

Proteaceae

The Proteaceae are probably the most prominent plant family in the Southern Hemisphere with over 1600 species in 77 genera grouped into 5 subfamilies. The flowers are borne in a range of different, more or less showy inflorescences, (spikes in *Banksia* or heads *Protea*), or are solitary or borne in pairs. Pollination may be by birds, insects, mammals or marsupials. Male parts maturing before the female (protandry) pollen may be presented to the pollinator on the non-receptive stigma. Almost all members of the Proteaceae family are typically woody with leaves that are spirally arranged, leathery, simple and more or less hairy.

In November 2006 a series of 14 drawings were submitted to the RHS. These were all of specimens grown in cultivation in the UK. The set of drawings were awarded an RHS, Silver-gilt Medal in the Grenfell series.



Banksia integrifolia - (Coast Banksia)

Banksia is a genus of Australian shrubs (73 species including 1 New Guinea). *B. integrifolia* is a species which grows on sandy, coastal and inland areas of NSW, Victoria and Queensland. Its habit is highly variable but most usually it grows as a small tree up to 15m. The flowers are an important source of nectar in autumn and winter when little else is in flower. It is frost tolerant and salt tolerant in its native range, where it can be used to stabilize dunes.



Banksia spinulosa - (Hairpin Banksia)

Banksia is a genus of Australian shrubs (73 species including 1 New Guinea). *B. spinulosa* comes from NSW, Victoria and Queensland. It usually grows as a compact, symmetrical shrub up to 2M in diameter, the density and size varies with habitat; dwarfed in coastal areas in mountain districts it may grow is taller and more upright. In its home range *B. spinulosa* thrives in a variety of soils with good moisture content and drainage. It is frost tolerant in milder areas.



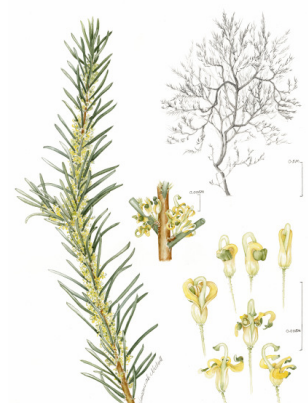
Embothrium coccineum - (Chilean Fire Bush)

Embothrium is a S American genus where some 8 species of shrubs occur in the C & S Andes. *E. coccineum* comes from Chile and Argentina. It is a shrub of open places from coastal areas up to the tree line. The habit is variable from bushy shrub to tree. It suckers extensively. *Embothrium* prefers a moist climate and acid soil. The flowers are borne in May and June.



Grevillea rosmarinifolia

Grevilleas are shrubs and trees from Australia where there are 256 species, with a further 3 from New Guinea and another 3 from New Caledonia. *G. rosmarinifolia* is a genus of small to medium shrubs which grow on acid soils in NSW and Victoria. The flowers are protandrous, (pollen presented before the ovary is mature). *Grevilleas* have been cultivated since the early 18C. Of a vast range of available cultivars only 'Canberra Gem' appears to be fully hardy throughout the UK.



***Hakea nodosa* - (Yellow Hakea, Yellow Needle Bush)**

Another genus of Australian shrubs with 140 species overall and the greatest species diversity in W. Australia. *Hakea nodosa* is a medium sized shrub from S. Victoria and N. Tasmania which grows upto 3M in height with a spread of 3M. In its native range it grows on swampy heaths. The name '*nodosa*' is refers to warty bumps on the seed pods.



***Hakea salicifolia* - (Willow leaved Hakea)**

Australian shrubs with 140 species in the genus and the greatest species diversity in W. Australia. *Hakea salicifolia* is a fast growing shrub, upto 5M tall, native to NSW and Queensland. The willow-like leaves be up to 12cm long. Lime tolerant, in its native habitat it prefers wet winters and dry summers with moist, shady soil. Though known to be a 'drain clogger' it is used as a street tree in parts of Australia. It is naturalized in parts of S. Africa where apparently it can be problematic.



***Leucadendron tinctorum* - (Spicy Cone Bush)**

A genus of bushy shrubs with 79 species from South Africa. *L. tinctorum* is a perennial, growing upto 1.3M tall widely distributed across the Cape, on stony, sandy soils at altitudes of 20 - 300 M. The flowers are borne in small, hard inflorescences, which have a spicy, musky scent and which apparently, in the wild, look different at different times of the year. *Leucadendrons* are monoecious, with male and female inflorescences borne on separate plants.



***Leucospermum cordifolium* - (Pin Cushion Protea)**

The *Leucospermums* are another S African genus, with 46 species growing on acidic, sandy soils from the SW Cape to Zimbabwe. Growing as rounded shrubs, upto 2M across and resembling Proteas, *Leucospermums* are more closely related to the *Banksias*. Flowers of *L. cordifolium* are bird pollinated.



***Leucospermum 'Newton's High Gold'* - (Pin Cushion Protea)**

The *Leucospermums* are another S African genus, with 46 species growing on acidic, sandy soils from the SW Cape to Zimbabwe. Growing as rounded shrubs, upto 2M across and resembling Proteas, *Leucospermums* are more closely related to the *Banksias*. Flowers of *L. cordifolium* are bird pollinated.



***Mimetes cucullatus* - (Common Pagoda Bush)**

Another genus of multi-stemmed, bushy, South African shrubs (13 species) *Mimetes* grow up to 0.5 to 2.M tall. The flowers are borne in a complex, compound inflorescence, pollinated by birds. The flower heads are distinct from other members of the family, and difficult to interpret. The 'tufts' which appear between brightly coloured bracts consist of a group of 4-7 tubular florets. Each floret consists of 4 perianth segments. The tufts are the bearded ends of the perianth segments holding the anthers.



***Protea aurea* - (Shuttle-cock Sugar Bush)**

A genus of 100 species, *Proteas* come from S. Africa, usually from altitude. 69 species are endemic to the SW Cape. *Protea aurea* is from the Cape and KwaZulu-Natal. A large, erect shrub, upto 5M tall it prefers sandy soils. Bushes are killed by fire, plants only survive bush-fires as seed. In S. Africa its growth is restricted outside its natural range as it hybridizes readily. The flowers are bird pollinated.



***Protea cynaroides* - (King Protea)**

Protea cynaroides is widely distributed in mountain areas except in dry interiors. It is a multi-stemmed, upright shrub, 0.3 to 2.M across. The flowers are bird pollinated, but seed is wind-dispersed. It prefers sandstone soils. It survives fire by a thick, underground stem. *Protea cynaroides* is S. Africa's national flower.



***Protea eximia* - (Spoonbract sugar bush)**

Protea eximia is an erect, spreading shrub, upto 3M tall. It is found growing on sandstone and quartzite soils at altitudes up to 1000M. Plants are killed by fire: it survives as seed. The flowers are bird pollinated, with the seeds dispersed by wind.



***Protea repens* - (Sugar Bush)**

Protea repens was named by Linnaeus from a specimen which suggested a creeping habit hence 'repens'. It was independently described by Thunberg as *P. mellifera*, the honey Protea. *P. repens* is a sturdy, dense shrub, upto 2.5M, from the SW Cape. It is tolerant of a range of growing conditions, though not frost tolerant. The flower heads range in colour from cream to deep red. Copious amounts of nectar attract birds, bees and other insects.

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