

Botanical Cabinet - Naturalist's Museum

Collecting has been a continuum in the history of mankind, with data dating back to 5000 BC. There are collections which, due to their historical, artistic or scientific value, have become part of the national heritage and have been the seed of great museums. For example, the Loring-Heredia family with their archaeological collection, exhibited in the Museum of Malaga, and with their garden of exotic plants, currently the Historical Botanical Garden of Malaga.

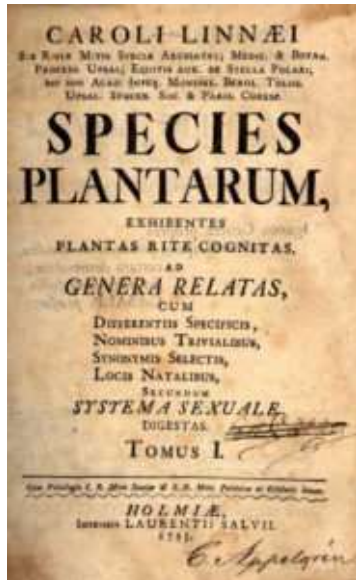
During the 16th and 17th centuries the collections became part of the so-called "rooms of wonders" or "cabinets of curiosities". They brought together objects from the three kingdoms of nature (animalia, mineralia and vegetalia). Many of the collectors were naturalists and expeditionaries who returned from their travels laden with rare objects for study. The most prominent naturalists in the history of biology have been Carl von Linné (1707- 1778), author of the classification of living things (taxonomy); and Charles Darwin (1809-1822), who laid the foundations for understanding the biological evolution of species in his book "The Origin of Species by Natural Selection" (1859).



*Frans Francken the Younger, Chamber of Art and Curiosities, 1636.
Photo Kunsthistorisches Museum Wien, Bilddatenbank*

Numerous women and men naturalists risked their lives, crossing seas, jungles and mountains to achieve advances and knowledge in commerce, geography, medicine, geology, botany, zoology, etc. To name but a few, let us remember Marco Polo in the Middle Ages who described the Silk Road, Christopher Columbus (1451-1506), Amerigo Vespucci (1454-1512), Gonzalo Fernandez de Oviedo (1478-1557), chronicler of the Indies; Ferdinand Magellan (1480-1521) and Juan Sebastian Elcano (1486-1526), between the 15th and 16th centuries. In the 17th and 18th centuries, Maria Sibylla Merian (1647-1717), forerunner of entomology, naturalist, explorer, scientific illustrator and German painter; Martín de Sessé y Lacasta (1751-1808), who carried out the Royal Expedition to New Spain; Hipólito Ruiz and José Pavón (1777-1788), with the Botanical Expedition to the Viceroyalty of Peru; James Cook (1728-1779), British explorer of the Pacific Ocean, New Zealand and Australia; José Celestino Mutis (1732-1808), with the Royal Botanical Expedition to the New Kingdom of Granada; Alejandro

Malaspina (1754-1810), commissioned by the Royal Philippine Company; or in the 19th century, David Livingstone (1813-1873), British physician, explorer and missionary; the British Marianne North (1830-1890), who travelled the world drawing new plant species; Florence Merriam Bailey (1863-1948), ornithologist and first woman to sign a science book without a pseudonym; or Charles Darwin (1809-1882), author of "The Origin of Species".



Species plantarum, 1753.

Below are two samples of the collections of plant materials that naturalists gathered on their travels, which were periodically sent back to their countries where they were studied, cultivated, dissected and stored as curious and unique treasures that extended the knowledge of natural science and the richness and diversity of the flora, as well as the wide use of new species for human beings.

The World of Seeds. Sampler.

Some 350 million years ago the plants that populated the earth reproduced by spores - ferns, fungi and mosses. Some of these spores complicated their structure by covering themselves with an impermeable layer and including nutrients in their interior; the seed or fertilised ovule had appeared, a biological structure that can survive adverse circumstances, remaining unalterable until the external conditions favour the growth of the plant. The seed is therefore the reproductive unit of the vast majority of terrestrial and aquatic higher plants. It has a fundamental importance in the biodiversity of the planet, as it allows the survival of plant species, their conservation, evolution, the regeneration of forests and ecological succession. Another of its important functions is to be the basic food for a multitude of animals and a large part of humanity, allowing the development of numerous civilisations, as has happened with wheat, maize and rice, and to a lesser extent with soya, beans, lentils and coffee.

Seeds have evolved, over thousands of years, to be more effective in colonising territory. The higher vascular plants are those that have undergone the greatest evolutionary process, known as spermatophytes or phanerogams. These are classified into non-flowering plants, Gymnosperms, and flowering plants, Angiosperms.

Gymnosperm plants appeared before Angiosperms, and are usually woody, tree or shrub-like plants such as cycads and conifers. They are characterised by naked, unprotected ovules and seeds, simple needle-shaped or needle-like leaves and no true flowers or fruits.

As for the seeds of gymnosperms, it should be noted that some have a kind of wing-shaped membrane, known as a samara, which allows and facilitates dispersal by the action of the wind, a close example being the pine nut of our Mediterranean pines.

Angiosperms are more numerous, and there are currently more than 250,000 recognised species. Their seeds are protected inside the fruit. When the fruit ripens, the seed has various mechanisms to reach a place where it can develop, or wait until the humidity and temperature conditions are right for it to do so.

Angiosperms are divided according to the number of cotyledons (which are the first leaves of the plant, different from the rest because of their size and because they accumulate nutrients):

Dicotyledons: they have two cotyledons, one on each side of the embryo.

Monocotyledons: they have only one cotyledon enveloping the embryo.

Seed dispersal varies from one species or group to another, and may be:

- By the action of the wind.
- By the action of water.
- Attached to animals. Some seeds have structures or have a sticky substance that allows them to stick to the hair or skin of animals and people.
- By the action of certain animals. Some are stored in animal houses and if they are not eaten, they germinate after a while. Others are dispersed by animals eating the fruits and then "planting" seeds as they defecate.

The seeds that appear in the exhibition of the Historical Botanical Garden La Concepción come from plants found in the garden itself, and are the following:

Delonix regia. Fabaceae. Madagascar.

It is a tropical tree known as flamboyant or flame tree. It has a narrow, light grey trunk and smooth bark. It can grow up to 12 metres and live for about 60 years. The leaves are a deep green colour, measure between 30 and 50 centimetres and are made up of up to 40 pairs of primary leaflets and 10 to 20 secondary leaflets (leaflet is each of the parts into which the leaf blade is sometimes divided), giving rise to a parasol-shaped crown that can reach up to 6 metres in diameter. The fruits are dark brown woody legumes, up to 60 cm long and about 5 cm wide. Inside they contain oval, leathery brown seeds of about 0.5 g, which must be treated before sowing, consisting of a heat shock (1 second in boiling water and 24 hours in water at room temperature) to soften the casings.

In its place of origin it is in danger of extinction, as the wood is used to make charcoal, yet it is a tree distributed as an ornamental all over the world, even in Australia it is naturalised. But

the natural populations, with their original genetic endowment, need to be protected and conserved. The ripe fruit with its seeds is used as a musical percussion instrument, known as shak-shak or maracas. The seeds are used to make rosaries.

***Ricinus communis* 'Sanguineus'. Euphorbiaceae. África tropical.**

The fruit is round, has a spiny covering that gives them a bristly appearance, contains three shiny, speckled seeds. When dried, the husk of the fruit shoots the seeds more than 10 m away. Although today it is cultivated as an ornamental, the castor bean has been known for its medicinal properties since ancient times. From the seeds is obtained castor oil, a well-known purgative with an unpleasant taste, which also has cosmetic and industrial applications. It is considered an invasive plant in the Canary Islands.

***Calodendrum capense*. Rutaceae. Sudáfrica.**

From its seed is obtained "yangu oil", which has cosmetic applications due to its natural UV protection. It is very popular in Africa for skin care, and because of its good affinity with the scalp and its high content of fatty acids and antioxidants, it can penetrate the hair shaft and bind to the keratin in the hair. The seeds are eaten by birds and monkeys. The Xhosa (South African ethnic group) believe the seeds have magical properties, and hunters used to tie them around their wrists when hunting to bring them skill and good luck.

***Wisteria sinensis*. Fabaceae. China.**

Its fruit is a flattened, brown, straight, velvety-textured, pendulous legume, about 10 cm long, which contains the seeds; in summer, when ripe, it breaks, releasing them. Both the pod and the seed are toxic because they contain a glycoside called wisterin, which, if ingested, can cause nausea, vomiting and stomach pains in adults. In children it causes mild to severe gastroenteritis or even death from poisoning if large quantities are ingested. *Wisteria de La Concepción* was planted in the Cenador around 1860, so it has been in the garden for 162 years.

***Proboscidea louisianica*. Martiniaceae. Sureste de Estados Unidos y México.**

It is known as devil's claws. Its name is given by the woody capsule that it contains in the fruit and that divides in two forming black horns or claws that resemble the figure of the devil, it is up to 10 cm long; sometimes, together with the horns, it reaches up to 30 cm in length.

There are some characters that make this species very interesting for botanists. Among other things, its huge horns are a perfect mechanism for sticking to the skin. This method of seed dispersal by animals, zoochory, is relatively common in nature, but what is surprising about this plant is the enormous size of the hooks, which seem perfectly adapted to be transported anchored to the fur of large mammals. Its smell attracts insects that are trapped by the fruit's hairs until they die. Many people consider it to be a carnivorous plant, but it is not. The only thing that happens is that the insects that die in the substrate serve as fertiliser.

Nuts were widely used in native basketry, including by the Hopi and Apache, as sewing tools. They were also used to make a black dye, especially when mixed with ash.

Nelumbo nucifera. Nelumbonaceae. China y Japón.

The flowers, seeds and rhizomes of this plant are used in China as food. The seeds are contained in a cup-shaped receptacle that is widely used in floral ornaments. It has been proven that its seeds can germinate after a thousand years.

Fresh lotus seeds are nutritious but also vulnerable to microbial contamination, especially fungal infections. Researchers continue to explore new ways of preserving fresh lotus seeds, for example, radiation processing or freeze-drying, which provide a longer shelf life and maintain the original nutrients.

At La Concepción three different varieties of lotus were introduced years ago, and numerous rhizomes of this crop have been shared with other botanical gardens and can now be enjoyed in different cities in Spain.

Brachychiton acerifolius. Malvaceae. Este de Australia.

Its fruits are also striking, being wide, dark brown, boat-shaped capsules about 10 cm long and 1 cm in diameter. The inside has stinging hairs that protect the seeds, which are yellow in colour and edible. They are traditionally eaten by Australian Aborigines after roasting.

The name comes from the Greek *brachys* meaning short, and *chiton* tunic, which is thought to refer to a short hair covering the fruits and seeds. In Latin *folium* means leaf, so its specific name refers to the fact that the leaves are very similar to those of some species of maples.

Erythrina caffra. Fabaceae. Este y Sur de África.

The fruits are dark, cylindrical, velvety pods at first and black when ripe, measuring up to 6.5 cm long. The pods open to release the small, shiny, coral-red seeds, which are marked on one side with black dots. As the seeds wear and age, they turn a rich reddish-brown colour.

Its seeds are used to make bracelets and pendants because of their striking colour.

The world of logs. Sampler.

All plants have primary growth, which is what makes the stem grow in length, while forming lateral organs such as branches and leaves. Most monocots have only this type of growth, while many dicots and all gymnosperms also have secondary growth. Secondary growth gives rise to the trunks, massive stems of trees and shrubs, which can grow in thickness thanks to a special embryonic tissue, a meristem called vascular cambium, which gives rise to the conducting vessels.

The vascular system of plants is composed of xylem, phloem and some other additional elements; it has a dual function: support and sap conduction. The xylem is also known as the wood, through which water with mineral salts from the roots circulates; this is possible because transpiration in the stomata of the leaves produces a negative pressure that counteracts gravity and causes the liquid to rise, helped by the surface tension of the water. Each xylem vessel communicates with a phloem vessel, which is responsible for distributing the processed sap resulting from photosynthesis from the leaves to the rest of the plant. The conducting vessels can be distributed in many different ways, giving rise to fingerprint-like

patterns which are visible in cross-sections and are called stele. The trail is very specific to groups of related plants.

The tree plants that have survived the longest (millions of years) are the Gymnosperms; in them an important structure emerges, the seed, which is not yet enclosed in a fruit (gymnosperm means "naked seed"). More recent are the Angiosperms, and with them comes the fruit that will protect the seed until it ripens. Angiosperms are the ones with the most complex vascular structure, as their xylem has two types of vessels: tracheids (wide cells with perforations at their ends that form real conducting tubes) and tracheids (narrower cells through which liquids circulate, but much less efficiently than in the tracheids). In Gymnosperms, the trunk has no tracheids and is formed only by tracheids.

Among the more complex Angiosperms are the Monocotyledons (such as grasses or palms, among other examples). Their case is very different, as the cambium they possess is very different from that of other angiosperms, and they do not produce wood, although in some cases they appear to have trunks, technically there is no secondary thickening in thickness; the diameter of the trunk is determined from the beginning and does not vary throughout their life. The bundles of conductors are not arranged in a ring, but are scattered in cross-section of the stem.

Generally speaking, if we look at a cut stem, we can see a protective outer layer, the bark. In the central part there is a darker area, the heartwood, dead cells that no longer have conductive activity. The rest, lighter, is called sapwood, and is living tissue that conducts liquids. The activity of the cambium is seasonal, so when we look at the growth rings of the trunks, we are looking at the time of secondary growth with xylem towards the inside and phloem towards the outside. By counting these rings we can find out how old a tree is and look into the past, as they provide information about the atmospheric conditions in each year of growth.

***Prunus dulcis*. *Rosaceae*. Balcanes, Suroeste de Asia y norte de África.**

The almond tree has a hard, elastic and heavy wood. It is used in cabinetmaking, marquetry, popular crafts and, in general, in the manufacture of small objects. The two best known varieties are the *dulcis*, sweet almond, and the *amara*, bitter; the latter has a toxic substance that when eaten in large quantities is dangerous to health. The almond tree is widely cultivated in Spain, and there are numerous types with different characteristics. Grafts are usually made on the bitter almond variety as it is more resistant to drought and limestone soils, typical of the Mediterranean coastal area. It was introduced to Malaga by the Phoenicians and later by the Romans. In La Concepción there used to be almond trees, of which some remain.

***Quercus suber*. *Fagaceae*. N de África y S de Europa.**

The most important part of the trunk of the cork oak is the bark or "cork", from which many and varied objects are made, from cork stoppers to clothes and shoes, ornaments, wallets, etc. The corking of the bark does not damage the living tissue of the tree. Its wood is resistant to humidity, which is why it is used to make barrels and fishing tools. It has a high ecological value for its role in combating desertification and controlling soil erosion, as well as for its

contribution to the maintenance of biodiversity and high CO₂ absorption (Martín Perez, D. et al, 2009). In Malaga there is a Natural Park called Los Alcornocales, shared with the province of Cadiz, home to the largest and best preserved cork oak forest in Spain and one of the most important in the world. Malaga is the third largest cork producer in Spain, although with less and less industry dedicated to it, 100% of the production is used to make cork stoppers.

Arbutus unedo. Ericaceae. Sur de Europa, Irlanda, oeste de Asia, Macaronesia y norte de África

The wood of the strawberry tree is hard and resistant, being highly valued for carving. In the past, its wood and roots were widely used to make charcoal. The fruits are used to make jams and liqueurs, due to their high alcoholic content. The leaves are rich in tannins, which is why they are used as astringents. In gardening it is highly appreciated as an ornamental plant. It is used as an indicator of fertile soils. As a curiosity, it is worth mentioning its capacity to regenerate from the root after being burnt or cut. The bear and the strawberry tree are the symbols used in the coat of arms of Madrid. It is a frequent species in the Montes de Málaga Natural Park. In La Concepción it can be seen in the Around the World in 80 Trees and in the Forestry Route.

Robinia pseudoacacia. Leguminosae. Este de Estados Unidos.

False acacia is a hard and heavy wood, very resistant. It has been used in joinery, turnery, furniture, marquetry and, since the 19th century, for bent furniture. It is mainly appreciated as an ornamental plant, and has been widely distributed in all temperate climates, although in some places it is invasive, in Andalusia it has not caused any problems. Its wood is very resistant to the elements, being used for wheelbarrows, urban, etc. and also for firewood. Its roots fix atmospheric nitrogen and the flowers produce a characteristic honey, as well as being used to make desserts.

Quercus ilex. Fagaceae. De suroeste de Francia a Portugal.

Holm oak has a hard, heavy and resistant wood. It is widely used in construction, industry and carpentry, although its wood is difficult to work with because it cracks easily. It is one of the trees widely studied in the fight against pollution and climate change due to its high absorption of CO₂. Sixty percent of holm oak forests in the eastern Mediterranean are in Spain (Martín Perez, D. et al, 2009).

Traditional uses include medicinal uses by cooking the bark to lower blood pressure, as a diuretic and for toothache, among other applications. It has a high calorific value and is a good fuel, so holm oak charcoal is of very good quality. The bark is also used to make a dark-coloured dye, used in cosmetics to dye hair.

***Platanus x acerifolia*. *Platanaceae*. Mediterráneo oriental.**

The hard, spongy wood of the shade plane tree has a fine grain favourable for joinery and carving. It is also used in folk crafts. It derives from the Greek platanos or platus, referring to its broad, elongated leaves. Plantains lived wild in much of Europe from Cretaceous and Tertiary times, and reached as far as Greenland. Today their primitive range is highly fragmented, with species dispersed. *Platanus orientalis*, for example, is found in the Levantine part of the Mediterranean region, and reaches as far as the foothills of the Himalayas. *Platanus occidentalis*, on the other hand, is American and extends from Mexico to Canada. Thanks to this species, La Concepción has a special colouring in autumn and winter that can be seen from all sides before reaching the farm. These large trees change their colour from green to gold and red before shedding their leaves, contrasting with the rest of the vegetation.

***Populus nigra*. *Salicaceae*. Europa oriental y este de Asia.**

Black poplar has a porous, light and soft wood. It has been used in traditional Spanish carpentry to make light furniture and carts; it has also been used to make baskets, containers and wrappings. The trunks are used to make fences and beams, and when the trunks are decaying they harbour a fungus that is highly prized in cooking, *Pleurotus ostreatus*. It has a wide distribution as an ornamental tree, the wind in its leaves and branches produces a very pleasant sound. It is used to produce cellulose pulp. It reduces the carbon footprint by an average of 165 tonnes of CO₂ per hectare per 15-year rotation.

In La Concepción they can be seen at the end of the route around the world in 80 trees and in the poplar forest located between this route and the palm collection.

***Archontophoenix cunninghamiana*. *Areaceae*. Nueva Gales del Sur (Queensland, Australia).**

The Cunningham palm has been used for a variety of purposes by Aboriginal and early settlers in Australia, from food to clothing to idols. It has a slender, ringed trunk that can grow to more than 20 metres. At the top of the trunk there is a cylindrical structure formed by the leaf bases

to protect the apical bud or palmetto, which is green in colour and sometimes covered with brown tomentum.

Persea americana. Lauraceae. México y América Central.

Avocado is an easy to work wood and is therefore recommended for general joinery, such as furniture and laminates for interior uses. It is sometimes used for stringed instruments, turned objects and carvings. Its fruit is highly valued, so its cultivation has always been linked to the production of fruit. 97% of avocado production in Spain is centred in Andalusia, and more specifically in Malaga and Granada, which have large avocado plantations on their coast. There are multiple varieties that are usually exported to European countries. The avocado was introduced in Europe by the Spanish colonisers of America in the 16th century.

Ficus microcarpa. Moraceae. Sur y sureste de Asia.

The Indian laurel has a brittle wood that is easily broken by the wind, which is why the centenary specimen shown fell in January 2013 due to an explosive cyclogenesis effect. It belongs to the same genus as the fig tree (*Ficus carica*). It is a tree that reaches large dimensions, very present in warm climates. In Malaga it can be found in some public gardens and avenues, such as the gardens of Picasso and La Alameda. In La Concepción there are several large ones.

Cupressus sempervirens. Cupressaceae. Región mediterránea.

The wood of the Mediterranean cypress is very resistant and aromatic. It is used for the flamenco guitar, producing a bright and percussive sound. The wood is heavy and so hard and not attacked by insects and fungi that the Phoenicians built their ships with it; it has therefore been widely used in shipbuilding, carpentry and joinery. Due to its longevity and upright bearing, it has been considered the best funerary symbol in cemeteries.

It is widely cultivated for use in gardening, as an isolated tree and as a hedge, as it withstands pruning very well.

In La Concepción there are some remarkable specimens in the historic garden, and a beautiful one of the columnaris variety surrounding the historic Mirador.

FLORA AND GARDENS

LA ACLIMATACIÓN DE PLANTAS EN ESPAÑA

La mayor introducción y aclimatación de plantas exóticas en España se inició a finales del siglo XVIII.

“[...] para adorno de nuestros jardines, y repoblación las alamedas y bosques del reyno.”
(*Semanario de Agricultura y Artes*, 1806, 10 de abril, p. 235).

Existía entonces un gran interés por la flora americana, enviándose como planta viva o semillas con vistas a su aclimatación para un fin utilitario. La mayoría llegaron a España de manos de exploradores, viajeros, jesuitas expedicionarios y gobernadores de las colonias.



Una figura relevante en la entrada de especies exóticas en el país fue el malagueño José Bernardo de Gálvez y Gallardo (1720-1787), marqués de Sonora y ministro de Indias en el último cuarto del siglo XVIII. Su gestión propició que numerosas plantas propias de América vinieran a aclimatarse a Málaga.



La **Flora ornamental de Málaga** tiene una singularidad frente a otras provincias españolas y es la gran cantidad de especies procedentes de diversas zonas del mundo de clima cálido. Su origen se remonta al siglo XVIII.

En la **Huerta de Almayate (Vélez-Málaga)**, propiedad de José Bernardo de Gálvez, ministro de Indias, se cultivaban:

Annona cherimola, *Alstroemeria pelegrina*, *Bixa orellana*, *Cedrela odorata*, *Erythrina corallodendron*, *Indigofera tinctoria*, *Jasminum sambac*, *Mimosa púdica*, *Musa x paradisiaca*, *Persea americana*, *Pimenta racemosa*, *Stenotaphrum secundatum*, *Syagrus romanzoffiana*, *Tagetes erecta*, *Tamarindus indica* y *Theobroma cacao*.



Theobroma cacao *Pimenta racemosa*

En el primer **Jardín Botánico de Málaga**, situado en calle de La Victoria se aclimataban especies como: *Alstroemeria pelegrina*, *Artocarpus altilis*, *Arundinaria simonii*, *Bambusa bambos*, *Phyllostachys aurea* y *Phyllostachys nigra*.



Artocarpus altilis



Bambusa bamboo

En el Instituto de Secundaria de **San Felipe Neri**, dado que se impartía Agronomía, se desarrolló un **jardín botánico** donde se reunieron más de 800 especies, entre las que destacaban *Anisodonteia capensis*, *Billbergia pyramidalis*, *Billbergia vittata*, *Calceolaria pinnata*, *Campsis grandiflora*, *Catalpa bignonioides*, *Chimonanthus praecox*, *Erythrina variegata*, *Liriodendron tulipifera*, *Manilkara zapota*, *Oreopanax capitatus*, *Oreopanax dactylifolius*, *Phymosia abutiloides*, *Physalis alkekengi*, *Sophora japonica* y *Sprekelia formosissima*.

García de la Leña, en 1789, decía del jardín que era “uno de los Botánicos modernos”. (En el libro “Conversaciones Históricas Malagueñas”).



Physalis alkekengi



Campsis grandiflora

En el **Jardín de Aclimatación o de Abadía** (1821), espacio experimental para plantas exóticas, se citaban en 1822: *Melia azedarach*, *Gleditsia triacanthos*, *Hibiscus rosa-sinensis*,

Hibiscus syriacus, *Robinia pseudoacacia*, *Schinus molle*, *Indigofera tinctoria*, *Cinnamomum verum*.



Hibiscus rosa-sinensis

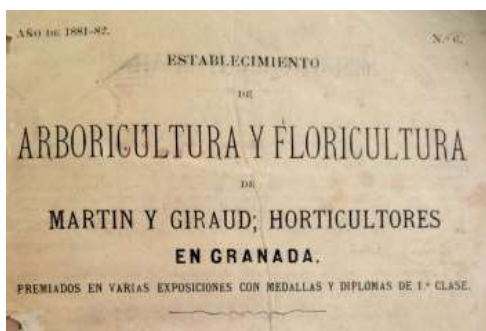


Indigofera tinctoria

Los jardines en el siglo XIX

En este siglo, Málaga experimentó un gran auge económico. Los negocios en manos de la burguesía prosperaban y con ello su estatus. Para recibir a familiares y amigos se puso de moda tener una casa o hacienda con jardín en las afueras de la ciudad que, unido a la afición por el coleccionismo, dio lugar a unos espacios verdes con gran cantidad de especies singulares. Las plantas se obtenían bien solicitándolas a instituciones especializadas, como el Real Jardín Botánico de Madrid o el Real Sitio de Aranjuez; bien de coleccionistas extranjeros y establecimientos de floricultura nacionales; o traídas de su lugar de origen.

Las nuevas adquisiciones y variedades de plantas se destacaban en la prensa y en las revistas especializadas.



Catálogo de plantas a la venta en un establecimiento de Floricultura de Granada, 1881.

En la segunda mitad del siglo XIX el interés por las plantas y los jardines llegó a su máximo apogeo, se construyeron invernaderos para aclimatar las especies más delicadas y se realizaron exposiciones de Floricultura para presentar los mejores ejemplares conseguidos. Los coleccionistas de plantas eran muy numerosos y los buenos profesionales en jardinería muy

codiciados, por lo que se anunciaban en prensa y guías de la ciudad; muchos de ellos procedían de Inglaterra y Francia.



“En los jardines municipales de Málaga están dando resultados excelentes los ensayos de aclimatación de plantas coloniales. Vegetan lozanamente en ellos el café, los mangos sapotes, guanábanas y otros frutales americanos, así como el plátano de Abisinia, cocos de distintas especies, pándanos, felodendros [sic], cycas, varias especies de palmeras y otras muchas.”

El Liberal, 26 de agosto de 1882.

El dinamismo generado en Málaga alrededor de la naturaleza dió lugar a la fundación de colectivos para su potenciación y defensa, como la *Sociedad Malagueña de Ciencias Físicas y Naturales* en 1872, la *Sociedad Protectora de Animales y Plantas* en 1876 y la *Sociedad Propagandística del Clima y el Embellecimiento de Málaga* en 1897.

Algunos de los naturalistas que estudiaron y promovieron las originalidades naturales de la provincia de Málaga merecen ser recordados, entre ellos Félix Hänseler (1766 - 1841), Simón de Rojas Clemente (1777-1827), Pablo Prolongo (1806-1885), Mariano de la Paz Graells (1809-1898), Edmon Boissier (1810-1885), Moritz Willkomm (1821-1895), Melitón Atienza (1827-1890), Domingo de Orueta Aguirre (1833-1895), Domingo de Orueta y Duarte (1862-1926) y Modesto Laza Palacio (1901-1981) entre otros.



Willkomm

Jardín Botánico Histórico de la Concepción

La Hacienda de La Concepción

La finca de La Concepción fue adquirida en 1855 por Jorge Loring Oyarzábal junto con otras fincas conocidas como Cantero, Los Mininos y la Huerta del Hoyo.



Plano de la finca La Concepción de finales del siglo XIX. Cortesía de Capell.

En el partido nombrado del Guadalmedina hay multitud de haciendas regadas con las aguas del torrente de este nombre, y que por su situación especial están dedicadas muy particularmente a la plantación de limones y naranjos, siendo sus frutos de gran estima para el comercio por su excelente calidad. Guía de Málaga, Benito Vila, 1861.

Los principales artífices del jardín fueron Amalia Heredia Livermore y el horticultor de origen francés Jacinto Chamoussent Codé. La familia Loring-Heredia disfrutó de La Concepción desde 1855 a 1911.



Amalia Heredia y Jorge Loring, marqueses de Casa Loring.



Medalla de oro al Sr. Chamousset (D. Jacinto) por su colección de plantas al aire libre. Medalla de plata por una lindísima colección de Begonias. Otras dos medallas de plata por sus colecciones de Coleus y helechos. Medalla de bronce por una de Dracenas. (La Unión Mercantil, 1887, p. 2)

Jacinto Chamoussent



Su distracción favorita era enriquecer su jardín, dando prueba de su inteligencia y de su ciencia botánica. Mil raras especies de plantas exóticas, perfectamente clasificadas, como en jardín botánico, prueban allí sus cultas aficiones. (La Época, 1902, p. 1).

Tras la familia Loring-Heredia, los propietarios de la hacienda fueron Rafael Echevarría y Amalia Echevarrieta, que hicieron nuevos jardines y conservaron el jardín hasta 1953.



Rafael Echevarría y Amalia Echevarrieta.



Distintivo de la familia Echevarría- Echevarrieta en La Concepción,

Reformada por su propietario D. Rafael Echevarría que hizo nuevos jardines y cascadas, tiene aguas propias y otras del caudal de S. Telmo [...] Narciso Díaz de Escovar, 1923ca.

El Jardín histórico

Hoy día, el jardín paisajista más notable y que mejor conservado ha llegado hasta nuestros días en España es el de La Concepción, que fue declarado de importancia “histórica-artística” en 1943, reconociéndole así el mérito a su peculiaridad, diseño y contenido vegetal.

Entre sus valores más relevantes destacan sus dimensiones, la singularidad de su trazado, el conjunto de especies y el eclecticismo de la composición vegetal.



La colección de palmeras fue desde sus inicios destacable, no solo en España, sino también de Europa, conteniendo en el primer cuarto del siglo XX veintiocho especies. Algunas fueron exclusivas de La Concepción durante muchos años.



“La Concepción es una hermosísima finca de recreo, cuya colección de árboles tropicales está reputada como la mejor de Europa. Varios distinguidos naturalistas extranjeros que han visitado la finca de la señora marquesa de Casa Loring han dicho y repetido que la colección de palmeras que allí existe es la más completa y la mejor de Europa”. (Betegón, 1902)

Análisis florístico comparativo

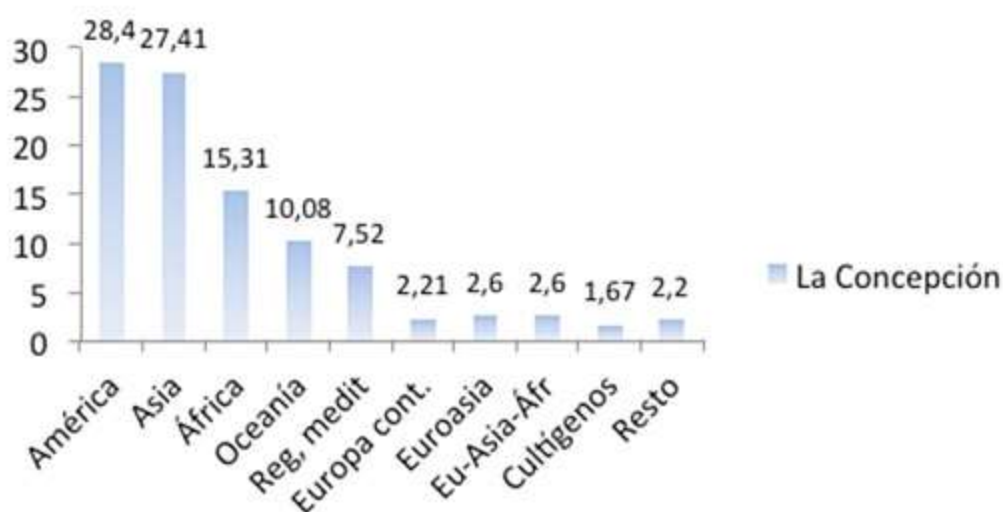
Muchas de las plantas exóticas introducidas en la ciudad Málaga se hicieron desde La Concepción, conformando la semilla de la jardinería que se ha ido desarrollando posteriormente en la Costa del Sol y que le ha dado una característica especial a sus jardines.

LA CONCEPCIÓN	1990	2021
<i>Taxa</i>	239	2.414
<i>Familia</i>	82	168

Género	180	940
Alóctonas	220	2.145
Autóctonas	19	269
Colecciones botánicas	1	22

Plantas cultivadas en la Hacienda La Concepción.

* Incluye hortícolas, cosmopolitas y de origen desconocido.



Procedencia de los taxa en tantos por ciento.

Al igual que se hacía en el siglo XIX, las plantas que se cultivan en La Concepción se solicitan en forma de semillas a otros jardines botánicos, o bien se adquieren en centros especializados, o se solicitan a coleccionistas nacionales y extranjeros o bien se traen desde su lugar de origen.

El clima de Málaga es de los más privilegiados del mundo. Su temperatura primaveral conserva flores en todo el año, y la vegetación denota su proximidad a África. Algunas palmeras levantan de trecho en trecho su verde ramaje. El naranjo y el limonero crecen en los jardines y adornan patios y balcones. La pita corona los vallados con erizadas puntas. El nopal y la higuera chumba cubren la falda de los cerros, y a la par nacen la caña de azúcar, la de Indias, la caña de bambú, el cocotero, el chirimoyo, el plátano y otros ricos productos de América que se unen en amable consorcio a los mejores de Europa. (Jérez Perchet, 1875)