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Leucadendron sessile | Plantz Africa

Introduction

Leucadendron sessile is an easy-to-grow fynbos shrub that turns bright yellow during winter and spring. Leucadendrons are often overlooked, in favour of their close relatives, the proteas and pincushions, yet they are well worth a place in the garden as they are often easier to grow and have decorative brightly coloured foliage.



Description

Description

Leucadendron sessile is a 1-2 m tall, rounded, dense, bushy shrub arising from a single stem at ground level, and usually branching low down. Branches are stout and short. Like all leucadendrons this species is dioecious, i.e. male and female flowers are borne on separate plants. The leaves are narrowly elliptical, up to 64 mm long in the male and up to 80 mm long in the female, hairless but not shiny, with red margins and tipped with a blunt, red, recurved point. The leaves increase in size and become more crowded towards the end of the stems.



Another characteristic of leucadendrons is the way the leaves that surround the inflorescence, known as the involucreal leaves, turn a different colour while the plant is in flower. In *Leucadendron sessile* the involucreal leaves are yellow reddening with age, and the male plants are usually a brighter yellow than the female. Flowering time is mid-winter to early spring (July to August).



In the genus *Leucadendron* the inflorescence consists of spirally arranged floral bracts and directly above each bract is a single flower. In the male inflorescence the floral bracts are small and inconspicuous, whereas in the female inflorescence the floral bracts are large and partially hide the flower. Individual leucadendron flowers are small and need a hand lens or dissecting microscope to be seen properly. The flowers consist of four perianth segments usually fused into a tube but with the tips free. At the base of the inflorescence there are basal bracts.

In *Leucadendron sessile* the male inflorescence is 23 mm long and 35 mm in diameter, shaped like a flattened globe and with a faint, sweet, lemony scent. Up to 50 brown to purplish brown, brittle basal bracts surround the base of the inflorescence. On some plants they are an attractive reddish brown in the buds. The flowers are yellow when fresh, ageing brown, and open in a spiral from the outside inwards. The fully open flower head is very attractive: a button made up of many dark yellow flowers surrounded by light yellow involucreal bracts, sometimes suffused with red.

The female inflorescence is 21-28 mm long and 14-18 mm in diameter, shaped like an elongated globe and with a pleasant, sweet scent. About 30 basal bracts enclose the base of the inflorescence, closely overlapping, like roof tiles. They are usually brown to purplish brown and in some of the Kirstenbosch plants they are yellowish green in bud. In this species, the basal bracts hide the floral bracts, the flowers are crowded towards the tip of the inflorescence and only their tips stick out. Although not as bright as the male, the flower head is attractive: a yellow-tipped reddish brown inflorescence surrounded by light yellow or greenish yellow involucreal bracts, usually suffused with red.





After flowering and pollination, the female inflorescence takes about four months to produce the fruits. The floral bracts continue growing, and become hard and woody, forming a cone, ± 40 mm long and ± 30 mm in diameter. The bracts are broadly elliptic, hairless above and covered in short, fine hairs below. The fruit is a hard nut, 85 mm long, 10 mm broad and 60 mm thick, hairless except for a ring of hairs around the basal scar, and drop to the ground in midsummer (December).

Both male and female flowers produce nectar from nectaries found inside the perianth tube at the base of the ovary and between each perianth segment, known as hypogynous scales, and thought to be modified petals. Both the male and female flowers contain the same number of floral parts, but in the male flower, the gynoecium (female part) is sterile, and in the female flower, the stamens are sterile.

Conservation Status

Status

Leucadendron sessile is Near Threatened (SANBI Interim Red List 2007), meaning that although not at risk it is likely to become threatened in the near future. It is still found in extensive, dense stands, but agriculture, timber plantations, roads and power lines have destroyed large areas of the vegetation inside its distribution range. This species is a regional endemic and is threatened primarily by timber plantations and agriculture.

Distribution and habitat

Distribution description

Leucadendron sessile occurs on lower to middle slopes and flats, 10-600 m, in granitic soils, from the Witsenberg, Elandskloof to Slanghoek Mountains and the Hottentots-Holland Mountains from Jonkershoek to Kogelberg. It occurs where the annual rainfall is relatively high and is often supplemented by coastal mist and clouds. It can be seen growing on Sir Lowry's Pass and along the False Bay coast at Kogel Bay.

Derivation of name and historical aspects

History

The name *Leucadendron* is from the Greek word, *leukos*, meaning white, and *dendron*, meaning tree; named after the most outstanding member of the genus, the silver tree, *L. argenteum*, on which the genus was based. It was known as the *witteboom*, meaning white tree, in the 1690s when the genus was first named. The species name, *sessile*, means stalkless, or apparently so; thus attached directly at the base or close to the body which supports it, from the Latin *sessilis*, meaning sitting. It is not clear what part of the plant or inflorescence is being referred to.

The genus *Leucadendron* belongs in the protea family. It consists of 83 species, most of which occur in the Western and Eastern Cape with a few outliers in KwaZulu-Natal. They are all dioecious shrubs or trees, and are known as conebushes because the female flower heads form woody cones in which the fruits are borne.

Ecology

Ecology

Leucadendron sessile flowers are visited by a variety of insects including bees and small beetles. Small beetles are the pollinators.

Leucadendron sessile plants are killed by fire, and this species has been observed to regenerate in dense stands after a fire. Seeds are not retained on the plant, but drop to the ground when ripe. The seeds are large, hard nuts and are collected by rodents and stored in their underground food stores where they remain viable for several years. Although many will be eaten, enough will survive to germinate after a fire.

Uses

Use

Leucadendron sessile makes an attractive, long-lasting cut flower but because the stems are a bit short, it is not cultivated for the floricultural trade. It does make an excellent garden shrub and some cultivars have been registered e.g. 'Sungold' and 'Egmont Star'.



Growing Leucadendron sessile

Grow

Leucadendron sessile is a neat, rounded garden shrub with colourful winter and spring foliage. It is ideally suited to fynbos gardens, Mediterranean climate gardens, or water-wise gardens in winter rainfall areas. It looks good planted amongst other shrubs, or as a specimen, its neat, rounded shape providing a mound of

colour during winter and spring. Planting three or five plants in a close group (± 0.5 m apart) will result in a more dense and bushy specimen.

It tolerates sandy soils and moist granitic clay soils, and does well in most garden soils where regular watering occurs but does best in well-drained, acidic soil. Plant it in a sunny spot and water well all year - this species will tolerate summer drought, but grows better with regular watering throughout the year. It is wind-tolerant and is also suited to coastal gardens. It is not hardy to prolonged freezing temperatures, but should survive outdoors in zone 9 (-7 to -1 °C/20-30 °F). Keep root disturbance to a minimum, the roots of proteaceous plants are very susceptible to fungal infection so try not to break them by digging around their base inside their drip-line, rather put down a thick layer of mulch once or twice a year, e.g. in autumn and in spring, and leave them undisturbed.

Proteas are light feeders with sensitive root systems that are adapted to very nutrient-poor soils and will be killed by strong fertilizers and manure. They don't like phosphates (P), so choose a fertilizer that has little or no P in its formula, and give them small doses more frequently, or use a slow-release fertilizer. Most proteaceous shrubs start to look a bit leggy and unkempt after 8-15 years, and should be replaced.

Leucadendron sessile is easily raised from seed sown in autumn. Like many fynbos species, it responds to the cold nights and warm days typical of autumn to initiate germination. Sow in sterile, well-drained soil, press the seeds into the surface and cover with clean sand or fine-milled bark and kept moist but not wet. Germination occurs after about 30 days but it can be erratic with some only germinating the following season. Treating the seed with a fungicide increases the number of surviving seedlings. Transplant into individual containers filled with well-drained, acidic soil mix as soon as the first pair of true leaves have developed. Grow on for a year before planting out into the garden It starts flowering when two years old.

This species can also be propagated by semi-hardwood cuttings taken from the current season's growth, in autumn or spring. Remove the leaves from the basal third of the cutting, treat with a rooting hormone, and place in well-drained rooting medium under intermittent mist with a bottom heat of 24 °C. Rooting takes about 6 weeks, harden off for 3 weeks and transplant into individual containers filled with well-drained, acidic soil.

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Credits

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