


Garden display areas




University of Bristol Botanic Garden




- 1** Welcome Lodge and Garden Entrance
- 2** Large pool
- 3** Floral Diversity (Pollination)
- 4** Local Flora and Rare Native Plants
- 5** Evolution of Land Plants display
- 6** European Mediterranean Climatic Region
- 7** Angiosperm Phylogeny Collection
- 8** Western Herb Garden
- 9** Chinese Medicinal Herb Garden
- 10** South African Mediterranean Climatic Region
- 11** Australian Mediterranean Climatic Region
- 12** Chilean Mediterranean Climatic Region
- 13** Californian Mediterranean Climatic Region
- 14** Seasonal vegetable display
- 15** New Zealand Plant display

 Seasonal refreshments: Check in Welcome Lodge for availability

 Toilets

 Emergency/fire muster point

 First aid in Welcome Lodge, Reception and Glasshouses



2

The large pool is home to a range of waterlilies known as the Marliac Hybrids. These were bred in the 19th Century by Monsieur Latour-Marliac who through his nursery in northern France provided waterlilies to Claude Monet.

Plants have evolved a wide range of flower forms reflecting different modes of pollination. Some plants have unique relationships with an individual species of pollinator. The shape, colour, pattern and fragrance of flowers attract the pollinators which can access the nectar and pollen most effectively.



3



6

Cool wet winters and hot dry summers characterize the world's Mediterranean climatic zones. 'Convergent evolution' has produced similar adaptations to this type of climate in different plant groups in disparate parts of the globe. Here plants of the Mediterranean Basin have been planted according to habitat type: Steppe (areas of thin soils with annuals, herbs and bulbs); Garigue (areas with low bushes, annuals and bulbs); Maquis (dense thickets of tall shrubs) and evergreen forests (areas with oaks, laurels and pines). By the small path is an area devoted to Mediterranean agriculture.

In the Angiosperm Phylogeny collection a network of branching paths takes you through a 'family tree' of flowering plants. This represents a new understanding of the relationships between flowering plants, based on the DNA sequences of their genes. The display, devised from research work published in 1998 and 2003, is the first of its kind in the UK. The display starts in the pool with waterlilies which are ancient or Basal Angiosperms. Magnoliids, such as magnolia and laurel, evolved from the Basal Angiosperms and here appear by the pool. From these the path branches into two main lineages, Eudicots and Monocots. Monocots contain plants such as palms, pineapples, orchids, grasses and lilies. Eudicots contain most flowering plants including poppies, buttercups and anemones. The Eudicot path then diverges into two lineages, Rosids and Asterids, with many familiar favourites such as roses, potatoes, peas and asters.



7

This rock garden made from Carboniferous Limestone displays threatened plants from Cheddar Gorge like the Cheddar Pink *Dianthus gratianopolitanus* and White Rockrose *Helianthemum apenninum* from Brean Down. The Spiked Speedwell *Veronica spicata* subsp. *hybrida* and rare Bristol Onion *Allium sphaerocephalon* from the Avon Gorge are displayed, with some unusual whitebeams. *Sorbus bristolensis* and *S. wilmottiana* occur only in the Avon Gorge and nowhere else in the world.



4

Walk through 500 million years of plant evolution.

Relatives of key groups of plants have been planted in the order in which they first evolved. To illustrate periods of geological time, pieces of rock have been placed at strategic points, some containing fossils. Look out for liverworts and mosses, the first plants to evolve from simple algae growing in water; spore-producing ferns and horsetails from the Devonian period; tree ferns from the Carboniferous period. The fallen tree represents the huge club mosses which grew to 40m in primeval forests. The Permian saw the first seed plants (gymnosperms) such as cycads and ginkgos evolve and at the start of the Triassic plants with cones containing naked seeds appeared.



5

Welcome to the University of Bristol Botanic Garden

Opening times

Weekdays throughout the year (except Christmas and New Year) from 10.00am to 4.30pm plus weekends from March to November (glasshouses close at 4.15 or dusk in winter).

Accessibility

The Garden is largely accessible for wheelchairs and mobility scooters with a designated path leading around the Garden and glasshouses. Disabled toilet facilities are available on site.

Help us keep the Garden beautiful

We hope you enjoy your visit to the Garden. To protect the unique plants on display we kindly request visitors to:

- Keep children under supervision at all times
- Do not play sports or bring bikes or balls into the Garden
- Stay on the paths and lawns to avoid trampling on plants and climbing on rocks
- Be careful around areas of open water
- Take any rubbish home for recycling
- Only registered disability assistance dogs are permitted. Dog waterbowl at Welcome Lodge

Emergency contact

Please phone **Duty Staff** on 07990 540007 (10am-4.30pm) or **University Security** on 0117 3311223 (24 hours) **Garden address: Stoke Park Rd, Stoke Bishop BS9 1JG**

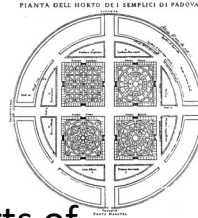
Find out more

For details on tours, courses or visiting the Garden

- Email: botanic-gardens@bristol.ac.uk
- Call the Tour Administrator on 0117 428 2041
- Or visit the Botanic Garden's website: www.bris.ac.uk/botanic-garden



8 The Western Herb Garden (see map overleaf) has been designed as a circular garden surrounded by a beech hedge. The beds are arranged in twelve use categories containing plants used to treat different parts of the body. It takes its influence from the ancient 'physic' garden at Padua in Italy, founded in 1545, and considered the origin of the botanic garden.



9 The main body of the Chinese medicinal herb garden displays plants in different 'use categories'. These illustrate how the plants are used to treat different parts of the body. In late spring don't miss the ornamental collection of Chinese paeonies and bamboos, which are typical of a traditional Chinese herb garden. On the slope view our new tea plantation of *Camellia sinensis* plants. Tea drinking dates back 5000 years in China and it grows well here. The Chinese Medicinal Herb Garden was developed through a partnership between the UOB Botanic Garden and the RCHM (Register of Chinese Herbal Medicine).



10-13 These beds are a work in progress but will display plants from other Mediterranean zones: the South Western tip of South Africa (10) with its traditional rondavel, thatched with South African reeds; Western & Southern Australia (11); the Northern & Central coastal strip of Chile (12) and the Western seaboard of California (13). Watch this space!

15 From the main garden's back gate, follow the path past the seasonal vegetable display (14) and through the New Zealand collection. *Carpodetus serratus* and *Corokia cotoneaster* have branches that grow in different directions and very small leaves. Known as divarication, the 'busy effect' deters grazing animals. Small hebes with scale-like leaves and *Astelia nervosa* with its light-reflecting silver hairs are adaptations for growing in extreme alpine environments of intense light and cold. Now go through the arch, enter the car park and turn left to the glasshouses.



16 In the Warm Temperate Zone you will see cacti from the Americas and many succulent, bulbous and shrubby plants from South Africa. Although from different continents, these plants have evolved similar strategies to deal with a common problem, in this instance long hot dry periods (convergent evolution). From South Africa the collection of Pelargoniums shows a huge range of shape, form and habit together with a collection fine leaved shrubs and perennials known as 'Fynbos' in the central bed. Fynbos is the most species rich plant community in the world and contains many familiar plants like proteas, ericas and grass-like restios.

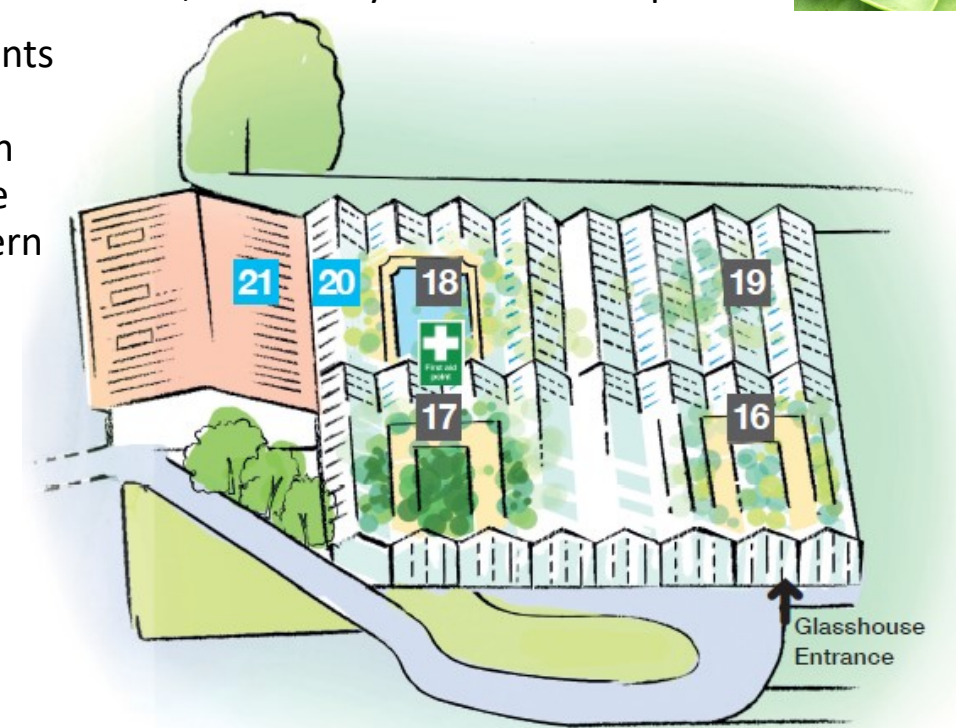


17 Turn left into the Sub-Tropical Zone. Here plants from sub-tropical forests are displayed. Members of the pineapple family or bromeliads grow together with orchids on the benches. Around the base are specimens of bromeliads, orchids, ferns, begonias and aroids. In the central bed are tree ferns together with a fine collection of tropical cycads. Look out for fly catching *Nepenthes* on the bench and crops such as Tea, *Camellia sinensis*, and Coffee, *Coffea arabica*.

18 Follow the path into the Tropical Zone, home to tropical aquatics, food and medicine (part of the Useful Plants collection). In the centre of the pool you'll see *Victoria amazonica*, the Giant Amazon Waterlily, with large flat leaves and *Victoria cruziana* with large pie-dish leaves. These plants grow very fast during the summer months, pushing any competing plants out of the way. Around the edge are different forms of the Sacred Lotus plant, *Nelumbo nucifera*, an important cultural and medicinal plant in the far-east. On the surface grow Water Hyacinth, *Eichhornia crassipes*, and Water Lettuce, *Pistia stratiotes*, while tropical waterlilies bloom in the summer months. Surrounding the pool are tropical food and medicine plants; familiar ones like banana, sugar cane and cocoa, as well as more unusual species like rosy periwinkle, *Catharanthus roseus*, the source of drugs used in leukaemia.



19 Our new glasshouse display is home to the flora of the Azores, Canary Isles, Cape Verde Isles, Madeira and Savage Isles. Known as the Macaronesian region, the flora of this region is varied and localised, with many rare endemic species.



Glasshouse display zones

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|--------------------------|---|
| 16 Warm Temperate | 19 Cool Temperate |
| 17 Sub-tropical | 20 Propagation (not open to public) |
| 18 Tropical | 21 Potting shed (not open to public) |