PLANT HUNTERS

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- # *Main entries, others can be substituted as alternatives, or as time permits*
- **INTRODUCTION**
- Plants were useful, especially for medicinal purposes, and **early collectors sought desirable** plants
- **Chinese** botanists collecting **roses 5000 years ago** (3,000 BC)
- **1500 BC** the **Egyptian queen** to West Africa in search of the **Frankincense tree**
- In **700BC** a Chinese **Emperor** ordered his personal physician to take 300 young people to the uninhabited islands off China to collect **plants that were reputed to bestow immortality**. They had to be collected by 'pure young hands', otherwise the plants would perish. The physician and his flock decided to settle and the nation of **Japan was created**.
- Botanists on **Alexander the Great's** expedition to Asia (331-323 BC) brought **ivy, banyan, bamboo and banana**
- **Aristotle** founder of botany, although his pupil Theophrastus (370 – 285 BC) did all the fieldwork
- **Twelfth century**, Italian **Albertus Magnus**, was probably the first systematic plant hunter. Trained in botany in **Padua** this city became the site of Europe's first botanic garden in the sixteenth century.
- # **Daniel Carlsson Solander** (1733 – 1782) ***Black Beech***
- Linnaeus impressed by Solander's ability persuaded his father to let him study natural history. He travelled to England in 1760 . May have been involved in industrial espionage in UK for Sweden
- **Linneaus's daughter** married someone else, Solander became a **confirmed bachelor**. Suggestion Solander son of Linneaus.
- In **1768** employed by **Banks**, on Cook's first voyage to the Pacific on board the *Endeavour*, **1768-1771**
- Visiting N Z made collection intention to produce the **first 'Flora of New Zealand'**. Never published by Solander, he created much material that was later used.
- **1771 Banks' secretary** and librarian From **1782 Keeper Natural History Department British Museum.**
- **Invented Solander box**
- He **died a aged 49**, on 13 May 1782 of a brain haemorrhage.
- ***Nothfagus solandri Black Beech*** **Collected 15 Jan. 1770 by Solander** on Cook's Endeavour voyage.
- Originally named in Solander's manuscript ***Myrtilloides cinerascens*** It was **renamed *Fagus solandri* in 1844**. Genetically distinct from northern beeches, own genus Nothofagus
- Growing in **Gondwanaland at least 135 million years ago**. Isolated on different landmasses, evolved into thirty species
- Today you can buy **80 million year old fossilised beech trees - as coal** from West Coast.
- Current **distributions not explaind by continental drift** NZ species not direct descendants of the beeches thought to have reached the island after the split from Antarctica. **Transoceanic dispersal** now appears likely, not originally thought possible because of distances involved. .
- # **Carl Linnaeus 1707 – 1778** ***Euphorbia glauca***
- **Born** southern **Sweden**. Higher education Uppsala University Botany, there 1730. Professor of botany 1738. 1740s, find and classify plants and animals.
- During lifetime **named some 7,700 plants and 4,400 animals.**
- Easier to pronounce common names**, but can be very confusing. The common name of 'spider plant' used for 7 different s**pecies throughout the world. **Scientific names** solve the problem by placing **one unique nam**e for each plant, irrespective of how many common names are used.
- Up to about the **16th century**, unwieldy **descriptive names**
- **Early biologists gave the species they described long, unwieldy Latin names**, which could be altered at will; a scientist comparing two descriptions of species might not be able to tell which

organisms were being referred to.

- Described in 1583 '***a tree like solanum that had been recently introduced, among others***', In 1616 described as '***shrubby fruit bearing solanum***'. Linnaeus 1753 ***'Solanum pseudocapiscum***', commonly called Jerusalem cherry. Common name again misleading, plant s neither from Jerusalem or a cherry but a red pepper!
- **Casper Bauhin, (1560 -1624)**, a Swiss botanist was the **first to use the convention for naming of species. his single-word description** was still a description intended to be diagnostic, not an arbitrarily chosen name as is used today
- With a **unique Latin description** of each species tied to a **herbarium specimen**, finally there is no doubt regarding true identification. Plant collectors now able to meaningfully identify plants with certainty
- ***Euphorbia glauca***
- **Some names date back some 2,000 years**. 'Euphorbia' is derived from the Greek - the name of the physician to King Juba II of Numidia, assigned to one species. In 1753 Carl Linnaeus assigned the name to the entire genus when he introduced his naming system.
- *Euphorbia glauca* named for its glaucous (bluish) leaf colour, which reflects the heat - vital for survival in hot dry places
- Endemic to NZ and Chatham Islands, grows on coastal cliffs, sand dunes and rocky lake shore scarps. Animal browsing and coastal development and erosion threatens it. 'in serious decline'.
- **# Engelbert Kaempfer (1651 – 1716)** ***Camellias*** ***Ginkgo biloba***
- **German** He studied medicine and natural science 1681 **foreign travel**. Through Russia to Persia in 1683. 1684 Persian capital, Arabia and of many of the western coast-lands of India. 1689, he reached Batavia
- **1690** Japan when visited **Buddhist monks in Nagasaki in February 1691**, first western scientist to describe ***Ginkgo biloba.*** Collected seeds planted in the botanical garden in Sweden .
- Returned to Europe in 1695. In Germany he published book 1712 which showed an illustration of a camellia and introduced 23 varieties.
    - **Linnaeus** named the species *Camellia japonica* in 1753 on the basis of the illustration
    - His systematic description of tea (as well as his other work on Japanese plants) was praised by Linnaeus
    - **1716, Kaempfer died** at Germany
    - ***Camellias***
    - The **genus** of the *Camellia japonica* was **named** after a **Jesuit priest and botanist named George Kamel.**
    - Carl Linnaeus gave *Camellia japonica* the specific epithet *japonica* because Engelbert Kaempfer was the first to give a description of the plant while in Japan
    - **Robert James** 1713 – 1742 **8th Lord Petre** is thought to have brought back the **first live Camellia to England in 1739, carried by a ships captain of the English East India company. A** cultivar of *C. japonic*a . May be first flowering in UK, plant imported earlier. It had already been cultivated in China over 4000 years
    - Model for **first colour illustration** of a Chinese pheasant published by George Edwards in **1745**.
    - Robert James (**8th Lord Petre**) developed an **interest in plants** from his father, and raises many, and is said he is one of the great botanists in England and in garden design Many of his plants to the Chelsea Physic Garden on his death
    - After his marriage, moved to **Thorndon Hall** where he **built a conservatory that housed the first Camellia to flower in England**. The first recorded camellia propagation in England occurred there.
- **Suburb of Thorndon** was named after William Henry Francis, 11th Baron Petre 1793 – 1850
- Son Henry William Petre came to New Zealand 1840 as director of the N Z Company of which his

father 11th Baron had been Chairman. Settled in Wellington,

- The 11th Baron had 12 children and 59 grandchildren, and his two eldest sons had 29 children between them. The need for colonisation was therefore important.!!
- Henry's son, Francis Petre, was a leading architect domiciled in Dunedin who designed the Roman Catholic Cathedral of the Blessed Sacrament Christchurch, and Wellington's Sacred Heart Cathedral amongst others.
- ***Ginkgo biloba***
- Originally some 18 species, they are about **225 million years old**, **common 150 million years ago** during the ages of the dinosaurs. About **7 million years ago it disappeared** from the fossil record in **North America**, and by about **2.5 millions years ago from Europe.**
- **Kaempfer discovered it in China** in monasteries and in palace and temple gardens, where **Buddhist monks had cultivated it since 1100 BC**. Seeds were first imported into Europe in 1700. Extinct in the wild
- **Medical use dates back to 2800 BC** in China. Aging members of the royal court were suffering senility. As the emperor looked out of his window, a voice whispered, "the tree you are looking at will restore the minds of your relatives and friends". He instructed his staff to pick some leaves and create a brew out of them. This tea was served to those affected several times a day. Within weeks they had regained of their lost memories. The seeds are more frequently used than leaves however
- It may be the **oldest living seed plan**t. Individual trees can live longer than 3000 years.
- The plant contains a **high chemical content**, providing it strong disease and pest resistance facilitating its longevity. In the 1923 Tokyo earthquake and subsequent fire, many Ginkgo trees survived while others trees died. A temple was saved because of the many Ginkgos that surrounded it. The branches and leaves are thought to secrete a sap that acts a fire retardant
- At the end of the Second World War II Ginkgo trees one kilometre from the epicentre of the **atomic bomb blas**t were the first trees to bud after the blast without major deformations, and the trees are still alive
- *# Alternative* **Robert Fortune 1813—1880**

  Camellia sinensis* var *sinensis* *Trachycarpus fortunei
- Known to be **dour, unsmiling, persevering; also industrious & cool-headed in a crisis**. But he was a **genius at collecting** & had a real flair for descriptive writing.
- He was the **first to make extensive use of the Wardian** case, & to establish that black tea & green tea are made from the same plant using a different technique.
- Sadly, the **family** destroyed his journals & diaries when he died, leaving only impersonal articles but nothing much that reveals the man himself
- Plants collected include: *Trachycarpus fortunei,* the Chusan palm,
- ***Camellia sinensis var sinensis*** made the **first cup of tea to be drunk by Europeans**, & was the first tea plant to be encountered by travelers to China in the late 18th century. For about 200 years teas from China were the only ones known to the western world, & since the Chinese had resisted all attempts by traders to gain rights & connections there, the British in particular were keen to grow their own supply in India.
- **China tea** was planted **in Bengal but did not survive**. Seed was planted in the new BG at Calcutta & did grow. In 1823 *Camellia sinensis var assamica* was discovered growing wild in the hills of Assam. Later when the first shipment of this tea arrived in Britain it was not appreciated, China tea was the only tea that the English would have.
- In **1848** it was decided to send Robert **Fortune back to China** to collect large quantities of both **Camellia seed & seedlings** to take to the fledgling tea plantations that were being established in Assam. Fortune had collected in China before & knew what he was about. In fact he had been a successful tea smuggler already! He had learned just enough of the language to get by for a short while, & was used to dressing up as a native from a remote area so that he could gain access without being penalized for being foreign. Sometimes he used a "cover" as a botanist to gain access. When he arrived in China on this trip the Taiping Rebellion was going on, & Fortune took advantage of the lack of supervision to hunt in areas generally forbidden, & to take what he wanted from the

unguarded tea gardens. He successfully took a large bundle of seed and many seedlings to Assam, but the Chinese plants did not flourish & at last it was recognized that the local Assam tea was better suited to the conditions. The large commercial plantations still use it today.

- *Alternative* ***Trachycarpus fortunei***
- The **Chinese Windmill Palm** or **Chusan Palm** is a hardy palm and can withstand subfreezing temperatures. Native to the mountainous areas of southeast China, this tough palm is sometimes found under a cover of snow and ice.
- This small palm grows to about 20' Windmill palms grown in full sun and/or poor conditions may have a much smaller crown. The trunk is covered with heavy brown fibre and is often narrower at the base than at the top. .
- Native to southern China. Commonly grown as landscape specimen, this popular palm makes a handsome addition to any landscape
- Whilst this palms main claim to fame is its incredible resistance to cold (there are several photographs of this species covered in snow), it is also an attractive palm in its own right
- # **Francis Masson 1741 - 1805 Pelargonium**
- Early 18 century botanical collections consisted principally of dried material, but a growing royal interest in botany meant that living material was both desirable and possible to collect.
- Francis Masson moved from Aberdeen to work as an under-gardener to his compatriot, William Ailon, in the RBG, Kew. He was the **first Kew collector to be asked to bring back live material**. He collected in the **Iberian Peninsular, The Azores, the West Indies, as well as 2 trips to South Africa then finally to North America**
- Sir Joseph Banks arranged for Masson to travel to South Africa with Capt James Cook on the HMS Resolution, Cook's second world voyage. Masson arrived at the Cape in Oct 1772
- **Pelargonium** probably was **first cultivated in Holland around 1738**, but was introduced to Britain by Francis Masson
- What puttering gardeners call “geraniums,” horticulturalists refer to as “Pelargoniums.” All scented, ivy or common geraniums are species or varieties of Pelargonium. Originally discovered in South Africa, Pelargoniums were sent by the **hundreds to Europe** by Francis Masson from **1772**
- During this time Masson took part in 3 major expeditions into the interior. The 2nd trip was a party of 3 Europeans & 4 Hottentots. The Europeans included Carl Per Thunberg, (aged 29) Masson, and a servant employed by Masson to drive his wagon. They went to the Little Karoo plus some of the roughest country to be found. Difficulties included pushing horses over flooded rivers, desert sand too hot to touch, constant thirst and starvation, and mountains that were so steep the ox carts were hard to handle. Coming down was the worst Sometimes they had to place chains across the back wheels to stop them turning, and it took 5 men with long learner thongs attached to the carts to stop it from over-turning. Masson was constantly amazed at the fierce contrasts in the terrain, and collected many plants especially succulents. Eventually, almost worn out, they found the botanical riches they were looking for: Proteas, and much more.
- It was a terrible trip made worse by vile weather. The legend goes that he was chased through the African Bush by a chain gang of escaped convicts, was almost killed in a hurricane off Saint Lucia and was captured by French pirates on his way back to North America. The ship was raided by pirates and the passengers were transferred to a German ship heading for Baltimore. They were treated like second class citizens, given small amounts of stale water, hardly any food and were kept below decks in a smelly hold. Eventually the ship docked in New York and Masson headed north, over the border into Canada. He found the climate very harsh after the heat of South Africa but he collected 24 new species.
- On the second trip to South Africa in 1786 he remained there until March 1795 but the situation was vastly different. The British had attempted to annex the Cape, war was still going on between the Dutch and the British, and Masson was not permitted the freedom to go wherever he wanted, with the threat of losing his travel papers. He risked his life several times to be able to collect, but the results

were no where near the huge hordes that were found on the first trip.

- Masson went back to Kew, but after a total of 12 years exploring dangerous country while collecting, he very soon found it confining to potter about the glass houses there and was unable to settle. He applied to go away again, eventually permission was granted and he set sail for "North America in Sept 1797.
- In the bitter winter of 1805 Masson's health deteriorated and he **died in Montreal, aged 66**, far away from family and friends.
- His contribution to Botany was enormous. He **introduced nearly half of all known species of Pelargoniums**, also **many Cape Heaths (ericas)**. About 140 of his original drawings are held in the British Museum. The only known portrait of him, painted by George Garrard, is now in the Linnaean Soc.
- He d**iscovered in excess of 1700 new species**.
- For all his bravery and scientific exploration, Masson received one hundred pounds annually and had a rare lily, the Massonia, named after him!
- Masson's most celebrated legacy at Kew is a specimen of *Encephalartos altensteinii*, which he brought back from his first plant hunting trip in 1775. One of the oldest pot plants in the world it can still be seen growing in the Palm House at Kew Gardens
- Plants collected include: *Aloe dichotoma, Amaryllus belladonna, Arctotis* sp, *Cotyledon* sp, *Diosma* sp, *Erica* sp (over 86 sp), *Erythrina corrallodendron, Euphorbia* sp, *Gladiolus* sp, *Ixia viridiflora, Mesembryarithemum* sp, *Nerine samiensis, Nymphaea caerulea, Ornithogalum thyrsoides, Oxalis* (nearly 50 sp) *Pelargdnium* (50 sp) *Portulacca* sp., *Agapanthus inapertus*

- **Scented Geranium (Pelargonium)**
- Scented geranium is the perfect plant for the kitchen window because it's useful as well as attractive. Outdoors, they are half-hardy perennials that can't tolerate frost. The plant, which originated in Africa, was first "discovered" by Tradescent, the gardener of Charles I of England. He grew a number of varieties in the royal greenhouses
- The foliage of the different varieties of scented geraniums have unique and striking aromas. You can choose between lemon scented, *P. crispum minor;* apple scented, *P. odoratissium*; oak-leaf scented, *P. quercifolium*; rose scented, *P. graveolens*; Nutmeg scented, *P. fragrans*; peppermint scented, *P. tomentosum*, and many others. The flowers may be white, pink, purple, red or variegated and usually have no fragrance
- Culinary use
  The fresh leaves may be infused in milk, cream, and syrups for desserts, sherbets, custards and ices. Chop the leaves into softened butter for sandwiches and cake fillings. Makes an excellent garnish Rose scented varieties are used to flavor stewed apples and pears and apple jelly
  When making cakes and pies, line the pans with the leaves. To make them lie flat, dip into hot water and shake dry. Add a leaf to an herbal tea.
  Other Uses
- The fresh leaves can be infused in bath water or rinsing water for hair
  Dried leaves are a fragrant addition to potpourri and sachets to scent clothes and linens.

- **Archibald Menzies (1754 – 1842)** ***Monkey Puzzle Araucaria araucana***
- **Scottish surgeon and naturalist.**
- Menzies **collected for Banks** while stationed in the West Indies, later one of Kew' s plant hunters.
- **First drew attention to the botanical riches of the Pacific NW**. While on board the ship, the Discovery, on his second trip to the Americas he discovered many fine plants, but his Captain, George Vancouver, objected to his Surgeon Naturalist botanizing whenever he could and taking half his crew with him. So Vancouver confined Menzies to his cabin for the last three months. This meant that Menzies was unable to present Joseph Banks with much at all when he arrived home, in fact it was just two plants. Many of the plants that Menzies described so well were collected later by David

Douglas.

- In **1796** entertained at dinner by the **Spanish Viceroy in Valparaiso**. On the table there was a dessert bowl of fruit and nuts, Not having seen the nuts of the **Monkey Puzzle** before, he slipped at least **five into his pocket** and managed to get the seeds to germinate before he reached England. One of the trees was planted in Kew survived until it died in 1892.
- The tree was so extraordinary that for a long time *it* was considered a curiosity It was not until 50 years later that William Lobb sent home enough seed for them to be distributed on any scale.
- **William Lobb (1809 - 1864)** **1** a **Cornish man**, was **employed by Veitch nurseries to collect plants in America.** He traveled to South America in 1840, traversing Brazil, Chile, Argentina, Peru, Columbia and Ecuador providing the first description of the Araucaria forests and sending seeds back to England, since Menzies plants had failed to thrive.
- In **1844 he went to southern Chile** where these trees grew on the exposed ridges of the snow-capped peaks of the southern Andes. **He collected over 3000 seeds of Monkey Puzzle** by shooting them down with his rifle entrusting his precious cargo to a man to take down-river to the coast, there to be loaded on board the next ship bound for the British Isles. Unfortunately the man died almost straight away, so William Lobb rescued the seeds then took them to Valparaiso himself & personally saw the sacks onto the next ship.
- ***Araucaria araucana*** One of South America's indigenous groups gives its name directly to the tree, their life-style and culture are intimately related to it People of the Monkey Puzzle. Or a tree so strange it would puzzle a monkey
- Today there are **3 small stands left in the wild**, in Chile classed as rare, and 1 in Argentina classed as vulnerable
- Araucariaceae **appear around 245 million years ago**. When the landscape was cloaked in unending forests of monkey-puzzles and other primitive conifers; there were no flowers and no grasses. The fossil record suggests that the event that wiped out the dinosaurs also vaporized the Araucariaceae forests in the northern hemisphere. Since then the family has remained almost exclusively a southern hemisphere resident
- The Monkey Puzzle native of Chile and Argentina. It grows 30-40 metres tall. It is able to survive fire and is long lived. The tall straight trunks were used as the masts for sailing ships.
- Very tolerant of maritime exposure,
- **Seed - eaten raw or cooked. Rich in starch. The seed is soft like a cashew nut** and has a slight flavour of pine nuts. This is a delicious seed and it makes very pleasant eating. It can easily be eaten in quantity and used as a staple food. The seeds are about the size of an almond and can be 3cm long x 1cm wide. They are harvested in the autumn and, when kept in cool, dry conditions will store for at least 9 months
- **Reginald Farrer (1880 – 1920)** ***ROCK GARDENS*** ***Michelia doltsopa***
- Traveled to Asia in search of a variety of plants
- **Born into a well-to-do family in North Yorkshire**, England. Due to a **cleft palate** he was educated at home. This developed in him a **passionate and lifelong enthusiasm for high places and the mountain plants** which grow in them. By 10 years of age he was a well-qualified field botanist with a "fair knowledge of plant anatomy." At 14 years he made his first rock garden in an abandoned quarry.
- He entered Oxford University at 17 and graduated in **1902 when he embarked on the first of his expeditions to Eastern Asia**, visiting China, Korea and, particularly Japan. and developed his characteristically strong views on rock garden design, ‘where naturalism superseded formal artificiality, and where alpine plants were to grow in surroundings which, though ordered by man, copied as far as possible their original habitats.
- In 1914 Farrer and a companion visited Tibet and North-west China. He found there numerous hardy specimens which today enrich British gardens. Many bear his name, though the list would have been longer if Farrer had not sometimes neglected to collect, as well as plants and seeds, the herbarium specimens necessary for classification and naming.
- **Farrer died alone in 1920, probably of diphtheria**, in the remote mountains of **Upper Burma** at

the early age of 40 .Farrer was known as an eccentric and in one infamous incident, he loaded a shotgun with seeds collected on his foreign travels, and fired them into a rock cliff and gorge near Clapham

- ***ROCK GARDENS*** ***Michelia doltsopa*** . This species, known as the Sweet Michelia, was introduced from China in 1918, being native of the Himalayas. Showy flowers are wonderfully fragrant and long lasting
- : This group consists of about fifty species of tender, evergreen trees and shrubs belonging to the family, *Magnoliaceae*. These plants are natives of tropical and subtropical Southeast Asia. *M. doltsopa* is a small to medium-sized shrub There are also several species of Michelia that form large trees in their native tropical forests and whose wood is used for building purpose
- **# David Douglas (1799 – 1834)** ***Douglas Fir***
- A **Scot** he inherited three traits from his father, **a short temper, stubbornness, and was unsmiling**. Sent to the **village school, aged 3. Defied authority, played truant & was expelled by 7**! Enthusiasm for natural history, at 10 worked manor garden close by. Taught himself botany. Eventually, **aged 24**, referred to RHS, **chosen to collect the plants Menzies had described**. Often set out for a day with nothing more than a handful of tea and a few biscuits and would arrive home exhausted to a meager meal
- Misfortune dogged all the way, and he nearly lost his life several times, . Several times he lost all his possessions as well as his collections. His health was severely challenged many times by starvation, fever, extreme cold, injury, eye infection, all sorts of mishaps.
- Eventually **he returned to England & was feted at receptions. He became rude, could not cope with being in society again**. He decided to return to America via **Hawaii**. His body was found at the **bottom of a pit, terribly mangled by an enraged bull**. It has been suggested that he may have been murdered.
- During the brief span of his life, he **introduced to Europe some 240 plant species**. Perhaps the best-known of those is the Douglas Fir and *Pinus radiata*. *Pinus radiata* also originally found by Thomas Coulter in 1830 was also collected by Douglas
- David Douglas was one of the greatest plant hunters who ever lived. He is remembered chiefly for the conifers from west coast of North America. Plants collected include: *Pinus radiata, P ponderosa, P lambertiana* (Sugar Pine) *Pinus contorta, P sabiniana, P coulteri, Abies grandis, Abies procera* (Noble Fir), *Picea sitchensis*
- ***Douglas Fir/Oregon Pine*** Archibald Menzies, first described the tree in 1792.. Originally called *P taxifolia*, then became *P douglasii*, now *P menziesii*. One of the leading timber trees of the world produces very fine quality timber.
- In North America became essential to the white pioneer society. Money tree', providing lumber for immediate needs, and could be shipped around the country for construction use. It became the fundamental resource of many pioneer towns and the basis of their economy.
- Grows in areas with marked seasonality. The summer and winter growth rings produce alternate bands of soft and hard wood, which gives immense strength, producing a natural 'plywood' effect
- **# Albert Kellogg (1813 - 1887)** ***Sequoiadendron giganteum*** ***Pinus radiata***
- Graduated with his M.D. Degree. Drawn to California in the gold rush of 1848. Moved to San Francisco,. Resumed his medical practice ,opened a drug store. It was during his journey to California that he was introduced to the diverse flora associated with that area. He became an **important botanical collector**, and was also one of seven men who organised the California Academy of Sciences in 1853
- .He travelled in the western states of the USA, especially Oregon and North California in the years 1843-44. He later made botanical explorations along the western coast of America from Terra del Fuego, to Alaska. Kellogg's speciality was the study of trees and he was the **first botanist to undertake a systematic study of *Sequoiadendron giganteum* in the Sierra Nevada Mountains**, which even today is valued because of its thoroughness and accuracy.
- Kellogg spent his last years in San Francisco Bay and died 1887

- # **William Lobb (1809 – 1864) 2** , In 1848 he travelled to California, Oregon and the Sierra Nevada collecting more plants. In **1853** attended the inaugural **meeting of the Californian Academy of Science** where he was **shown a specimen from the 'Big Tree' by Dr Albert Kellogg**, a physician, botanist and gold prospector. He in turn had been **given the sample by A.T. Dowd, who had encountered it in 1852** while chasing a wounded bear. The Cornish man immediately went to collect specimens and seeds, which he personally delivered to the Veitch nurseries in England.
- The tree was **named *Wellingtonia* in honour of the Duke of Wellington** although this name was **already used** for another plant, and had to be changed.
- Lobb returned to California to finish his contract with Veitch, against the advice of friends and family. **He died in San Francisco following a stroke in 1864**
- ***Sequoiadendron giganteum*** comes from the moist mountain slopes at 1400-2400 m (4500-7500 feet) on the western side of the Sierra Nevada Range in central California, limited to 75 scattered groves.
- Although it does not grow quite as tall as the Californian Coast Redwood it is far more heavily built and contains the greatest timber volume of any tree. It can grow to 84 m (275 feet) with a trunk up to 13m (40 feet) in diameter at the base.
- Trees of 'Wellingtonias' were amongst the first planted in the Garden in the winter of 1871, with a further 24 a short time later.
- ***Pinus radiata*** also collected by William Lobb.
- **Alfred Ludlam**, who was involved with the garden from the earliest days, is recorded as having had ***Pinus radiata* in his possession from around 1865**. Plants may well have been planted in the Garden from around that time, although documentary evidence for this is not available. Records show ***P. radiata* were field planted in June 1871 From 1871 to 1872 361** *P. radiata* were planted.
- The **Acland family at Mount Peel Station had made the first NZ introduction of British seedlings in 1859** in Canterbury only some 30 years after its discovery by European collectors in 1830. Their **family property in Devon had been used to trial the plants**, and thus they had the ability to obtain seed at a very early stage. In the early days they were referred to as *Pinus insignis*. Hector commenced importing seed from California in comparatively large quantities, and he would not have done this if he had not had some understanding of their potential value and suitability to local conditions.
- Over the period **1869 to 1879 over 25 kg of seed was imported** which was distributed around NZ, with many plants raised in the Garden. Seed from Matamata was used for **initial planting of the pine forests in the central North Island establishing our forestry industry**, and it is likely seed for those plants was from Wellington importations
- # **John Tradescant the elder (1570s – 1638)**
  Tradescantia Taxodium distichum Liriodendron tulipifera
- An English naturalist, gardener, **collector and traveller**, probably born in Suffolk, England. He began his career as head gardener to Robert Cecil, 1st Earl of Salisbury a, who initiated Tradescant in travelling by sending him to the Low Countries for fruit trees in 1610/11.Later, Tradescant was gardener to the 1st Duke of Buckingham, travelled to Russia in 1618 , to the Levant and to Algiers in 1620, returned to the Low Countries in 1624, and finally went to Paris in 1628, he was then in 1630 Keeper of his Majesty's Gardens.
- On all his trips he **collected seeds and bulbs everywhere and assembling a collection of curiosities of natural history** and ethnography housed in a large house, "The Ark," in Lambeth, London, that became the first museum open to the public in England,. He also gathered specimens through American colonists. He and his son introduced many plants into English gardens that have become part of the modern gardener's repertory. ***Tradescantia* honours him**.
- # **John Tradescant the Younger (1608 – 1662)**, son was a botanist and gardener, born in , Kent and educated Canterbury. Unlike his father, who collected via other people bringing back specimens, he **went in person to Virginia between 1628-1637 to collect plants**. Among the seeds he brought back were **Magnolias, bald cypress, and garden plants such phlox and asters**.

Populus alba Virginiana Tradescanti, or Tradescant's white Virginian Poplar, is now known as ***Liriodendron tulipifera***. It caused a sensation when it flowered first at Lambeth. (Indians call it Tree of Peace.) John the Younger continued as King's Gardener, taking on the position after his father Plants collected include: Lupins, Cornflowers, Michaelmas Daisies, Virginia Creeper, and the Spiderwort, Tradescantia, that commemorates his name.

- When his father died, he succeeded as head gardener to Charles I from 1638 to 1642, Tradescant bequeathed his **library and museum to** (or some say it was swindled from him by) **Elias Ashmole** (1617–1692), whose name it bears as the core of the Ashmolean Museum in **Oxford** where the Tradescant collections remain largely intact.
- ***Taxodium distichum*** The Swamp Cypress (sometimes called the Bald Cypress) is an important timber tree of the coastal swamps in the southeastern USA, and develops unique "knees", which project from the root system upwards above the water level, but are absent when it grows in dry soil. These growths are thought to allow the tree to breathe with its root system submerged. The swamp cypress belongs to the same family as the giant sequoia and the Japanese cedar.
- It is a fast growing tree in the wild reaching 38 m (120 feet), but it is smaller in cultivation. In winter the tree sheds not only its needles but also the short stalks to which they are attached. Before the leaves fall they turn a beautiful red-brown colour. It has lovely light green, feathery new foliage in the spring.
- This is a long lived tree, one specimen assessed to be 1622 years old.
- Alternative tree ***Liriodendron tulipifera*** known in its native North America as Yellow Poplar. It is a tall, deciduous, long-lived, broad leaf tree. It is related to the magnolias. The genus consists of only 2 species, this one North American, the other Chinese.
- It has been valued as an ornamental since 1663. The tulip like flowers and leaves are aesthetically pleasing.
- The flowers are also valuable nectar producers. The flowers from a 20-year-old tree produce enough nectar to yield 4 pounds (1.8 kg) of honey. The flowers are tulip like in size and shape, and are fragrant but are difficult to see in the spring foliage unless viewed from above It was used medicinally in the late 1800's