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SHORT COMMUNICATION

## Potential of Canarian Wild Plants as Ornamentals

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### ABSTRACT

The botanical garden in Tafira Alta is a place of cultivation of many plants that can potentially be used in ornamental horticulture, such as for cut flowers, pot and bedding plants. Examples are species: *Aeonium canariense* Webb & Berthel., *Aeonium hierrense* (Murray) J.Pitard & L.Proust, *Aloë mitrififormis* subsp. *dystans* (Haw.) Zonn., *Asparagus horridus* L., *Asparagus scoparius* Lowe, *Asteriscus sericeus* (L.f.) DC., *Ceropegia dichotoma* Haw., *Dracaena tamaranae* Marrero Rodr., R.S.Almeira & M.Gonzales-Martin, *Echium hierrense* Webb ex C. Bolle, *Erysimum albescens* (Webb & Berthel.) Bramwell, *Plocama pendula* Aiton, *Podranea ricasoliana* (Tanfani) Sprague, *Salvia broussonetii* Benth. and *Thrinax morrisii* H. Wendland. The purpose of this elaboration was to point out the taxons that have exceptionally high ornamental value.

**Keywords:** Canary Islands, Jardin Canario, ornameentals, horticultre, wild plants

### 1. HISTORY

The Canary Botanical Garden, also known as Jardin Canario, is located on Gran Canaria island in the town called Tafira Alta. The aim of its construction was to maintain and protect the island's endemic flora [1]. The garden was founded by a Swedish-Spanish botanist Erik

Ragnar Svensson. Works on designing the garden began in 1952, and the official opening took place in 1959. Erik Ragnar Svensson was the first administrator of the garden. After his tragic passing, in 1973 the administrator of the garden became David Bramwell [2].

## 2. PLANTS COLLECTIONS

Jardin Canario garden covers 27 hectares where 500 endemic species of plants are gathered. Endemic species are taxons that are very rare, unique for a particular place or region, which cannot be found anywhere else in nature. The garden is divided into several parts. An interesting part is the Macaronesian Ornamental Garden, which includes, among others, stately specimens of dragon tree (*Dracaena draco* L.), limonium (*Limonium arborescens* (Brouss.) Kuntze) and originating from Madeira, Canary juniper (*Juniperus cedrus* Webb & Berthel). The botanic garden also includes a forest made of Canary Island pine (*Pinus canariensis* C.Sm.), or an interesting forest of laurus azorica (*Laurus azorica* (Seub.)) [3,4].

## 3. SCOPE OF NEW ORNAMENTALS FROM JARDIN CANARIO WILD PLANTS

Jardin Canario botanical garden cultivates many endemic species which can easily be used as ornamental plants. Now let us have a closer look at some of them.

- *Aeonium hierrense* (Murray) J. Pitard & L. Proust is a rare endemic plant native to the islands of La Palma and El Sierro, belonging to the *Crassulaceae* family. *Aeonium hierrense* it grows on weathered volcanic soils, in places that are sunny or slightly shaded [5]. This species has the largest rosette, with a diameter up to 40 cm. The leaves are long, thick and fleshy, with a lanceolate shape of grey-green colour. The species blooms in spring, after blooming the rosette dies. The inflorescences are straight and compiled of pink flowers.

- *Aloë mitriformis* subsp. *dystans* (Haw.) Zonn. comes from South Africa and the Mediterranean Sea area. It is a plant with thick and short leaves arranged in a rosette along the outside edges covered with small spikes. Leaves have blue-green colour and in the conditions of significant water deficiency they turn red. Flowers are red-orange, collected in bunches. In moderate climate during the summer months, the species can be successfully cultivated outside [6].

- *Asparagus horridus* L. belongs to *Asparagaceae* family [7]. The plant is densely branched, with ligneous green shoots, and reaches up to 1 m of height. Leaves are transformed into short, curved thorns. Light green phylloclades are distributed twist-wise and rather sparsely. Fine, white-cream, fragrant flowers are collected in bunches in phylloclades' corners. *Asparagus horridus* L. is a dioecious plant.



**Figure 1.** *Asparagus horridus*

● *Asteriscus sericeus* (L.f.) DC. belongs to *Asteraceae* family. It is an endemic species, occurring on the islands Fuerteventura. It grows on rocks in mountainous area, on altitude of 700 m. The species is a decorative one, presently it is commonly planted in gardens and parks on all islands of the archipelago. The name of the genus – *Asteriscus* – comes from the Greek word *asteriskos*, which means “a little star”, and the species epithet - *sericeus* - means “silk” in Latin. The name refers to the species’ leaves which are covered with soft, silky hair. Yellow inflorescences appear during the summer months [8].



**Figure 2.** *Asteriscus sericeus*

● *Ceropegia dichotoma* Haw. is a succulent with ornamental flowers that belongs to the *Asclepiadaceae* family. It can be found on Tenerife, El Hierro, La Gomera and La Palma. The species can grow up to 1.2 m of height and blooms during autumn and winter [9]. Flowers are approximately 3 cm long and have cylindrical shape and light yellow colour [10].



**Figure 3.** *Ceropegia dichotomia*

• *Dracaena tamaranae* Marrero Rodr., R. S. Almeida & M. Gonzales-Martin is one of 80 species belonging to the *Agavaceae* family. As an endemic, it can be found on Gran Canaria. Compared to the dragon tree it is characterised by more branched inflorescence, smaller fruits and seeds. This species is closely related with *Dracaena draco*, also called a dragon tree. It has stiff, grey-blue leaves, narrow at the end. Leaves grow on the whole length of the trunk and are the main ornament of the plant [11].



**Figure 4.** *Dracaena tamaranae*

• *Echium hierrense* Webb ex C. Bolle belongs to the *Boraginaceae* family. It is an endemic originating from El Hierro. It grows as lush, branched bush reaching up to 1.5 m in height [12]. Leaves are lanceolate or ovals lanceolate with length up to 12 cm and width up to 1.5 cm, hairy on both sides. Inflorescences are cylindrical, with white, pale blue or pale violet flowers [13].



**Figure 5.** *Echium hierrense*

- *Erysimum albescens* (Webb & Berthel.) Bramwell belongs to the *Brassicaceae* family. Plants reach up to around 30 cm in height. Leaves are long, narrowly lanceolate, serrated and covered with hair. The flower colour can range from pale pink to violet and they are gathered in simple inflorescences with length of around 50 cm. Fruits are siliqua [14].

- *Plocama pendula* Aiton is one of 34 species belonging to the *Rubiaceae* family. In nature this species can be found on all island of the archipelago, apart from Lanzarote. Plants are bushes with characteristically hanging shoots, concluded with white-green flowers. After blooming, white, round fruits are set, which are a source of food for birds and mammals. The shoots, flowers and fruits are very ornamental [15].

- *Podranea ricasoliana* (Tanfani) Sprague belongs to the *Bignoniaceae* family. The species resembles ivy, with partially lignified stalks from which grow pinnately built leaves, placed oppositely. The final leaf is often transformed into a tendril. Flowers are dorsiventral, large, impressive and of yellow colour, gathered in a bunch of loose inflorescences. The plants are often used to decorate balconies or patios during summer [16].



**Figure 6.** *Podranea ricasoliana*

● *Salvia broussonetii* Benth. is a bushy perennial belonging to the *Lamiaceae* family. It originates from Canary Islands, mainly from Tenerife and Lanzarote. It is an important remedial plant: its essential oils are used in medical, cosmetic and food industries [17]. This species reaches up to 1m in height and is characterised by large, yellow-green sticky leaves of elliptic shape. Flowers are white, clustered in short inflorescences [18].



**Figure 7.** *Salvia broussonetii*

● *Thrinax morrisii* H. Wendland is a member of *Arecaceae* family. They are palms of bushy type, reaching from 1 to 6 m in height, with fan-shaped leaves on long stems, round in shape, with several notches to the middle of the blade or further [19]. Leaves are blue-green or yellow-green and are white from the bottom [20].



**Figure 8.** *Thrinax morrisii*

#### 4. CONCLUSION

Flora of Jardín Canario botanical garden is very rich in potential of ornamentals. This species can be grown as cut-flowers, potted-plants for indoor display, as well as for decorating balconies and terraces.

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