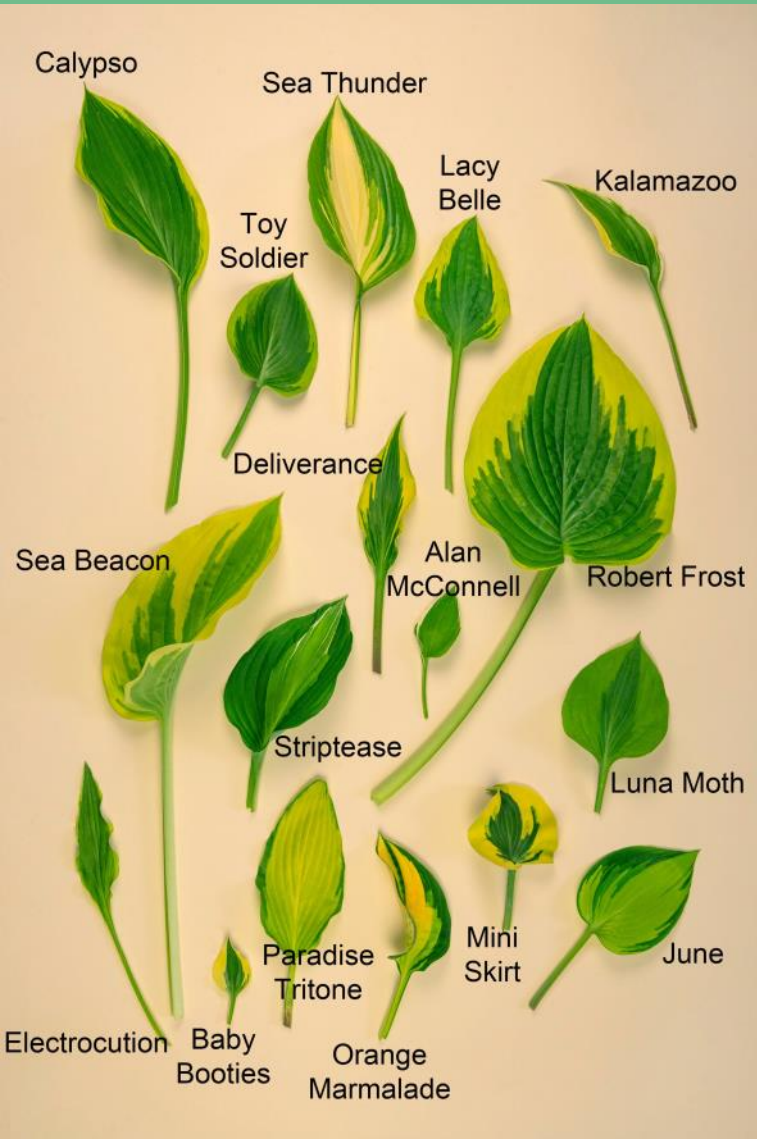
‘Unique gene pools’



Malus (Scottish heritage apples)
Malus (apple/ornamental cvs./cider)
Malus (Notts & Derby, Lincs, Leics & Yorks)
Malus (Gloucestershire)
Malus (ornamental)
Malus (Scottish apple cvs.)
Malus (Scottish cider apples & Tidnor Wood collection)
Malus (apples by county pre 1960)
Malus (Hampshire & Isle of Wight pre-1960)
Malus (Henry May Collection & regional cider apple cvs.)
Malus (North West English cvs.)
Malus (Sussex apple cvs.) x 2
Malus (Welsh cvs.)



Rhododendron (Cox hybrids)
Rhododendron (Ghent azaleas)
Rhododendron (Gill hybrids)
Rhododendron (Glenn Dale azaleas)
Rhododendron (hybrids bred at Bodnant Garden 1927-83)
Rhododendron (Kurume azalea Wilson 50) x 2
Rhododendron (Vireya)
Rhododendron forrestii
Rhododendron Loderi Group (bred by Sir Edmund Loder)
Rhododendron sect. *Pogonanthum*, subsect. *Uniflora*, subsect. *Campylogyna* & subsect. *Glauca*
Rhododendron spp.
Rhododendron subsect. *Barbata*
Rhododendron subsect. *Falconera*
Rhododendron subsect. *Fortunea*
Rhododendron subsect. *Glischra*
Rhododendron subsect. *Grandia*
Rhododendron subsect. *Maculifera*
Rhododendron subsect. *Maddenia*
Rhododendron subsect. *Taliense*
Rhododendron subsect. *Triflora*



Hosta

***Hosta* (British introductions)**

***Hosta* (European & Asiatic)**

***Hosta* (large & giant leaved)**

***Hosta* (large leaved) pre-2000**

***Hosta* (small & miniature)**

***Hosta* (tetraploid varieties)**

***Hosta* 'Halcyon' & sports**

***Hosta plantaginea* cvs. & hybrids**

***Hosta* spp. & British hybridised introductions (1976-2016)**

***Hosta* spp., forms, vars. & interspecific hybrids**

***Hosta* with the RHS AGM**

Threatened Plant Project

Being pro-active



- What's threatened?
- Priorities for Conservation
- Improving our data
- Selected groups
- Invaluable to PCC



- Individual plants in need of conservation
- Records - what, whom and alive
- Linking into plant exchange
- Conservation through dispersal

Lavandula dentata var. *candicans* 'Agadir'

Thank you

