

Field Guide for Wild Flower Harvesting

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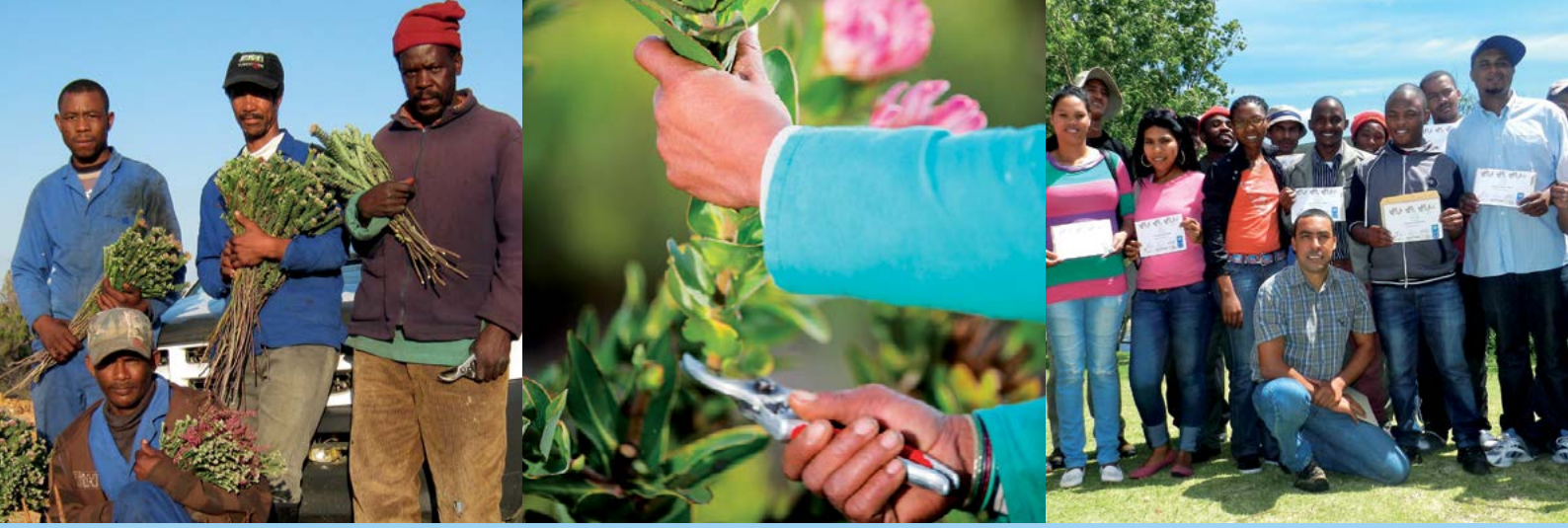
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FIELD GUIDE FOR WILD FLOWER HARVESTING



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Introducing The Field Guide for Wild Flower Harvesting

Many people in the Overberg earn a living from the region's wild flowers, known as fynbos. Some pick flowers for markets to sell, some remove invasive alien plants, and others are involved in conservation and nature tourism. It is important that people who work in the veld know about fynbos plants. This Field Guide for Wild Flower Harvesting describes 41 of the most popular types of fynbos plants that are picked from our region for the wild flower market. It also provides useful information to support sustainable harvesting in particular and fynbos conservation in general.

Picking flowers has an effect or impact on the veld. If we are not careful, we can damage, or even kill, plants. So, before picking flowers, it is important to ask:

- What can be picked?
- How much can be picked?
- How should flowers be picked?

This guide aims to help people understand:

- the differences between the many types of fynbos plants that grow in the veld; and
- which fynbos plants can be picked, and which are scarce and should rather be left in the veld.

This Field Guide is available in all three main languages of the Western Cape, namely Afrikaans, English and isiXhosa.

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Glossary

In this Field Guide for Wild Flower Harvesting, botanical words and explanations have been simplified for educational purposes. People who work with fynbos use many words that are unfamiliar to the general public. If you find a word that you do not understand in this book, you can look for its meaning in this section.

Alien [say: ay-lee-en] – This word describes plants and animals that do not live naturally in a given area. Alien plants and animals are brought in to an area by people, sometimes by accident. Some are so successful in their new home that they start to ‘invade’ the area and take over from the plants and animals that live there naturally.

Biodiversity [say: by-oh-die-vur-suh-tee] – ‘Bio’ means life, and ‘diversity’ means different types. So ‘biodiversity’ means the different types of plants and animals in an area. The fynbos has many different types (or species) of plants, so we say that it has a ‘high level of biodiversity’. A ‘biodiversity hotspot’ is an area where you find a high level of biodiversity and many rare and/or threatened plants or animals.

Biome [say: by-ohm] – A natural region like desert, forest, fynbos or grassland. The climate, soil and other conditions in a natural region influence the plants and animals that can live there.

Botany [say: boh-tah-nee] – The study of plants. A ‘botanist’ is a person who studies plants. ‘Botanical’ means having something to do with plants.

Bract [say: brakt] – Part of a plant that looks like a leaf and is found where the flower grows from the stem. In some plants like Proteas, the parts of the flower that look like petals are actually bracts.

Broadcast sowing [say: braud-carst so-ing] – To sow seed by throwing handfuls of seed onto the ground. It is not advised to broadcast seed in fynbos veld, because the plants that are sown there can take over from the plants that grow there naturally. This will reduce biodiversity.

Classification [say: klah-sih-fih-kay-shun] – The practice of putting things into groups or classes based on how similar or different they are to one another. Classification helps us to order and make sense of large numbers of different items or species.

Conservation [say: kon-sur-vay-shun] – The act of protecting and carefully managing nature and the environment.

Ecosystem [say: ee-ko-sis-tem] – A community made up of plants, animals and smaller living things. They all live, feed, reproduce and interact in the same area or environment.

Environment [say: in-vy-row-ment] – The surroundings or conditions in which a person, animal or plant lives.

Endemic [say: en-dem-ik] – Types (species) of plants and animals that are found only in a particular area. They are not found anywhere else in nature.

Ericoid [say: eh-rih-koid] – A word that describes small leaves that feel tough and leathery. The edges of these leaves roll under to form a narrow groove. This type of leaf is named after the leaves of plants in the Erica family.

Extinct [say: ek-stinkt] – A word that describes a type of plant or animal that can no longer be found alive anywhere on Earth. It has died out completely. The process of going extinct is called ‘extinction’ [say: ek-stink-shun]. Some species are ‘extinct in the wild.’ This means that they no longer survive in nature, but they may still be found in gardens.

Floret [say: floh-ret] – A simple flower that, together with others, forms a flower head known as an ‘inflorescence’. A Protea ‘flower’ is actually a flower head made up of bracts surrounding a centre made up of many florets.

Fynbos [say: fain-boss] – A type of veld found mainly in parts of the Western Cape where the rain falls in winter. Very few trees grow in the fynbos. Most of the plants are shrubs (bushes), bulb plants and reeds. Fynbos got its name because many of the bushes (bos) have small or ‘fine’ (fyn) leaves.

Greater Cape Floral Kingdom – There are six floral kingdoms on Earth. These are large areas where you find special groups or families of flowering plants. The Cape Floral Kingdom is found mainly in the Western Cape. It is the smallest floral kingdom on Earth. Families of plants found in the Cape Floral Kingdom include the Protea, Erica and Restio families.

Habitat [say: hah-bih-tat] – The natural home or environment of an animal, plant or other living thing.

Indigenous [say: in-dih-jih-nus] – This word describes a plant or animal that lives naturally in a given area or ecosystem. In other words, people did not bring this plant or animal to the area. We can also say that the plant or animal is ‘native’ to that area.

Inflorescence [say: in-floh-reh-sense] – A group or cluster of flowers on one stem. It is also called a ‘flower head’. A Protea ‘flower’ is really an inflorescence made up of many smaller flowers called ‘florets’. These florets are surrounded by a ring of bracts. Many other plants, e.g. aloes and agapanthus, also have clusters of flowers, or inflorescences.

Invasive [say: in-vay-siv] – This word describes some alien plants and animals that spread into the landscape and take over from indigenous plants and animals. Invasive species usually do better than indigenous species because they have no natural pests or diseases in their new surroundings. Not all alien species are invasive. Some invasive alien plants that threaten fynbos are Myrtle, Rooikrans, Port Jackson willow and Black Wattle.

Glossary

Marsh [say: marsh] – A poorly drained area of land that is sometimes flooded. Marshes are often found at the edge of lakes, streams and estuaries.

Nectar [say: nek-tur] – A sweet liquid produced by plants (usually by flowers). Nectar is made by glands called nectaries [say: nek-tur-eez]. Nectar attracts insects, birds and other animals that pollinate the flower while drinking the sweet liquid.

Pioneer plant [say: py-o-neer] – A plant that grows well in soil that has been disturbed or cleared by ploughing, fire or trampling. Pioneer plants are hardy because they need to grow in full sun and in poor soil. They ‘colonise’ an area and make it suitable for less hardy plants to grow.

Pollinate [say: poh-lih-nate] – To move pollen from one flower to another so that the plant can form seeds. Wind and animals (like birds and insects) are often involved in the process called pollination [say: poh-lih-nay-shun].

Resprouter [say: ree-sprau-tur] – A plant that can re-grow after being burned in a veld fire. New branches and leaves grow from buds under the bark of woody branches, or from underground tubers.

Rootstock [say: root-stok] – This is the underground part of a plant, made up of roots and an underground stem (or rhizome), which can produce stems and branches above the ground. In the fruit industry, the rootstock is a stump with healthy roots on to which the farmer grafts a cutting of a high quality fruit tree.

Shrub – A woody plant (bush) that is smaller than a tree. It usually has several stems growing from the base, rather than a single trunk.

Single-stemmed [say: sing-gul stemd] – Plants that grow from a seed and have one main stem (like a tree) rather than many branches (like a shrub).

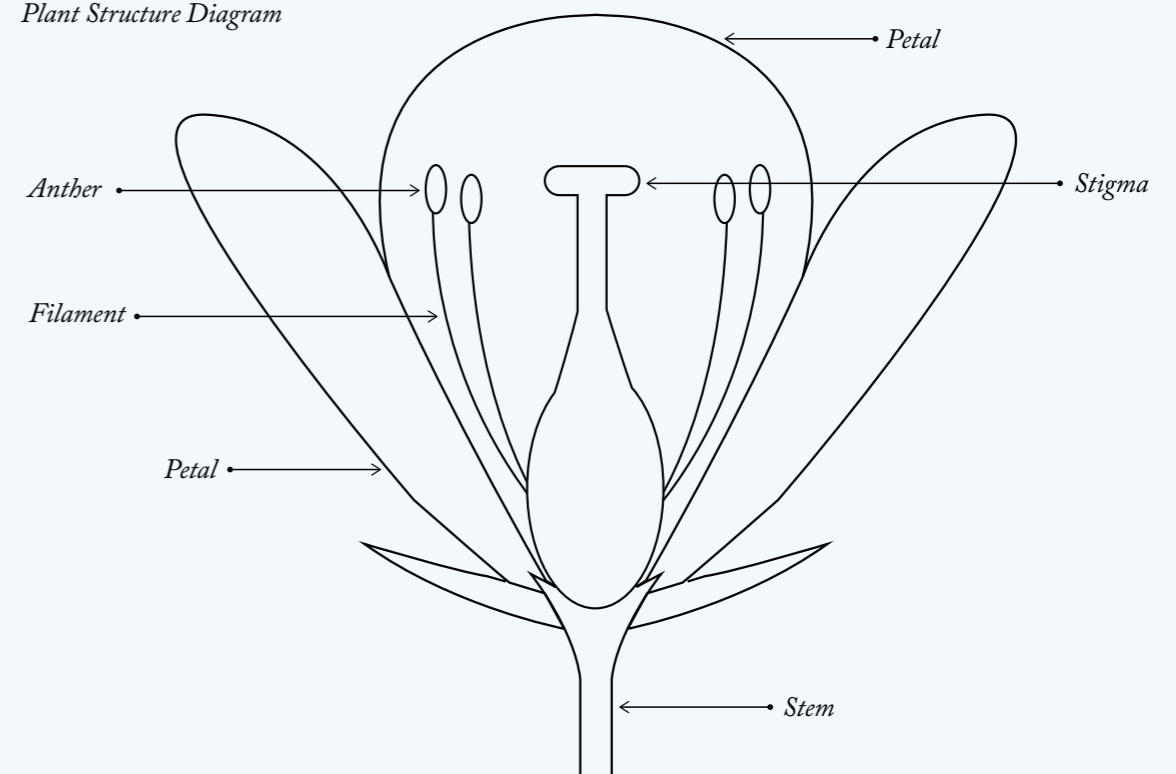
Species [say: spee-sees or spee-shee-z] – A group of animals or plants that look similar and can breed and produce fertile young.

Seedling [say: see-dling] – A very young plant that grows from a single seed.

Sustainability [say: suh-stay-na-bih-luh-tee] – If an activity is sustainable, it should be able to continue in the long term. To harvest fynbos sustainably, we must pick with care so that the plants can continue to produce flowers year after year.

Vegetation [say: veh-ji-tay-shun] – Another word for ‘plant life’. A biome can contain many different types of vegetation. For example, in the Fynbos Biome you will find different collections of fynbos plants growing in the mountains, near the sea, in marshy areas and in different types of soil.

Plant Structure Diagram



Visitors to South Africa often describe the Western and Eastern Cape provinces as some of the most beautiful places on Earth. In fact, the southern Cape around George is known as the 'Garden Route' because of the stunning mountains and valleys, which are mostly covered in fynbos.



What is fynbos?

Fynbos is a type of vegetation or veld. The name comes from a Dutch word 'fijnbosch', meaning 'fine bush', and refers to how the plants look. Most fynbos plants have small (or fine) leaves and are shrubs (or bushes) rather than trees.

The Fynbos Biome is a natural region that stretches from Vanrhynsdorp in the west to Grahamstown in the east, in a 100 to 200 kilometre-wide strip along the coast. This region has a Mediterranean climate, with cold, wet winters and hot, dry summers. In most of the rest of South Africa, the rain falls in summer and the winters are dry. Fynbos plants have to be tough to survive the long summer droughts.

Fynbos is predominantly found in nutrient poor, highly leached soils. This is another characteristic of fynbos, as very few plants choose to live on such harsh soils. Fynbos has adapted to these soil conditions, allowing it to grow in areas where many other plants cannot.

Fires are common in fynbos during the hot, dry, windy summers. In fact, fynbos needs to burn every 15 years or so. Fire helps to renew the veld because it removes the old plants, and the smoke from the fire causes seeds in the ground to germinate and grow into new plants.

The Cape Floral Kingdom

Scientists have divided the world into six regions called floral kingdoms (or floristic regions). Each of these regions is special because of the types of plants that grow there. The Cape Floral Kingdom (or Cape Floristic Region) is the smallest floristic region in the world. It has the highest number of different types (or species) of plants of any floral kingdom. It is also the only floral kingdom that is found entirely in one country.

The main type of vegetation in the Cape Floral Kingdom is fynbos. Other types of vegetation also grow in this region, e.g. renosterveld, Succulent Karoo, thicket and forest.

Nearly 9,000 different plant species grow here naturally. Fynbos is defined by these three very special groups or 'plant families':

- **Proteaceae** [say: pro-tee-ay-see] – the Protea family
- **Ericaceae** [say: eh-rih-kay-see] – the Erica family
- **Restionaceae** [say: reh-sti-oh-nay-see] – the Restio family.

Sixty-nine percent of fynbos plant species grow only in this region, and nowhere else on Earth. We call these special types of plants 'endemic' species.



South Africa's plants

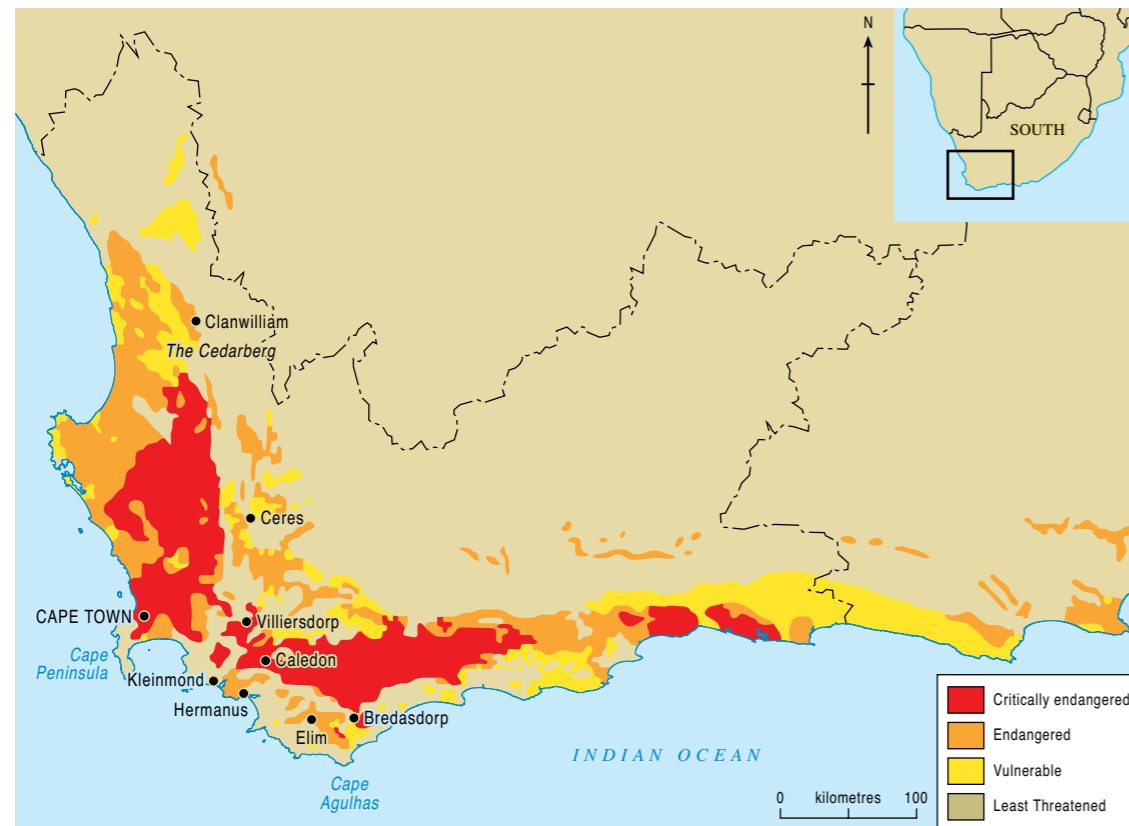
South Africa has a significant number of indigenous (or native) plant species: about 20,000 in total. The Red List of South African Plants (Raimondo et al. 2009) tells us which of these species are under threat.

Nearly a quarter (or 25%) of South African plants are either:

- Threatened with extinction: this means that there are so few plants left that they are in danger of dying out (or becoming extinct); or
- Of conservation concern: this means that people are worried that the numbers of these plants are decreasing. These plants may become threatened with extinction if we do not look after them now.

In the whole of South Africa:

- 39 species of plants (or 0.2% of all plants) are already extinct;
- 2,569 species of plants (12.6%) are threatened with extinction; and
- 2,409 species of plants (11.8%) are of conservation concern.



Threats to fynbos

About three quarters (or 75%) of South Africa's threatened plants live in the Fynbos Biome (Le Roux et al. 2012). Most of these plants are endemic to the fynbos. This means that they grow only in the Fynbos Biome and nowhere else on Earth. So, those who work with the fynbos have a responsibility to look after these precious plants.

In the Fynbos Biome:

- 1,805 plant species are threatened with extinction – 1,745 of these are endemic; and

- 3,296 plant species are of conservation concern – 3,151 of these are endemic.

Fynbos plants are threatened by:

- destruction of their habitat – due to urban, agricultural and industrial development;
- the spread of invasive alien plants;
- inappropriate agricultural practices;
- unsustainable picking;
- too frequent fires.

The value of fynbos

Fynbos is a valuable treasure for all South Africans. It brings direct income when harvested for the flower markets or for medicine. It also attracts millions of tourists from across the world who come to appreciate it. Together fynbos harvesting and tourism generate about R77 million per year, according to a study by Turpie et al (2003) which assessed the economic value of the Cape Floristic Region.

The fynbos ecosystem also provides us with free services:

- Fynbos flowers provide food for honeybees when they are not being used to pollinate fruit trees.
- Fynbos uses a lot less water than invasive alien plants like Black Wattle trees. Therefore, fynbos areas allow more water to run off the land and into rivers and dams.

Fynbos and fire

Fynbos and fire work closely together. When a patch of fynbos burns, the fire will provide the boost that allows dormant seeds to germinate. Also, many smaller fynbos bulbs, and plants that die after a year or two, have the opportunity to flower and seed because the sunlight can now reach them and they can make use of the abundant nutrients. When the plants next to them grow tall again, they will then become dormant until the next

fire. Fires should occur in the fynbos between 10 and 15 years. But if fires burn more often, they could kill fynbos plants that take a long time to mature. If fires do not burn often enough, the fynbos plants could die before the fire reaches them. A combination of correctly timed wild fires and managed burns is optimal.

Classification of plants

There are millions of different plants in the world. It helps us to make sense of all these different plants if we put those that look similar into groups, and name these groups (e.g. Geraniums, lettuces, citrus fruits, Proteas).

In 1735, a Swedish botanist and medical doctor named Carolus Linnaeus [say: Ka-row-lus Lih-nay-us] developed a way to classify natural things into groups according to how similar they looked. He published his classification system in a book called *Systema Naturae*, meaning 'a system of nature'.

Linnaeus divided natural things into the following groups:

- Three very large groups called Kingdoms: Animals, Plants and Minerals;
- Kingdoms are divided into Classes, e.g. Vertebrates and Invertebrates in the animal kingdom;

- Classes are split up into Families, e.g. the Protea, Erica and Restio plant families in the fynbos;
- Smaller groups of plants or animals that look fairly similar are grouped into Genera (singular: Genus); and
- Each Genus usually contains a number of Species. These individual types of animals or plants can breed with others of the same type.

After nearly 300 years we still use this system of classification and modern genetic techniques allow botanists to accurately determine the family trees of known plant species.

Naming of plants

Linnaeus also developed a system that all scientists in the world use to name living things. We call this the 'binomial system' [say: buy-no-me-al] because each species is given two (bi) names. The first is the genus name and the second is the species name. The binomial is often written in italics and the binomial system is based on ancient languages (Latin and Greek) that are no longer spoken.

An example of a binomial:

'Protea compacta'

- The first name tells us that it belongs to the group (or genus) *Protea*.
- The second name, *compacta*, tells us what particular type or species of *Protea* it is.

Sometimes the scientific name will tell you something about the plant. In this case, the name '*compacta*' tells us about the leaves that press together in a 'compact' way around the stem.

Here are six scientific names (or binomials) that you will find in this field guide. Each of them is the name of a different species:

Aulax umbellata, *Leucadendron platyspermum*, *Leucadendron xanthoconus*, *Protea cynaroides*, *Protea neriifolia*, *Protea susannae*.

From the names it is possible to see that some of these plants are more closely related than others. For example, there are two species in the genus *Leucadendron*. These are both Conebushes (Tolbosse) so they have been put into one group.

There are three species of the genus *Protea*. Most people know what a *Protea* flower looks like, and all three of these plants have *Protea*-type flowers.

When you read the descriptions of the plants in this guide, you will discover that all six plants in this list belong to the same family: the Proteaceae [say: pro-tee-ay-see] or *Protea* family. So, even though the flowers of an *Aulax*, a *Leucadendron* and a *Protea* look quite different, these genera are similar enough to be put into the same family group.

In this Field Guide for Wild Flower Harvesting, we use the family, genus and species names of the plants. As you use this guide, you will become more familiar with the scientific names of plants. This will help you to develop an understanding of plant classification.

The market for fynbos

The wild flower harvesting industry has existed for over 100 years, with dried flowers being exported to Germany as long ago as the nineteenth century. Today about 700 harvesting businesses operate in the Western Cape (Middelmann 2012). The fynbos industry is very important because it creates jobs and income for many people.

Flower pickers harvest fynbos from the veld or from flower orchards. They take the fresh flowers to pack-houses where flower packers make them into bouquets. A typical bouquet will have both 'focal flowers' such as *Proteas*, and a number of stems of 'greens'. Some focal flowers are harvested from the veld, but many are grown in flower orchards where the quality can be controlled more easily.

Some bouquets are sold in South Africa in supermarkets, florist shops and by informal traders. Many bouquets are exported, mainly to Europe. The fresh fynbos industry exports most of the fynbos picked in the veld to Aalsmeer in the Netherlands. There it is sold at flower auctions.

The dried-flower industry is also very important. Significant volumes of dried, bleached or coloured fynbos are exported, especially to Germany.

Picking fynbos with care

Here are some things to think about:

- When fynbos flowers are removed from the veld, we prevent these flowers from making seeds that will grow into new plants. This is why we should always leave some flowers in the veld.
- If we do not know which plants can be picked, we could pick rare species that are in danger of becoming extinct.
- If we allow invasive alien plants to grow in the veld, they could shade the fynbos plants beneath them, and stop them from growing. We should remove these alien plants from the veld.
- Because fynbos is so valuable, it is protected by law (including the National Environmental Management: Biodiversity Act 2004). For example, it is illegal to plough or clear fynbos veld that has never been cleared before (e.g. to plant another crop in its place). We need to know and respect the rules that protect fynbos.
- It is illegal to pick fynbos without the correct licenses from the conservation authorities, such as CapeNature. These licenses provide guidelines to help us look after the fynbos.

Understanding how harvesting affects the veld helps us to look after the veld more effectively. After all, if we pick all the fynbos this year, there will be no fynbos to pick in the future. This can have a negative impact on livelihoods.



The Sustainable Harvesting Programme

The Sustainable Harvesting Programme (SHP) was initiated in 2003 in order to protect both the fynbos and people's jobs that depend on fynbos. FlowerValley Conservation Trust worked with CapeNature, botanists, market experts and the fynbos industry over a period of ten years to develop the SHP.

The SHP provides fynbos harvesters and suppliers with an SHP Toolkit to help them pick fynbos in a responsible manner. It also encourages harvesters to regularly check (or monitor) the fynbos veld, in order to better understand our long-term impacts on the veld.

The SHP Toolkit includes:

1. The Sustainable Harvesting Programme Code of Best Practice for Wild Harvesters.
2. A Vulnerability Index, developed specifically for the SHP, which helps identify which species to pick.
3. Support for obtaining a floral license.

4. Support with field assessments and surveys of species populations on each property.
5. Opportunities for training and capacity building.
6. Support with ongoing research.
7. Access to a user-friendly database (or record of information) to enable more effective land management planning.

Flower harvesters, fynbos suppliers and landowners may become members of the SHP.

The SHP Code of Best Practice for Wild Harvesters

The Sustainable Harvesting Programme (SHP) Code of Best Practice for Wild Harvesters provides guidelines on:

- How to pick fynbos with care;
- Social and labour standards – to improve livelihoods;
- Complying with South Africa's laws.

The Code of Best Practice has four principles that protect the environment:

1. Conserve biodiversity: Fynbos plants are protected by law, especially threatened species. Plants must be given time to grow again after picking.
2. Use wild fynbos sustainably: Pickers must leave enough fynbos in the veld to allow the plants to recover after harvesting and produce new plants.

3. Comply with national and provincial regulations: Harvesters and suppliers must obey all relevant laws: protect the veld, pick fynbos legally, and help fynbos businesses sell to markets legally.
4. Have a property management plan: Fynbos suppliers, harvesters and landowners need a plan to make sure that they care for the fynbos at every stage of the business.

The Code of Best Practice also promotes ethical labour practice and improved livelihoods.

Ten principles of good harvesting

Picking teams should follow these Principles of Good Harvesting when picking flowers in the veld, as set out in the SHP Code of Best Practice for Wild Harvesters:

1. Always have a valid license from CapeNature.
2. Use maps and know the areas where you are picking.
3. Avoid damaging species that you are not harvesting.
4. Never take more than 50% of this year's flower heads or stems from the plant.
5. Make sure that your secateurs are clean and sharp.

6. Make sure that you cut the stem at an angle.
7. Do not leave litter (including twine) in the veld.
8. Only harvest what you need. Follow market criteria to avoid rejects.
9. Dispose of plant waste properly. Do not dump it in piles in the veld.
10. Keep records of where and how much you have harvested.

The Vulnerability Index and the Red Data List

In the SHP Toolkit, the Vulnerability Index helps us to regulate which flowers are picked from the veld for the market. It currently provides information on 150 fynbos species that exist in natural populations on the Agulhas Plain. Of these 71 are harvested and 79 may have potential to be harvested. The Index, which is based on biological criteria, provides a guideline as to how the long-term population of each species may be affected by harvesting. Each species is awarded a score on a scale of 0-11. High scores indicate a greater risk that harvesting will affect the survival of that species.

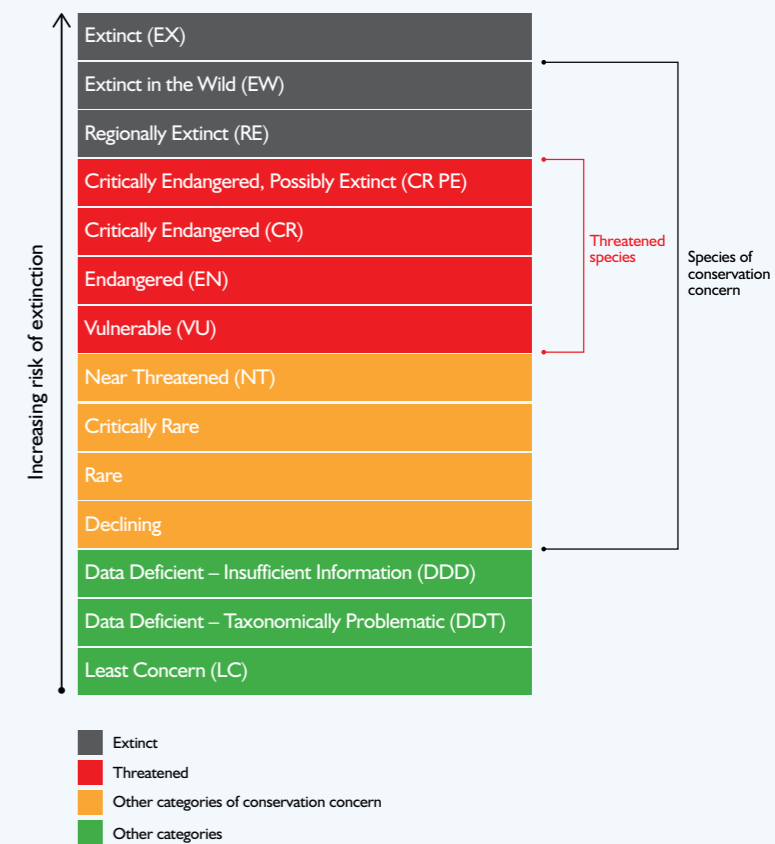
The Vulnerability Index tells us which fynbos plant species:

1. we can pick;
2. we can pick, but need to monitor because they may become more threatened; and
3. we should not pick because harvesting poses too great a risk to their survival.

The South African National Botanical Institute (SANBI) oversees the production of the Red Data List of threatened plant species, which includes fynbos. The Red Data List states the conservation status of plant species and draws attention to the degree to which individual species are under threat within the country as a whole. The Vulnerability Index is used in conjunction with the Red Data List by regulatory authorities, such as CapeNature.

The Vulnerability Index differs from the Red Data List in two significant ways: (i) it focuses specifically on the risks posed by harvesting; and (ii) it focuses only on natural species populations found on the Agulhas Plain. Variations in Red Data List and Vulnerability Index scores are explained by these differences in focus.

South African Red List categories



Source: <http://redlist.sanbi.org/redcat.php>

Know how much fynbos you have

In the SHP Toolkit, the Resource Base Assessment enables fynbos harvesters, suppliers and landowners to work out how much fynbos can be harvested on a certain piece of land.

This assessment allows harvesters, suppliers and landowners to know what and how much can be picked in a particular area. It also allows them to measure how the types and the numbers of plants change over a period of time. This gives them a better understanding of how fynbos harvesting may or may not be changing the structure of the veld.

Fynbos plants of the Agulhas Plain and beyond

The rest of this Field Guide for Wild Flower Harvesting describes 41 species (or types) of fynbos plants that grow on the Agulhas Plain. These species were selected as they are the most commonly harvested species. Many of these plants also grow in other parts of the Cape Floral Kingdom. They are all harvested for flowers or greens.

The Agulhas Plain is a biodiversity hotspot. Many of the plants that grow here are vulnerable (at risk) because of invasive alien plants, urban and agricultural development, and harvesting. Many plants are endemic (unique) to the area. If they die out here, they cannot be replaced.

The 41 indigenous plant species belong to eight plant families. The plants are grouped first by their family in alphabetical order, starting with the Asteraceae and ending with the Rutaceae. They are then listed by their genus and species names, in alphabetical order.

There are also some extremely rare types of fynbos vegetation that grow on different soils, e.g. sand fynbos, limestone fynbos, and critically endangered Elim Ferricrete fynbos. Highly threatened renosterveld vegetation also grows on the Agulhas Plain. The natural vegetation in this area needs protection.

Each plant species has a description and a photograph to help you recognise it in the veld. You will find out where each species is most likely to grow. You will also learn which species are common and can be harvested, and which are threatened and should be left in the veld.



Here are 41 fynbos species which are commonly harvested on the Agulhas Plain. Important botanical information is provided about each of these species along with information about why they are harvested. The Agulhas Plain is a biodiversity hotspot but many of the species are vulnerable, so must be managed carefully.

Plant descriptions

Family	Genus & Species
1 Asteraceae	<i>Phaenocoma prolifera</i>
2	<i>Stoebe plumosa</i>
3	<i>Syncarpha vestita</i>
4 Bruniaceae	<i>Berzelia abrotanoides</i>
5	<i>Berzelia lanuginosa</i>
6	<i>Brunia albiflora</i>
7	<i>Brunia laevis</i>
8	<i>Brunia noduliflora</i>
9	<i>Staavia radiata</i>
10 Ericaceae	<i>Erica coccinea</i>
11	<i>Erica imbricata</i>
12	<i>Erica plukenetii</i>
13 Proteaceae	<i>Aulax umbellata</i>
14	<i>Leucadendron coniferum</i>
15	<i>Leucadendron laureolum</i>
16	<i>Leucadendron linifolium</i>
17	<i>Leucadendron meridianum</i>
18	<i>Leucadendron muirii</i>
19	<i>Leucadendron platyspermum</i>
20	<i>Leucadendron rubrum</i>
21	<i>Leucadendron salicifolium</i>
22	<i>Leucadendron xanthoconus</i>
23	<i>Leucospermum cordifolium</i>
24	<i>Leucospermum truncatulum</i>
25	<i>Mimetes cucullatus</i>
26	<i>Protea compacta</i>
27	<i>Protea cynaroides</i>
28	<i>Protea eximia</i>
29	<i>Protea longifolia</i>
30	<i>Protea neriifolia</i>
31	<i>Protea obtusifolia</i>
32	<i>Protea repens</i>
33	<i>Protea scolymocephala</i>
34	<i>Protea speciosa</i>
35	<i>Protea sulphurea</i>
36	<i>Protea susannae</i>
37 Restionaceae	<i>Thamnochortus insignis</i>
38 Rhamnaceae	<i>Phyllica ericoides</i>
39 Rubiaceae	<i>Anthospermum aethiopicum</i>
40 Rutaceae	<i>Acmadenia heterophylla</i>
41	<i>Agathosma betulina</i>

Plant descriptions

Each of the plant descriptions includes:

- A colour photograph of the flower;
- The name of the family to which the plant belongs;
- The scientific name of the plant (the genus and species);
- Common names of the plant;
- A description of each plant: its structure, height and width, what the leaves and flowers look like, and how it grows;
- Where the plant grows: the parts of the country;
- How the plant is used, e.g. picked for the fresh- or dried-flower industries;
- Conservation information, as listed in the Red Data List of South African Plants (which assesses the status of South Africa's entire flora): threats to the survival of this species.

A colour label to tell you if the plant is common or threatened, as per the Red Data List:

- **Green label** – this plant is common (least concern), so it may be picked for the market, with the relevant CapeNature licences.
- **Orange label** – this species is near threatened. It can be picked, with authorisation from CapeNature.
- **Orange label** – this species is declining. It can be picked with authorisation from CapeNature.
- **Red label** – this species is vulnerable. It can be picked, with authorisation from CapeNature.
- **Red label** – this species is endangered, and should not be picked.
- **Red label** – this species is critically endangered, so it should not be picked.

The Vulnerability Index (VI) scoring of relevant plants:

- 1 – 4: Least Vulnerable;
- 5 – 6: Species that should be monitored;
- 7 – 8: Species that are a priority to monitor;
- 9 – 11: No-go species that should not be picked.

Nb. Not all the species have Vulnerability Index scores. This is because most of these species are not found naturally on the Agulhas Plain. However, they may be present and be harvested if they have been artificially sown.

Plant attributes key:



Plant Height



Usage



Flowering Season



Conservation Status



Reproduction



Geographical Range



Where



Abundance



Phaenocoma prolifera

Family:
Asteraceae – the Daisy Family

Genus:
Phaenocoma

Species:
prolifera – meaning ‘to grow in number rapidly’

Common name:
Cape everlasting, Rooisewejaartjie, Strooibloemetjie

Vulnerability Index Score: 4

- 1.2m
- September to March
- Seeder, insects
- Cape Peninsula to Bredasdorp
- Dried industry
- Least concern
- Widespread
- Common

What does the plant look like?

Phaenocoma prolifera is a woody shrub with a single stem that grows up to 1.2 metres tall.

It has tiny, densely-packed grey-green leaves on short side branches.

What are the flowers like?

The flower heads are bright pink and feel papery. The flower fades to white as it ages.

It flowers between September and March.

How does it reproduce?

Phaenocoma prolifera is visited by a variety of insect species (generalist insect-pollination system).

Where is it found?

It grows in acid sand from the Cape Peninsula to Bredasdorp. It is found from sea level to 1500 metres above sea level.

How is it used?

It is used in the dried-flower industry.

Conservation
[Red List: Least Concern]

Phaenocoma prolifera has a single stem that does not resprout and therefore new plants must grow from seed. It can easily be killed if it is picked when too young, like all plants that regenerate from seeds after fire.



Syncarpha vestita

Family:
Asteraceae – the Daisy family

Genus:
Syncarpha – meaning ‘fruits are united’

Species:
vestita – meaning ‘covered’ or ‘clothed’

Common name:
Sewejaartjie, Strooibloemetjie, Matras Sewejaartjie

Vulnerability Index Score: 5

- 90cm
- November to January
- Seeder, insects
- Cape Peninsula to George
- Dried industry
- Least concern

What does the plant look like?

Syncarpha vestita is an upright shrub with a single stem and many branches. It grows up to 90 cm tall. The branches, twigs and leaves are covered with tiny, grey, woolly hairs, which feel soft.

The upright leaves are up to 75 mm long and 8 mm wide.

What are the flowers like?

The flower head is shiny white. Several overlapping bracts surround a small cluster of tiny purple florets. It flowers from November to January.

How does it reproduce?

Syncarpha vestita is visited by a variety of insect species (generalist insect-pollination system) and regenerates from seed.

Where is it found?

It grows in groups of thousands of plants. It grows on sandy, well-drained flats and slopes between the Cape Peninsula and George.

How is it used?

In the past, the flower heads of *Syncarpha vestita* were used to stuff mattresses. This was one of the first fynbos plants to be exported from South Africa to Europe in the late 1800s. It is currently used in the dried-flower industry.

Conservation
[Red List: Least Concern]

Syncarpha vestita is not threatened.



Stoebe plumosa

Family:
Asteraceae – the Daisy family

Genus:
Stoebe

Species:
plumosa – meaning ‘feathery’

Common name:
Slangbos

Vulnerability Index Score: 3

- 1m
- April to June
- Seeder, insects, wind
- Cape Floristic Region
- Fresh and dried industries, medicine
- Least concern
- Widespread
- Common

What does the plant look like?

Stoebe plumosa is a shrub with many branches. The plant looks “woolly”. It grows up to one metre tall. The light grey leaves are very small, are covered with woolly hairs and do not have an obvious leaf-stalk attaching them to the branches.

What are the flowers like?

The flowers are light brown or purple and grow at the end of the longest stems. The plants flower between April and June.

How does it reproduce?

Stoebe plumosa is visited by a variety of insects although it may also be wind-pollinated. It regenerates from seed.

Where is it found?

It is found all over the Cape Floristic Region. The plants often grow in dense groups (stands).

How is it used?

It is used in the fresh- and dried-flower industries. It is also used as medicine, although little medical research has been done into supposed healing properties.

Conservation
[Red List: Least Concern]

Stoebe plumosa is not threatened.



Berzelia abrotanoides

Family:
Bruniaceae – the Brunia family

Genus:
Berzelia

Species:
abrotanoides – meaning ‘looks like a wormwood plant’

Common name:
Bloed kol-kol

Vulnerability Index Score: 4

- 1.5m
- April to October
- Seeder, insects and re-sprouter
- Clanwilliam to Port Elizabeth
- Fresh industry
- Least concern
- Widespread
- Localised

What does the plant look like?

Berzelia abrotanoides is a resprouting shrub that grows up to 1.5 metres tall. It has tiny, needle-like leaves.

What are the flowers like?

The flower heads are creamy-white balls that grow in clusters. Each flower head is supported by a red swollen stem. The plant flowers from April to October.

How does it reproduce?

Berzelia abrotanoides is visited by a variety of insect species (generalist insect-pollination system). The majority of plants in a given generation resprout after fire although a small number of seedlings will germinate too, quickly forming rootstocks from which they can resprout after the next fire.

Where is it found?

It is found in marshy areas between Clanwilliam and Port Elizabeth.

How is it used?

Berzelia abrotanoides is a popular fresh cut-flower.

Conservation
[Red List: Least Concern]

It is not threatened at present.



Berzelia lanuginosa

Family:
Bruniaceae – the Brunia family

Genus:
Berzelia

Species:
lanuginosa – meaning ‘woolly’

Common name:
Kol-kol

Vulnerability Index Score: 6

- 2m
- June to November
- Seeder, insects
- Clanwilliam to Bredasdorp
- Fresh industry
- Least concern
- Widespread
- Localised

What does the plant look like?

Berzelia lanuginosa is a shrub with a single stem and long, slender branches. It grows up to two metres tall. The leaves are small and needle-like.

What are the flowers like?

The flower heads are small, lime-green balls. When young, they radiate (or spread out) from the ends of the main branches. As they ripen, the balls change to a maroon-red colour. In full flower the balls are covered with white pollen threads that look like bits of wool. This gives the plant its species name (*lanuginosa* comes from the Latin word for wool).

The plants flower from June to November.

How does it reproduce?

Berzelia lanuginosa is visited by a variety of insect species (generalist insect-pollination system) and regenerates from seed.

Where is it found?

It grows only in the Western Cape, between Clanwilliam and Bredasdorp.

It grows on sandy flats and slopes in areas called seepages, where the soil is always moist.

How is it used?

It is mostly used in the fresh flower industry as a green filler.

Conservation
[Red List: Least Concern]

This species is not threatened but the wet habitats where it grows, e.g. stream banks, seepage areas and wetlands, can be threatened by unlawful and damaging agricultural practices like ploughing, trampling (by people or livestock) and draining of wetlands.



Brunia laevis

Family:
Bruniaceae – the Brunia family

Genus:
Brunia

Species:
laevis – meaning ‘smooth’

Common name:
Silver Brunia

Vulnerability Index Score: 6

- 90cm
- August to January
- Seeder, insects (resprout after fire)
- Caledon to Bredasdorp
- Fresh and dried industries
- Least concern
- Restricted
- Localised

What does the plant look like?

Brunia laevis is a shrub with many stems. It grows up to 90 cm tall. The plants have small, overlapping grey leaves.

What are the flowers like?

The flower heads consist of compact, creamy-white balls up to 2 cm in diameter. The plants flower from August to January.

How does it reproduce?

Brunia laevis is visited by a variety of insect species (generalist insect-pollination system). After fire the plants resprout from a permanent woody rootstock.

Where is it found?

It grows on mid- to lower mountain slopes between Caledon and Bredasdorp.

How is it used?

It is used a lot in the fresh- and dried-flower industries. It attracts high prices in the export market.

Conservation
[Red List: Least Concern]

Brunia laevis is not currently threatened, although sustainable agricultural practices are encouraged when working with *Brunia laevis*, to ensure ongoing protection of the species.



Berzelia albiflora

Family:
Bruniaceae – the Brunia family

Genus:
Berzelia

Species:
albiflora – meaning ‘white flowers’

Common name:
Knopbossie, Koffiebossie, Stompies, Coffee-scented Brunia

(Note: this species has been renamed: the old name was *Brunia albiflora*.)

Vulnerability Index Score: Not listed

- 3m
- March, April
- Seeder, insects
- Hottentots Holland to the Klein River Mountains
- Fresh industry
- Least concern

What does the plant look like?

Berzelia albiflora is a tall, slender shrub with a single stem and many branches. It can grow up to three metres tall. The long, slender branches have a dense covering of leaves. The beautiful dark green leaves make the shrub look like a pine tree. The leaves have black tips and are covered with delicate hairs. They grow up to 12 mm long.

What are the flowers like?

The flower heads are found at the end of stalks about 40 mm long and 15 mm wide. The flower heads form attractive, pale, silver-grey clusters. When in flower, the plant

smells like coffee. It flowers in March and April.

How does it reproduce?

Berzelia albiflora is visited by a variety of insect species (generalist insect-pollination system) and regenerates from seed.

Where is it found?

It grows in dense groups in damp areas from the Hottentots Holland to the Klein River Mountains.

How is it used?

It is harvested mostly for the fresh flower industry.

Conservation
[Red List: Least Concern]

Current Red List data indicates a stable population trend, although this species could become threatened by invasive alien plants.



Brunia noduliflora

Family:
Bruniaceae – the Brunia family

Genus:
Brunia

Species:
noduliflora – meaning ‘the flower is like a small knot’

Common name:
Knopbossie

(Note: this species has been renamed. The old name was *Brunia nodiflora*.)

Vulnerability Index Score: 2

- 50cm-1.5m
- March to June
- Seeder, insects (resprout after fire)
- South-western and Southern Cape
- Fresh and dried industries
- Least concern
- Widespread
- Common

What does the plant look like?

Brunia noduliflora is a shrub with many stems. It grows from 50 cm to 1.5 metres tall. The branches are covered with tiny hairs. Many small (2–3 mm long), needle-like leaves lie flat against the branches.

What are the flowers like?

The flower heads consist of grey balls approximately 10 mm across. The large, knobby, greyish-brown fruiting heads stay on the bush for several years. It flowers from March to June.

How does it reproduce?

Brunia noduliflora is visited by a variety of insect species (generalist insect-pollination system). After fire the plants resprout from a permanent woody rootstock.

Where is it found?

Brunia noduliflora is endemic (or limited) to the south-western and southern Cape. It grows in full sun on rocky sandstone slopes. It is common on hills and mountain slopes from the Olifants River Mountains to Piketberg, the Cape Peninsula, Jonkershoek, Hottentots Holland Mountains, and the Kogelberg through to Hermanus

and Elim. It also occurs on the Van Stadens Mountains and around Uitenhage.

How is it used?

It is a popular fresh or dried cut-flower.

Conservation
[Red List: Least Concern]

This species is not threatened.



Staavia radiata

Family:
Bruniaceae – the Brunia family

Genus:
Staavia

Species:
radiata – meaning ‘to spread out from the centre’

Common name:
Glasogies, Altydbossie

Vulnerability Index Score: 3

- 90cm
- September to December
- Seeder, insects (resprout after fire)
- Malmesbury to Riversdale
- Fresh industry
- Least concern
- Widespread
- Common

What does the plant look like?

Staavia radiata is a shrub with many stems and slender branches. It grows up to 90 cm tall. It has needle-like leaves.

What are the flowers like?

The small flower heads grow singly or in small clusters at the tips of the stems. They look like daisies, with white bracts surrounding a small group of florets.

How does it reproduce?

Staavia radiata is visited by a variety of insect species (generalist insect-pollination system). After fire the plants resprout from a rootstock.

Where is it found?

It grows on sandy plains and low slopes from Malmesbury to Riversdale.

How is it used?

It is used as a filler in bouquets.

Conservation
 [Red List: Least Concern]

Staavia radiata is not threatened because it resprouts vigorously after fire. However, it can become locally threatened if fynbos veld is ploughed illegally or if veld is burnt too frequently.



Erica imbricata

Family:
Ericaceae – the Erica family

Genus:
Erica

Species:
imbricata – meaning ‘overlapping like roof tiles’, referring to the floral leaves

Common name:
Kêr-kêr

Vulnerability Index Score: 4

- 80cm
- June to December
- Seeder, insects
- Gifberg to Port Elizabeth
- Fresh industry
- Least concern
- Widespread
- Common

What does the plant look like?

Erica imbricata is an upright shrub with branches that produce many flowers. It grows up to 80 cm tall.

What are the flowers like?

The white or pink flowers are about 3 mm long and hang downwards. The male parts of the flower (anthers) hang out of the flower head. This species is well known among flower pickers as ‘kêr-kêr’ because of the sound the plants make when they are brushed against. The plant flowers from June to December.

How does it reproduce?

Erica imbricata is visited by a variety of insect species (generalist insect-pollination system). The tiny seeds are released once flowers have dried.

Where is it found?

It grows on dry coastal flats and mountain slopes from Gifberg to Port Elizabeth.

How is it used?

It is a cut-flower that is in demand in the fresh flower industry.

Conservation
 [Red List: Least Concern]

This species is not threatened but some of the habitats where it grows are under threat, e.g. seasonally wet areas.



Erica coccinea

Family:
Ericaceae – the Erica family

Genus:
Erica

Species:
coccinea – meaning ‘red’ or ‘scarlet’

Common name:
Hangertjies, Vlakeheide

Vulnerability Index Score: 2

- 1.2m
- Throughout the year
- Seeder, birds (and re-sprouts after fire)
- Cederberg in the west, to the Cape Peninsula, Agulhas Plain and the Kamanassie Mountains
- Fresh industry
- Least concern
- Widespread
- Localised

What does the plant look like?

Erica coccinea is a stiff shrub with a single stem and many branches. It grows up to 1.2 metres tall and flowers may be red, orange, yellow or green. Two sub-species (subsp.) occur on the Agulhas Plain: *Erica coccinea* subsp. *Cocinea*, which grows in Sandstone soils; and *Erica coccinea* subsp. *Uniflora*, which grows on Limestone or in coastal sands.

What are the flowers like?

Hanging tube-like flowers grow in threes at the ends of short branches. The flowers are 6-17 mm long and may be smooth or sticky.

Flower colour may be red, orange, yellow or green. The male parts of the flower (brown filaments and anthers) hang out of the flower tube. Flowering occurs throughout the year depending on locality.

How does it reproduce?

Erica coccinea is pollinated by Sunbirds. Plants can either be reseeder or resprouter and it is often possible to find both forms in a single sub-population, thus it is important that each form be harvested accordingly. The tiny seeds are released once flowers have dried.

Where is it found?

It grows from the Cederberg in the west, to the Cape Peninsula, Agulhas Plain and the Kamanassie Mountains near George. It grows on sandy flats near the coast and on rocky mountain outcrops throughout this area.

How is it used?

This plant is used in the fresh flower industry.

Conservation
 [Red List: Least Concern]

Neither subspecies of *Erica coccinea* is threatened.



Erica plukenetii

Family:
Ericaceae – the Erica family

Genus:
Erica

Species:
plukenetii

Common name:
Hangertjie

Vulnerability Index Score:
E. plukenetii subsp. *plukenetii* – 3
E. plukenetii subsp. *lineata* – 8

- 1m
- Throughout year
- Seeder, birds
- Cape Floristic Region
- Fresh industry
- Least concern/ threatened
- Widespread
- Common

What does the plant look like?

Erica plukenetii is an upright shrub with a single stem that grows up to one metre tall with needle-like leaves that curve upwards. Four subspecies occur on the Agulhas Plain: 1.) *Erica plukenetii* subsp. *plukenetii* on Sandstone soils; 2.) *Erica plukenetii* subsp. *bredensis* on Limestone and lateritic soils; 3.) *Erica plukenetii* subsp. *penicellata* on Sandstone; and (4.) *Erica plukenetii* subsp. *lineata* which only grows in neutral soils associated with Limestone formations between Gansbaai and Soetansberg.

What are the flowers like?

It has tube-shaped flowers that hang downwards. The anthers (the male

parts of the flower) hang out of the flower. Flower colour may be red, white, pink, green or yellow and sometimes the mouth of the flower may be a different colour to the tube. Flowering occurs throughout the year depending on locality.

How does it reproduce?

All subspecies of *Erica plukenetii* on the Agulhas Plain are pollinated by Sunbirds. The tiny seeds are released once flowers have dried.

Where is it found?

It is commonly found on mountain slopes throughout most of the Cape Floristic Region, although the different subspecies often only grow in specific soil types.

How is it used?

It is used as a fresh cut-flower.

Conservation
 [Red List: Least Concern]

E. plukenetii subsp. *plukenetii* is not threatened / *E. plukenetii* subsp. *bredensis* is not threatened / *E. plukenetii* subsp. *penicellata* is not threatened.

[Red List: EN pending review]

E. plukenetii subsp. *lineata* is threatened and should not be harvested.



Aulax umbellata

Family:
Proteaceae – the Protea family

Genus:
Aulax – the Featherbushes

Species:
umbellata – meaning ‘like an umbrella’

Common name:
Krismisblom, Broad-leaf Featherbush

Vulnerability Index Score: 2

-  2.5m
-  September to February
-  Seeder, insects
-  Kogelberg to Still Bay
-  Fresh and dried industries
-  Near threatened
-  Widespread
-  Common

What does the plant look like?

Aulax umbellata is a shrub with a single stem that grows up to 2.5 metres tall. The leaves have a rounded tip. They are up to 110 mm long and 15 mm wide.

What are the flowers like?

Male and female flowers grow on different plants. When the plant is in flower, the leaves change colour to purple-brown. The female flowers are delicate, creamy yellow. Plants flower from September to February.

How does it reproduce?

Aulax umbellata is visited by a variety of insect species (generalist insect-pollination system). Female flowers ripen and dry to form a cup-shaped, woody structure that holds the seeds for several years before releasing them.

Where is it found?

It grows in well-drained, coastal sandy soils from Kogelberg to Still Bay.

How is it used?

The female flowers are used in both the fresh- and dried-flower industries.

The male flower wilts quickly after being picked and is therefore not suitable as a cut-flower.

Conservation

[Red List: Near Threatened]

Aulax umbellata is listed as Near Threatened on the SANBI Red List of South African Plants. It is threatened by invasive alien plants, afforestation, and in some instances Protea and vineyard cultivation and urbanisation.



Leucadendron laureolum

Family:
Proteaceae – the Protea family

Genus:
Leucadendron – the Conebushes

Species:
laureolum

Common name:
Louriertolbos, Golden Sunshinebush

Vulnerability Index Score: 3

-  2m
-  June to August
-  Seeder, insects and re-sprouter
-  Cape Peninsula to Potberg, inland to Paarl
-  Fresh industry
-  Least concern
-  Widespread
-  Localised

What does the plant look like?

Leucadendron laureolum is a big shrub that grows up to two metres tall. The male bush has a rounded shape. The female bush is less symmetrical and has fewer branches. The leaves are up to 95 mm long and 20 mm wide. The bracts are slightly longer than the rest of the leaves.

What are the flowers like?

The elongated cones are 40 mm long and 30 mm wide. Seeds remain in the cone until the plant is burned in a fire. The flower heads have a slightly fruity smell. Plants flower from June to August.

How does it reproduce?

Leucadendron laureolum is insect-pollinated. Seeds are kept in the female cones until after the next fire, when they are released.

Where is it found?

It grows from the Cape Peninsula to Potberg and inland to the Paarl Mountain.

How is it used?

It is used in both the fresh- and dried-flower industries. It is one of the parents of popular commercial hybrids like ‘Chameleon’ and ‘Safari Sunset’.

Conservation

[Red List: Least Concern]

Leucadendron laureolum is not threatened.



Leucadendron coniferum

Family:
Proteaceae – the Protea family

Genus:
Leucadendron – the Conebushes

Species:
coniferum – means ‘producing cones’

Common name:
Duinegeelbos, Geelbos, Dune Conebush

Vulnerability Index Score: 5

-  4m
-  August and September
-  Seeder, wind
-  Agulhas Plain, coastal areas of the Cape Peninsula, and Betty’s Bay
-  Fresh industry
-  Vulnerable
-  Widespread
-  Localised

What does the plant look like?

Leucadendron coniferum is an upright shrub with a single stem. It grows up to four metres tall. The oblong-shaped leaves are slightly twisted and have a sharp tip. The leaves are 80 mm long and 9 mm wide.

What are the flowers like?

The cones turn red as they mature and later become green. They are kept on the shrub. The bracts are yellow. Plants flower during August and September.

How does it reproduce?

It has been found that *Leucadendron coniferum* is wind-pollinated. Seeds are kept in the female cones until after the next fire.

Where is it found?

It grows in neutral sand in fynbos that is rich in plants from the Protea family. It grows on the Agulhas Plain, in coastal areas of the Cape Peninsula, and around Betty’s Bay.

How is it used?

It is used as a filler in bouquets.

Conservation

[Red List: Vulnerable]

Leucadendron coniferum is threatened by invasive alien trees, degradation, loss of habitat, pollution and unsustainable harvesting in certain instances.



Leucadendron linifolium

Family:
Proteaceae – the Protea family

Genus:
Leucadendron – the Conebushes

Species:
linifolium – meaning ‘leaves like flax’

Common name:
Line-leaf Conebush

Vulnerability Index Score: 4

-  2m
-  September and October
-  Seeder, insects
-  Cape Peninsula and Overberg
-  Fresh and dried industries
-  Vulnerable
-  Widespread
-  Localised

What does the plant look like?

Leucadendron linifolium is a compact shrub with a single stem. It grows up to two metres tall. The small, flat, slightly twisted leaves are 5–30 mm long and 1–3 mm wide.

What are the flowers like?

The male flowers grow slightly above the bush on stems that have very few leaves. The female flowers grow in the upper branches surrounded by a collar of bracts. Plants flower during September and October.

How does it reproduce?

Leucadendron linifolium is insect-pollinated. Seeds are kept in the female cones until after the next fire, when they are released.

Where is it found?

It is found in seasonal wetlands throughout the Cape Peninsula and Overberg.

How is it used?

It is used widely in both the fresh- and dried-flower industries.

Conservation

[Red List: Vulnerable]

Leucadendron linifolium is listed as vulnerable because many of the wetlands where it used to grow have been destroyed. It is also threatened by invasive alien plants, habitat destruction and over-harvesting.



Leucadendron meridianum

Family:
Proteaceae – the Protea family

Genus:
Leucadendron – the Conebushes

Species:
meridianum – meaning ‘midday’

Common name:
Geelbos, Limestone Conebush

Vulnerability Index Score: 7

- 2m
- July and August
- Seeder, insects
- Gouritz River mouth to the Agulhas Plain
- Fresh and dried industries
- Least concern
- Restricted
- Localised

What does the plant look like?

Leucadendron meridianum is a shrub with a single stem. It grows up to two metres tall. The narrow leaves are 40 mm long and 7 mm wide. They are slightly twisted near the stem and have short, silver hairs and a sharp red tip.

What are the flowers like?

The bracts are bright yellow and the cones are covered in tiny, silver hairs. Plants flower during July and August.

How does it reproduce?

Leucadendron meridianum is visited by a variety of insect species (generalist insect-pollination system). The seeds are flat, have wings and are kept inside female cones for several years after flowering.

Where is it found?

It is endemic (limited) to Limestone fynbos. It grows in large groups from the Gouritz River mouth to the Agulhas Plain.

How is it used?

It is used in both the fresh- and dried-flower industries.

Conservation
 [Red List: Least Concern]

Leucadendron meridianum is listed as not being threatened on the SANBI Red List of South African Plants. However, concerns remain because much of its habitat has been destroyed.

Leucadendron platyspermum



Family:
Proteaceae – the Protea family

Genus:
Leucadendron – the Conebushes

Species:
platyspermum – meaning ‘plate-seed’

Common name:
Platy, Platy Star, Tol, Tolle, Plate-seed Conebush

Vulnerability Index Score: 7

- 1.7m
- September
- Seeder, insects
- Kleinmond to Villiersdorp and the Agulhas Plain
- Fresh and dried industries
- Vulnerable
- Restricted
- Localised

What does the plant look like?

Leucadendron platyspermum is an upright bush with a single stem. It grows up to 1.7 metres tall.

The leaves of the male plant are very bright yellow. Leaves of the female plant are light lime-green. The leaves are usually up to 70 mm long and 13 mm wide.

What are the flowers like?

The ripe dark brown cone is very big: up to 50 mm long and 40 mm wide. Plants flower during September.

How does it reproduce?

Leucadendron platyspermum is insect-pollinated. Seeds remain in the cones until after fire and then they are released.

Where is it found?

It is found from Kleinmond to Villiersdorp in the west, and to the Agulhas Plain in the south. It grows in both sand and gravel.

How is it used?

Green, unripe cones are harvested for the European Christmas market. When ripe and brown, the cones are harvested for the dried-flower industry.

Conservation
 [Red List: Vulnerable]

Leucadendron platyspermum is listed as ‘Vulnerable’. It has been broadcast-sown on a large scale in natural veld in the Southern Overberg and Agulhas Plain. This could have an impact on the diversity.



Leucadendron muirii

Family:
Proteaceae – the Protea family

Genus:
Leucadendron – the Conebushes

Species:
muirii

Common name:
Kruiphout, Silver-ball Conebush

Vulnerability Index Score: 7

- 2m
- November and December
- Seeder, wind
- Bredasdorp and the Agulhas Plain to Still Bay
- Dried industry
- Least Concern
- Restricted
- Localised

What does the plant look like?

Leucadendron muirii is a shrub with a single stem and few branches. It grows up to two metres tall.

The leaves are long, fleshy and thick and have a rounded tip. The young leaves are needle-like, but older leaves grow to 40 mm long and 13 mm wide.

What are the flowers like?

The flowers have brown bracts with a green centre. They smell like yeast and they flower during November and December.

How does it reproduce?

Leucadendron muirii is wind-pollinated. Seeds remain in the cones until after fire and then they are released.

Where is it found?

It grows on limestone soils from Bredasdorp and the Agulhas Plain to Still Bay.

How is it used?

It is used as a filler in bouquets.

Conservation
 [Red List: Least Concern]

Leucadendron muirii is not threatened.

Leucadendron rubrum



Family:
Proteaceae – the Protea family

Genus:
Leucadendron – the Conebushes

Species:
rubrum – meaning ‘red’

Common name:
Spinning Top

Vulnerability Index Score: Not listed

- 2.5m
- August and September
- Seeder, wind
- Cape Floristic Region
- Dried industry
- Least concern

What does the plant look like?

Leucadendron rubrum is an upright shrub with a single stem that grows up to 2.5 metres tall. The male plants are bushier and have smaller leaves than the female plants. Leaves are covered with silver-white hairs when soft and young. Older leaves lose most of the hairs and are green-grey in colour.

What are the flowers like?

Male flower heads are very small (about 11 mm long) and bright yellow.

Female flower heads form a cone about 40 mm long. The bracts that form the cone are a colourful mix of yellow, green, blue and red. The yellow stigmas (female parts) stick out at the top of the cone in a tuft. Plants flower in August and September.

How does it reproduce?

Leucadendron rubrum is wind-pollinated. Seeds are kept in the cones until after the next fire.

Where is it found?

It grows on mountain slopes throughout the Cape Floristic Region at altitudes from 250 to 1500 metres.

How is it used?

The cones are used in the dried-flower industry.

Conservation
 [Red List: Least Concern]

This species is listed as not threatened in the SANBI Red List of South African Plants. Even so, there are concerns surrounding the species, and there have been suggestions that it requires monitoring.



Leucadendron salicifolium

Family:

Proteaceae – the Protea family

Genus:

***Leucadendron* – the Conebushes**

Species:

***salicifolium* – meaning ‘leaves like a willow’**


Common name:

Geelbos, Strictum, Common Stream Conebush

(Note: “Leucadendron strictum” is the old name for Leucadendron salicifolium.

See Leucospermum truncatulum for a similar misnomer used in the cut-flower trade.)

Vulnerability Index Score: 5

-  3m
-  July to September
-  Seeder, wind
-  Olifants River to the Langeberg Mountains at Riversdale
-  Fresh and dried industries
-  Least concern

What does the plant look like?

Leucadendron salicifolium is an upright shrub with a single stem that grows up to three metres tall.

Its leaves have no hairs and are slightly sickle-shaped. They are up to 60 mm long and 5 mm wide. The plant is mid-green in colour.

What are the flowers like?

The cones are up to 35 mm long and 25 mm wide, with bright yellow bracts. The cones are kept on the shrub for several years. Plants flower from July to September.

How does it reproduce?

Leucadendron salicifolium is wind-pollinated. Seeds are kept in the cones until after the plant is killed by fire.

Where is it found?

It grows naturally on stream banks and in wet places from the Olifants River to the Langeberg Mountains at Riversdale.

How is it used?

It is used in both the fresh- and dried flower industries.

Conservation

[Red List: Least Concern]

Leucadendron salicifolium is not threatened, but the habitats in which it grows, i.e. stream and riverbanks and swampy areas, are in some instances impacted by unlawful agricultural practices like ploughing.



Leucospermum cordifolium

Family:

Proteaceae – the Protea family

Genus:

***Leucadendron* – the Conebushes**





Species:

cordifolium

Common name:

Luise, Luisies, Speldekussing, Pincushion

Vulnerability Index Score: 4

-  1.5m
-  August to January
-  Seeder, birds
-  Kogelberg, Groenlandberge, Houwhoek, Caledon Swartberg, Kleinrivierberge, Akkedisberg & Bredasdorp mountains, & Soetanyberg.
-  Fresh industry
-  Near threatened
-  Widespread
-  Localised

What does the plant look like?

Leucospermum cordifolium is a rounded shrub with a single stem and horizontal branches (the branches stick straight out from the stem). It grows up to 1.5 metres tall. The leaves are up to 80 mm long and 20 mm wide. The young leaves are hairy and the older leaves are smooth.

What are the flowers like?

The pincushion flower heads are attached at a right angle to the stem. They are up to 70 mm wide and range in colour from orange to dark red, and sometimes yellow. Plants flower from August to January.

How does it reproduce?

Leucospermum cordifolium is pollinated by Sugarbirds and Sunbirds. Seeds are released 1–2 months after flowering.

Where is it found?

It grows naturally in rocky, acidic sandstone soils in the Kogelberg, Groenlandberge, Houwhoek, Caledon Swartberg, Kleinrivierberge, Akkedisberg and Bredasdorp mountains, and also on flats surrounding Soetanyberg.

How is it used?

They are picked for the fresh flower market only.

Conservation

[Red List: Near Threatened]

This species is listed as ‘Near Threatened’ on the SANBI Red List of South African Plants, because of habitat loss, over-harvesting and generic contamination. This species is also under threat from poor harvesting practices.



Leucadendron xanthoconus

Family:

Proteaceae – the Protea family

Genus:

***Leucadendron* – the Conebushes**

Species:

***xanthoconus* – meaning ‘yellow cone’**

Common name:

Blinkblaartolbos, Sickle-leaf Conebush

(Note: this species is often incorrectly called “Salignum”. Leucadendron xanthoconus and Leucadendron salignum can be easily confused but Leucadendron xanthoconus is a reseeder and Leucadendron salignum is a resprouter.)

Vulnerability Index Score: 2

-  2m
-  August
-  Seeder, insects
-  Cape Peninsula to Potberg
-  Fresh and dried industries
-  Least concern
-  Widespread
-  Common

What does the plant look like?

Leucadendron xanthoconus plants are dense shrubs. They have single stems and can grow up to two metres tall. They grow fairly quickly. The leaves are slightly sickle-shaped. Young leaves are covered in silvery hairs.

What are the flowers like?

The male and female cones grow on separate plants and look different. The bracts around the flower heads are yellow. The plants flower in August.

How does it reproduce?

Leucadendron xanthoconus is insect-pollinated. Seeds are kept in the female cones until after the next fire, when they are released.

Where is it found?

It grows from the Cape Peninsula to Potberg. It often grows in large groups.

How is it used?

In the cut-flower industry it is used as a filler (or ‘green’) in bouquets.

The female stems with cones are very popular in the dried-flower export market.

Conservation

[Red List: Least Concern]



Leucospermum truncatulum

Family:

Proteaceae – the Protea family

Genus:

***Leucospermum* – the Pincushions**

Species:

truncatulum

Common name:

Buxi, Buxifolium, Oval-leaf Pincushion

(Note: This plant was given the specific (species) name “truncatulum” by Salisbury in 1809 - and “buxifolium” by Brown in 1810. Thus “truncatulum” is correct, although many botanists and wildflower harvesters/growers have continued to use the confusing name “buxifolium”.)

Vulnerability Index Score: 6

-  2m
-  August to December
-  Seeder, insects
-  Kogelberg to Agulhas
-  Fresh and dried industries
-  Near threatened
-  Widespread

What does the plant look like?

Leucospermum truncatulum is a slender shrub with a single stem and few branches. It grows up to two metres tall. The oval, hairy leaves are 10–25 mm long and 5–10 mm wide. The leaves overlap at the stem.

What are the flowers like?

The flowers are yellow when they are young and change to deep red as they get older. The small flower heads are round and 15–20 mm across. Flower heads grow in clusters of 2 to 8 and do not have an obvious stem. Plants flower from August to December.

How does it reproduce?

Leucospermum truncatulum is visited by a variety of insect species (generalist insect-pollination system) and seeds are released 1–2 months after flowering.

Where is it found?

It grows throughout the Overberg in big groups. It is found from the Kogelberg to Agulhas on sandy flats up to 400 metres above sea level. It prefers the cooler southern and eastern slopes.

How is it used?

It is used in the fresh- and dried-flower industries.

Conservation

[Red List: Near Threatened]

Leucospermum truncatulum is coming under threat, in many cases because of habitat loss, invasive alien plants and agriculture.



Mimetes cucullatus









Family:
Proteaceae – the Protea family

Genus:
***Mimetes* – the Pagodas**

Species:
***cucullatus* – meaning ‘shaped like a hood’**

Common name:
Common Pagoda

Vulnerability Index Score: 2

-  2m
-  August to March
-  Seeder, birds
-  Cederberg to the Kogelberg and Agulhas Plain to the Kouga Mountains
-  Fresh industry
-  Least concern
-  Widespread
-  Common

What does the plant look like?

Mimetes cucullatus is a shrub with many branches. It can grow up to two metres tall but most plants only reach 50 cm. The leaves are oval shaped and 25-55 mm long. They are arranged around the stem symmetrically (like a mirror-image).

What are the flowers like?

The flower head grows up to 100 mm long. It consists of a crown of red bracts (or leaves) and white hanging florets (10-15 mm long) that stick out of this crown. Plants flower throughout the year, but mainly from August to March.

How does it reproduce?

Mimetes cucullatus is pollinated by Sugarbirds and Sunbirds. The plants re-sprout from a permanent rootstock after fire.

Where is it found?

It grows from the Cederberg in the west, to the Kogelberg and Agulhas Plain in the south, and to the Kouga Mountains in the east.

How is it used?

It is used in the fresh flower industry.

Conservation

[Red List: Least Concern]

Mimetes cucullatus is not a vulnerable species.

What does the plant look like?

Protea cynaroides shrubs have many branches. Most shrubs are about one metre tall, but they can grow up to two metres.

What are the flowers like?

Flower heads are large and bowl-shaped and are up to 30 cm wide. The involucre (floral) leaves are pink to crimson. Plants flower throughout the year depending on locality.

How does it reproduce?

Protea cynaroides is pollinated by Sugarbirds and Sunbirds. Seeds are retained in the flower heads until after the next fire. Plants resprout from a permanent rootstock after fire.

Where is it found?

It grows throughout the Cape Floristic Region from the Cederberg in the west to Grahamstown in the Eastern Cape. It grows from sea level up to an altitude of 1,500 metres. Because it grows in many different places with different climatic conditions, *Protea cynaroides*

leaves and flowers vary greatly in size and colour.

How is it used?

Protea cynaroides is South Africa's national flower. It is an extremely popular cut-flower and is grown worldwide.

Conservation

[Red List: Least Concern]

Protea cynaroides is not threatened.



Protea cynaroides









Family:
Proteaceae – the Protea family

Genus:
***Protea* – the Sugarbushes**

Species:
***cynaroides* – meaning ‘like an artichoke’**

Common name:
Koningsprotea, King Protea

Vulnerability Index Score: 4

-  2m
-  Throughout year
-  Seeder, birds
-  Cape Floristic Region: Cederberg to Grahamstown
-  Fresh industry
-  Least concern
-  Widespread
-  Localised



Protea compacta


Family:
Proteaceae – the Protea family

Genus:
***Protea* – the Sugarbushes**

Species:
***compacta* – meaning ‘with a compact shape’**

Common name:
Bot River Sugarbush

Vulnerability Index Score: 7

-  3.5m
-  April to September
-  Seeder, birds
-  South-western Cape coast: Kleinmond, Houwhoek, Hermanus, Elim, Napier, Bredasdorp and Struisbaai
-  Fresh and dried industries
-  Near threatened
-  Widespread
-  Localised

What does the plant look like?

Protea compacta is a shrub with a single stem and branches. It grows up to 3.5 metres tall. The leaves are oval and heart-shaped at the base. They curl upwards around the stem.

What are the flowers like?

The flower colour ranges from deep pink to white. Plants flower from April to September.

How does it reproduce?

Protea compacta is pollinated by Sugarbirds and Sunbirds. Seeds are retained in flower heads until after the next fire.

Where is it found?

It grows along the south-western Cape coast around Kleinmond, Houwhoek, Hermanus, Elim, Napier, Bredasdorp and Struisbaai.

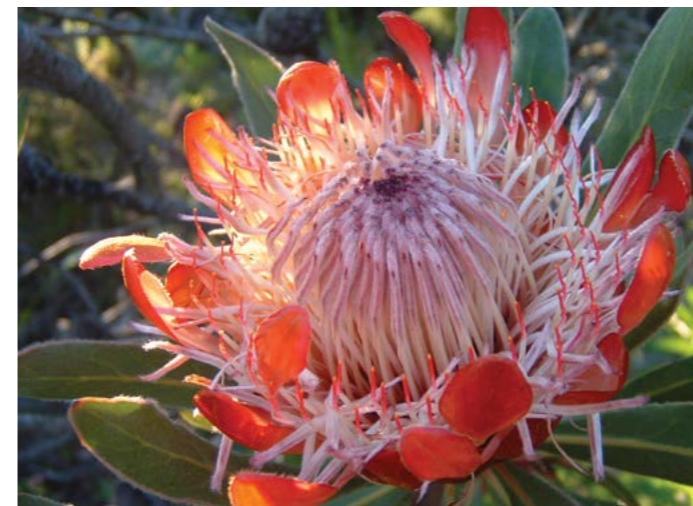
How is it used?

It is popular both as a cut-flower and in the dried-flower industry. It is therefore widely cultivated.

Conservation

[Red List: Near Threatened]

In some instances, dense fields of *Protea compacta* have been broadcast-sown over newly ploughed fynbos veld. This practice is illegal because it destroys the natural diversity of fynbos. It is also listed as Near Threatened on the Red List due to habitat loss, invasive alien plants and hybridisation.



Protea eximia







Family:
Proteaceae – the Protea family

Genus:
***Protea* – the Sugarbushes**

Species:
***eximia* – meaning ‘excellent’ or ‘special’**

Common name:
Broad-leaf Sugarbush

Vulnerability Index Score: Not listed

-  5m
-  July to December
-  Seeder, birds
-  Worcester, via Van Stadensberg, to Port Elizabeth.
-  Fresh industry
-  Least concern

What does the plant look like?

Protea eximia is a large shrub with a single stem and few branches. It grows up to five metres tall and three metres wide. The leaves are purple-green and covered with a white powder that rubs off when touched. The leaves feel like leather. They are 60-100 mm long and 30-65 mm wide.

What are the flowers like?

The flower heads are 100-140 mm long and up to 120 mm wide. The flower bracts are covered with small hairs on their outer surfaces. The outer bracts are short and cream to white in colour. The inner bracts are longer and light to dark pink.

The tips of the individual florets in the centre of the flower are covered with dark pink hairs that feel soft like velvet. Plants flower from July to December but mainly from August to October.

How does it reproduce?

Protea eximia is pollinated by Sugarbirds and Sunbirds. Seeds are retained in flower heads until after the next fire.

Where is it found?

It grows at altitudes from 200-1,600 metres. It is found from Worcester, via Van Stadensberg, to Port Elizabeth.

How is it used?

It is used in the cut-flower industry.

Conservation

[Red List: Least Concern]

This species is not threatened.



Protea longifolia

Family:
Proteaceae – the Protea family

Genus:
Protea – the Sugarbushes

Species:
longifolia – meaning ‘long leaves’

Common name:
Swartbaard, Long-leaf Sugarbush

Vulnerability Index Score: 3

- 1.5m
- May to September**
- Seeder, birds**
- Hottentots Holland, Du Toitskloof Mountains, to the Agulhas Plain**
- Fresh industry**
- Vulnerable**
- Widespread**
- Common**

What does the plant look like?
Protea longifolia is a sprawling shrub that grows up to 1.5 metres tall. The leaves curve upwards. They are 90-200 mm long and 5-17 mm wide.

What are the flowers like?
 The flower heads are greenish, pink or white. The flowers are 80-160 mm long and 40-90 mm wide. They have a central, pointed, black woolly tip. Plants flower from May to September but mainly in June and July.

How does it reproduce?
Protea longifolia is pollinated by Sugarbirds and Sunbirds. Seeds are retained in flower heads until after the next fire.

Where is it found?
 It grows in acid sand in fynbos that is rich in plants from the *Protea* family. They grow from the Hottentots Holland- and Du Toitskloof Mountains, to the Agulhas Plain in the south.

How is it used?
 It is used in the cut-flower industry.

Conservation
[Red List: Vulnerable]

Protea longifolia is a threatened species because of the loss of its habitat, over-picking in the past, invasive alien plants and Protea cultivation.



Protea obtusifolia

Family:
Proteaceae – the Protea family

Genus:
Protea – the Sugarbushes

Species:
obtusifolia – meaning ‘leaves with rounded tips’

Common name:
Limestone Sugarbush

Vulnerability Index Score: 7

- 2-3m
- April to September**
- Seeder, birds**
- Stanford to Cape Agulhas, Still Bay and to the Gouritz River mouth**
- Fresh industry**
- Near threatened**
- Restricted**
- Localised**

What does the plant look like?
Protea obtusifolia is an upright shrub with a single stem and branches. It grows between two and three metres tall. The narrow, oval leaves curve upwards. They are 100-150 mm long and 20-40 mm wide.

What are the flowers like?
 The flowers are glossy pink. The tips of the bracts and the centre of the flower head are dark pink. Plants flower from April to September, but mainly during June and July.

How does it reproduce?
Protea obtusifolia is pollinated by Sugarbirds and Sunbirds. Seeds are retained in flower heads until after the next fire.

Where is it found?
 It grows in coastal Limestone fynbos from Stanford to Cape Agulhas, Still Bay and to the Gouritz River mouth.

How is it used?
 It is used in the cut-flower industry.

Conservation
[Red List: Near Threatened]

This species is threatened by activities, including in some instances over-harvesting and because more than 20% of its Limestone fynbos habitat is threatened by invasive alien plants and agriculture.



Protea neriifolia

Family:
Proteaceae – the Protea family

Genus:
Protea – the Sugarbushes

Species:
neriifolia – meaning ‘leaves like an oleander’

Common name:
Narrow-leaf Sugarbush

Vulnerability Index Score: 3

- 3 to 5m
- February to November**
- Seeder, birds**
- Cape Town to Port Elizabeth**
- Fresh industry**
- Least concern**
- Widespread**
- Common**

What does the plant look like?
Protea neriifolia is a large shrub with a single stem. It grows to between three and five metres tall.

What are the flowers like?
 The flowers range in colour from pink to creamy-green. They have a black, woolly fringe with a white flower centre. Plants flower from February to November.

How does it reproduce?
Protea neriifolia is pollinated by Sugarbirds and Sunbirds. Seeds are retained in flower heads until after the next fire.

Where is it found?
 It grows on sandstone soils in the southern coastal mountain ranges between Cape Town and Port Elizabeth. It is found from sea level to 1,300 metres, although it does not grow naturally on the Agulhas Plain.

How is it used?
 It is used in the cut-flower industry.

Conservation
[Red List: Least Concern]

This species is not currently threatened.



Protea repens

Family:
Proteaceae – the Protea family

Genus:
Protea – the Sugarbushes

Species:
repens

Common name:
Suikerkan, Common Sugarbush

Vulnerability Index Score: 3

- 2.5m
- Throughout the year**
- Seeder, birds**
- South-western Cape to east of Grahamstown**
- Dried industry**
- Least concern**
- Widespread**
- Common**

What does the plant look like?
Protea repens is an upright bush with a single stem.

What are the flowers like?
 The flowers are cone-shaped. The outer bracts are sharply pointed. The colour varies from creamy-white, to white with pink, to deep red. The plants flower during the rainy season. This occurs in winter in the west, and in summer in the east. Flowers are therefore available all year round.

How does it reproduce?
Protea repens is pollinated by Sugarbirds and Sunbirds. Seeds are retained in flower heads and are only released after the plant has been killed by fire.

Where is it found?
 It grows throughout the Fynbos Biome, from the south-western Cape to east of Grahamstown in the Eastern Cape.

How is it used?
 In the past, people collected the nectar and boiled it to make a sugary syrup. This is why it is called the ‘‘Sugarbush’’. People used the syrup as a cough medicine. Today, *Protea repens* is used mainly in the dried-flower industry.

Conservation
[Red List: Least Concern]

Protea repens is quite common and is not considered vulnerable.



Protea scolymocephala

Family:
Proteaceae – the Protea family

Genus:
Protea – the Sugarbushes

Species:
scolymocephala – meaning ‘flower head like a thistle’

Common name:
 Skollie, Scoly, Thistle Sugarbush

Vulnerability Index Score: Not listed

- 1.5m
- July to November
- Seeder, insects
- Olifants River to the Cape Peninsula and through the Overberg to Hermanus
- Fresh and dried industries
- Vulnerable

What does the plant look like?

Protea scolymocephala is a neatly rounded shrub that grows up to 1.5 metres tall. The leaves are long and thin – up to 150 mm long and 15 mm wide.

What are the flowers like?

At first, the bracts fold around the florets to form a perfect ball. Then the flower head opens for pollination. The bracts fold back flat to expose a group of small florets in the centre. The outer rows of florets are slightly hairy but the inner florets have no hairs. The flower colour varies from soft cream with a touch of pink, to soft light green. Plants flower from

July to November, but mainly between August and September.

How does it reproduce?

Protea scolymocephala is visited by a variety of insect species (generalist insect-pollination system). Seeds are retained in flower heads and are only released after the plant has been killed by fire.

Where is it found?

It grows on sandy flats close to the coast, from the Olifants River in the west, to the Cape Peninsula and through the Overberg to Hermanus.

How is it used?

It is used in the fresh- and dried-flower industries.

Conservation
 [Red List: Vulnerable]

Protea scolymocephala is vulnerable. Threats include invasive alien plants, urban development, agriculture and unsustainable harvesting.



Protea sulphurea

Family:
Proteaceae – the Protea family

Genus:
Protea – the Sugarbushes

Species:
sulphurea – meaning ‘yellow’

Common name:
 Skaamroos, Sulphur Sugarbush

Vulnerability Index Score: Not listed

- 50cm
- April to August
- Seeder, small mammals (rodents)
- Hex River Mountains to the Swartberg and Waboomsberg
- Fresh and dried industries
- Least concern

What does the plant look like?

Protea sulphurea is a low, dense shrub with many branches that grow horizontally from the stem. It grows up to 50 cm tall. The grey-green leaves are oval and have a sharp tip.

What are the flowers like?

The flowers are cup-shaped and hang downwards. They are sulphur-yellow with purple-green bracts and also have a “yeasty” smell. Plants flower from April to August.

How does it reproduce?

Protea sulphurea is pollinated by small mammals such as rodents and elephant shrews. These are attracted by the yeasty smell and nectar in the flower heads. Seeds are retained in the dried flower heads for several years before being released.

Where is it found?

It grows from the Hex River Mountains to the Swartberg and Waboomsberg, at altitudes over 1000m.

How is it used?

It is harvested for the fresh- and dried-flower industries.

Conservation
 [Red List: Least Concern]

Protea sulphurea is not currently threatened.



Protea speciosa

Family:
Proteaceae – the Protea family

Genus:
Protea – the Sugarbushes

Species:
speciosa – meaning ‘beautiful’

Common name:
 Bruinbaard Suikerkan, Brown-bearded Sugarbush

Vulnerability Index Score: 7

- 1.2m
- June to January
- Seeder, birds (resprout)
- Cape Peninsula to the Agulhas Plain
- Fresh and dried industries
- Least concern
- Restricted
- Localised

What does the plant look like?

Protea speciosa is a shrub with straight stems that grows up to 1.2 metres tall. The leaves are 90–160 mm long and 10–60 mm wide.

What are the flowers like?

The flower heads have striking bracts that feel like velvet. They range in colour from creamy white to salmon pink in different regions. The flower head has a straight tip that ends in a creamy to brown beard. Plants flower from June to January, but mainly during September and October.

How does it reproduce?

Protea speciosa is pollinated by Sugarbirds and Sunbirds. Seeds are retained in flower heads and are only released after the plant has been killed by fire. The shrub can resprout after fire.

Where is it found?

It grows in mountainous areas from the Cape Peninsula to the Agulhas Plains. It grows on the Riviersonderend and Langeberg Mountains as far east as Riversdale.

How is it used?

It is harvested for the fresh- and dried-flower industries.

Conservation
 [Red List: Least Concern]

Although *Protea speciosa* is listed as a species of Least Concern, it can be affected by unsustainable harvesting and frequent, unplanned veld fires.

- 2-3m
- April to September
- Seeder, birds
- Stanford to Albertinia
- Fresh industry
- Near threatened
- Restricted
- Localised

What does the plant look like?

Protea susannae is a large shrub with a single stem. It grows 2–3 metres tall and 3–4 metres wide.

The leaves are 80–160 mm long, with an oval, wavy shape. The leaves smell like sulphur when you crush them. The young leaves are covered with tiny hairs, which drop off as the leaves get older. The mature leaves feel like leather.

What are the flowers like?

The flowers are 80–100 mm long and 70–110 mm wide. The flowers are soft pink and nearly white in the centre. The bracts are brown and covered in a sticky layer.

Plants flower between April and September.

How does it reproduce?

Protea susannae is pollinated by Sugarbirds and Sunbirds. Seeds are retained in flower heads for several years after flowering.

Where is it found?

It grows mainly in neutral sand in fynbos that is rich in plants of the Protea family. It grows from Stanford in the Overberg to Albertinia.

How is it used?

Protea susannae has been hybridised under cultivation to produce cultivars such as “Pink Ice”, “Special Pink Ice”, “Cardinal”, “Sylvia” and “Susara”.

Conservation
 [Red List: Near Threatened]

The habitat of *Protea susannae* is threatened by invasive alien plants, especially Rooikrans, urban expansion and Protea cultivation.



Thamnochortus insignis

Family:
Restionaceae – the Restio (Cape Reed) family

Genus:
Thamnochortus

Species:
insignis

Common name:
Mannetjies Riet, Albertinia, Dekriet, Albertinia
Thatching Reed, Thatchreed

Vulnerability Index Score: 3

- 2.5m
- March to April
- Seeder, wind
- Southern Cape (also roadsides from Port Elizabeth to the Cederberg)
- Thatch
- Least concern
- Restricted
- Localised

What does the plant look like?

Thamnochortus insignis is a large Restio or Cape reed. Its base can grow up to one metre in diameter and it can grow 2.5 metres tall.

What are the flowers like?

As with many other Restio species, the male and female flowers are brown and found on separate plants. Plants flower during March and April.

How does it reproduce?

Thamnochortus insignis is wind-pollinated. The seeds are very small and are released 1-2 months after flowering.

Where is it found?

Thamnochortus insignis grows densely and occurs naturally in the southern Cape, especially around Albertinia. However, seed has been spread by trucks carrying Thatching Reed and as a result the species now also grows along roadsides from Port Elizabeth to the Cederberg – a significant distance from its proper “home”.

How is it used?

It is used to thatch roofs and is also a very popular garden plant.

Conservation [Red List: Least Concern]

Thamnochortus insignis is the main Restio species used in the thatching industry. Many areas between Cape Agulhas and the Gouritz River mouth have been managed for this species, e.g. regular burning to encourage growth, which in many instances has affected the health of the naturally occurring plant communities in those areas.



Anthospermum aethiopicum

Family:
Rubiaceae – the Bedstraw family

Genus:
Anthospermum – meaning ‘the seed in the flower’

Species:
aethiopicum – meaning ‘comes from Africa’

Common name:
Seeroogbossie, Katstert

Vulnerability Index Score: 3

- 2m
- August to January
- Seeder, wind
- Cape Floristic Region
- Fresh industry
- Least concern
- Widespread
- Common

What does the plant look like?

Anthospermum aethiopicum is a compact shrub with a single stem that grows up to two metres tall.

The needle-shaped leaves are up to 6 mm long and grow directly from the stem in clusters of three.

What are the flowers like?

The male and female flowers grow on different plants. The small yellow flowers grow in clusters close to the tips of the stems. Plants flower from August to January.

How does it reproduce?

Anthospermum aethiopicum is wind-pollinated. The seeds are very small and are released each season after flowering.

Where is it found?

It grows throughout the Fynbos Biome.

How is it used?

It is used as a filler in fynbos bouquets.

Conservation [Red List: Least Concern]

Anthospermum aethiopicum is a pioneer plant that grows on disturbed soils. It is therefore not threatened.



Phylica ericoides

Family:
Rhamnaceae – the Buckthorn family

Genus:
Phylica – meaning ‘leafy’

Species:
ericoides – meaning ‘looking like an Erica’

Common name:
Hardebos

Vulnerability Index Score: 3

- 90cm
- Throughout the year
- Seeder, flies
- Saldanha Bay to Port Elizabeth
- Fresh industry
- Least concern
- Widespread
- Common

What does the plant look like?

Phylica ericoides is a compact and neatly rounded shrub. It has a single stem and many branches. It grows up to 90 cm tall. The small leaves are 4-8 mm long and look like Erica leaves.

What are the flowers like?

The flower head is 4-7 mm in diameter. It is made up of florets (small flowers) surrounded by flat bracts. Plants flower throughout the year depending on locality.

How does it reproduce?

Phylica ericoides has a “musty” smell when flowering. This smell attracts flies (especially Kelp Flies), which pollinate the flowers. Seeds are released from capsules once the flowers have dried.

Where is it found?

It is found on coastal slopes and in coastal sand from Saldanha Bay to Port Elizabeth.

How is it used?

It is used as a filler in fresh flower bouquets.

Conservation [Red List: Least Concern]

Phylica ericoides is not threatened.



Agathosma betulina

Family:
Rutaceae – the Citrus family

Genus:
Agathosma – meaning ‘good smell’

Species:
betulina

Common name:
Boegoe, Buchu, Rondeblaarboegoe

Vulnerability Index Score: Not listed

- 2m
- June to November
- Seeder, insects (resprout post fire)
- Calvinia, through the Cederberg, Tulbagh and Ceres, to the Piketberg
- Medicine
- Declining

What does the plant look like?

Agathosma betulina is a shrub with many stems that grows up to two metres tall. Pairs of leaves grow on opposite sides of the stem. They are about 20 mm long and 10 mm wide. Oil glands can easily be seen under the leaves. The oil gives the plant a pleasant smell.

What are the flowers like?

The small star-shaped flowers have five petals on a short stem. Plants flower from June to November.

How does it reproduce?

Agathosma betulina is visited by a variety of insect species, especially bees and flies (generalist insect-pollination system). Seeds are released after flowers have dried. The fruit is a capsule with five sections. When ripe, it bursts open to release the seeds. The shrub can also resprout after fire.

Where is it found?

It grows on sandy mountain slopes at altitudes from 300-700 metres. It is found from Calvinia, through the Cederberg, Tulbagh and Ceres, to the Piketberg.

How is it used?

It is commonly used as medicine and in the perfume industry. Buchu tea and Buchu brandy are taken to treat digestive and urinary tract problems.

Conservation [Red List: Declining]

Agathosma betulina is threatened by activities, including over-harvesting and damage to its habitat.



Acmadenia heterophylla

Family:
Rutaceae – the Citrus family

Genus:
Acmadenia

Species:
heterophylla – meaning ‘leaves of different forms’

Common name:
Buchu, Boegoe

Vulnerability Index Score: Not listed

-  2m
-  **September to March**
-  **Seeder, insects**
-  **Bredasdorp, Caledon and Mossel Bay**
-  **Fresh industry**
-  **Least concern**

What does the plant look like?

Acmadenia heterophylla is a shrub with a single main stem and many branches, growing up to 40 cm tall. It spreads out like a mat on the ground. Individual plants grow up to 60 cm wide. The tiny leaves cluster near the tips of the reddish stems. The leaves have a fresh lemony smell.

What are the flowers like?

The flowers have five light pink petals with a darker pink centre. Plants flower from September to March.

How does it reproduce?

Acmadenia heterophylla is visited by a variety of insect species (generalist insect-pollination system). Seeds are released after flowers have dried.

Where is it found?

It grows on limestone outcrops around Bredasdorp, Caledon and Mossel Bay.

How is it used?

It is used as an aromatic (scented) filler in fynbos bouquets.

Conservation
 [Red List: Least Concern]

Although *Acmadenia heterophylla* is commonly grown in gardens, it is becoming increasingly endangered in nature due, in some instances, to over-harvesting and habitat destruction.

The Flower Valley Conservation Trust (established in 1999) is a public benefit- and non-profit organisation that promotes the sustainable harvesting of wild fynbos. Since 2003 the Trust has been working in collaboration with the fynbos industry and CapeNature (the Western Cape nature conservation authority) to promote the Sustainable Harvesting Programme (SHP).



The Flower Valley Conservation Trust

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To find out more about the Sustainable Harvesting Programme and how to become involved, please contact Flower Valley Conservation Trust:

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The Field Guide for Wild Harvesters is available online at:

<http://www.flowervalley.org.za/fieldguidebooklet.pdf>

An abbreviated version of the Field Guide for Wild Harvesters is available online at:

<http://www.flowervalley.org.za/fieldguidecardsA6.pdf>

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