

Bougainvillea: A Long Journey from Rio to Lucknow

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ABSTRACT

Bougainvillea, native of South American sub-tropics, was first collected by Commerson, a French Botanist, from Rio de Janeiro, Brazil, who named it after Louis Antoine de Bougainville, the French navigator with whom he went on voyage around the world during 1766-1769. From its native sub-tropical regions, bougainvilleas were introduced to temperate regions of European countries, where these were grown in the glasshouse. The history of domestication of bougainvillea is 250 years old and in this period there have been many landmark in the bougainvillea cultivation. In India, *Bougainvillea spectabilis* was first introduced in Kolkata in 1860 from Europe and the improvement work on bougainvillea started in early 20th century, with the introduction of a few cultivars by the Agri-Horticultural Societies, Kolkata and Chennai. But it achieved its popularity in 1920 with the introduction of the cultivar 'Mrs. Butt' in Kolkata from Royal Botanic Gardens, Kew, England. Out of 10 species, only *B. glabra* Choisy, *B. spectabilis* Willdenow, *B. peruviana* Humboldt & Bonpland and a natural hybrid *B. x buttiana* Holtum & Standley, are of horticultural importance. Today, a large number of *Bougainvillea* cultivars (500 cvs.) are available from three to multibracted ones in various colour and shades to variegated foliage as a result of natural selection and breeding. 50% of the *Bougainvillea* cultivars have been evolved in our country. India has been recognized as the International Registration Authority for Bougainvilleas. The Botanic Garden of CSIR-National Botanical Research Institute, Lucknow has rich germplasm collection of *Bougainvillea* (200 species/cvs) and serves as the reference centre.

Centre of origin of many plant species like wheat, potato, tomato, gladiolus, chrysanthemum, and bougainvillea may be far away from their centre of collection, documentation and improvement. *Bougainvillea* an ornamental plant is from Rio de Janeiro but it has flourished and gained importance in India and other tropical countries in the South East Asia.

Bougainvillea, a native of South American tropics and subtropics, was first collected by Commerson a French Botanist from Rio de Janeiro, (Brazil). Commerson named the plant after Lois Antoine de Bougainville, the renowned French Navigator and the trusted General of Napoleon Bonaparte, Emperor of France with whom he went on voyage to South America during 1766-1769. It was the time when europeans were frequently exploring the planet Earth for discovering the new regions, conquering and bringing the plant wealth to their nations.

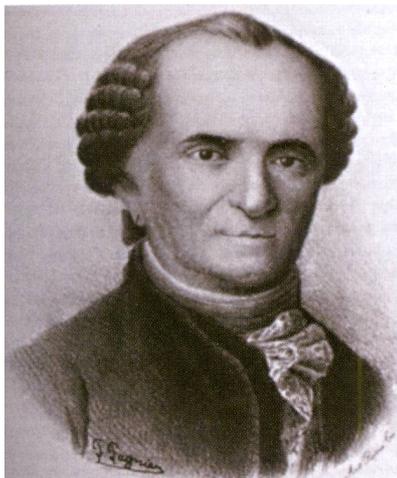
From its native, tropical and subtropical regions, Bougainvilleas were first introduced in the temperate regions of European countries, where they were grown in the glass houses. However, in the warmer parts of Mediterranean, Canary Islands (Spain), African countries



and India the environment was akin to what they had in their native place. The history of documentation of Bougainvillea is ca 250 years old. In this period there have been many **land marks** in the Bougainvillea cultivation. In India, *Bougainvillea splendens*, was first introduced in Kolkata in 1860 from Europe. The improvement program on the taxa was undertaken in early 20th century with the introduction of a few more cultivars by the Agri-Horticulture



Napoleon Bonaparte
Emperor of France



Philibert Commerson
French Taxonomist



L.A. de Bougainville
French Navigator

Society (AHS), Kolkata and Chennai. *Bougainvillea* achieved its popularity in 1920 with the introduction of 'Mrs. Butt' in AHS, Kolkata from Royal Botanic Gardens, Kew, England. The cultivar *B. 'Scarlet Queen'*, named by S. Percy Lancaster in 1920, is probably the first *Bougainvillea* cultivar, which was raised in India. This was selected from the population of the cultivar 'Mrs. Butt' which was collected from Caribbean island, Barbados (West Indies).

Out of ten species, only *B. glabra* Choisy, *B. spectabilis* Willdenow, *B. peruviana* Humboldt & Bonpland and a natural hybrid *B. x buttiana* Holtum & Standley, are of the horticultural importance. Other *Bougainvillea* species have smaller bracts of duller shades and shy bloomer, are of botanical interest.

All the cultivated plants have arisen from their wild relatives. The popularity of *Bougainvillea* an ornamental climbing shrub, gained importance by the release of the first beclouded cultivar 'Mary Palmer' evolved by S. Percy Lancaster in 1949. It was a sport of 'Mrs. H.C. Buck' detected in the bungalow of Lady Mary Palmer in Kolkata. The evolution of this cultivar was a breakthrough in the floriculture and a land mark in the history of *Bougainvillea* cultivation. Since then many more bicoloured cultivars have been added. A unique cultivar 'Thimma', having conspicuous variegated foliage with yellow and green patches and bicoloured bracts, was reported from Lal Baugh Gardens, Bangaluru in 1960. This sport of 'Mary Palmer' was observed and isolated by a gardener working at the Botanical Gardens. The new cultivar was christened after the name of the gardener 'Thimma' as recognition to his valuable services.

A very interesting group of attractive cultivars known as Million Dollar or Multibracted *Bougainvilleas* were reported from Los Banos (Phillipines) during 1963-1967. Later, in early nineteen seventies, 'Mahara', 'Los Banos Beauty', 'Cherry Blossom' and 'Roseville's Delight' were introduced in the Lal Baugh Gardens, Bangaluru.

The evolution of 'Shubhra' in 1969, fulfilled the long felt desire of having large, white-bracted, profuse and recurrent blooming, hardy and easy to multiply *Bougainvillea* cultivar. S.C.Sharma, the then Superintendent, National Botanical Gardens, Lucknow (1964-1969), observed the parchment white sport on the flowering branches of the cultivar 'Mary Palmer' in the Garden. The sport was isolated, vegetatively multiplied and the plants were disseminated in various gardens in different regions of the country for getting the feed back from the leading Horticulturists. When it was ascertained that the cultivar has achieved the desired result, it was published in the leading Journal 'Indian Horticulture'. 'Shubhra' was registered as a new cultivar in the Check list of the International Registration Authority for *Bougainvilleas*, in the Department of Floriculture and Landscaping, Indian Agriculture Research Institute (IARI), New Delhi. 'Shubhra' has proved to be a highly popular cultivar globally in the floriculture industry and bio-aesthetic planning for giving an impressive effect when punctuated with bright and gaudy *Bougainvillea* cultivars.

There are nearly four hundred *Bougainvillea* cultivars evolved from the four basal species through natural and planned hybridization and spontaneous and induced mutations. It is encouraging to note that nearly fifty percent



of the total cultivars of the Bougainvilleas have been evolved in India. Some cultivars of *Bougainvillea glabra* and *B. splendens*, produce seeds occasionally. The plants raised from the seeds do not breed true to the type. Planned hybridization between the cultivars producing seeds and those having fertile pollen, is the normal practice for evolving new cultivars. A cross between *B. 'Trinidad'* and *B. 'Formosa'* has produced a very attractive mauve coloured, profuse blooming and dwarf cultivar 'Dr. Harbhajan Singh' at IIHR, Bangalore.

In the last 45 five years National Botanical Research Institute Lucknow have evolved many novel cultivars e.g. 'Shubhra', 'Arjuna', 'Begum Sikander', 'Wajid Ali Shah', 'Mary Palmer Special', 'Palekar', 'Chitra', 'Los Banos Variegata', 'Aruna', 'Dr. P.V. Sane' which are always in great demand in the international market.

At the beginning of the present century, a very curious *Bougainvillea* cultivar 'Pixie' was introduced in the floriculture trade. The plant grows vertically with close internodes, thorn less, small leaves and pink bracts. Afterwards many cultivars of 'Pixie' having variegated leaves and red, orange and purple bracts have been evolved.

On the plant collection tour (2002) to Yercaud (Chennai) in 2002, I came across a grove of Tree Bougainvilleas growing near a resort. My friend Shri Vasant Pusalkar a local Botanist and passionate plant explorer, informed me that this unusual Bougainvillea is *B. arborea*

from Brazil. *Bougainvillea arborea* is thorn less with scented bracts and attains the height of 15 meters with a thick trunk of 7 meters dia. These Bougainvilleas must have been introduced by some English Botanist during the British era and need to be multiplied and conserved properly in the Botanical Gardens.

It is interesting to note that Bougainvillea which was collected from its centre of the origin Rio de Janeiro (Brazil), has travelled a long journey to India and flourished very well in our country.

In nineties CSIR-National Botanical Research Institute (NBRI), Lucknow was maintaining a rich germ-plasm collection of 250 Bougainvillea spp. /cvs in the Botanic Garden. It is a great loss of the plant genetic resources that basal species and cultivars introduced and evolved in the CSIR-NBRI, Botanic Garden, have been lost, which is difficult to be recovered.

The need of the hour is that the CSIR-NBRI, Lucknow and Bougainvillea Society of India (BSI), New Delhi should establish world class Bougainvillea Gardens in Lucknow, Capital City of Uttar Pradesh and New Delhi, the Capital city of India. The Bougainvillea Gardens should procure and conserve all the available species and cultivars all over the world, with proper documentation and bio-aesthetic planning. CSIR-NBRI, Lucknow should arrange the supply of the authentic and healthy Bougainvillea plants to the nurserymen and garden lovers for promoting the Bougainvillea Culture.

Bougainvillea is a drought and pollution tolerant ornamental plant, which can be safely used in the construction of urban ecology of the metro cities. In Uttar Pradesh (2003) first Bougainvillea Garden was established in Nirala Nagar, Lucknow, which was an attraction for Lucknowites and visitors coming to Lucknow but it needs restoration. Efforts should be made that Lucknow City of Gardens should be declared as the City of Bougainvilleas.

SUGGESTED LITERATURE

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